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Complicated grief: A systematic review of prevalence, diagnosis, risk and protective factors in the adult population of Spain

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Título: Duelo complicado: Una revisión sistemática de la prevalencia, diagnóstico, factores de riesgo y de protección en población adulta de España.

Resumen: El objetivo principal de este trabajo fue revisar el estado de la investigación psicopatológica del duelo complicado en población adulta de España, más concretamente sobre la prevalencia y factores de riesgo asociados. Una búsqueda sistemática en *PsycINFO, PsycArticles, PTSDpubs & PSICODOC* identificó 12 estudios en los que, en conjunto, se había evaluado a 1,627 adultos. Los resultados de esta revisión ponen de manifiesto que no existe consenso en el diagnóstico de duelo complicado, en el uso de instrumentos de detección ni en los factores de riesgo y protección del duelo complicado. La prevalencia media ponderada basada en 6 de los estudios revisados fue de 21.53%. Tomando en consideración el tipo de instrumento de medida del duelo utilizado, se obtuvo una prevalencia de 7.67-10.68% en aquellos estudios que utilizaban instrumentos diagnósticos y de 28.77% en los instrumentos sintomáticos. Los resultados indican que el duelo complicado se relaciona con: un menor nivel socioeconómico y situación laboral desfavorable, la pérdida de un hijo o cónyuge, menor edad del fallecido, vulnerabilidad psicológica previa, consumo de psicofármacos y comorbilidad con otros trastornos. El apoyo social, los cuidados paliativos, las estrategias de afrontamiento centradas en el problema, el empleo de actividades agradables y la trascendencia o espiritualidad se presentan como factores protectores.

Palabras clave: Duelo. Duelo complicado. Prevalencia. Población adulta. Diagnóstico. Factores de riesgo. Factores de protección.

Abstract: The main objective of this research was to review the status of the psychopathological research of complicated grief in adult population of Spain, specifically the prevalence and risk factors. A systematic review of PsycINFO, PsycArticles, PTSDpubs, and PSICODOC databases identified 12 studies in which, overall, 1.627 adults had been evaluated. The results of this review show that there is no consensus about the diagnosis of complicated grief, the use of detection instruments, or the risk and protective factors for complicated grief. The weighted mean prevalence based on 6 of the reviewed studies was 21.53%. Taking into account the type of grief measurement used, a prevalence of 7.67 – 10.68% was obtained in those studies that used diagnostic instruments, and 28.77% in those using symptomatic instruments. The results indicate that complicated grief is related to: a lower socioeconomic level and unfavorable work situation, the loss of a child or spouse, younger age of the deceased, previous psychological vulnerability, the use of psychotropic medication, and comorbidity with other disorders. Social support, palliative care, problem-centered coping strategies, the use of pleasant activities, and transcendence or spirituality are shown as protective factors.

Keywords: Bereavement. Complicated grief. Prevalence. Adult population. Diagnosis. Risk factors. Protective factors.

Introduction

The loss of a loved one is a universal stressful event, which favours the appearance of a set of unpleasant emotional, cognitive, behavioural, and physiological symptoms that the mourner experiences during the weeks and months after the loss, which are commonly referred to as "mourning" (Enez, 2018). These symptoms usually decrease in intensity as the death and its consequences are accepted (Jordan & Litz, 2014; Shear, 2015). However, a significant minority of people experience long-term reactions that interfere with their daily lives, leading to the emergence of what has been called "complicated grief" in the scientific literature (Lundorff et al., 2017).

There is a lack of unanimity in the conceptualization and terminology related to complicated grief (Maciejewski et al., 2016). At present, up to three psychopathological entities that refer to this concept can be found: 1) "Prolonged Grief Disorder (PGD)", proposed by Prigerson et al. (2009) and modified in the eleventh edition of the International Classification of Diseases (CIE-11; World Health Organization [WHO], 2018); 2) "Complicated Grief (CG)" proposed by Shear et al. (2011); and 3) " Persistent Complex Bereavement Disorder (PCBD)" included in the DSM-5 (American Psychiatric Association [APA], 2013), although not as a diagnostic entity but within the section dedicated to future aspects to be studied (Heeke et al., 2017).

Beyond semantics, there are construct differences between these diagnostic entities. The time criterion required for each diagnosis is different (6 months for CG and PGD vs. 12 months for PCBD). In addition, whereas PGD is based on a more dimensional conception of grief, considering that the discomfort from loss is normal and only becomes pathological when its experience is very intense or lasting, the conception of CG and PCBD is more categorical (Maciejewski et al., 2016).

A deeper issue underlies the debate on the psychopathological definition of complicated grief, as the fact of creating a diagnostic category may involve pathologizing a process that would otherwise be normal. In fact, the DSM-5 (APA, 2013) states that a modulating factor of the differential diagnosis between normal and pathological grief relates to the cultural environment of the mourner. So psychopathological diagnosis is made only if the emotional, cognitive, behavioural, and physiological responses of the mourner are not

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better explained by the presence of funeral rites or by a conception of death and a socially accepted and standardized grieving response in a particular culture (APA, 2013; Lundorff et al., 2017).

The tools used to measure complicated grief are also very different (see Treml et al., 2020, for a detailed review). Both in research and applied contexts, it is very common to use symptomatic instruments, among which the Inventory of Complicated Grief (ICG) proposed by Prigerson et al. (1995) is worth noting due to the frequency of its use. In fact, a recent meta-analytical review shows that the ICG was the instrument of choice in 17 of the 37 reviewed articles (Heeke et al., 2017). This instrument measures symptoms that allow differentiating people with complicated grief from those with normal grief (Prigerson et al., 1995). Another widely used symptomatic instrument is the Texas Revised Inventory of Grief (TRIG; Faschinbauer et al., 1977), which detects the intensity of past and present symptoms of grief. Unlike the ICG, this instrument was not specifically designed to detect complicated grief as a disorder but has been used as a tool to measure the severity of grief symptoms and, as such, an indirect measure of complicated grief (Treml et al., 2020). To a lesser extent, instruments based on diagnostic criteria, such as the Prolonged Grief Disorder (PG-12 and PG-13; Prigerson et al., 2009, 2013) specifically designed to assess PGD criteria, have been used. The PG-12 requires meeting several criteria, including, in addition to the loss of a loved one, the presence of a fatal disease, allowing the diagnosis of complicated grief at very early stages (Coelho et al., 2017). Whereas the PG-13 is a structured diagnostic interview that includes the criteria proposed for the inclusion of PGD in the DSM-5 (APA, 2013) and the IDS-11 (WHO, 2018) and which, regarding its predecessor, includes a 6-month time criterion for the diagnosis of complicated grief (Prigerson et al., 2009).

