

Review

Emptiness and suicidal behavior: an exploratory review

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Abstract: Although emptiness is usually considered a critical issue in the suicidal process, there is surprisingly little empirical research on the relationship between emptiness and suicidal behavior. The major aim of this exploratory review is to examine the relationship between emptiness and suicidal behavior. To this end, four databases (PsychInfo 1806–August 2011, Medline 1966– August 2011, Cochrane Library 2005–August 2011, and Psychoanalytic Electronic Publishing (PEP) system) were searched. Firstly, the conflicting issues around the concept of emptiness are examined. Emptiness can be differentiated from other closely related symptoms (i.e. hopelessness and loneliness) frequently present in patients displaying suicidal behavior. And secondly, we examined the relationship between emptiness and suicidal behavior. Further empirical research is warranted to extend our knowledge on the relationship between emptiness and suicidal behavior.

Keywords: emptiness, suicide, hopelessness, loneliness

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*“[...] to wish nothing, to feel nothing, to sleep
and go on sleeping, that today is my only wish. [...]”*
- Jean-Paul Sartre

Emptiness has traditionally been considered a symptom of depression (Trull, 1991) and borderline personality disorder (BPD) (Klonsky, 2008). Chronic feelings of emptiness are the seventh criterion for the DSM-IV BPD diagnosis (Klonsky, 2008). Alongside

inappropriate anger and affective instability, it is one of the core symptoms of borderline patients (Stoffers, et al., 2010). From a clinical standpoint, emptiness is a relevant clinical issue in suicide-related phenomena (Klonsky, 2008). For example, Schnyder et al. (1999) reported that emptiness frequently precedes suicidal behavior (SB). Some researchers have considered that emptiness is one of “the strongest precipitating factors in self-killing” (Eskin, 2004). In a series of recent publications, we confirmed the relevance of chronic feelings of emptiness (Blasco-Fontecilla et al., 2012; Delgado-Gomez et al., 2011; Delgado-Gomez et al., 2012). Quite surprisingly, there is little literature and empirical research on the relationship between emptiness and SB (suicide attempts and completed suicide). For example, a simple, unrestricted search in

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the PUBMED (date: July 24th 2012) using the terms “emptiness” and “suicide” yielded 21 entries. The same search using the terms “hopelessness” and “suicide” yielded 893 results.

Several reasons may explain the lack of studies addressing this relationship. First, the concept of emptiness has been used interchangeably with similar concepts such as hopelessness, loneliness, isolation, and boredom (Klonsky, 2008). Second, not all patients can easily understand the concept of emptiness (Segulin & Deponete, 2007). In a sample of fifty elderly patients evaluated with the Geriatric Depression Scale (GDS)-Short form, 8% did not understand the concept of emptiness (Flacker & Spiro, 2003). Third, research of SB has been centered on the study of some personality traits, namely impulsivity and aggressiveness, and hopelessness (Mann et al., 1999), whereas relatively little attention has been given to emptiness.

Given that emptiness is an important construct to SB, and there is a lack of information, we aimed to review the current evidence addressing the relationship between emptiness and SB. The first section of this review deals with conflicting issues around the concept of emptiness. In the second section, the relationship between emptiness and SB is specifically addressed.

Method

In order to explore the available literature, we initially performed a PUBMED unrestricted search using the term emptiness and the truncated term suicid*, which includes suicide, suicide attempts, suicidal behavior, suicide ideation, and other suicide-related terms (entered: July 24th 2012). Since the search yielded only 29 articles and some were not related to the topic of review, we subsequently expanded our search using two other databases: the Cochrane Library (for systematic reviews) with search limits set from 2005 to July 2012, and PsychINFO from 1806 through July 2012. We searched using the terms “suicide” and “emptiness”. Again, we obtained a limited number of studies considering the relationship between emptiness and suicide. Thus, we broadened our search by using concepts related to emptiness (e.g. boredom) and suicide (eg. self-harm*). We performed the following searches in PUBMED (date of search: 18th august 2012) (n=number of entries): Boredom AND suicid* (n=18); Void AND suicid* (n=18); Aloneness AND suicide (n=4); “Mental pain” AND suicid* (n=16); Psychache AND suicid*: (n=15); “Psychological pain” AND suicid* (n=37); empt* AND “Psychological autopsy” (n=0); hopel* AND “Psychological autopsy” (n=6); Isolation

AND suicid* (n=961); and Loneliness AND suicid*: (n=220); Emptiness AND Self-harm* (n=6).

Given that the concept of emptiness is common in psychoanalytic thinking, we approached the Psychoanalytic Electronic Publishing (PEP) system, which allowed us to search the most relevant psychoanalytic and psychodynamic literature. Again, we performed the following searches (performed: March 14th 2013): “emptiness” AND “suicide” (n=41), “emptiness” AND “suicidal behavior” (n=3), “emptiness” AND “suicidality” (n=3), and “emptiness” AND “self-harm” (n=4).

In addition, one of the authors (HBF) performed a manual search of all available, relevant articles published in the last five year in the following journals: Psychological Medicine, British Journal of Psychiatry, American Journal of Psychiatry, Archives of General Psychiatry, and Suicide and Life-Threatening Behaviour for the last five years. The journals were selected according to its relevance to the topic of review and physical availability. Furthermore, the same author also carried out an online search of these two journals: Crisis and Archives of Suicide Research (past 5 years). Finally, an internet search using the Google scholar motor search (search terms: suicide/suicidal/self-killing, and emptiness/Mental vacuum) was carried out, and the ten most relevant pages were reviewed to retrieve complementary information.

All relevant papers written in languages in which the authors were competent (English, Spanish, Portuguese, and French) were considered. English abstracts of any study written in a language apart from these previously mentioned were also used.

