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An internet-based photography therapy intervention into the grief of persons who have lost a loved one

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ABSTRACT

Persons who have lost a loved one by death are increasingly searching for support from online peer groups to process their grief. One approach involves sharing photographs with peers online. The purpose of this study was to assess the impact of a four-week internet-based photography therapy intervention concerning participants' grief reactions using the Hogan Grief Reaction Checklist (HGRC). Another aim was to assess the role of the moderator and describe development targets in the internet-based photography therapy group based on the participants' experiences. The participants were individuals who had lost a loved one divided into an intervention group ($n = 101$) and a comparison group ($n = 55$). The changes in the dimensions of grief of the intervention group members were slightly greater than in the comparison group. The dimension of panic behaviour declined statistically significantly more in the intervention than in the comparison group during the follow-up period. While the participants from the intervention group valued the expertise of the moderator, the moderator's role could have been more visible. The participants also wished that the therapeutic photography group would have included more active involvement. Additionally, the participants made suggestions on modifying intervention content and developing a platform better suited for sharing photographs.

KEYWORDS

Photographs; grief; internet; intervention; peer support group

Introduction

After the loss of a loved one by death, individuals use different ways to cope with their grief (Stevenson et al., 2017). There is a need for developing individual and effective interventions for grieving, so bereaved have options to cope with their grief (Dias et al., 2019). Using photographs in therapy settings has been found to provide an effective tool for processing grief and for adjusting to loss and making sense of one's identity after loss (Blood & Cacciatore, 2014; Prins, 2013; Ramirez et al., 2019). Bereaved people have reported that they receive peer support when posting about their experience on internet groups and see similar experiences from grief by others (Gold et al., 2021; Paulus & Varga, 2015). In the groups, participants share extremely painful accounts of their grief, which

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they might not share in face-to-face interactions (Paulus & Varga, 2015). Photographs and peer support have been found to help with grief some individuals (Paulus & Varga, 2015; Ramirez et al., 2019), so it is important to test efficiency of an online-based intervention in processing grief through photographs. The purpose of this study was to assess the impact of an internet-based photography therapy intervention on the grief reactions of persons who had experienced the death of a loved one. A further purpose was to assess the role of the moderator and describe development targets in the internet-based photography therapy group according to the participants' experiences.

The experience of grief and other related negative emotions is individual (Guclu et al., 2021). Grief is dynamic, which means that the related emotions change over time and situations. It is normal for grief to be cyclical, including periods when the experience of grief is intensified (Saltzman, 2019) by things that evoke memories (Hunt & Greeff, 2012), and re-emerging for several years during anniversaries, for instance (Currie et al., 2019; Guclu et al., 2021; Saltzman, 2019; Stevenson et al., 2017; Wender, 2012). The bereaved use many coping methods in their grieving process. According to the Dual Process Model of Coping with Bereavement, coping is a dynamic back-and-forth process, in which bereavement alternates between loss- and restoration-oriented coping. At times, the bereaved will be confronted by their loss, while at others, they avoid memories or seek relief by concentrating on other things (Stroebe & Schut, 1999).

The death of a loved one might bring negative changes to the lives of the bereaved, and the related emotions can manifest at physical, psychological, and social levels (Lannen et al., 2008; Snaman et al., 2020). After the death of a loved one, the bereaved may experience shock (Hunt & Greeff, 2012), disbelief (Walker, 2017) and anxiety (Hunt & Greeff, 2012). The physical symptoms include nausea, dizziness (Titlestad et al., 2021), loss of appetite (Wender, 2012) or sleep disturbances (Burden et al., 2016; Currie et al., 2019; Hunt & Greeff, 2012; Titlestad et al., 2021; Wender, 2012). Expressing feelings of anger after the death of a loved one is a normal reaction to grief (Creighton et al., 2013; Youngblut & Brooten, 2018). The bereaved tend to feel anger, frustration, shame and guilt evoked by a feeling that they should have acted differently or were not able to protect their loved one and prevent his or her death (Burden et al., 2016; Creighton et al., 2013; Pritchard & Buckle, 2018; Stevenson et al., 2017; Titlestad et al., 2021; Walker, 2017; Wender, 2012). Some experience rage and a desire for revenge (Creighton et al., 2013). The bereaved may be incapacitated after the death of their loved one (Wender, 2012) or be physically and mentally exhausted at work (Burden et al., 2016).