Different authors argue that there are many factors, not necessarily pathological, that condition the parameters of grief (Shear et al., 2011; Wakefield, 2012). Within the sociodemographic variables, empirical evidence shows that being female is a risk factor for the development of complicated grief (Heeke et al., 2017; Kersting et al., 2011). This relationship could be mediated by gender roles, which determine a differential expression of pain characterized by anger in men, and sadness, crying, or high emotionality in women (Magaña et al., 2019). In addition, advanced age, low educational and socio-economic status have been linked to complicated grief (Heeke et al., 2017; Kersting et al., 2011; Lundorff et al., 2017). Losses within the nuclear family unit, more specifically, of the partner or children, are risk factors for the development of complicated grief (Heeke et al., 2017; Kersting et al., 2011; Kristensen et al., 2015), as are violent and/or intentional death (Kristensen et al., 2012; Nakajima et al., 2012). Different studies find comorbidity between complicated grief and emotional disorders, related to stress or substance addiction (Marques et al., 2013; Moayedoddin & Markowitz, 2015; Parisi et al., 2019), and increased consumption of psycho-pharmaceuticals in the mourning population with complicated grief (Neria et al., 2007). Finally, a meta-analytical review finds no relationship between the time since death and complicated grief (Heeke et al., 2017), whereas social support has shown a protective capacity against this problem (Vanderverker & Prigerson, 2010).

Due to this disparity in criteria, instruments, and perspectives, prevalence studies on complicated grief show very different percentage data. Trying to integrate these results, a recent international meta-analysis has estimated that the overall prevalence of complicated grief is 9.8% (Lundorff et al., 2017). However, no review study has done something similar in Spain.

Therefore, the general objective of this work was to carry out a systematic review on the psychopathological research of complicated grief in the adult population of Spain, establishing the prevalence of this disorder in our country (or, where appropriate, the symptomatic levels) and taking into account the type of grief diagnosis used, the instruments used for its measurement, as well as the associated risk and protective factors.

Method

This review study followed the indications proposed by the PRISMA (Moher, Liberati, Tetzlaff, Altman, and PRISMA Group, 2009) group for systematic searches. First, the PsycInfo, PsycArticles and PTSDpubsbases were used, introducing the key terms: "*Grief* OR *Bereavement* OR *Mourning*" both in the title and the abstract of the publication, together with "AND *Spain*" in the affiliation, abstract, and title data. Secondly, the electronic database Psicodoc was searched with the term "Duelo" ("Grief" in English) in the title and abstract of the work, for those articles that could be found only in Spanish. In both cases, we considered a time-frame from January 2000 to September 2019.

Previous searches identified 416 publications and, after discarding duplicates, 384 documents were obtained. Figure 1 shows the flowchart of the process of identifying, screening, and selecting studies on complicated grief in the adult population of Spain.

Of the 384 documents, 296 publications were excluded for their title because, although they included the keywords *grief, bereavement* or *mourning,* the loss was not related to the death of persons or did not specify that they were close to the mourner, and 63 records were also excluded for the abstract, as they did not show data on complicated grief in Spain. The full text of the resulting 25 publications was obtained and the selected publications were screened to determine whether they met the following inclusion criteria: a) empirical studies, b) result shows the prevalence of complicated grief and/or provides the level of symptomatology through the use of some specific complicated grief questionnaire, c) measures complicated grief in family, friends and/or people close to the deceased, d) Spanish sample, and, lastly, e) over 18 years of age. At this stage, 13 documents were excluded: 7 for not examining the prevalence or symptomatol-

ogy of grief, 1 for addressing only infant-juvenile sample, 2 for using the same sample as another study included in the review, 1 in which the relatives of the participants had not yet died, and 2 that did not have a Spanish sample.

Following the screening and eligibility process of the initially identified publications, this systematic review finally included 12 publications that reported 12 studies. Of the 12 studies analysed, 6 were selected that showed percentage data of complicated grief to perform weighted prevalence analyses.

The data extraction of each article was performed by one member of the team and reviewed independently by another. The collected data were entered in a form (see Table 1) that included information about the definition of complicated grief, the applied measurement instrument, percentage prevalence data or, if lacking, mean complicated grief scores. Data on the socio-demographic risk factors related to the death (type of death and time since the loss) and the affective bond, the presence of comorbidity, previous psychopathology, psychological or pharmacological treatments, and protective variables such as social support were also extracted.

Figure 1

Flowchart of the process of searching, screening, and selecting studies on pathological grief in the general adult population of Spain.

