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ABSTRACT

Background: Supporting people after bereavement is a priority area for many health services. Investment in bereavement care must be supported by a rigorous evidence-base.

Aim: To examine the: a) relative proportion of descriptive, measurement and intervention research in grief counselling; and b) quality and effectiveness of intervention studies.

Design: Systematic review of studies published in the area of grief counselling.

Data sources: Medline, Embase, Cochrane Library and PSYCINFO databases were searched for studies published between 2000 and 2013. Eligible papers were categorised into descriptive, measurement, review, commentaries and intervention studies. Intervention studies were assessed against the Cochrane Effective Practice and Organisation of Care (EPOC) methodological criteria, and papers meeting criteria were assessed for quality. The impact of interventions on grief, psychological morbidity and quality of life was examined. **Results**: A total of 126 data-based papers including 47 descriptive, 3 measurement, and 76 grief counselling intervention studies were included. Only 59% (n=45) of intervention studies met EPOC design criteria. Overall, study quality was poor, with the majority of interventions showing a risk of bias in several key areas. The three studies that met all criteria showed mixed effectiveness.

Conclusions: Grief counselling interventions require a strong rationale for design, and a systematic approach to development and evaluation. Descriptive research efforts should inform this process, focusing on homogeneity in sample, identification of risk factors for complicated grief and the impact of extraneous factors on intervention effects. Interventions should include comparisons to usual care, as well as replication to confirm positive findings.

Key Statements

What is already known about the topic?

- Bereaved individual experience a range debilitating physical and psychological reactions.
- Grief counselling is recommended in clinical practice guidelines, however evidence of benefit of is mixed.
- Examining the quality of grief counselling literature helps identify research gaps and ensure that routine practice is supported by best evidence.

What this paper adds?

- The volume and quality of research output has increased, however methodological quality is still poor.
- Findings from descriptive studies are limited by heterogeneity in sample according to cause of bereavement and timing of intervention.
- Interventions should include comparisons to usual care, as well as replication to confirm positive findings.

Implications for practice, theory and policy?

• Examining the interaction between social and individual factors could help identify those who are at-risk of complicated grief reaction.

- Outcomes for current referral policies to bereavement programs should be compared to referral of at-risk individuals.
- We need effective strategies to assist community health providers with supporting bereaved patients, in light of increasingly limited health resources.

INTRODUCTION

Grief as a consequence of bereavement.

Bereavement is a universal experience, defined as the 'situation of having recently lost a significant person through death' [1]. People may experience a period of intense grief, which can negatively impact on their physical and psychosocial wellbeing [2]. Most bereaved people will experience normal, uncomplicated grief reactions and will recover from their loss within a reasonable time period [3], without the need for specific interventions other than support. However, others may have a longer-lasting maladaptive response to bereavement, which can exacerbate physical, psychological and social problems[1].

This intense, persistent grief is known variously as 'complicated grief' [4] or 'prolonged grief disorder', and a number of different sets of diagnostic criteria have been proposed [4, 5] For example, Prigerson and colleagues (2009)[5] identify yearning as a unique symptom, whereas Shear and colleagues cluster this symptom with others (i.e. loneliness, suicidal thinking/behaviour, preoccupation with deceased) under 'separation distress'[4]Recently, the DSM-5 has proposed the term "Persistent Complex Bereavement Disorder" which incorporates diagnostic criteria from both approaches [6] For the purpose of this review, we use the term 'abnormal grief' to describe this maladaptive response to bereavement, characterised by continued intense yearning and

longing, frequent pangs of painful emotions, distressing intrusive thoughts of death, a disturbing sense of disbelief, anger, bitterness and avoidance. Sufferers also tend to show no or limited interest in ongoing life [8]. Factors that have been associated with the development of abnormal grief include: perceived lack of social support, substance abuse, poor coping skills, history of mental illness, a child's death and additional life stressors[9].

Bereavement is associated with a high burden of suffering and increased mortality.

The bereavement period can be one of intense suffering and associated with an increased risk of developing physiological and psychological problems[1]. People may experience more physical symptoms such as pain, as well as higher rates of illness and disability than non-bereaved individuals [1]. Physiological and behavioural reactions to bereavement include fatigue, loss of appetite, sleep disturbance, and agitation. Individuals can also experience a range of psychological reactions, such as suicide ideation, anxiety, depression, guilt and anger[10]. Major depressive disorder and post-traumatic stress disorder are present in 10-20% and 12%-27% of bereaved people[11]. There are reports of increased mortality in the bereaved especially in the early weeks and months [1]. Paradoxically, others have reported a lower risk of mortality, for example in a study of bereaved people exposed to a cancer death[9]. Consequences for

the health system include increased prescription of anti-depressants and hypnotic medications, and higher health care utilisation and costs[9].

There is an increased emphasis on providing supportive care for the dying, as well as supporting their families and friends in the time leading up to and following the patient's death. Palliative care is a driving force behind the development of bereavement support, given that the availability of bereavement support and the provision of access to trained bereavement counsellors for those deemed to be at risk of complicated grief forms part of routine clinical practice guidelines in Australia[12, 13], the UK, [14] Canada [15], and US[16]. Bereavement support varies from letters to more intensive face-to-face individual or group sessions[17]. Not all bereaved people will access palliative care services, even when death is expected. Other providers, such as general practitioners (GPs), have an important role in providing bereavement support [18].