The bereaved have been found to value social support and an opportunity to talk about the loss (Cipolletta et al., 2022; Stevenson et al., 2017). Bereaved people usually try to understand the death of their loved one and search for relevant information (Stevenson et al., 2017). Some grieving persons may feel lonely if their friends and family do not know how to support them (Bellhouse et al., 2018). The bereaved may also feel a need for social isolation and wish to conceal their grief (Currie et al., 2019; Titlestad et al., 2021). Losing a loved one requires the bereaved to rebuild their identity while dealing with a sense of emptiness created by their loss and shaping a new life without the deceased loved one (Burden et al., 2016; Pritchard & Buckle, 2018). Some of the bereaved may ultimately find that their grief has resulted in something positive (Hunt & Greeff, 2012) and experience personal growth after their loss (Currie et al., 2019; Hunt & Greeff, 2012). Despite their intense grief, mourners may describe that they have matured and grown mentally

stronger during the process (Currie et al., 2019; Walker, 2017). The loss of a loved one can also be associated with revaluing life and seen as a new opportunity (Creighton et al., 2013; Walker, 2017). The reactions of bereaved people can range from mild and relatively short-term reactions to extreme, long-term ones spanning over several years (Lannen et al., 2008; Stroebe et al., 2007).

The bereaved are more likely than before to process their grief online (Walter, 2015; Walter et al., 2012). Due to the technological benefits brought by the internet and mobile phones, the bereaved can find online bereavement communities (Pearce, 2020) that enable them to receive peer support beyond geographical and temporal restraints (Lestienne et al., 2021; Walter et al., 2012). The bereaved experienced it is important to receive support from their peers (Bartone et al., 2019), and have an opportunity to commemorate their deceased loved one and to talk about death (Hunt & Greeff, 2012). It is important that others in the online bereavement group recognise and accept loved ones' grief (Paulus & Varga, 2015). In internet bereavement groups, the role of the moderator has been found to provide support and promote safety (Elder & Burke, 2015; Gold et al., 2016). Moderators in internet groups often ensure that the atmosphere in the group remains appropriate, which, in turn, can prevent negative effects. Therefore, the role of moderators in internet groups should also be looked at more closely (Lestienne et al., 2021).

Although there is little previous research available on the benefits of photographs for online bereavement groups, sharing photographs is known to offer different ways to share thoughts with other grieving people through online (Walter et al., 2012). The development of smartphone cameras and increasing communications on social media permit people to process their grief with the aid of visual materials (Bates et al., 2017). Photographs can provide more information about a deceased loved one than words (Walter et al., 2012) and offers a personal way to express grief (Ramirez et al., 2019). In some cases, photographs can be the only way to remember to the deceased (Blood & Cacciato, 2014; Prins, 2013; Ramirez et al., 2019) and they help the bereaved to continue their bond with the deceased person after death (Ramirez et al., 2019). While some evidence shows that photographs may temporarily worsen anxiety (Bates et al., 2017), they have also been found to help people speak openly about their feelings and find support in processing their grief (Blood & Cacciato, 2014; Prins, 2013; Ramirez et al., 2019). Photographs may offer ways to feel and express all the different negative emotions, such as sadness, anger and resentment (Ramirez et al., 2019). Photographs can also promote wellbeing and looking at photographs can stir up positive emotions such as love, pride and joy related to the deceased person (Blood & Cacciato, 2014; Ramirez et al., 2019). The purpose of photographs is to promote dialogue between the bereaved, guide discussion and perhaps bring new dimensions to it (Ramirez et al., 2019). Photographs might facilitate difficult conversations and desired opportunities to share stories and memories (Ramirez et al., 2019; Shuber & Kok, 2019).