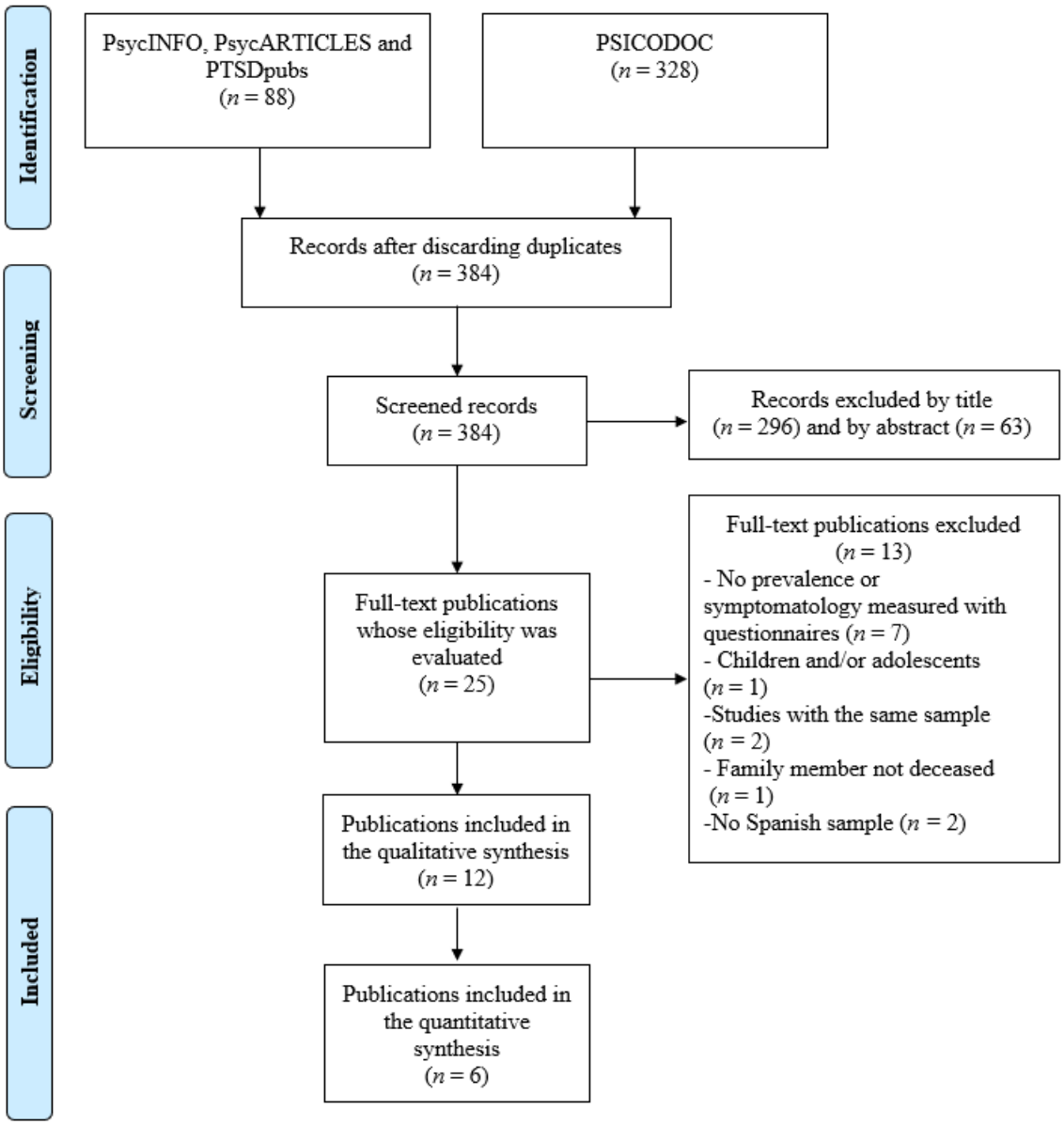

Table 1
Summary of studies on complicated grief in Spanish research.

Reference	Sample characteristics	Grief terminology	Bond, type of and time since death	Measures of complicated grief	Prevalence (%)/ Means (SD)	Risk factors related to complicated grief
Studies that provide prevalence data (%)						
Barreto, Yi & Soler (2008)	*n* = 236 Mean age: 60 years Gender: Not specified	Complicated grief, DSM-IV-TR indicators	Bond: primary caregiver Type: cancer Time: 2 and 6 months	DSM-IV-TR Indicators ICG Expert evaluator clinical interview	DSM-IV-TR: 16.5 (2 months), 15.5 (6 months) ICG: 16.5 (2 months), 19.1 (6 months) Evaluator criterion: 22.7 months	Participants met significantly more DSM-IV-TR (2 and 6 months) criteria: dependence, rage, guilt, psychopathological antecedents, previous unresolved grief, symptoms during the process, during the last days (6 months), diagnostic delay (6 months), and economic problems. Participants' significant score in ICG (2 and 6 months) had significantly more: dependence, guilt, psychopathological antecedents, previous grief, disease progression (2 months), symptoms throughout the process and during the last days, and economic problems. Participants with complicated grief, according to evaluator criteria (6 months) had significantly more: dependence, rage, guilt, psychopathological antecedents, previous unresolved grief, symptoms during the process, during the last few days, and economic problems. All *p*s < .05 Risk factors: ICG: 1) dependence (β = -0.83), 2) guilt (β = -1.25), 3) last-day symptoms (β = -1.11), and 4) economic problems (β = -1.21) predict 88% of the variance (Cox and Snell R^2 = .2 and Nagelkerke R^2 = .42). DSM: 1) dependence (β = -1.42,), 2) previous unresolved grief (β = -1.22), and 3) symptoms throughout the process (β = -1.06) predict 88.1% of the variance (Cox and Snell R^2 = .26 and Nagelkerke R^2 = .44) No significant differences in bond intensity in ICG (χ^2= 3.28), DSM (χ^2 = 3.12) and expert evaluator criterion (χ^2 = 4.27), all ps > .05.
Estevan et al. (2016)	*n* = 299 Mean age: 53.5 years 70.9% women	PGD	Bond: first-degree family member (79.6%) Type: Medical cause and mental illness Time: *M* = 10.4 months (range 6 - 18)	PG-13 TRIG	PG-13 TRIG: 38.1	Prolonged Grief (PG-13): more in women (90.5%), unemployed (76.2%), and less monthly income (*M* = 1,463.8 vs. 2,211.4). Previous (61.9%) and subsequent (90.5%) episode anxiety or depression, required post-loss assistance (85.7%), with psychiatric care (50%), focused on anxiety/depression with psychopharmaceuticals (47.6%). Presented more GAD (19%), MDE (47.6%), perceived social support under DUKE (28.6%) and TRIG score (100%). Youth of deceased *(M* = 60.6 vs. 71.6) and illness less susceptible to palliative care (47.6%), all *p*s < .05. Prolonged grief was associated with: 1) consulting psychiatrist after loss (*OR* = 5.33), 2) monthly income less than 2,000 euros (*OR* = 4.61), and 3) meeting EDM criteria (*OR* = 7.57), all *p*s < .05. No significant differences in participants with complicated and normal grief in age, educational level, kinship, or time (all *p*s > .05)
Iribarne, Mingote, Denia, Ruíz-Balda & de la Fuente-Pérez (2002)	*n* = 127 (*n*EG = 75; *n*CG = 52) EG Mean Age: 35.2 years, CG Mean Age: 34.0 years 100% women	Complicated grief†	Bond: unborn child Type: Gestational loss Time: No data	ICG	EG: 24.6 CG: 19.4	Significant differences in complicated grief symptomatology in favour of EG *(M* = 15.01 vs. 9.26, *p* < .05) Significant differences in coping strategy *resigned acceptance* in favour of EG, *p* < .05