Interventions are available to reduce the negative impact of bereavement

Interventions available to providers to target grief include pharmacotherapy, support groups, counselling and psychotherapy interventions (e.g. cognitive behavioural therapy and group therapy)[19]. Grief interventions show differential efficacy according to level of need [20]. The care and support required by bereaved individuals may differ depending on the circumstances surrounding the death [21]. Interventions can be

delivered at different levels, including primary (i.e. for people with uncomplicated bereavement), secondary (i.e. for people at-risk of complications of bereavement) or tertiary (i.e. for people experiencing abnormal grief)[10]. Hence, interventions can help to prevent abnormal grief from developing, or to ameliorate pathological grief responses that have already developed.

Concern about evidence for grief counselling

Given the limited health service resources available, it is important that bereavement support is evidence based, rather than based solely on the intuition of service providers. While there is a willingness to provide grief counselling, findings regarding the effectiveness of grief counselling are mixed. One review has reported that counselling is only minimally or not at all effective for many people experiencing normal bereavement, and may actually be associated with increased distress[22]. However, proponents of grief counselling argue that these findings rely on erroneous meta-analytic results[23]; whilea more recent meta-analysis reported a small effect at post-treatment [24]. There is a need to further clarify the quality of the literature examining the effectiveness of grief counselling, in order to identify research gaps and ensure that routine practice is supported by the best evidence available.

Research output as an indicator for gaps in knowledge

The volume of different types of research gives a broad indication of the focus and depth of attention centred on a particular topic. Measurement studies provide evidence for the quality of tools that facilitate the accurate measurement of clinically relevant outcomes. Once identified, these tools can be used in descriptive research to quantify the prevalence and burden of a particular outcome. Data can inform the development of methodologically rigorous interventions. Intervention studies are critical to produce evidence about the most effective strategies for delivering best practice bereavement support. Intervention studies must meet minimum standards of scientific quality to ensure adequate internal and external validity. Kato and Mann [25] suggested that the intervention work in the field to date was of poor methodological quality, so it was expected that the number and methodological quality of grief counselling intervention studies would increase as a consequence of this finding.

AIMS

This review aims to examine:

- The total number of publications since 2000 that have examined grief counselling in bereaved individuals;
- 2. The number of data-based versus non-data-based publications examining grief counselling by research design (descriptive, measurement, intervention);

3. The methodological quality and effectiveness of grief counselling interventions aimed at improving patient outcomes.

METHODS

Data Sources

Medline, Embase, The Cochrane Library and PSYCINFO databases were searched to identify publications concerning grief counselling published during the period from 1st January, 2000 to 6th December, 2013. The following search terms were used: bereave* or mourn* or grief or griev* or complicated grief or pathological grief or prolonged grief or widowhood or widow* or divorce or spousal loss AND counseling or counsel* or psychotherap* or psycho* intervention. The search was limited to include only English language publications and publications with an adult population. The year 2000 was chosen as the start point as two seminal meta-analyses examining grief counselling effectiveness were published in 1999[25, 26].

Inclusion and exclusion criteria

All eligible abstracts were examined for relevance following removal of duplicates. Papers were eligible for inclusion if they met the following criteria: 1) were published in a peer-reviewed journal between January 2000 and December 2013; and 2) a primary component or focus of the study was grief counselling. Papers reporting on bereavement support programs which included grief counselling were eligible for inclusion.

Studies in which grief counselling was a minor component of a larger intervention not focused on grief [27] were excluded. Studies were also excluded if they: 1) focused on theories or cultural conceptions of grief or conceptualised grief in terms of traumatic situations or events such as assault without a specific focus on the bereaved; 2) focused on bereaved children, miscarriage or perinatal loss or bereavement following the death of a pet; or 3) were dissertations, book reviews, editorials, letters to the editor or conference proceedings in which the full text was not available.

Relevant studies were then classified according to one of five publication types;

- Descriptive studies: which present data or describe a grief counselling or bereavement support program or clients using a program, without reference to a specific intervention study;
- Case studies and commentaries: in which the author/s discuss grief counselling in general, or a specific issue or patient in relation to grief counselling;
- 3) Reviews: including systematic and narrative reviews and meta-analyses;

- Measurement studies: which propose, discuss and/or test the psychometric qualities of a measure of grief;
- 5) Intervention studies: which present the results of a grief counselling intervention, or a multi-faceted intervention where the primary component was grief counselling.

Data coding

Paper titles were initially assessed against the eligibility criteria by HT and excluded if the study did not meet inclusion criteria based on the title screen. A secondary screen of the abstracts by one of the authors (HT) led to additional studies being excluded, while the remaining studies were categorised as: descriptive, measurement, commentary, reviews or intervention. A random subsample of included studies were categorised by another author (AW), with any discrepancies resolved via discussion. The full-text of intervention studies were then assessed according to Effective Practice and Organisation of Care (EPOC) design criteria[28]. For those studies meeting minimum design criteria (randomised controlled trials, non-randomised controlled trials, controlled before and after studies, or interrupted time series), methodological quality was assessed using EPOC risk of bias criteria independently by two reviewers (HT, AW). The Cochrane handbook recommends the use of this tool over scales based on a scoring matrix for evaluating risk of bias [29]. There was a high level of agreement (79%) with discrepancies resolved through discussion. The quality criteria are as follows: allocation

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sequence to group adequately generated, concealment of allocation to group, baseline outcome measurements between groups similar, baseline characteristics between groups similar, incomplete outcome data adequately addressed, objective measures or blinded assessment of primary outcomes used throughout study, protection against contamination, free of selective outcome reporting and free from other risks of bias. To assess intervention effectiveness, study data was extracted by three authors (EM, HT, AW) and included: aim of study; study setting; sample characteristics (sample size, gender, age, diagnosis); inclusion and exclusion criteria; intervention design; outcome measures; follow-up periods and study findings.

