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# Bereavement and Substance Use Disorder

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## Abstract

In the present chapter, we focused on the relationship between bereavement and addiction, specifically among those patients who have a diagnosis of substance use disorder. Although bereavement research has advanced greatly in recent years, there are few studies on bereavement among the drug-dependent population. The substance use disorder population often report life stories marked by painful experiences and loss. Different studies have remarked on the relationship between bereavement and substance use. Highlighting the possible relationship between the loss of a significant person and a substance use disorder could help to build a theoretical background as well as to improve the dishabituating treatment in addiction centers.

**Keywords:** bereavement, grief, substance use disorder, alcohol dependence, cocaine dependence, heroin dependence

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## 1. Introduction

In this review, we focused on the association between bereavement and those people who have a diagnosis of substance use disorder (SUD). Carrying out an accurate review of what other previous studies had found on this subject is necessary to establish the basis for doing research on this topic. The current state of knowledge with respect to bereavement and having a diagnosis of SUD was the objective of this chapter. Bearing in mind the possible association between the loss of a significant person and SUD could be useful to describe a theoretical background, which enhances the addiction framework on which the dishabituating treatments rely on.

The mental illness of SUD is a biopsychosocial phenomenon [1]. Addiction involves problems at different levels, such as traumatic experiences during childhood [2], economic instability, unemployment [3], marital problems, accidents, court proceedings [4, 5], social exclusion [6, 7],

physical complications as well as medical complications, and high psychiatric comorbidity [8, 9]. Therefore, the SUD population is highly vulnerable than the general population and often presents life stories marked by suffering and loss.

Bereavement is a life-event that everybody experiences during their lives, but for some individuals, it is often associated with a period of intense suffering with an increased risk of developing mental and physical health problems [10]. Hence, when it happens to vulnerable people with psychiatric comorbidity, the result may be complications in the grief process. In this regard, different studies have reported a link between losing a significant person and drug consumption among substance users [11–13].

Both conditions (having an SUD diagnosis and having experienced a loss of a significant person) have implications in known brain mechanisms. Scientific evidence has suggested that not only does the use of substances cause changes in brain structure and functioning but it is also relevant to understand the influence of bereavement on a biological level. According to Luecken [14], parental death is a powerful early life experience with the potential to alter the development of biochemical, hormonal, emotional, or behavioral responses to the environment and later life stressors. Following the paragraph from Luecken [14]: “Maternally separated rodents and primates show neurobiological alterations that indicate permanently altered sensitivity to drugs of abuse and consume significantly more alcohol than mother-reared animals both before and after stress exposure” [15, 16], suggesting that disrupted care during development may form a neurobiological basis for vulnerability to substance abuse later in life. Cortisol dysregulations are also associated with the increased risk of substance abuse, externalizing and internalizing disorders, and behavioral precursors to illness [17, 18].

In this chapter, a review of the main quantitative studies related to these two complex topics, the diagnosis of SUD (especially alcohol, cocaine or heroin) and bereavement, has been carried out.

## 2. Relationship analysis between bereavement and addiction

Several authors have noted the possible relationship between the loss of a significant person, complications in grief, and substance abuse [11, 13]. This section showed the results of the review of quantitative scientific literature about the relationship between the diagnosis of an SUD (especially alcohol, cocaine, or heroin) and bereavement.

**Table 1** described the quantitative studies, which have analyzed the relation between bereavement and SUD. The columns specify: the authors and the date of publication, the type (where “B” means bereavement and “SLE” stressful life events where bereavement was included as a specific SLE), the objective of the study, the sample characteristics or participants, the instruments used, and the main results indicating if there is an evidence of the relationship between bereavement and addiction.