Reference	Sample characteristics	Grief terminology	Bond, type of and time since death	Measures of complicated grief	Prevalence (%)/ Means (SD)	Risk factors related to complicated grief
Masferrer, Garre-Olmo & Caparrós (2017)	*n* = 296 (*n*ASD = 196; *n*CG = 100) Mean age = 46.8 23.7% women	Complicated grief†	Bond: ASD: parent (53.1%) /sibling (18.4%) CG: parent and grandparent (21.7%) Type: natural (77.4%), accident (12.2%), others (10.5%), Time: minimum 12 months	ICG	ASD: 34.2 CG: 5	40.3% vs. 20.3% traumatic deaths in complicated and normal grief. ASD: lower educational level in the normal grief group (76.8%); more unemployment (67.3%); in complicated grief, less time since death (*F* = 1.98, *M* = 9.36 vs.13.33 years), have spent more time in prison and consume more prescribed medication (undefined). All *p*s < .05. No significant differences in mourner's age (*p* >.05). Risk factors: losing sibling: (β = 0.25), low level of studies (β = -0.20), low perceived social support MSPSS (β = -0.15), traumatic death (β = 0.16), substance use (β = 0.16); all *p*s < .01.
Rodríguez et al. (2012)	*n* = 107 Average mourner's age: Not specified 33.6% women	PGD	Bond: parent (62.8%) Type: Multiorgan failure Time: > 12 months *M* = 22.1	CCPGD	10.3	Complicated grief group significant differences with the normal grief group in: requiring psychiatric help (without specifying type) to overcome the death (70.6%), TRIG value (*M* = 4.2 vs. 2.5), and the value of Prigerson's criteria (without reference) on PGD (*M* = 3.6 vs. 0.2); all *p*s < .001. No significant differences in deceased's age, *p* > .05.
Romero & Cruzado (2016)	*n* = 66 Mean age: 51.8 years 89.4% women	PGD	Bond: stable partner (23.7%), parent (56%), child (6.1%), sibling (9.1%), others (6%) Type: Any kind Time: 2 months	ICG PG-12	ICG: 53.03 PG-12: 10.6	Prolonged grief group: significantly higher score in ICG (*U* = 71) and BDI-II (*U* = 65); worse economic situation (*M* = 31.3 vs. 22.4) and increased presence of psycho-pharmacological treatments at the time of evaluation (*M* = 30.7 vs. 23.1), all *p*s < .05. Significant relationship with deceased's age (*r* = -.38), time in palliative care (*rs* = -.29), and stressful vital events (*r* = .30), all *p*s < .05.
Studies providing data on average symptomatology scores [Means (*SD*)]						
Bermejo, Magaña, Villacieros, Carabias & Serrano (2012)	*n* = 130 Mean Age: 56 years 76.2% women	Complicated grief†	Bond: parent (20.2%), sibling or friend (11.6%), spouse (34.1%), child (34.1%) Type: no data Time: no data	ICG	41.3 (12.01)	Highest ICG score: loss of spouse vs. father (*F* = 4.26), had received psycho-pharmacological treatment (*t* = 2.67). ICG was significantly related to the COPE scales of emotion-centred coping (*r* = .45) and total coping (*r* = .28). All *p*s < .01. No differences in ICG depending on gender, bond strength, or prior psychological care (without statistics).
Camacho (2013)	*n* = 48 Mean age: 49.9 years 69% women	Complicated grief†	Bond: child (60.4%), spouse, parent, sibling, and friend (39.6%) Type: disease (50%), accident (35.4%), and suicide (14,6%) Time: between 2 months and 5 years (50% last 12 months)	Total TRIG ICG	ICG: 40.8 (14.3) TRIG: 38.1: 85.9 (13.9)	Higher score in TRIG as a function of intensity of the affective relationship with the deceased (*U* = 54.5, *p* < .01), no significance with ICG (*U* = 83, *p* > .05). Strong significant relationship between ICG and TRIG with BDI-II (*r* = .65-.73) and STAI (*r* = 0.53-0.54), all *p*s < .01. BDI-II explained 50.4% of the variance in TRIG (β = 0.84) and 4.2% in ICG (β = 0.84), all *p*s < .001. No significant differences in TRIG and ICG in scores of the deceased's age (*F* = 2.83, F = 2.68), death type ICG (*F* = 0.80; *F* = 0.79), and kinship (*U* = 230, *U* = 244), all *p*s < .05.
Crespo, Piccini & Bernaldo-de-Quirós (2013)	*n* = 50 Mean Age: 61.1 years 88% women	Complicated grief†	Bond: spouse (32%) and parent (68%) Type: Alzheimer Time: >1 year (66%), same year (34%)	TRIG	Current or present TRIG: 47.8 (11.6)	Higher levels of grief for a longer time (*F* = 4.26), in couples (*F* = 10.53), when the family member did not die at home (*F* = 6.13), and when the relative could not say goodbye (*F* = 5.09), all *p*s < .05.