RESULTS

Search results

A flow diagram of the search strategy is provided in Figure 1. A total of 1617 publications were identified using the search strategy. After duplicates were removed, 1092 publications were assessed against the eligibility criteria. A total of 160 publications met eligibility criteria and were included in the review. [FIGURE 1 HERE]

Number of studies published over time

A total of 126 data-based and 34 non-data-based publications met eligibility criteria. The most common type of data-based publications were intervention papers (n=76), followed by descriptive (n= 47) and measurement papers (n=3). Non-data-based papers included case studies or commentaries (n= 23) or reviews (n=11). Overall, the number of publications has increased over time (See Figure 2). The number of studies reporting on intervention research peaked in 2006-2007.

[FIGURE 2 HERE]

DATA-BASED PUBLICATIONS

A total of 47 descriptive data-based publications were identified in the search. Ten studies used quantitative methods such as surveys with bereaved individuals (n=7) or health care providers (n=3). Sample sizes ranged from 69 [30] to 369 [31]. Four studies examined the factors associated with use, non-use and drop-outs of bereavement services. For example, one study showed that a third of caregivers of dementia patients used bereavement services, with higher levels of depression, anxiety and complicated grief predicting service use [32]. In cancer caregivers, being a spouse, younger, having Major Depressive Disorder, providing more assistance with daily living activities and discussion of prognosis with a physician all predicted service use[33]. Other studies examined caregiver satisfaction with support groups [34] and reasons for dropping out of psychotherapy [35]. Only two studies utilised longitudinal methods to examine the course and predictors of abnormal grief and psychological morbidity over a number of years [36, 37]. Health care provider attitudes and experiences in providing bereavement care were also examined [31, 38]. Three studies used retrospective record reviews to examine bereavement support. One study examined the need for and provision of bereavement services at a medical examiner's office [39]. Two Japanese studies examined the prevalence and predictors of distress and psychiatric disorders among bereaved families of deceased cancer patients [40, 41]. Nineteen studies used qualitative interviews and focus groups with bereaved individuals (n=8), health care providers (n=10) or both (n=1). Remainder described the development, implementation and experiences of bereaved individuals and providers in relation to specific programs.

Intervention

Methodological quality of intervention studies

Of the 76 intervention publications that were identified in the search, 45 publications met the initial EPOC design criteria. Of these, 19 presented primary analyses of specific grief counselling interventions [42-60], while 26 papers presented secondary analyses of the 19 interventions. These 19 primary publications were assessed against the EPOC risk of bias criteria (Table 1). Overall, the methodological quality of studies was low, with the majority of studies showing susceptibility to bias in a number of areas. The most poorly met criteria related to differences between randomised groups in sample characteristics, followed by concealment of allocation and generation of allocation sequence. Only three studies [53, 58, 59] were assessed as low risk on all of the EPOC criteria, while two studies were assessed as low risk on all but one criteria [44, 55].

Sample characteristics

Forty-five intervention studies undertaken with 2685 individuals and 257 families. The sample sizes for the studies ranged from 25[55] to 298[54]. The reason for bereavement varied across the studies, and included: death of a partner [47, 48, 52, 54]; death of close family member/friend [53, 55]; death of a parent [58]; HIV/AIDs [50, 60]; suicide [43, 44] and Alzheimer's Disease [49, 51]. Table 2 presents the outcomes of the primary studies.

Type of therapy tested: The studies examined a range of therapies, including Cognitive Behavioural Therapy (n=6)[42, 44, 50, 51, 60, 61]; Interpersonal Psychotherapy (IPT) (n=1)[61]; Supportive Therapy (n=3)[42, 56, 57]; complicated grief therapy [59].; and Family Focused Grief Therapy (n=4)[44, 49, 53, 58]. Components of therapies included: psycho-education [47, 48, 51]; stress reduction/relaxation skills [46, 52]; cognitive reframing[42, 46]; identifying and modifying maladaptive behaviours [55]; and enhancing communication and social support [44, 49, 50, 58]. There were approximately equal numbers of studies comparing one type of grief counselling to a

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control group that received usual care (n=9) and studies comparing two or more different types of therapy (n=10).

Delivery format: All interventions included face-to-face sessions. Ten interventions targeted the bereaved individuals alone [42, 48, 51, 54-57, 60, 61]; while 8 used a group or family approach [43, 44, 46, 47, 50, 52, 53, 58]; and one intervention used a combination of individual and group approaches [49].

Timing: The number of sessions and duration of therapy also varied. For the majority, sessions were scheduled weekly, ranging from 3 weeks [47] to 4 months [49] duration. The number of sessions delivered ranged from 3 [47] to 16 [55, 61].