The aspects and variables contemplated and analyzed in different investigations are numerous. As can be seen from the table, the main variables studied were:

Authors (Date) Country	Type*	Purpose of study	Sample characteristics	Method	Results (Is there any evidence of a relationship between loss and addiction?)
Birtchnell [24] UK.	B	Examine the prevalence of parental death	N = 6795 patients aged 20 or over N = 3425 of control group	The psychiatric sample was interviewed and the control group answered a post survey	Yes, relationship between early parental death and alcoholism was found only in female patients. The diagnosis most significantly associated with early bereavement was among the depressives and the alcoholics
Blankfield [26]. Australia	SLE&B	Assess the different ways in which loss effected patterns of alcohol consumption	N = 50 alcoholic patients (aged from 19 to 61 years) "Loss" included: death, separation, or divorce and unexpected losses	MAST	Yes, loss can affect the pattern of alcohol consumption. The onset of alcoholism after loss could perhaps reflect a precipitant factor which unmasks the predisposition in a stable phase of the individual concerned
Blankfield [20]. Australia	B	Examine the patterns of establishment of alcohol dependence in widows	N = 37 widows who had not remarried. N = 85 nonwidows	MAST	Yes, the older women with no family history or the women with an alcoholic spouse have a higher risk factor
Bowser et al. [29]. USA	B	Ascertain the relationship among intravenous drug users between high levels of HIV risk-taking and both a) death of significant others experienced before age 15 and b) unresolved mourning	N = 592 participants (out-of-treatment intravenous drug users) (71.4% male) (Aged from 19 to 67) Primary losses = before 15 years	CFBQ/CIDUS	Yes, relationship between death and addiction was shown. Unexpected deaths experienced early in life and inadequate mourning as factors in progressively higher adult HIV risk-taking. 26.4% experienced one or more sudden deaths of adult family members before age 15. Significant relationship between those who under-mourned and being sexually abused as children. The earlier deaths respondents experienced, the higher was their sex trading. Those with incomplete mourning

Authors (Date) Country	Type*	Purpose of study	Sample characteristics	Method	Results (Is there any evidence of a relationship between loss and addiction?)
Dennehy [23]. UK	B	Determine the incidence of bereavement, that is, loss of a parent by death, in a psychiatric population	N = 1020 patients from 3 psychiatric hospitals (433 men and 587 women) diagnosed as depressive, schizophrenic, alcoholic and drug addicted and other	Interview	had the highest level of heroin and cocaine injection Yes, significant incidence of parental death and addictions were found. There was a significant incidence of death of mother under 15, but no significant loss at a particular age was seen. Male alcoholics also showed an excess of loss of father between the ages of 10–15. Among the drug addicted, there was significant excess of loss of both parents of female drug user before the age of five
Furr et al. [28]. USA	B&SLE	Examine the self-reported losses experienced throughout life in individuals currently receiving treatment for SUDs	N = 68 addicted patients divided into: adult residential program (n = 14); substance abuse comprehensive outpatient (n = 6); substance abuse intensive outpatients (n = 34) and aftercare (n = 14)	Experience of loss in Addictions Inventory	Yes, loss was an issue that may appear during any phase of addiction counseling but authors are prudent and avoid establishing causal relationship
Furukawa et al. [36]. Japan.	B	Examine the relationship between early parental loss and subsequent development of alcohol dependence among Japanese men	N = 75 men with alcohol dependence in treatment N = 52 healthy controls without any lifetime psychiatric disorder	PISA	No relationship between childhood parental loss and alcohol dependence was found. When stratified for sex and age, there was no statistically significant difference between the patients and the controls in the rates of maternal or paternal death or separation before the age of 16 years
Hamdan et al. [34]. USA.	B	Examine whether the incidence of alcohol and substance abuse is higher in parentally bereaved	N = 235 youth participants whose parents died of suicide, accident or sudden natural death	Longitudinal population-based study. Validated scales covering	No, the relationship between parental bereavement and pathological youth alcohol and