Avoiding negative grief symptoms from getting worse and chronic requires developing means to promote coping methods for people grieving the death of their loved ones. Internet-based peer support has promising results, as they enable cost-effectiveness and 24/7 availability (Bartone et al., 2019). Online support groups might provide relief to individuals with a limited social network, for those living far from support services or struggling to find time to access services during office hours (Gibson et al., 2020). To

summarise, previous research has shown that photographs are helpful in processing emotions evoked by difficult life experiences. However, not much is known about the applicability of photographs in processing grief in moderated online bereavement groups. The present study aim was to investigate this research gap.

Methods

Description of the intervention

The content of the photography therapy group was developed using previous research (Keskinen et al., 2019) and in cooperation with experts to utilise their work experiences. The present intervention was based on a previous study, which was conducted in an open Facebook discussion group for grieving for people who had encountered the death of a loved one. In previous study analysed what photographs were shared in Facebook bereavement group and what thoughts the loved ones shared in the caption about the photographs they shared. As a result, four main themes emerged: telling others about the emotional states experienced during the grieving process (for example longing, strong negative emotions, hopes, gratitude, pride, and joy), telling others about adjusting to the loss, telling others about the importance of memories, and telling others about thoughts aroused by special days. These themes were used as the basis for developing the content of the present photography therapy intervention. The intervention was carried out in closed Facebook groups in which the participants shared their photographs (Table 1). The duration of the intervention was four weeks and each weekly session was based on a specific theme. The participants were able to spend time in the group at the time of their choice, share photos regarding a given theme and write down their associated thoughts and feelings. The participants shared old photographs of the deceased, expressive photos taken especially in response to the themes or creative photographs taken during their bereavement in an effort to express grief visually. As no specific number was set for the photographs, everyone shared as many photos and expressed as many of their thoughts as they wanted. Participant activity in the group was not measured or described. The materials shared in the group and the discussions held therein are not included in the research data due to the sensitive nature of the subject. The photography therapy group was moderated by a group therapist specialised in photography therapy. The role of the therapist was to introduce the weekly theme, provide brief information about it and moderate the discussions.

Recruitment of research participants and data collection

The criterion for participating in this study was that at least two months had passed from the death of the participant's loved one. The participants of the

Table 1. Weekly intervention themes.

Week	Theme
1.	Telling others about the emotional stages experienced during the grieving process
2.	Telling others about adjusting to the loss
3.	Telling others about the importance of memories
4.	Telling others about thoughts aroused by special days

intervention and comparison groups were recruited with an information leaflet containing details about the study and it was shared in Facebook grief groups and in five organisations arranging meetings between people who have experienced the death of a loved one and are in the process of grieving. Those interested in participating contacted the researcher by email, who provided a schedule for the meetings, rules for the group activities, and information related to the study. Those interested in participating could choose whether to take part in the intervention or comparison group because participation in the intervention required commitment and motivation. Those who selected the intervention group were divided into different photography therapy groups based on the cause of death of their loved one or the nature of their relationship with the deceased person. The participants of the comparison group did not take part in the photography therapy group, but they received peer support from other Facebook grief groups and organisations that allowed them to share their thoughts and experiences without guidance. The interventions were carried out between autumn 2019 and spring 2020, and research data were collected from the comparison group in autumn 2020 and spring 2021.

Research data were collected from the intervention and comparison groups on three occasions: in a baseline measurement before starting the intervention, in a post-intervention measurement at the end of the intervention, and in a follow-up measurement three months after the intervention. The participants received a link to an electronic survey which they filled out anonymously and voluntarily.

Instruments

Hogan Grief Reaction Checklist (HGRC)