Reference	Sample characteristics	Grief terminology	Bond, type of and time since death	Measures of complicated grief	Prevalence (%)/ Means (SD)	Risk factors related to complicated grief
Fernández-Alcántara, Pérez-Marfil, Catena-Martínez, Pérez-García & Cruz-Quintana (2016)	*n* = 68 Mean age: 41.3 years 69.1% women	Complicated grief†	Bond: child (29.4%), partner/sibling (20.6%), parent (47.1%), and grandparent (2.9%) Type: no data Time: minimum 6 months, *M* = 29.6 months	ICG TRIG	ICG: 29.6 (14.1) TRIG - current or present: 28.5 (9.9) TRIG - acute or past: 20.9 (7.7)	Higher score ICG for child loss (F = 7.57, η^2_p = .20) and TRIG-past (F = 6.12, η^2_p = 0.10) and present (F = 6.36, η^2_p = 0.17); all *p*s < 0.01. Child loss is related to higher values on IED scales: hopelessness (F = 9.56, η^2_p = 0.23), guilt (F = 4.12, η^2_p = 0.12) loss of control (F= 4.90, η^2_p = 0.12), anger (F = 4.59, η^2_p = 0.12), depersonalization (F = 6.41, $\eta 2_p$ = 0.17), and somatization (F = 5.86, η^2_p = 0.16); all *p*s < .05. ICG correlates significantly (*r* = .52-.70) with all the ECE, EGEP, and SCL-90-R scales (all *p*s < .01); TRIG correlates significantly (*r* = -.29 –.74) with all the ECE, EGEP and SCL-90-R scales; all *p*s < .05. Importance and perception of event as a central in their life-ECE(β = 0.44) and hostility SCL-90 (β = 0.34) explained 68% of the variance (F = 35.09); all *p*s < .01.
Ridaura, Penelo & Raich (2017)	*n* = 70 (*n*IL = 20; *n*MI = 50) Mean age: 32.1 100% women	Perinatal grief	Bond: unborn child Type: Perinatal death during pregnancy or in the first 28 days (postpartum) Time: 1, 6 and 12 months. Weeks since loss: *M* = 22.4	PGS	IL: 1 month: 94.9 (27.1); 6 months: 81.55 (30.8); 12 months: 68.7 (30.6) MI: 1 month: 89.3 (22.6); 6 months: 77.9 (26.3); 12 months: 72.3 (24)	No significant differences in PGS between IL and MI (F = 0.05, *p* = .83). Significant reduction of complicated grief symptomatology as a function of time for IL and MI (F = 36.3), T1 vs. T2 (F = 12.4), T1 vs. T3 (F = 21.6) and T2 vs. T3 (F = 9.2); all *p*s < .01. No significance in age and socio-economic status (β = -0.13 – 0.03), time of abortion (β = 0.20), other children (β = 0.05), and miscarriage (β = 0.14); all *p*s < .05.
Villacieros, Serrano, Bermejo, Magaña, & Carabias (2014)	*n* = 130 Mean age: 55 years 76.2% women	Complicated grief†	Bond: spouse (35.5%), child (33.6%), parents (17.3%), others (12.7%) Type: no data Time: *M* = 12.4 months	ICG	ICG: 40.9 (11.9)	ICG correlates significantly with: months since death (*r* = .19) and psychological well-being EBP (*r* = .29); all *p*s < .05. No correlation with age of mourner (*r* = .29, *p* > .05). Psychological well-being EBP (β = -0.20), available social support SSQSR (β = 0.73), psycho-pharmacological treatment (β = -0.84), parental relationship (β = -9.78), months (β = 2.21) explain 42.4% of the variance (F = 8.85), all *p*s < .05. No differences in ICG depending on gender, bond strength, or prior psychological care (without statistics).

Note: DSM-IV-TR: Diagnostic and statistical manual of mental disorders revised text (American Psychiatric Association-APA, 1994); ICG: Inventory of Complicated Grief (Spanish version by Limonero, Reverte, García, Méndez, & Prigerson, 2009); PGD: Prolonged Grief Disorder (Prigerson et al., 2009); PG-13: Prolonged Grief Disorder-13 (Spanish version by Estevan et al., 2019); TRIG: Texas Grief Inventory-Revised (García-García, Petralanda, Manzano, & Inda, 2005); GAD (DSM-IV-TR): Generalized Anxiety Disorder (APA, 1994); MDE (DSM-IV-TR): Major depressive episode; DUKE: Perceived Social Support Scale (Bellón, Delgado, De Dios & Lardelli, 1996); EG: experimental group; CG: control group; ASD: addictive substance group; MSPSS: Multidimensional Scale of Perceived Social Support (Arechabala & Miranda, 2002); CCPGD: Consensus Criteria for Prolonged Grief Disorder (Prigerson & MaCiejewski, 2006); PG-12: Prolonged Grief Disorder-12 (Prigerson et al., 2009); BDI-II: Beck-II Depression Inventory (Spanish version by Sanz, Perdigón, & Vázquez, 2003); COPE: Coping Strategies Scale (Crespo & Cruzado, 1997); PGS: Perinatal Grief Scale – reduced version (Capitulo, Ramírez, Grigoroff-Aponte y Vahey, 2010); STAI: State-Trait Anxiety Inventory (Spielberger, Gorsuch, & Lushene, 1982); IED: Inventario de Experiencias de Duelo (Inventory of Grief Experiences; García-García, Landa, Trigueros-Manzano, & Gaminde-Inda, 2001); ECE: Escala sobre la Centralidad del Evento (Scale on the Centrality of the Event; Fernández-Alcántara et al., 2015); EGEP: Escala de Evaluación Global de Estrés Postraumático (Global Post-Traumatic Stress Assessment Scale; Crespo & Gómez, 2012); SCL-90-R: 90-Symptom Check-List-Revised (Derogatis, 2002); IL: Involuntary loss; MI: medical interruption; EBP: Escalas de Bienestar Psicológico (Scales of Psychological Well-being; Díaz et al., 2006); SSQSR: Sarason Social Support Questionnaire (Sarason, 1999)
† "Complicated Grief" without concrete definition or classification

Results

Characteristics of the studies

As shown in Table 1, 12 studies were examined with different samples, including a total of 1,627 people, mostly women (64.4%), with an average age of 49.3 years. The most prevalent type of death occurs for medical reasons, including perinatal death, and three studies include violent deaths. The time elapsed since the death ranges from one month to five years, although in most studies (n = 8), there is at least one measure at 6 months or more since the loss, a period in line with most complicated grief diagnoses.

Only 4 works out of the 12 examined refer to a specific diagnostic category related to complicated grief. Three of them use the PGD of Prigerson et al. (2009) and the fourth is based on the criteria of the DSM-IV-TR (APA, 1994)[1]. Although not a complicated grief diagnosis, one last study addresses the concept of "perinatal grief", specific to gestational losses.

Most research (n = 11) uses symptomatic measuring instruments, with the most commonly used scales being the Spanish adaptations of the ICG (Limonero et al., 2009) (n = 8) and the TRIG (García-García et al., 2005) (n = 4). The research also uses the Perinatal Grief Scale – reduced version (PGS; Spanish adaptation of Capitulo et al., 2010), specific for gestational losses. Only the 4 studies that include a specific diagnostic category of complicated grief use diagnostic instruments, namely the PG-12 (Prigerson et al., 2009) and PG-13 (Spanish adaptation of Estevan et al., 2019), the consensus criteria for the PGD (Prigerson & MaCiejewski, 2006), or the criteria of DSM-IV-TR (APA, 1994).

Only 2 of the 12 studies (Iribarne et al., 2002; Masferrer et al., 2017) included control groups. In 1 of them, this group was made up of women who had not managed to become pregnant, compared to the group of women who had suffered gestational losses (Iribarne et al., 2002). Whereas in the second work, both groups had losses of significant people, the difference involved the clinical condition of presence or absence of substance addiction (Masferrer et al., 2017).