Authors (Date) Country	Type*	Purpose of study	Sample characteristics	Method	Results (Is there any evidence of a relationship between loss and addiction?)
		youth and, if so, what might explain this increased incidence	N = 178 demographically similar nonbereaved youth	psychopathology, self-esteem, social support and ways of coping	substance use was not statistically significant. However, bereaved youth had an increased incidence at an earlier time to onset of SUD relative to nonbereaved controls. Bereaved youth were at a greater risk of SUD than their nonbereaved counterparts
Hilgard and Newman [22]. USA.	B	Determine the prevalence of parental loss by death in childhood among schizophrenic and alcoholic patients compared with a nonpatient community sample	N = 1561 schizophrenic patients (631 males and 930 females) and N = 929 patients (678 males and 251 females); N = 1096 (478 males and 618 females) for control group All participants aged between 20 and 40 years	Control survey Alcoholics admission records	Yes, results established certain relationships between parental loss in childhood and the development of mental illness in adult life. Statistically significant difference in the incidence of death of both parents between young male alcoholics (aged 20–29) and the controls but no significant difference in the rate of death of either father or mother between older alcoholics and the controls
Kaplow et al. [19]. USA.	B	Examine the potential differences in the presence of psychiatric symptoms between parentally bereaved children, children who experienced the death of another relative and nonbereaved children	N = 172 parent-bereaved youth; N = 815 youth who experienced the death of another relative; N = 235 nonbereaved youth, aged 11–21 years	C-GAS/CAPA	Yes, a greater proportion of bereaved youth showed drug problems after the loss. SLE may lead to substance abuse through individuals' poor coping skills and vulnerability to depression
Kendler et al. [21]. USA.	B&SLE	Examine the impact of parental loss due to death and separation on risk for major depression (MD) and alcohol dependence (AD).	N = 5070 twins participants from same-sex and 2118 participants from opposite-sex twin pairs ascertained from a population-based registry	Cox Proportional Hazard and Nonproportional Hazard models	Yes, relationship between parental loss and alcoholism was demonstrated. Consistent sex differences in the association with parental loss were seen for Alcohol Dependence but not Major Depression. Parental separation was associated with a substantially increased risk for Alcohol

Authors (Date) Country	Type*	Purpose of study	Sample characteristics	Method	Results (Is there any evidence of a relationship between loss and addiction?)
Masferrer et al. [27]	B	Explore the loss of a significant person	N = 196 SUD patients	Self-constructed questionnaire	Dependence in females but not in males. The loss in childhood of a parenting figure due to death does not appear to be pathogenic for Alcohol Dependence. Yes, 83.2% patients stated that after suffering the loss, they increased drug consumption.
Masferrer et al. [42]	B	Determine the presence of CG symptoms among an SUD sample	N = 196 SUD patients N = 100 control patients	ICG	Yes, the presence of CG symptoms was 34.2% among SUD patients in comparison to 5% in the control group
Murphy et al. [33]. USA	B	Analyze if loss has a role in those alcohol dependent people who died by suicide	N = 50 participants postmortem description	Interview the nearest available relative (the spouse of the victim mainly) in 2 phases.	Yes, loss as a predictor of suicide among alcoholics. 26% of alcoholics had experienced a loss of close interpersonal relationship within 6 weeks of their death and 50% for the entire year
Pilling et al. [30]. Hungary	B	Analyze the relationship between bereavement and alcohol consumption accounting for time and gender differences on a national representative sample	N = 466 participants (aged 18–75 years) who had lost a close relative in the past 3 years	Slightly modified Hungarian version of AUDIT	Yes, a link between bereavement and alcohol problems was found. Among bereaved men, the risk of alcohol related problems tends to be higher (than nonalcohol)
Risser et al. [25]. Austria	B&SLE	Describe family characteristics of drug-related deaths	N = 51 (have experienced at least one drug overdose and 53% of them had contact with therapeutic institutions)	Interviews with relatives of deceased drug users	Yes, there was a relation between SLE and drug abuse. 80% of drug users were reported to have experienced a traumatic event (parents' divorce or the death of a parent) during their childhood). The Mean age at death was 24.6 years. Those who experienced a traumatic event during their childhood started to smoke earlier.