The impacts of the intervention were measured using the Hogan Grief Reaction Checklist developed in the United States (Hogan et al., 2001). The Hogan Grief Reaction Checklist (HGRC) is a 61-item self-report instrument composed of six subscales: despair (13 items) describes hopelessness, sorrow and missing the loved one; panic behaviour (14 items) measures physiological and several somatic features; personal growth (12 items) measures spiritual and existential awareness, caring, compassion, hopefulness and tolerance towards oneself and others; blame and anger (seven items) describes feelings of bitterness, hostility and vindictiveness; detachment (eight items) measures the avoidance of affection, isolation from others and a changed identity, and disorganisation (seven items) describes cognitive changes, difficulties concentrating, learning problems, and acquiring new knowledge and recalling old information. Of the six subscales, one (personal growth) is a positive indicator, thus higher scores describe better coping, while the rest of the subscales are negative indicators, so lower scores are desirable. Each item is rated on a five-point Likert scale ranging from 1= does not describe me to 5= describes me well. The Hogan Grief Reaction Checklist (HGRC) is validated and widely used internationally (Hogan & Schmidt, 2002; Hogan et al., 2001). The internal consistency of HGRC was tested using Cronbach's alpha at all measurement points; it ranged between .84 and .92 in the intervention group and between .74 and .93 in the comparison group.

Experiences from the intervention programme

The participants of the intervention group assessed the importance of the weekly themes regarding shared photographs, the duration of the intervention and the group size using a 3-step Likert scale and the help provided by the group using a 7-step Likert scale. The intervention group members also answered open questions about the role of the instructor and development targets in the internet-based photography therapy group.

Received support

In the electronic survey, the bereaved participants also assessed the persons and forms of support they had found helpful after losing a loved one. The respondents assessed the support they had received using a five-step scale: 1 (I received no support), 2 (I did not want any support), 3 (the received support was not at all helpful), 4 (the received support was slightly or somewhat helpful) and 5 (the received support was very or extremely helpful).

Research ethics

An ethical statement (10/2018) was obtained for this study from the ethical research committee of Tampere University. Permission for using the Hogan Grief Reaction Checklist (HGRC) was obtained from the author and the translator of the indicator. Research assessed to ensure that the harm caused by the study does not outweigh its benefits (Butler et al., 2019; Omerov et al., 2014). Grieving people may experience difficult emotions such as anxiety when sharing photographs, and this was taken into consideration during the research process (Butler et al., 2019; Gold et al., 2021). However, previous research has shown that grieving individuals have positive attitudes towards research on grief and find that the research benefits them (Roberts & McGilloway, 2011). The selection of photographs and revealing personal emotions was left to the participants' own discretion throughout the study (Bates et al., 2017). The intervention was moderated by a group therapist who is specialised in photography therapy and was prepared to refer any participants with severe reactions to seek professional help (Gold et al., 2021).

Data analysis

Quantitative data

The research participants filled out the electronic survey forms using a self-invented code (such as a self-invented word or nickname) applied in all research stages. The code enabled following changes in the intensity of participants' grief reactions between different measurement points. Changes in the intensity of grief reactions have been compared among participants who responded to the baseline survey and the second or third measurement. Participants who filled out the surveys in at least two stages were compared with those who responded in all three stages. The results showed that the intensity of the grief reactions was similar.

The SPSS (V27) software was used to perform statistical analysis. The results are reported as frequencies and percentages. A comparison of the background variables of the intervention and comparison group was performed using cross-tabulation, the χ^2 test or Fisher's exact test. Nonparametric tests were selected to be used in this study as the sample was small and variables were not normally distributed. The level of significance was set at 0.05.

The grief reactions and changes in the reaction between the intervention and comparison group were tested using the Mann – Whitney U test.

Qualitative data

The participants in the intervention group answered two open questions concerning the role of the instructor and development targets regarding the functionality of the therapeutic photography group. The answers to the first question, 'How did you find the role of the instructor in the group?', produced 85 reduced expressions and the second, 'Which aspects of the internet-based photography therapy group would you develop?' 43 expressions. The responses were categorised based on content with the same meaning (Assarroudi et al., 2018) and quantified. The content analysis managed to summarise the most important data categories (Assarroudi et al., 2018) and the quantification provided an opportunity to examine the prevalence of the categories.

Results

Research participants

The participants of the intervention group ($n = 101$) were divided into 8 photography therapy groups. The comparison group consisted of 55 participants. The intervention participants were divided into small groups that were as similar to one another as possible. The similarity was based on the loved one's cause of death (COD) or the nature of the participant's relationship with the deceased person (Table 2), facilitating manageable discussions and enabling relevant peer support. Some groups had to be combined or divided to get suitable group sizes to promote active discussion and sharing. One of the small groups included a more diverse group of participants to ensure that those who had signed up to the intervention later could also get involved in the photography group.