Fidelity/adherence: Completion rates ranged from 8% [45] to 94% [52]. Adherence and fidelity to interventions were examined in 13 studies, including development of manuals [53]; training of counsellors [43, 48, 53, 55, 58, 60]; audio-taping of sessions [42, 44, 56, 59]; quality assurance worksheets [48, 50, 53, 60]; independent ratings of sessions via observation or videotaping [55-58]; and regular supervision [42, 43, 55, 58, 60]. The remaining studies did not describe any approaches to monitoring adherence.

Effectiveness of interventions in improving outcomes related to be eavement in high quality intervention studies

The three studies that met all EPOC risk of bias criteria examined the impact of grief counselling interventions on abnormal grief or psychological morbidity. One of these studies examined the effectiveness of complicated grief therapy, which integrated cognitive behavioural therapy with interpersonal psychotherapy, relative to interpersonal psychotherapy alone. Receipt of complicated grief therapy resulted in greater improvements in complicated grief and work and social adjustment compared to interpersonal psychotherapy [59]. A secondary analysis of this intervention study showed that sleep quality also improved post-treatment in complicated grief therapy responders, but not interpersonal psychotherapy responders [62].

Two studies were interventions delivered to families, which showed mixed effectiveness. Sandler and colleagues [58] examined the effectiveness of a family bereavement program relative to provision of self-help materials. The intervention involved separate counselling sessions for family caregivers, children and adolescents. Caregiver sessions were focused on strengthening family relationships and effective parenting using evidence-based strategies, while child and adolescent sessions also included exercises to build positive relationships. The intervention group showed significant improvements in individual and family risk and protective factors at three months post-treatment. Follow-up at eleven months revealed continued improvement in outcome measures for young females and those with greater mental health problems at baseline[58]. In a six year follow-up of this study, Hagan et al.[63] found significant improvements in effective parenting, as well as a decrease in negative events and youth-rated externalisation of problems. However, in another study, Kissane and colleagues[53] found no difference in grief phenomena or social adjustment for participants who received family-focused grief therapy compared to usual care[53]. In a follow up study, family-focused grief therapy was only effective in reducing distress and depression at six months for families who showed high distress at baseline.[53, 64]

DISCUSSION

Increasing number of publications reflects increasing interest in bereavement While only a small percentage of the population experience complicated grief, these individuals appear to be at great risk for adverse health effects. Intervening to reduce the burden of suffering on bereaved individuals can reduce long term health risks; however the interventions that are implemented must be evidence-based and beneficial to improve clinically relevant outcomes. Research output has been increasing in this field since 2000. Of the 160 publications identified, more than three-quarters (79%) provided new empirical data; while 21% of publications were reviews or summaries of existing observational studies. Therefore, a significant proportion of the total research effort has been directed toward empirical work.

Summary of findings and quality for data-based publications

Most of the empirical publications were intervention studies, followed by descriptive and measurement studies. The majority of descriptive studies were qualitative interviews which can provide important in-depth information about individuals' experiences in relation to bereavement. However, these studies are often limited by small sample sizes raising the issue of how generalizable the results are. Some researchers have suggested that interviews may introduce bias due to the potential therapeutic effect of interviews[65]. Quantitative studies identified in this review were overwhelmingly cross-sectional. Samples also varied considerably within studies in terms of the timing and the type of bereavement experienced, potentially confounding results.

Only 45 of the 76 intervention studies met EPOC design criteria, and only 19 of these presented primary analyses. Three studies were assessed as low risk of bias on every EPOC criteria, the remainder were assessed as unclear or high risk on at least one criteria. The most common limitation of the included studies was a difference between groups in terms of study characteristics. Other criteria which were poorly reported

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included concealment of allocation and generation of the allocation sequence. All but one study was free from selective outcome reporting. Further, there was a prevailing lack of rationale for the choice of intervention, which may reflect the comparatively small volume of descriptive relative to intervention research. A solid descriptive evidence base is needed to identify key areas of concern that require improvement and help design intervention studies. Details regarding the process of development, the content and structure of the programs were also under-reported. There is a need to clarify which interventions work and with whom, and whether the methods used to design the interventions were appropriate.

Of the studies which were found to be of high methodological quality, one study examined the effectiveness of complicated grief therapy relative to interpersonal psychotherapy, while two reported on the effectiveness of family focused grief counselling. Complicated grief therapy was found to be more effective than interpersonal psychotherapy in reducing abnormal grief and work and social adjustment. However, the lack of a usual care control group in this study limits the strength of this evidence. The effectiveness of the family-focused interventions was mixed, with only one of these resulting in improved outcomes. Nevertheless, these findings indicate that both complicated grief therapy and family focused therapy show potential as effective interventions for alleviating grief symptoms and should be further explored and replicated including usual care groups.

Limitations of studies

There was considerable heterogeneity in the samples recruited across all studies regarding the relationship between the bereaved individual and the deceased; the cause of death and even the timing of bereavement. This diversity represents a potential shortcoming of this field, given the associations between these factors and bereavement outcomes. For example, having a close relationship with the deceased has been found to predict poorer bereavement outcomes[66, 67], as does the quality of the relationship. Preparedness for death of a partner is known to be protective against adverse psychological effects. Only one study assigned participants by the manner of the death [59]. Others did not report on the manner of death [56]. Despite suggestions that the provision of bereavement interventions too soon after bereavement may interfere with natural grieving processes, few of the studies controlled for time since death. For example, Foster et al [47] recruited participants whose bereavement had occurred as recently in the last 3 months, while others had experienced bereavement more than 2 years ago. The appropriate time at which particular interventions are more effective requires further testing.