Authors (Date) Country	Type*	Purpose of study	Sample characteristics	Method	Results (Is there any evidence of a relationship between loss and addiction?)
Rugani et al. [31]. Italy	B&SLE	Assess the life events (loss and traumatic) before and after the dependence age of onset (DAO) and their responses to these events	N = 82 heroin-dependent patients in treatment (aged from 17 to 61 years)	DAH-RS/TALS-SR	<p>Drug abuse may be an indication of dysfunction within the family system.</p> <p>Yes, SLE and addiction was linked. Loss events and potentially traumatic events were present, and tend to increase, in passing from the before- to the after- DAO period. During the before-DAO period, "the death of a close friend or relative," "divorce" and "being neglected or abandoned" were rated by patients as the most important events. Exposure to SLE seems to strongly increase the risk of becoming drug-addicted.</p>
Stikkelbroek [37]. Netherlands	B	Examine association between parental death during childhood and adult psychopathology	N = 7076 participants (aged from 18 to 64 years)	CIDI/ MOS-SF-36 Cross-sectional and prospective study	<p>No, few indications that there was a significant increase in mental disorders in adulthood after the death of a parent during childhood. A small decrease was found in the lifetime prevalence of substance abuse for parentally bereaved compared to no parental bereavement. Parental death before the age of 16 was not associated with a younger age of onset of mental health problems.</p>
Tennant & Bernardi [35]. Australia	B&SLE	Examine if both narcotic users and alcoholics are more likely to have experienced the death of a parent or prolonged separation from one or both parents in childhood than a control group of nonaddicts	N = 70 heroin dependent patients and N = 40 alcohol dependent in treatment N = 123 controls (patients and accompanying relatives)	MiniMental State Examination/ Zung Depression Inventory/PBI	<p>Yes, there was a relationship between loss and alcoholism, although it was not significant. More alcoholics and addicts reported maternal loss than controls (no statistical difference). Separations from both parents</p>

Authors (Date) Country	Type*	Purpose of study	Sample characteristics	Method	Results (Is there any evidence of a relationship between loss and addiction?)
Wilcox et al. [32]. USA	B	Examine the risk of suicide, psychiatric hospitalization, and violent criminal convictions among offspring of parents who died from suicide, accidents, and other causes	N = 44,397 offspring of suicide decedents, N = 41,467 offspring of accident decedents, N = 417,365 offspring of parents who died by other causes, and N = 3,807,867 offspring of alive parents	Population-based data from multiple Swedish national registers were linked from 1969 to 2004.	<p>were significantly more common in both alcoholics and addicts than in controls. However, parental deaths were not associated with addiction</p> <p>Yes, parental deaths were linked with addiction. Offspring of suicide decedents had an especially high risk of hospitalization for suicide attempt. Child survivors of parental suicide were at particularly high risk of hospitalization for drug disorders and psychosis</p>

MAST = Michigan Alcoholism Screening Test; CIDUS = Collaborative Intravenous Drug Users Study questionnaire; CFBQ = The Coleman Family Background Questionnaire; PISA = psychiatric initial screening for affective disorders; C-GAS = Children's Global Assessment Scale; CAPA = Child and Adolescent Psychiatric Assessment; ICG = Inventory of Complicated Grief; AUDIT = Alcohol Use Disorders Identification Test; DAH-RS = Drug Addiction History Rating Scale; TALS-SR = Trauma And Loss Spectrum-Self Report Instrument Questionnaire; CIDI = Composite International Diagnostic Interview; MOS-SF-36 = Medical Outcomes Study Form-36; PBI = Paternal Bonding Instrument.

\* Type of article: B = bereavement; SLE = stressful life events.