Table 2. Small groups in the intervention study.

Small group number	Loved one's COD or nature of the relationship with the deceased person	Number of group members
1.	Participants who had lost a child under the age of 15	14
2.	Stillbirth/death of an infant aged less than one week	13
3.	Suicide of a loved one	11
4.	Participants who had lost a child over the age of 15	12
5.	Participants who had lost their spouse	11
6.	Participants who had lost their sibling/parent/grandparent/grandchild	17
7.	Participants who had lost a child, all ages	10
8.	Participants who had lost their child/parent/spouse	13

Table 3. Participants' demographic characteristics.

Variable	Intervention group (<i>n</i> = 65)		Comparison group (<i>n</i> = 42)	
	<i>n</i>	%	<i>n</i>	%
Age				
29 or below	5	8	2	5
30–39	17	26	9	21
40–49	24	37	10	24
50–59	14	21	13	31
60–69	3	5	6	14
70 or over	2	3	2	5
Professional education				
No professional education	0	0	1	2
Vocational qualification	27	42	22	52
Degree from a university of applied sciences	19	29	12	29
Academic degree	19	29	7	17
Relation of the deceased to the participant				
Child	43	66	25	60
Spouse	8	12	7	17
Parent	7	11	4	9
Sibling	6	9	5	12
Grandchild	1	2	0	0
Missing data	0	0	1	2
Time passed since the death of the loved one				
One year or less	28	43	13	31
Over 1 yr.–3 yrs.	18	27	12	29
Over 3 yrs.–5 yrs.	9	14	5	12
Over 5 yrs.–10 yrs.	5	8	9	21
Over 10 years	5	8	3	7
Cause of death				
Stillbirth	8	12	2	5
Termination of pregnancy for genetic causes	0	0	1	2
Chronic/acute disease	20	31	15	36
Accident	7	11	3	7
Suicide	22	34	14	33
Death from intoxicant use	2	3	2	5
Homicide	2	3	4	10
Cause of death unknown	4	6	1	2

The baseline measurement was completed by 84 intervention group and 55 comparison group members. Changes in grief reactions have been compared for those participants who responded to the baseline survey and second or third measurement. Altogether, 65 participants of the intervention and 42 of the comparison group had responded to at least two measurements.

There was no statistically significant difference in the intervention and comparison groups' demographic characteristics. Most of the research participants were women (intervention 95%, comparison 95%), more than half of them were employed (intervention 55%, comparison 67%), in a relationship (intervention 72%, comparison 71%), experienced their health as poor or fair (intervention 55%, comparison 45%), fairly good or excellent (intervention 45%, comparison 55%), and had not received an advance warning of the death of their loved one (intervention 63%, comparison 74%). Table 3 presents a comparison of the participants' other background variables.

Received support and the social network providing the most support

After the death of their loved one, the research participants had been involved in peer activities (intervention 74%, comparison 64%), psychotherapy (intervention 46%, comparison 29%) and grief support group activities (intervention 25%, comparison 26%); only one of the intervention group participants had prior experience of photography therapy. Based on the experiences shared by the intervention and control group members, they found support received from others who had undergone the same experience (intervention 77%, comparison 74%), from their spouse (intervention 66%, comparison 65%), friends (intervention 63%, comparison 61%), own parents (intervention 52%, comparison 43%) and own children (intervention 51%, comparison 67%) as very or extremely helpful. There was no statistically significant difference between the intervention and comparison group regarding the received support and the social network providing the most support.

Differences in the dimensions of grief between the intervention and control group

At the baseline, the averages of the dimensions of grief were higher in the intervention group compared to those in the comparison group. The intensities of the dimensions

Table 4. Grief reactions in the intervention and control group.