Often studies relied on the self-selection of participants, using more passive recruitment methods, such as word of mouth via providers or self-help groups or media advertising. People experiencing intense grief may be less likely to seek help and participate [68], so such approaches may be missing those who are most in need. This represents a major barrier in this field. A recent Australian population-based study highlighted the potential health gains that could be obtained from focusing on the sub-group of bereaved people who wished they had sought help but did not [69].

The absence of a usual care control group in many of the intervention studies is an important limitation. Having a control group as a comparator would provide much stronger evidence that any reductions in grief that are achieved in these trials are a consequence of the intervention. One study did not measure pre-test differences, further limiting findings[52]. Also, problems with absence from sessions or high dropout rates can bias findings of efficacy. Further, guidance about the most effective dose, timing and follow-up of interventions is required, given the considerable variation across studies.

Directions for future research

Identifying those at risk of abnormal grief

A major challenge for clinicians is how to identify people who may be at-risk of developing abnormal grief. The descriptive work reviewed represented largely cross-sectional or qualitative investigations that provided some insight into patterns of bereavement and attitudes towards services. Few studies examined the risk factors associated with use of bereavement grief services. Existing studies focus primarily on individual risk factors. It is recognised that social factors may also play a role in the development of grief, and there is a need to build on the preliminary research examining the role of social support on grief outcomes [1]. Further work in this area will determine how social factors interact with individual factors to contribute to poorer bereavement outcomes, thereby assisting in identifying people who may be at-risk of developing complicated grief and hence have a greater need for support.

Complicated grief is divided into anticipatory grief reactions that occur prior to death and bereavement reactions that occur post-death [70]. Anticipatory grief has been largely unexplored in the literature, including the association between anticipatory grief and bereavement reactions [71]. Intervening with caregivers prior to death may lead to lower levels of post-death complicated grief [70]. However, there is a lack of wellvalidated and reliable prognostic bereavement tools that can be used in the pre-death and early post-death phases to identify those at risk of complicated grief [72]. Limited studies show predictors of anticipatory grief have included female gender, difficulty

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coping, younger age, pessimistic thinking and stressful life events[71, 73]. Further work is needed to identify risk factors, validate tools that can help to screen for those at risk, and characterise the relationship between pre- and post-death grief reactions.

How broadly should bereavement programs be made available?

Currently, most bereavement programs are linked with palliative care services. The type of support offered varies across services and there is a lack of evidence to guide development and allocation of bereavement programs, with palliative care services offering referral to bereavement support regardless of need [17]. This is problematic due to limited health care resources, with less than 5% of the palliative care budget directed to bereavement services [20]. It is also in direct conflict with evidence that suggests that intervening with those experiencing 'normal' grief is ineffective and potentially harmful. Aoun and colleagues have recommended an alternative tiered approach to bereavement support, whereby resources are allocated based on complexity and severity of need [74]. There is a need to conduct rigorous studies that compare outcomes for current referral policies versus referral of only those individuals deemed at-risk [17].

Of the 100,000 expected deaths per year in Australia, only about 30% come to the attention of palliative care services [75]. People bereaved from unexpected deaths will not have access to palliative care services. This leaves a majority of bereaved

Australians without access to such formal support [69]. Underutilization of mental health services by caregivers with complicated grief has been reported in the USA [68]. Since bereaved people with the most need for support are less likely to access services, the opportunity to engage other providers, such as GPs, and community services is critical [18] [76]. Lack of education about supporting and referring to mental health services [76] suggests development and testing of effective strategies to assist with supporting bereaved patients is an important area for future research.

How can we monitor impact of bereavement programs?

While palliative care services are funded to provide bereavement support, the lack of robust evaluation requires consideration particularly in an environment where resources are limited. The adaptation of general health service evaluation frameworks has been suggested as way of evaluating bereavement support services, however how this approach works in practice is unknown [72]. It is unclear how to best measure the effectiveness of a bereavement program. Providers have traditionally relied on clinical judgements in identifying grief or investigator-developed measures which may lack evidence of psychometric quality. Validated measures for levels of grief (e.g. the Texas Inventory of Grief, Grief Experience Inventory, Grief Measurement Scale)[77] are available and could be incorporated into routine practice to screen for and evaluate the effectiveness of bereavement programs. The time involved with collecting and

maintaining outcome data for bereavement programs, particularly if such data is not routinely collected, may carry additional burden for staff. Assessments of grief, depression or anxiety could potentially be supplemented by more objective measures such as health service usage by the bereaved or work absenteeism. Development of robust evaluation strategies which minimise interruption to existing services will become increasingly important as health care funding in the future.

Limitations of review

The methodological quality of the measurement and descriptive studies were not assessed. As a result, although a seemingly large number of descriptive studies were identified it is unclear whether or not such research is methodologically rigorous. The quality of descriptive studies informing intervention development is important given the reliance of intervention on these studies. The search strategy also limited results to 2000 onwards, which may mean that some of the descriptive work informing the interventions reviewed was excluded. We also did not consider non-published studies or grey literature. These restrictions may have resulted in some relevant publications being missed.

Conclusions

Research must contribute to scientific understanding and meet the needs of those delivering and receiving this care. To achieve this, grief counselling interventions require a strong rationale for design, and a systematic and transparent approach to evaluation. Descriptive research efforts should inform this process, focusing on homogeneity in sample according to cause of bereavement, timing of intervention and the impact of extraneous factors such as social support on intervention effects. Interventions should include comparisons to usual care, as well as replication to confirm positive findings.