**Table 1.** Quantitative studies about the relationship between bereavement and addiction.

- a. *The family relationship or proximity to the deceased person.* Most studies identified the loss of significant people, such as the father, the mother, or the husband. One example of these studies is a longitudinal epidemiological study, which examined differences in psychiatric symptoms between young parents (N = 172), youth who experienced the death of another relative (N = 815), and non-mature youth (N = 235). A large proportion of bereaved youth showed drug problems after the loss. According to the results, the impact of parental death on children must be considered in the context of pre-existing risk factors [19]. Some years later, Blankfield [20] conducted further research comparing similar age-grouped widows (n = 37) and nonwidows (n = 85) who were in treatment in a unit of alcohol dependence. The results suggested that the widows of alcoholics who had unresolved marital conflicts or who become socially isolated are more vulnerable to abnormal grief responses. She pointed out the premorbid personality style (more solitary lifestyle) as a risk factor for complications afterwards. On the other hand, the death of an alcoholic spouse could be a more powerful factor than family history in triggering the same dependence for their widows or social isolation for others.
- b. The *gender* of people who have suffered loss is also a variable that has been very important in many studies and has contributed different results, as Kendler points out [21]. Consistent sex differences in the association with parental loss were seen for alcohol dependence. For example, Hilgard and Newman [22] compared the incidence of death of a parent among 929 alcoholic patients from a state hospital and 1096 controls from a community nearby. They found a statistically significant difference in the incidence of both father and mother death between young male alcoholics and controls. Dennehy [23], comparing the data for 1020 psychiatric patients (depressive, schizophrenic, alcoholic, drug addicted, other) with the expected incidence of loss of parents calculated from the data census, found that there was a significant incidence of death of mother for those who were under 15 at the time. Male alcoholics also showed an excess of loss of father between the ages of 10–15. Among the drug addicted, there was significant excess of loss of both parents of female drug users before the age of 5.
- c. The *age at the time of loss* of the person has been a very frequently studied factor. In this sense, losses at early ages seem to have a very important impact on the evolution of people in relation to addiction problems and other disorders. This is the point obtained from the research carried out by Birtchnell [24], involving patients with various psychiatric diagnoses (depressive, neurotic, psychotic, alcoholic and personality disorders) and a control group drawn from the general population. The author found that early morning affected only female patients. The diagnoses most significantly associated with early bereavement were depressive and alcoholism. The most crucial period for parenting was age 0–9 years old. Risser et al. [25] stated that 80% of addicted patients had experienced at least one traumatic event during their childhood (mean age at the event was 7.8 years), such as the loss of a parent or parents' separation. Also, those patients who experienced a traumatic event during their childhood began to smoke at a significantly lower age.
- d. *Impact on substance consumption patterns.* In some studies, such as Blankfield [26], the different ways in which grief-affected patterns of alcohol consumption was analyzed.

After assessing 50 inpatients of an alcohol and drug treatment center, it concluded that the loss can influence the pattern of alcohol consumption in different ways as the intake can be started, remain unaltered, increase, or even decrease. She also described that the onset of alcoholism after loss could perhaps reflect a precipitating factor that unmasks the predisposition in a stable phase of the individual concerned. Moreover, 83.2% of SUD patients (alcohol, cocaine, and heroin dependence) stated that after suffering a loss of a significant person, they increased drug consumption [27]. On the other hand, Furr et al. [28] differentiated between different types of losses: losses prior to addiction, losses while abusing substances, and losses associated with entering treatment. They interviewed 68 addicted patients using a self-report instrument. They concluded that the loss was an issue that may appear during any phase of addiction counseling but authors are prudent and avoid establishing causal relationship.

Moreover, some results also emphasized the fact that substance use was a strategy used as a coping mechanism in certain traumatic vital circumstances. According to Bowser et al. [29], drug abusers may be people with a variety of background traumas and these accumulated traumas, and respondents and their families' inability to deal with or process emotions, were what motivates their self-medication and extremes in life-threatening and risk-taking behavior. In this regard, they reported that 26.4% of 592 participants experienced one or more sudden deaths of adult family members before the age 15. The same research showed that those drug dependent people with incomplete mourning had the highest level of heroin use and injection of cocaine. According to the study, almost half of the respondents (48%) used heroin as an adaptive attempt to regulate and control high anxiety at the same time as a way of managing stressful life events. Related to stressful life events, the authors claimed a significant relationship between those who under-mourned and being sexually abused as children. Moreover, the earlier the death that respondents experienced, the higher was the likelihood that they would become involved in the sex trade.