Dimension of grief	Intervention group (n=65)		Comparison group (n=42)		p value
	Median	Q1-Q3	Median	Q1-Q3	
Despair					
Despair_T0	2.54	2.15–3.35	2.31	1.92–3.10	0.186
Despair_T1	2.69	1.92–3.15	2.28	1.89–2.85	0.229
Despair_T2	2.50	1.75–3.12	2.08	1.62–2.85	0.175
Change T0-T2	−0.27	−0.62–0.02	−0.23	−0.46–0.06	0.809
Detachment					
Detachment_T0	2.63	1.88–3.38	2.25	1.38–2.72	0.021
Detachment_T1	2.56	1.97–3.28	2.13	1.50–2.66	0.025
Detachment_T2	2.56	1.84–3.25	2.00	1.50–2.75	0.049
Change T0-T2	−0.13	−0.63–0.38	0.00	−0.50–0.38	0.615
Disorganisation					
Disorganisation_T0	3.00	2.29–3.93	2.36	1.86–3.29	0.017
Disorganisation_T1	3.00	2.29–3.71	2.43	1.86–3.04	0.026
Disorganisation_T2	2.71	2.00–3.71	2.29	1.86–3.14	0.236
Change T0-T2	−0.07	−0.73–0.29	0.00	−0.29–0.57	0.125
Blame and anger					
Blame and anger_T0	2.00	1.43–2.43	1.86	1.29–2.20	0.149
Blame and anger_T1	1.86	1.43–2.32	1.71	1.29–2.20	0.511
Blame and anger_T2	1.86	1.29–2.29	1.71	1.29–2.14	0.421
Change T0-T2	−0.21	−0.57–0.14	−0.14	−0.31–0.29	0.295
Panic behaviour					
Panic behaviour_T0	2.64	2.07–3.43	2.41	1.79–2.93	0.088
Panic behaviour_T1	2.64	2.00–3.23	2.61	1.86–2.97	0.297
Panic behaviour_T2	2.41	1.77–3.29	2.36	1.79–2.86	0.538
Change T0-T2	−0.20	−0.66–0.07	0.00	−0.36–0.29	0.036
Personal growth					
Personal growth_T0	2.50	2.17–3.21	2.58	1.98–3.33	0.997
Personal growth_T1	2.70	2.23–3.52	2.63	2.13–3.50	0.884
Personal growth_T2	2.88	2.18–3.33	2.67	2.25–3.25	0.646
Change T0-T2	0.26	−0.04–0.60	0.17	−0.25–0.50	0.490

Values are median scores on a 5-point scale from 1 (*does not describe me at all*) to 5 (*describes me very well*).

Changes: T0 = baseline measurement before the intervention, T1 = post-intervention measurement and T2 = follow-up measurement three months after the intervention.

of grief remained high throughout the research process, with one exception, the dimension of personal growth, which occurred more in the intervention group (Table 4). The dimension of detachment was significantly higher in the intervention group at baseline (intervention median 2.63 vs. comparison median 2.25, $p = 0.021$), in the post-intervention measurement (intervention 2.56 vs. comparison 2.13, $p = 0.025$) and in the 3-month follow-up (intervention 2.56 vs. comparison 2.00, $p = 0.049$). Moreover, in the dimension of disorganisation, the differences were significant at baseline (intervention 3.00 vs. comparison 2.36, $p = 0.017$) and the post-intervention measurement was significant immediately after the intervention (intervention 3.00 vs. comparison 2.43, $p = 0.026$).

While the comparison group members rated their personal growth as stronger (MD 2.58) than the intervention group (MD 2.50) before the intervention, personal growth was stronger in the intervention group at the post-intervention measurement (intervention group MD 2.70 vs. comparison group MD 2.63) and the 3-month follow-up (intervention group MD 2.88 vs. comparison group MD 2.67). These changes were not statistically significant, however.

The changes in grief dimensions from baseline to the 3-month follow-up (T0-T2) were greater in the intervention group than in comparisons. In the intervention group, declines in the dimensions of grief were greater in the dimensions of despair (intervention MD -0.27 vs. comparison MD -0.23), detachment (intervention MD -0.13 vs. comparison MD 0.00), disorganisation (intervention MD -0.07 vs. comparison MD 0.00), blame and anger (intervention MD -0.21 vs. comparison MD -0.14), panic behaviour (intervention MD -0.20 vs. comparison MD 0.00), and there was a greater increase in personal growth (intervention MD 0.26 vs. comparison MD 0.17). Of these changes, the one in panic behaviour was statistically significant ($p = 0.036$).