Prevalence and symptomatology of complicated grief according to the diagnostic category and measuring instrument

Only 6 of the 12 studies analysed include diagnostic prevalence data (Barreto et al., 2008; Estevan et al., 2016; Iribarne et al., 2002; Masferrer et al., 2017; Rodríguez et al., 2012; Romero & Cruzado, 2016). Four of them are the aforementioned works that allude to specific diagnoses of complicated grief and that base their data on diagnostic measures (Barreto et al., 2008; Estevan et al., 2016; Rodríguez et al., 2012; Romero & Cruzado, 2016) although it is important to add that, with the exception of the work of Rodríguez et al. (2012), these studies also include prevalence rates based on symptomatic instruments such as the ICG and TRIG. The remaining 2 studies (Iribarne et al., 2002; Masferrer et al., 2017) do not specify a diagnostic category and establish prevalence rates solely based on ICG scores.

Prevalences derived from diagnostic instruments vary depending on the type of measurement used and the time since the loss. One study using the PG-12 within two months of the loss (Romero & Cruzado, 2016) shows prevalence data of 10.6%, while another study that applies the PG-13 between 6-18 months after the loss (Estevan et al., 2016) shows prevalence data of 7.02%. Similarly, when the consensus criteria for the PGD are used, at 12 months, there are complicated grief percentages of 10.3% (Rodríguez et al., 2012), and of 15.5% when DSM-IV-TR indicators are valued at 6 months (Barreto et al., 2008). Also, the last study includes the clinical assessment of an expert evaluator, who finds a higher percentage, 22.7%, but without specifying the criteria on which it is based. In all cases, the other participants had uncomplicated forms of grief.

Studies using the symptomatic instruments, ICG and TRIG (Barreto et al., 2008; Estevan et al., 2016; Iribarne et al., 2002; Masferrer et al., 2016; Romero & Cruzado, 2016), show higher prevalence data. Between 6 and more than 12 months, the prevalence of complicated grief is between 19.1% (Barreto et al., 2008) and 53.03% (Romero & Cruzado, 2016), whereas the remaining participants show other forms of uncomplicated grief. The work of Masferrer et al. (2017) reports a percentage of 5% but only in the specific case of the control group of participants with losses of significant people, whereas the group of participants with substance addiction problems had a prevalence of 34.2%. The study of Iribarne et al. (2002) shows that participants in the gestational loss group had a significantly higher prevalence of complicated grief than the control group participants (24.6% *vs*. 19.4%).

Given the disparity in the data, the weighted average (based on sample size) of the total percentage data was calculated for this review, finding a complicated grief prevalence of 21.53%. If the results are divided among the studies based on symptomatic or diagnostic instruments, the weighted average is 28.77% for the former versus 10.68% for the latter, or 7.67% if the data from more outdated diagnostic criteria, such as the DSM-IV-TR or the PGD consensus criteria, are discarded[2].

Six of the 12 studies examined do not show prevalence data and only present mean scores on the ICG and TRIG grief scales. Four of these studies (Bermejo et al., 2012; Fernández-Alcántara et al., 2016; Camacho, 2013; Villacieros et al, 2014) find scores above the proposed cut-off point for the ICG (> 25; Prigerson et al., 1995). In the case of the TRIG, two studies (Crespo et al., 2013; Fernández-Alcántara

[1] In the DSM-IV-TR, complicated grief was included in the residual section "additional problems that may be the subject of possible clinical care".

[2] The percentage value detected in the clinical interview by an expert researcher () was excluded for the calculation of this weighted average because the detection procedure used is unknown.

et al., 2016) present mean scores in present grief that ranged from 28.5 to 47.8 points, scores below the average found in the Spanish adaptation of the instrument (present grief M = 51.95, SD = 10.21; García-García et al., 2005); whereas the study of Camacho (2013) shows a total mean score of 85.9 points, although it does not explain whether it refers to past or present grief symptomatology. The weighted average in studies using the ICG is 38.98 and for the TRIG, it is 50.91.

Risk factors affecting the prevalence and symptomatology of complicated grief

Socio-demographic variables

Although the study of Estevan et al. (2016) finds a higher percentage of women than men with complicated grief, the other studies examining this variable find no significant relationship between *gender* and this problem (Bermejo et al., 2012; Fernández-Alcántara et al., 2016; Masferrer et al., 2017; Rodríguez et al., 2012; Villacieros et al., 2014).

Two articles point out that there is no statistically significant relationship between the *age of the mourner* and the CG (Ridaura et al., 2017; Villacieros et al., 2014), and two others find no significant differences between the group with complicated grief and normal grief in this variable (Estevan et al., 2016; Masferrer et al., 2017). An inverse relationship between the *age of the deceased* and the symptomatology of complicated grief is observed (Estevan et al., 2016; Romero & Cruzado, 2016), which is not detected in two other studies comparing age groups of the deceased (Camacho, 2013; Rodríguez et al., 2012).

Although the study of Masferrer et al. (2017) shows that having a secondary education level acts as a protective factor against the development of complicated grief symptomatology, another study (Estevan et al., 2016) finds no relation with the educational level.

Three studies indicate that a *worse economic situation* is related to complicated grief (Barreto et al., 2008; Estevan et al., 2016; Romero & Cruzado, 2016) and two others confirm that unemployment situations are also related (Estevan et al., 2016; Masferrer et al., 2017).

Relationship of kinship and affective bond

Three studies find that spouses or parents have higher levels of complicated grief over time compared with the loss of other family members, such as parents or siblings (Bermejo et al., 2012; Crespo et al., 2013; Fernández-Alcántara et al., 2016); on the contrary, another study shows that the relevant variable is the loss of a sibling (Masferrer et al., 2017). In two other studies, there was no relationship between kinship and complicated grief (Estevan et al., 2016; Camacho, 2013).

The *intensity of the bond* or affective closeness between the mourner and the deceased is a relevant risk factor for the development of complicated grief in two studies (Barreto et al., 2008; Camacho, 2013), while two others do not show this association (Bermejo et al., 2012; Villacieros et al. 2014).

Type of death and time since death

One study (Masferrer et al., 2017) finds a significant relationship between a *traumatic death* and complicated grief, whereas another finds no relationship (Camacho, 2013). The study of Crespo et al. (2013) shows that not being able to say goodbye to the deceased and when the deceased dies outside the home has a significant effect on the symptomatology of complicated grief. This symptomatology is also higher in the case of *involuntary gestational loss* (Iribarne et al., 2002). Romero and Cruzado (2016) showed that the more time the deceased spends in *palliative care*, the less symptomatology of grief and the better adaptation is shown in the mourners within two months of loss and, in Estevan et al. (2016), complicated grief is more common in the mourners when the deceased suffered from a disease not susceptible to palliative care.