- e. The *type of substances* consumed has also been studied. Different studies have focused primarily on alcoholism and have found a link between bereavement and alcohol problems. Among bereaved men, the risk of alcohol-related problems tends to be higher than nonalcohol [30], although other types of drugs have undergone a study. Among the heroin-dependent patients sample, loss events and potentially traumatic events were present and tend to increase in passing from the before- to the after-dependence age of onset period. During the prior-dependent age of onset period, "the death of a close friend or relative," "divorce," and "being neglected or abandoned" were rated by the patients as the most important events. Exposure to stressful life events is associated with an increase in the risk of becoming drug addicted [31].
- f. *Suicide*. At this point, we can include aspects related to the way the person died, such as the study by Wilcox et al. [32], which showed that parentally bereaved youths were found to show higher rates of alcohol and substance abuse symptoms than their nonbereaved counterparts. The results described the association between parental death and addiction. Offspring of suicide decedents had an especially high risk of hospitalization for suicide attempt. Child survivors of parental suicide were at particularly high risk of hospitalization for drug

disorders and psychosis. From another aspect, the loss could be a predictor of suicide among alcoholics, as noted in the study by Murphy et al. [33], in which 26% of alcohol dependent patients who died by suicide had lost a close interpersonal relationship within the previous 6 weeks and 50% during the whole previous year.

Previous studies described relationships between loss and mourning, in different analyzed variables, but the data was controversial because it is also important to indicate studies that did not find this association, or found that it was very weak [21, 34]. For example, Tennant and Bernardi [35] studied 40 alcoholic patients who were admitted to a specialized in-patient facility and 123 controls attending general medical practitioners and found that childhood parental loss through separation but not through death, was significantly more common among alcoholics than in controls. Some authors have also reported nonsignificant associations between parental death and alcoholism [21, 36]. In a Japanese study, Furukawa et al. [36] examined the relationship between early parental loss and subsequent development of alcohol dependence among Japanese men. They did not find a statistically significant difference between patients and controls in the rates of maternal or paternal death or separation before the age of 16. Along the same lines are the results of the Hamdan study [34], in which the relationship between parental bereavement and pathological youth alcohol and substance use was not statistically significant. However, unemployed youth had an increased incidence and an increased risk of SUD than their nonbereaved counterparts.

More recently, Stikkelbroek et al. [37] found few indications that there was a significant increase in mental disorders in adulthood after the death of a relative during childhood. A small decrease was found in the prevalence of alcohol abuse for the parentally bereaved compared to no parental bereavement. Parental death before the age of 16 was not associated with a younger age of onset of mental health problems.

It is highly important to bear this information in mind because, as different retrospective studies [19, 32, 36] point out, the circumstances surrounding parental loss, including economic privation, conflict, parental hostility, neglect, distress, and disruption are more important in the prediction of psychopathology than parental bereavement *per se*. When looking for risk factors, a multidimensional perspective must be taken, examining both individual and family variables [38]. For example, there is evidence that the lack of adequate parental care following the death is a more powerful predictor of later adult impairment than the simple fact that a parent has died [39]. Further investigation will be needed to establish consistent patterns of parental deprivation and that such patterns *per se* may not indicate exact modes of causation, but may well be of considerable etiological significance when taken in conjunction with other objective factual data [40].

### **3. Limitations of the quantitative studies**

When arriving to this point, it is clear that the subject we are dealing with has great theoretical and methodological complexity. For example, the different terminology used relative to bereavement, such as grief or abnormal grief responses, as Blankfield [20] pointed out.

Despite the fact that we can find some recent research, some of the articles are from the late 70s and 90s. For this reason, dated studies also affect the concept and model of bereavement. In the few studies where the conceptual framework is defined, this is based on the popular model of Kubler-Ross stages [41]. Today, different limitations of models based on stages are well known.