Experiences from the intervention programme

Most (81%) of the intervention group participants found the photography therapy group helpful. They assessed that the photography therapy group had helped them a lot (14%), somewhat (25%) or little (42%). Participants of the intervention group rated the duration of the four-week therapeutic photography intervention as too short (51%) or appropriate (46%). They rated the size of the small groups as appropriate (85%) and the weekly themes as important (84%).

Based on the open answers, the participants of the intervention group wished that the role of the instructor had been more visible. At the same time, the instructor's expertise was rated as visible. The instructor was expected to be more helpful in giving comments and in activating members. Based on the responses, some also found that the instructor remained distant. Participants considered that the good expertise of the instructor included nice comments, a proficient way of structuring the weekly themes, and active encouragement in participating in the group discussions.

Based on their open answers, the intervention group members wished that the therapeutic photography group would have included more active involvement and made suggestions on modifying the intervention content and developing a platform better suited for sharing photographs. Those who expressed a need for more active

involvement wished that the instructor would use more versatile methods to encourage more active participation in the discussions. Other wishes expressed by the participants included more active participation by the group members in the discussions and a more visible role of the instructor. The improvement suggestions regarding the content of the intervention were, including creating groups with similar loss, freedom to choose weekly themes and a longer duration of the intervention. Additionally, a better platform should be developed to ensure security and a better structure for sharing photographs.

Discussion

At baseline, the grief reactions were higher among the intervention group than in the comparisons across all dimensions of the grief inventory. However, the decline in the dimensions of grief was slightly greater among the intervention participants throughout the entire follow-up period in all dimensions. Additionally, personal growth was slightly stronger among the participants of the intervention than in the comparison group.

The results showed slightly stronger personal growth in the intervention group both immediately after the intervention and at the three-month follow-up. Personal growth measures spiritual and existential consciousness, caring, empathy, hopefulness, and tolerance towards oneself and others (Hogan et al., 2001). Grief has been found to involve the potential for change, and people feel that their loss has changed them, and shaping them into more compassionate, caring and helpful individuals (Feigelman et al., 2009). The present findings support previous research, according to which intervention groups promote personal growth (Knaevelsrud et al., 2010; Patterson et al., 2021). The personal growth of the bereaved has also been found to increase through peer support (Bartone et al., 2019). In a study by Rolbiecki et al. (2021), the use of photographs to express grief in digital storytelling helped participants with their own growth process and supported them in finding meaning in their loss.

In the present study, the dimension of panic behaviour declined significantly more among the participants of the intervention group than in the comparison group during the follow-up period. Panic behaviour includes variables measuring affect such as fear, self-rated alertness (e.g. fatigue), and various pains (headaches, stomach and back aches) (Hogan et al., 2001). This was a positive finding, because previous research showed that bereaved individuals suffered from a decline in their mental and physical health, had increased doctor's appointments (Lannen et al., 2008; Stroebe et al., 2007; Youngblut & Brooten, 2018) and a greater risk for sleep difficulties and sickness (Lannen et al., 2008).

Based on the experiences of the participants, the therapeutic photography intervention group proved to be worth implementing as most of the participants felt that it had helped them with their grief. Less than half found that the duration of the photography therapy intervention was adequate, and half wished that the duration had been longer. In previous research, minor or moderate improvements in wellbeing, depression symptoms and grief in the participants of internet-based grief support groups were detected no sooner than at 12 months (Kramer et al., 2015). In a study by Youngblut et al. (2017), grief after the death of a child declined not until after 3–13 months for mothers and after 3–6 months for fathers. On the other hand, grief may be long-lasting and persist for some bereaved for the rest of their lives (Malkinson & Bar-Tur, 2005). Long-term support needs

of bereaved people gain emphasis as some who have lost a child may still grieve their loss decades after it occurred (O'Leary & Warland, 2013).