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Conflict of Interest Statement

The authors have no conflicts of interest to declare.

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Figure 1. Flow chart of search strategy and article selection.



Figure 2: Number of descriptive, review and intervention studies across time. (NB: One intervention study with a publication date of 2014 (published online in 2013) was included with the 2013 studies).
 Table 1. EPOC risk of bias of included intervention studies. Studies in bold refer to the primary study.

Study, Year Country	Allocation	Allocation	Baseline	Baseline	Incomplet	Knowledg	Contamin	Selective	Other
	sequence	concealed	measures	characteri	e data	e of	ation	reporting	bias
	generated		similar	stics		interventi			
				similar		on			
Boelen 2007 [48]	н	н	1		1		н	1	1
Boelen 2011 [72]		11	L	L	L	0	11	L	L
Constantino 2001 [45]	L	U	L	Н	Н	U	L	Н	L
De Groot 2007 [37]	1	1	1	1	1		1	1	1
De Groot 2010 [73]		L	L	L	L	0	L	L	L
Dowling 2006 [53]	U	L	U	U	L	Н	L	L	L
Ferszt 2009 [52]	Н	Н	L	U	Н	Н	L	L	L
Foster 2014 [40]	L	Н	L	U	L	Н	U	L	L
Garcia 2013 [41]	U	L	L	L	L	U	U	L	L
Haley 2008 [46]	U	U	L	L	L	U	Н	L	L
Hansen 2006 [43]	U	U	L	Н	L	U	U	L	L
Holland 2009 [47]	U	U	U	Н	L	L	L	L	L
Kang 2007 [42]	Н	Н	U	L	L	U	L	L	L
Kissane 2006 [34]	1								
Kissane 2008 [56]	L	L	L	L	L	L	L	L	L
Lund 2010 [39]	U	U	U	Н	L	U	U	L	L
Papa 2013 [38]	L	L	L	L	L	U	L	L	L
Piper 2001 [50]									
Abouguenedia 2004									
[74],									
Piper 2002 [75], 2003									
[76], 2005 [77], 2006	U	U	U	Н	L	U	L	L	L
[78],									
Ogrodniczuk 2002a [79]									
, 2002b [80], 2003a [81],									
2003b [82], 2004 [83],									

Study, Year Country	Allocation sequence	Allocation concealed	Baseline measures	Baseline characteri	Incomplet e data	Knowledg e of	Contamin ation	Selective reporting	Other bias
	generated		similar	stics		interventi			
2005 [84], 2007 [85], Joyce 2007 [86]				Similar		on			
Piper 2007 [51] Piper 2009 [87] Joyce 2010 [88]	U	U	L	U	L	U	L	L	L
Sandler 2003 [35] Hagan 2012 [55]	L	L	L	L	L	L	L	L	L
Shear 2005 [36] Germain 2006 [54] Cruz 2007 [89] Simon 2008 [90] Bui 2013 [91]	L	L	L	L	L	L	L	L	L
Sikkema 2004 [44] Sikkema 2005 [92] Sikkema 2006 [93] Smith 2009 [94]	U	U	U	U	L	U	L	L	L

Note: H = high risk of bias, U = unclear risk of bias, L = Low risk of bias.

Study	Sample	Control	Intervention	Outcomes	Results
Boelen 2007[48]	N=54 Age (mean): 43 yrs. Gender: 74.1 female. Inclusion: Bereaved > 2 months	Supportive counselling.	Cognitive restructuring (CR) and exposure therapy (ET).	Outcome measures : Complicated grief (ICG), uncomplicated grief (TRIG), Psychopathology (SCL-90).	 Intervention groups greater improvements in complicated grief and psychopathology No change post-treat to F/up.
Constantino 2001[45] USA 2 arm RCT	N=60 (N=47 completed) Age: 24-70 years. Gender: 79% female. Inclusion criteria: Bereaved of spouse's suicide.	Social Group Postvention (SGP).	Bereavement Group Postvention (BGP).	Outcome measures: Depression (BDI); Symptom distress (BSI); Grief (GEI); Social adjustment (SAS)	 No differences between groups Depression, symptom distress, despair, loss of control, rumination, somatisation depersonalisation, and death anxiety decreased; adjustment increased over time
De Groot 2007 [37] Netherlands 2 arm RCT	N=122 Age: mean 44 years Gender: 67% female Inclusion: Bereaved of suicide	Care as usual	Family grief counselling	Primary outcome: Grief (ITG) Secondary outcomes: Depression (CESD); Suicidal ideation; blame Follow-up: Maladaptive grief	 No significant effect on complicated grief, depression, suicide ideation.
Dowling 2006 [53] UK 2 arm RCT	N=34 Age: No mean/median given. Gender: Inclusion criteria: Significant bereavement.	None	Counselling intervention: Integrated intervention	Outcomes: Aberrant behaviour (ABC-C); HoNOS-LD Qualitative: Semi-structured interviews with patients and their carers Follow-up: Post-intervention.	 Significantly improved outcomes on ABC- C and HoNOS-LD for counselling. Counselling carers improvements in anxiety and irritability, better strategies to communicate their feelings.
Ferszt 2009 [52] USA CBA	N=36 Age (mean): 34 years Gender: 0% male. Inclusion criteria: Inmate	Waiting list for intervention	Relaxation, meditation, stress, cognitive reframing.	Outcome measures : BDI; RSE; SPS; HAS.	 BDI and HAS decreased significantly. Significant increases in RSE for both groups, no effect on self-esteem. No change in SPS scores.
Foster 2014 [40] USA 2 arm RCT	N=24 Age: 35.3 years. Gender: 92% female Inclusion: Significant other	Wait list.	Psycho- educational treatment	Data points : Baseline, follow-up immediately following final session. Outcomes : Grief HGRC Blame and Anger, Despair, Panic Behaviour, Personal Growth, Detachment, Disorganization s.	 Both groups: Small effect on despair; Medium effect panic Behaviour; increase in personal growth Detachment increased in C, reduced in I. Blame, Anger increased in C decreased I.
Garcia 2013[41] Spain 2 arm RCT	N=87 Age: I: 58, C: 60. Inclusion: Bereaved spouse	Family physician usual care.	Primary Bereavement Care (PBC)	Baseline : Threats (LTE); Bereavement (BRI) ; Primary outcome : TRIG Secondary outcomes : Grief (GEI); Health (GHQ-28); QoL (SF-36).	 TRIG: similar decline over time for both C showed more improvement on GEI Somatization, GHQ-28 and SF-36 Emotional Role.