The *time-since-death* variable reveals conflicting data, as two studies suggest that the passage of time favours complicated grief (Crespo et al., 2013; Villacieros et al., 2014), but two others (Masferrer et al., 2017; Ridaura et al., 2017) find the opposite trend. Another study finds no difference between the time elapsed since the loss and the participants' complicated grief (Estevan et al., 2016), whereas another study finds stability in symptoms at 2 and 6 months (Barreto et al., 2008).

Psychological variables

The presence of pre-death psychological antecedents is significantly related to the diagnosis of prolonged grief in two studies (Barreto et al., 2008; Estevan et al., 2016), whereas, in another study, it is not significantly related (Romero & Cruzado, 2016).

Two studies find a significant relationship between complicated grief and depressive symptomatology (Camacho, 2013; Fernández-Alcántara et al., 2016), other works find that participants diagnosed with prolonged grief had significantly more depressive symptomatology (Romero & Cruzado, 2016) and more major depressive episodes than people with normal grief (Estevan et al., 2016). There is also a significant relationship between complicated grief and anxious symptomatology (Camacho 2013; Fernández-Alcántara et al., 2016), as well as one study that shows that mourners with prolonged grief have significantly more generalized anxiety disorders (GADs) (Estevan et al., 2016). Another study notes that participants with substance abuse disorders show more complicated grief than participants without such difficulties (Masferrer et al., 2017). Finally, one study finds a significant relationship between complicated grief and the presence of post-traumatic symptomatology (Fernández-Alcántara et al., 2016).

In addition, in three studies, participants with complicat-

ed grief consumed significantly more psycho-pharmaceuticals after the loss (Bermejo et al., 2012; Estevan et al., 2016; Romero & Cruzado, 2016); on the contrary, in another study, psycho-pharmaceutical consumption was a protective factor (Villacieros et al., 2014).

The presence of unresolved previous grief is a risk factor in Barreto et al. (2008), and Romero and Cruzado (2016) find that previous stressful vital events are related to grief symptomatology.

Emotion-focused coping strategies or resigned acceptance seem to be a risk factor for complicated grief, whereas problem-focused coping, pursuit of transcendence, or planning enjoyable activities are shown to be protective or facilitating factors for resilience (Barreto et al., 2008; Bermejo et al., 2012; Iribarne et al., 2002).

Social support and seeking professional help

Three studies show a negative relationship between complicated grief, social support, and satisfaction with such support (Estevan et al., 2016; Masferrer et al., 2017; Villacieros et al., 2014).

Finally, two studies (Estevan et al., 2016; Rodríguez et al., 2012) indicate that people with PGD needed significantly more professional attention.

Discussion

The results of this review show, firstly, the limited research on the complicated grief construct in Spain, taking into account that the review covers a total of 19 years, and only 12 studies were found on the prevalence or symptomatology of complicated grief in the adult population.

Secondly, one of the most striking aspects of this review is the lack of agreement about the diagnosis of complicated grief to be used, which directly affects the results, as symptoms and time frames vary significantly between diagnoses. In fact, in this review, studies range from one month to five years after the loss, which can lead to difficulties in comparing results.

The lack of agreement about the diagnosis also leads to great heterogeneity in the measuring instruments used, all of which results in wide variability in the prevalence rates found in this review. The weighted mean percentages calculated in this work show a percentage of 21.53% of complicated grief, much higher than that found in the recent meta-analysis of Lundorff et al. (2017) in which the prevalence was 9.8%. However, a second estimate of the weighted prevalence depending on the type of measuring instrument used yields a high percentage of complicated grief of 28.77%, only in studies using symptomatic instruments, compared with much more limited data, 7.67 – 10.68%, in studies using diagnostic instruments. Symptomatic measuring instruments are very useful in psychology research and, in fact, they are the most commonly used in the studies examined in this review, but they usually yield higher data because there is a simple and direct correspondence between the scale score and the presence and severity of the disorder. On the contrary, the polythetic criterion of diagnostic classifications is more demanding, as it makes it necessary to present a set of symptoms, under specific temporal and severity criteria, in order to refer to a disorder.

Concerning the risk factors associated with complicated grief, some of them, such as gender, have received more attention in Spanish research. Although there is no unanimity in the reviewed studies, most of them do not find a significant relationship between gender and complicated grief. This contradicts the results of previous studies, such as the meta-analysis of Heeke et al. (2017), which reports a positive association between PGD and the female gender, a result that has been replicated in recent research (Nielsen et al., 2019). However, this differentiation may be linked to the existence of different gender roles concerning the expression of emotions in the face of loss (Creighton et al., 2013).

Nor are there statistically significant relationships between the age of the mourner and complicated grief in any of the studies analysed. With regard to this variable, there have traditionally been two positions: the one that assumes that older people, having experienced more stressful life events, have developed effective coping strategies against losses (Rozakski et al., 2016), and the opposite trend that health problems associated with being older aggravate the symptomatology of grief (Lundorff et al., 2017). The results obtained in this review, although taken with caution given the number of studies considered, propose that the risk of loss would not depend so much on the time lived as on other variables. Income level or unemployment, for example, are shown as risk variables in the studies analysed, corroborating results from other international studies (Kersting et al., 2011).

Other aspects directly related to grief also seem to be noteworthy. This is the case of kinship with the deceased person. Although there is no unanimity, the results show that the loss of a child or a spouse could be associated with greater symptomatology of complicated grief, consistent with other investigations (Kersting et al., 2011; Nielsen et al., 2017). Perinatal loss, especially involuntary, is noted as especially difficult in some of the studies analysed and also in previous studies (Krosch & Shakespeare-Finch, 2017). The importance of the degree of kinship could have to do with the degree of affective relationship or the dependence between the mourner and the deceased, as other investigations have suggested (Coelho et al., 2016; Heeke et al., 2017). However, the results of this review are inconclusive in this regard. There does seem to be an inverse relationship between the age of the deceased and complicated grief. Given the natural course of life, the impact of losing a younger person is much greater and more difficult to assimilate, with some studies considering it as one of the most potent predictors of grief symptoms (Li et al., 2018).

Although the type of death is one of the most examined risk variables in previous studies, especially when it comes to

traumatic death (Kristensen et al., 2012), it is striking that several of the works examined do not even specify this variable. In addition, only the study of Masferrer et al. (2017) reports a significant relationship between traumatic death and complicated grief, coinciding with another systematic review (Burke & Neimeyer, 2013).