The moderator of the therapeutic photography group was a group counsellor specialising in photography therapy. The intervention participants felt that the instructor expressed comments nicely, professionally and was encouraging. A small share of the intervention group participants would have liked to have received more helpful comments and wished that the instructor had assumed a more visible role and activated the group members more, although in this study it was not the role assigned to the instructor. According to Gold et al. (2016), a professional facilitator serving as the moderator of an internet-based grief group can make the environment safer and more encouraging for participants dealing with sensitive and personal matters. Lestienne et al. (2021) also note that moderators act as an important element in internet-based grief groups and that their purpose is to ensure that users do not share offensive messages and that the groups will not have any negative effects on the participants. Moderators also make sure that the grief expressed in the groups is not competitive or comparative (Gibson et al., 2020). Also in this study, the moderator made the participants feel safe.

Furthermore, the intervention participants pointed out that some group members should have been more active in sharing photographs and writing in the photography therapy group. Feigelman et al. (2008) have noted that grieving individuals are sad if no one responds to their posts. Some of the intervention group participants were more passive in the group and shared less information about themselves and their grief compared to others. There was no obligation in the group for sharing photographs; instead, the participants could use their own discretion in determining how much to share. While participants could also decide on their level of commitment to group activities, research has shown that more passive group members may feel that they receive less social support compared to more active ones (Fullwood et al., 2019).

A small number of the intervention group participants felt that Facebook was not a safe place for sharing photographs or found challenges in technical implementation. Similarly, studies by Robinson and Pond (2019) have identified confusion caused by the chain-like structure of discussion threads and other structural issues related to peer support websites. According to Gold et al. (2021), younger people are less concerned about privacy, while older people are less willing to reveal their personal information on social media (Walter et al., 2012).

A small share of the intervention group members felt that the group would have worked better if it had exclusively been composed of participants with similar losses. According to Bartone et al. (2019), the impact of peer support depends on the similarity of shared experiences between peers. Peer support group members find it more beneficial to receive support from others facing a similar situation and do not feel supported if other participants' experiences of grief differ too greatly from theirs (Bartone et al., 2019). Gibson et al. (2020) have also pointed out that homogenous grief groups fare better at strengthening a sense of belonging in the group and help participants gain maximum benefits from groups. In the photography therapy intervention, the participants were divided into small groups based on their loved one's cause of death or the nature of their relationship with the deceased person in order to ensure that they would get optimal peer support. A wish for more homogenous groups was expressed by participants who had been

placed in the final small group, which was more heterogenous than the others as the intention was to enable everyone who had signed up to the intervention later could also get involved in the photography group.

Selection to participate either in the intervention or comparison group was voluntary. This may undermine the reliability of the intervention because the participants were not randomised into groups. However, the background variables between the intervention and comparison groups were similar. Regarding future research in online intervention groups for grieving, several aspects should be considered. In the present study, 95% of the participants were women in both intervention and comparison groups. There is also a need to discuss men's experiences of grief, their creative expressions of grief and factors preventing them from join online communities. Therapeutic photography should be tested with a larger sample. The intervention could also be modified to have a longer duration and its impact should be further measured six months or more after its completion. The differences between subgroups were not examined, but it would be interesting to find out which subgroups benefit most from the intervention. The activity of the participants within the group was not of interest as they could also receive support passively simply by following the conversations. However, in the future, it would be interesting to investigate how participants' activity level, shared materials and the content of discussions affect grief reactions and the participants' satisfaction. Additionally, further research could examine the correlations between grief reactions and experiences regarding the intervention.

Conclusion

This study is one of the first to investigate grief, photographs and a moderated internet group. The changes in the intensity of grief reactions were slightly greater in the intervention group than in comparisons and in panic behaviour, the decline of reactions was significantly different between the groups. The majority of the research participants found the weekly themes of the photography therapy group important and felt that it had helped them in processing their grief. While the participants of the intervention group wished for the instructor to play a more visible role, felt that the instructor's expertise had been good. The intervention group members also wished that other participants would also have been more active in the group at their own initiative and made suggestions on modifying the intervention content and developing a platform better suited for sharing photographs.

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