Table 2. Study characteristics of included intervention studies

Study	Sample	Control	Intervention	Outcomes	Results
Haley 2008 [46] USA 2 arm RCT	N=254 Age: 71 yrs; Gender: I: 37% male; C: 25% male. Inclusion: Spouse caregivers of Alzheimer's Disease patients.	Standard care.	Enhanced counselling and support treatment	Outcomes : Date of care recipient death; Depression (GDS)	 Decrease in depression in both groups. I reported lower depressive symptoms prior to and following death. Depressive symptoms decreased at a faster rate following death for C vs baseline gp.
Hansen 2006 [43] USA 2 arm RCT	N=267 Age: 40 yrs Gender: I: 63%; C: 67% male. Inclusion: HIV, loss of partner, spouse, close friend/family >1 month but < 2 years prior	< 12 CBT sessions.	Combined semi- structured cognitive- behavioural and support group	Outcomes : Grief (GRI); Distress (SCL- 90); Health/QoL (FAHI); Coping (WCQ, CWI)	 Active coping stable; avoidant coping decreased across time in both group. No reduction in grief, distress or QoL for I vs C over follow up period. I reduced negative effect of avoidant coping on grief and distress.
Holland 2009 [47] USA, UK	N=224 Age: 64 Gender: 16% male. Inclusion criteria: Alzheimer's Disease	Minimal support: Check-in telephone calls and usual care	Varied across sites	Outcomes: Grief (ICG, TRIG); Depression (CES-D).	 Improved TRIG for skills training intervention, and ICG for a 'Coping with caregiving' intervention. Lower ICG scores = > time on CB strategies, caregiver skills/behavior, and care recipient behavior Lower TRIG scores - > time information, emotion support; knowledge, skills, affect Lower CES-D scores > time environmental mods; socio-physical environmental skills and behaviour.
Kang 2007 [42] South Korea CBA	N=27 Age= range 35-64. Gender: 0% male. Inclusion: Bereaved < 6 months	Health check only.	Dan-jeon breathing and stretching; self- help activity; and health check.	Outcomes: Grief (RGEI); Stress; Immune response	 Greater reduction in grief, stress in I vs C. No significant difference in lymphocyte percentages between groups.
Kissane 2006 [34] Australia 2 arm RCT	N =81 families	Standard palliative home care	Family Focused Grief Therapy (FFGT)	Outcomes: Symptom distress (BSI), Depression (BDI), Social adjustment (SAS); Family Assessment Device, Family Environment Scale; grief phenomena (BPQ)	 FFGT non-significant improvement in BSI No differences between the groups SAS, BDI or grief Significant improvement in distress and depression for high distress FFGT

Study	Sample	Control	Intervention	Outcomes	Results
Lund 2010 [39] Country: USA Design: 2-arm RCT	N=298 Age: 40 Gender: 39% male. Inclusion: Widowed persons in prior 2-6 months;	Traditional support group format	Dual Process Model of Coping	Outcomes: Coping (Loss orientation & restoration subscales IDWL)	 Loss orientated coping declined in both groups Restoration orientated coping showed a greater increase for I vs C
Papa 2013 [38] USA 2 arm RCT, multiple baseline	N=25 Age: 49 Gender: 88% male. Inclusion loss of someone close to them in previous 6 + months.	Delayed group acted as control at 12 week follow up.	Behavioural Activation intervention	Outcomes: Grief (ICG-R); Posttraumatic Stress Symptoms (PCL-S); Depression (DASS); Treatment expectancy and rationale credibility (CEQ).	 ITT sample: At 12 weeks, depression, grief and posttraumatic stress symptoms were lower in immediate versus delayed. Depression, grief and posttraumatic stress symptoms declined over treatment
Piper 2001 [50] Canada 2 arm RCT	N=139 Age (completers): 43 years Gender (completer): 77% female Inclusion: loss of > 3 months;	n/a – study compared two interventions.	Supportive therapy: (ST) Interpretative therapy (IT)	Outcomes: Grief: Pathological symptoms, IES, TRIG; Depression: BDI; Anxiety: TAS; Symptom distress: BSI; Interpersonal probs: IIP; Social role: SAS; Self-esteem: SES; Life satisfaction; SF-36 subscale	 Completers: IT, higher QOR=better outcome. ST, higher QOR=worse outcome. For general symptoms, main effect of treatment favouring IT. ITT analysis similar results. Patients achieving clinical sig change was higher in IT than ST for anxiety and symptomatic distress Mean effect IT = .75, ST = .50
Piper 2006 [78] Secondary analysis Piper 2001	As above	As above	As above	As above, also a measure of positive regard	• Patients perceived positively by others in the group did better.
Piper 2007 [51] Canada 4 arm RCT	N=135 Age: 45.2 years Gender: 79% female Inclusion : loss of > 3 months;	Interpretative therapy (IT) Composition IT: based on QOR Mixed IT: mix of high & low QOR	Supportive therapy (ST). Composition ST: based on QOR Mixed ST: mix of high and low QOR	Outcomes: Grief: IES, TRIG; Depression: BDI; Anxiety: TAS; Symptom distress: BSI; Interpersonal probs: IIP; Social role: SAS-R; Self-esteem: SES; Quality of life: QOLI	 No statistically significant difference between groups Higher proportion of high-QOR patients in a group predicted improvement in general symptom, grief symptoms; and clinically significant change anxiety.