At the methodological level, in many of the presented studies, there is a comprehensive and detailed description of both the sample and the procedure or statistical analysis. In this sense, it is worth noting that there are few studies that consider the relationship between these two constructs: SUD and bereavement. On the other hand, it should also be pointed out that in some cases they are evident and that some studies present some problems of scientific rigor and validity. Due to the characteristics of SUD patients, it is difficult to collect data, so some studies presented small size of the samples. As Hilgard and Newman [22] pointed out, some studies were characterized by poorly defined and incomplete samples.

In relation to the assessment of different variables, the psychometric tests assess the psychopathology, personality, alcohol and drug use or dependence, self-esteem, social support, coping strategies, trauma-life history, and paternal bonding, but in general there is a lack of information about the measurement of bereavement. Few studies have measured the symptoms of complicated grief, except Masferrer's research [42], in which 34.2% of SUD patients reported symptomatology of CG.

Another technique used which can cause a bias is retrospective call, as Hilgard and Newman [22] described. This outlines the different hazards involved in using old hospital records to derive statistical information and also the retrospective call depends on participants' memories, which could be different from reality.

Another important aspect to note is that, as Gregory [40] summarized, it is very common for the control groups to have been casual (medical students, hospital orderlies, not equated for age, sociodemographic factors that could be important). In most of the cases, the main characteristics of the sample are defined by two categories: (a) patients, which means that the person is attending a treatment and (b) participants, people who are not attending any treatment. This categorization may not identify addiction cases. They are not receiving treatment and may be included in a control group if this variable is not controlled in some way.

Locations of the vast majority of the studies cited were in the U.S.A. Six research studies were from Europe. Only one study was from Japan and two from Australia. This point is closely related to cultural variables that can be involved, both in relation to consumption and loss. More transcultural research on this topic is needed.

In many of the studies presented, a deterministic vision could be obtained, in the sense that a linear and direct relationship between loss and addiction were described. Therefore, it is essential to be cautious with the interpretation of the outcomes. It should be remembered that an SUD diagnosis is much more complex, complicated, multifactorial, and even dynamic than simple cause-effect relationships. In this regard, the studies do not consider other etiologic factors involved in addiction, so it is relevant to take into account the limitations from a reductionist point of view. From a psychodynamic approach, addiction is understood as a

secondary phenomenon as a symptom and not as a mental disorder itself. In this sense, there is a danger of diminishing, minimizing, or downplaying all that addiction entails.

Following Furr et al. [28] and Beechem [43], it is also important to distinguish between **different kinds of losses**: prior to SUD diagnosis, while abusing substance and those losses associated with entering addiction treatment centers. Moreover, some studies focus on bereavement **before** SUD diagnosis. It will be important to consider also bereavement during the SUD process.

However, despite the shown limitations of these studies, we cannot underestimate them because each of them includes a contribution to the complex, complicated, and difficult field of addiction treatment.

## 4. Conclusion

This review presents different research studies which show the relationship between stressful life events and addiction over a wide range of years of publication. The majority of the revised quantitative studies support the hypothesis that there is evidence of a relationship between bereavement and addiction. According to Rugani et al. [31], the addiction might be affected by traumatic life events but it also has an impact on their development. Highlighting the possible relationship between the loss and the SUD could help to build a theoretical background. At a therapeutic level, it would be useful to take into account the bereavement of a significant person to improve the dishabituation treatment. However, a few of the studies [21, 34, 36–37] showed no relation between these two constructs. More research is needed to support and describe the bereavement phenomenon related to the addiction framework to support the inclusion of grief psychotherapy for those patients at risk of developing CG symptoms in addiction treatments.

Considering the studies shown, we can conclude that loss could have a role in the process of addiction. Because loss can have different influences on the pattern of drug consumption (precipitating the initiation of consumption, intake remaining unaltered, increasing or decreasing), it is important to be cautious. Loss could be a factor but more research is needed to clarify what kind of factor it is [26].

It would be significant to be able to understand the specific interplay of bereavement in the patient's personal situation and hopefully be able to develop even more effective and personalized treatment for each specific personal situation [44].

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## Conflict of interest

The authors declare that they have no conflicts of interest.

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