On another hand, although time has usually been considered to improve symptoms of normal and complicated grief (Neimeyer & Burke, 2011), two studies show this trend (Masferrer et al., 2017; Ridarura et al., 2017), while two others show a worsening of the pathology over time (Crespo et al., 2013; Villacieros et al., 2014). This worsening of grief could be considered to correspond to the characteristics of mourning, as the presence of normal reactions after a loss, such as denial or guilt, contribute to a process of avoidance, and negative automatic thoughts appear, which, if maintained over time, can interfere with the adequate comprehension of and coping with pain (Villacieros et al., 2014). In any case, the results of this review are inconclusive concerning the role of time, like the results derived from the meta-analysis of Heeke et al. (2017), where no significant relationship was found with this variable, in part due to the great symptomatological heterogeneity of the studies examined.

The comorbidity between complicated grief and other disorders has been extensively studied in the scientific literature, mainly indicating its relationship with Major Depressive Disorder and Post-Traumatic Stress Disorder (Heeke et al., 2017). In Spanish research, there is a relationship between complicated grief and depressive symptomatology, GAD, post-traumatic symptomatology, or substance addiction (Camacho, 2013; Estevan et al., 2016; Fernández-Alcántara et al., 2016; Masferrer et al., 2017; Romero & Cruzado, 2016) as found in other international studies (Marques et al., 2013; Mitchell & Terhorst, 2017; Parisi et al., 2019). Different authors state that this comorbidity may be due to the fact that complicated grief and anxiety, depression, or stress-related disorders share, among others, symptoms such as avoidance, intolerance of uncertainty, rumination, or hyper-arousal (Boelen, 2010; Schaal et al., 2012; Shear et al., 2011). The higher prevalence of complicated grief in people with substance addiction may relate to a higher history of loss in this population (Furr et al., 2015), and to the interference that consumption can have in the resolution of grief (Stroebe et al., 2006). Data on the consumption of psycho-pharmaceuticals found in this work are consistent with international data showing that patients with complicated grief present a significantly higher consumption of anxiolytics, hypnotics, or antidepressants than mourners without pathological grief (Shah et al., 2013). In fact, in the study of Shah et al. (2013), the risk of starting to use psycho-pharmaceutical drugs in the later moments and at two months of the loss was 14 times higher for anxiolytics/hypnotics (8.6% vs. 0.6%) and 6 times higher for antidepressants (1.8% vs. 0.6%). The risk of consumption of any psycho-pharmaceutical drug during the first year of loss was between 5.5 – 9.3%. This is significant, as evidence suggests that psycho-pharmaceutical use does not improve complicated grief symptomatology, whereas cognitive behavioural therapy or complicated grief treatment have shown better results (Mason et al., 2020; Shahane et al., 2018). Also, in the study that does show a protective effect of psycho-pharmaceutical use on complicated grief, the authors suggest taking these data cautiously and argue that psycho-pharmaceutical use could be considered an avoidance response that disrupts the proper processing of the loss (Villacieros et al., 2014), data consistent with the suggestions of other authors (Shah et al., 2013).

This review not only found risk variables for complicated grief, but also some protective factors. In this review, social support was shown to be one of the most important, also according to other studies (Heeke et al., 2017). It is necessary to highlight the protective capacity of pre-death palliative care found in this review. Palliative care is not only intended for the sick, as most units have specialist psychologists who offer help before and after the death to those close to the patient (Reverte et al., 2016).

Concerning the type of more adaptive coping strategies in the face of the loss of a loved one, focusing on the problem, planning pleasant activities, or seeking transcendence and spirituality are protective variables. The results found are consistent with other studies that highlight the facilitating role of religious beliefs in understanding or accepting death, providing comfort (Schaal et al., 2010), or the protective role of positive coping strategies such as positive reappraisal versus more dysfunctional negative self-focused strategies, such as self-blame, resignedness, or defencelessness (Tavares, 2016).

The results found in this review have a number of methodological limitations: 1) lack of probabilistic sampling and randomization, given the use of convenience samples; 2) most studies are cross-sectional, so this prevents us from establishing a temporal cause-and-effect relationship; 3) lack of consensus about the definition of complicated grief and even no specification of the concept used, making it difficult to compare grief reactions between studies; 4) the use of different measuring instruments to assess complicated grief, which report very different prevalence results, even within the same sample; 5) lack of uniformity about the time reference criterion, impeding the direct comparison between studies, as well as possible pathologization of normal reactions to loss; 6) great disparity in the categorization of the study variables related to grief; 7) lack of sample homogeneity, with female over-representation in most studies, which can bias the results found; 8) lack of specification of the type of death, ignoring the impact of this factor.

Following the completion of this work, a number of future lines of research are proposed that are considered important. Thus, it is recommended to try to advance in the uniformity and consensus regarding the concept of complicated grief, which will allow us to frame research within specific symptoms and criteria, thus favouring the understanding of this problem. Secondly, it is proposed to continue to

develop useful detection measuring instruments, based on a unified construct that will differentiate to the maximum mourners with and without significant difficulties, thus avoiding pathologization and over-diagnosis of normal reactions of grief. We also propose an increase in prospective studies, with larger sample sizes, which would allow causal relationships between complicated grief and associated risk factors to be established. Finally, we recommend expanding the type of deaths studied, not limiting them mostly to the study of grief in the face of natural death, in order to identify its influence on subsequent grief complications.

Conclusions

This paper is the first known study to have reviewed the scientific literature on the psychopathological research of complicated grief in Spain. Despite its limitations, it is possible to draw some conclusions:

1) There is little research on pathological grief in Spain, with a lack of specification and agreement regarding the specific diagnosis to be used.
2) The prevalence of complicated grief in the adult population in Spain can be estimated at 21.53%. This prevalence is much higher than the 9.8% data found in international reviews. The rate of 7.67 – 10.68% found when using diagnostic instruments is more similar and seems better adjusted.
3) Having financial difficulties or being unemployed, being a parent or spouse of the deceased, the youth of the deceased, and the presence of psychopathological antecedents, comorbidity with other disorders, and taking psychiatric medication are presented as the clearest risk factors for complicated grief in this review.
4) Social support, palliative care before death, and the use of problem-focused coping strategies, enjoyable activities, and transcendence, or spirituality are presented as the clearest protective factors against complicated grief in this review.

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