Study	Sample	Control	Intervention	Outcomes	Results
Sandler 2003 [35] USA 2 arm RCT	Family N=156 Age: Youth=11 Gender: Not reported. Inclusion criteria: death of a parent 3-30 months prior;	Literature available to gen pop	Family bereavement program.	Outcomes : Positive parenting; CRPBI, DRS, SPES, Discipline (Inconsistency of Discipline subscale of CRPBI, PPI, ODS) Caregiver mental health (PERI, BDI)	 Positive parenting improved significantly for those with lower positive parenting. Positive parenting and caregiver mental health showed significant improvements at 11 month follow-up for I vs C.
Shear 2005 [36] USA 2 arm RCT	N=83 (IPT n=46; CGT n=49) Age: 48.4 years (mean) Gender: 87% female Inclusion criteria: >6 months persistent grief; scored \geq 30 ICG	n/a – study compared two interventions.	Complicated grief treatment (CGT): Interpersonal psychotherapy (IPT):	Primary : Treatment response (ICG or CGI); Secondary : Post-traumatic Stress Disorder (SCID); Depression (Hamilton Rating Scale; BDI); Anxiety (Hamilton Rating Scale; BAI); Work and Social Adjustment Scale	 Response higher for CGT (51%) vs IPT (28%) Time to response faster for CGT CGT improvements significantly better for ICG, BDI and Work and SAS (completer) ICG marginally better for CGT than for IPT (ITT)
Sikkema 2004 [44] USA 2 arm RCT	N=235 Age: 40.3 years Gender: 64% male Inclusion criteria: confirmed HIV-positive serostatus; AIDs related loss 3 months – 2 years	Mental health and psychiatric services on request.	Cognitive- behavioural model	Outcomes: Grief: GRI; Psychiatric distress: SCL-90; Depression/anxiety: SIGH-AD	 Significant difference between pre- and post-treatment scores I reported significantly lower psychiatric distress compared to C Women in I reported greatest improvement in grief and depression.

Note: BDI=Beck Depression Inventory; BAI: Beck Anxiety Inventory; BPQ= Bereavement Phenomenology Questionnaire; BRI = Bereavement Risk Index; BSI= Brief Symptom Inventory; C = control; CEQ= Credibility/Expectancy Questionnaire; CESD = Center for Epidemiologic Studies depression scale; CGI-I=Clinical Global Impression of Improvement scale; CRPBI = Child Report of Parenting Behavior Inventory; CWI= Coping with Illness scale; DASS= Depression, Anxiety, Stress Scale; FAHI= Functional Assessment of HIV Infection (FAHI); GCQ = Grief Cognitions Questionnaire; GDS = Geriatric Depression Scale; GEI = Grief Expression Inventory; GHQ-28 = General Health Questionnaire-28 items; GRI=Grief Reaction Index; I = intervention; ICG=Inventory of Complicated Grief; ICG-R= Inventory of Complicated Grief-Revised; HGRC=Hogan Grief Reaction Checklist; IES: Impact of Event Scale; IIP= Inventory of Interpersonal Problems; ITG = Inventory of Traumatic Grief; LTE = List of Threatening Experiences; MMSE=Mini Mental Status Exam; MSPSS = Multidimensional Scale of Perceived Social Support ; PCL-S= PTSD Checklist-Specific; PDEQ=Peri-traumatic Dissociative Experiences Questionnaire; SAS: Bocial Adjustment Scale; SAS-R= Social Adjustment Scale-Self Report; SCAN 2.1= Schedules for Clinical Assessment in Neuropsychiatry; SCID=Structured Clinical Interview for DSM-IV; SCL-90=Symptom Checklist-907Revised; SF-36 = International Quality of Life Assessment Short Form-36; SIGH-AD=Structured Interview Guide for the Hamilton Depression and Anxiety Scales; TAS-20: Toronto Alexthymia Scale -20; TRGR2L = Traumatic Grief Evaluation of Response to Loss; TRIG= Texas Revised Inventory of Grief; TAS: Trait Anxiety Scale; Tx = treatment; WCQ= Ways of Coping Questionnaire