The scarce number and heterogeneity of studies prevented us from statistically pooling, and therefore the studies are presented in a narrative format. This strategy has previously used (Bagley, Munjas, & Shekelle, 2010).

Results and Discussion

The present study reviews the relationship between emptiness and SB. With the honorable exception of the study published by Klonsky (2008), the majority of studies tangentially tackled this relationship. Some of the articles analyzed were case reports with a strong psychoanalytic flavor (Daniels et al., 2007; Furst & Ostow, 1965; Gunderson, 2004; Kramer, 2002; Lindner, 2010; Ubaldo, 2003), such as the psychological autopsy of Hemingway (Martin, 2006). The first section of this review paper is focused on several conflicting issues regarding the concept of emptiness. The second section addresses the relationship between emptiness and SB.

Table 1. Main studies addressing the relationship between emptiness, self-harming, and suicidal behavior.

Authors	Sample	Design	Main results
Chesley, 2003	50 patients with a history of SB	Retrospective descriptive	Emptiness was one of the emotions most frequently experienced in the aftermath of a suicide attempt
Schnyder et al., 1999	30 suicide attempters	Descriptive	Emptiness, alongside with despair, was the most often reported emotional state preceding suicide attempts according to the patients, whereas feelings of powerlessness/hopelessness and despair were mentioned most frequently by doctors and nurses
Klonsky, 2008	Analysis 1: 45 young adults (35 women, 10 men) with a history of NSSI*	Descriptive (part of a larger screening study)	67% reported feeling of emptiness before engaging in self-injury, and 47% after self-injury
	Analysis 2: 274 psychology college students	Descriptive	Emptiness was more strongly associated with suicidal ideation than any other BPD** -except the suicide/self-mutilation-criterion- Chronic emptiness was the third most important BPD criterion for a patient to have a history of suicide attempt, as it was solely surpassed by the self-mutilation/suicidal criterion and impulsivity
Chia et al., 2008	398 (23%) suicide letters from 1,721 Singaporean suicides	Analysis of suicide letters (completed suicides)	Negative emotions were present in 45% of suicide letters. Despondency=agony (60%) and emptiness (25%) were the most frequent negative emotions
Lindner, 2010	Five old men	Qualitative (psychoanalytical)	Feelings of emptiness was critical for developing suicidal behavior
Delgado-Gómez et al., 2011	879 subjects (345 suicide attempters, 384 healthy blood donors, and 150 psychiatric inpatients without a history of SB)	Case-Control	Chronic feelings of emptiness were more closely related to suicide attempter status than impulsivity
Blasco-Fontecilla et al., 2012	687 subjects (249 first-time suicide attempters, 357 healthy healthy blood donors, and 81 psychiatric inpatients without a history of SB)	Case-Control	Chronic feelings of emptiness was the most relevant personality factor to identify suicide attempters

*NSSI: Non-suicidal self-injury, **BPD: Borderline Personality Disorder

Conflicting issues around the concept of emptiness.

A preliminary step to addressing the relationship between emptiness and SB is the consideration of some of the conflicting issues around the term emptiness. First, the definition and boundaries of emptiness are blurred. Emptiness can be defined as a human condition related to a sense of boredom, apathy, and social alienation. Recently, it has been suggested that emptiness is a polyhedric, multi-faceted term, and a frequent human experience (Peteet, 2011). Additionally, emptiness has also been considered as a defense (LaFarge, 1989), an existential state (Cushman, 1990), an emotion (Martin, 2006; Schnyder et al., 1999) or even as a personality trait (Verkes et al., 1998). It is a symptom included in some scales measuring depression (e.g. The Zung Depression Scale) (Backon, 1990; Kivela et al., 1986), and broadly considered as a part of the human condition (Cushman, 1990). This seems to be particularly true in Western countries where BPD and narcissistic personality disorder (PD) are epidemic. This is not surprising given that both disorders are characterized by a deep sense of emptiness and could be considered the psychopathological paradigm of the post-World War II era in Western countries, in contrast to the hysterical disorders typical of the Freudian Victorian era (Cushman, 1990; Lazartigues et al., 2007). In addition, either patients or clinicians also perceive some psychotic states as emptiness. In fact, emptiness was considered the third most common concept of cognitive deficits of schizophrenia by 40 American psychiatrists (Bromley, 2007).

Second, chronic emptiness is a frequent and specific, but not exclusive, symptom of BPD. Individuals more frequently affected by feelings of chronic emptiness (e.g. borderline, narcissistic) are more prone to experience acute emotional crises, which worsen their chronic emptiness therefore increasing the risk of SB (Peteet, 2011; Singer, 1977). This is skillfully exemplified in Flaubert's Emma Bovary fictional character (Mitchell, 1987; Schumker, 1989). Around 70% of patients diagnosed with BPD present chronic feelings of emptiness, whereas only 26-34% of psychiatric patients without BPD display chronic emptiness (Grilo, et al., 2001; Johansen et al., 2004). When considered a personality trait, emptiness is one of the most stable characteristics of BPD. In a follow-up of 290 BPD patients, loneliness and emptiness were among the symptoms analyzed that did not decrease with time (Zanarini, et al., 2007).

Third, the relationship of emptiness with other affect-states is uncertain (Klonsky, 2008). In the past, emptiness and boredom were equated as the same concept in the DSM-III and DSM-III-R. The increasing evidence that emptiness was more

discriminating than boredom in identifying BPD patients (Widiger, 1995) resulted in the exclusion of boredom from the DSM-IV 7th criterion for BPD. Recent research confirms that emptiness and boredom are independent constructs (Klonsky, 2008). Emptiness has also been frequently linked to the concept of loneliness (Clum, 1997; Rusell, 1980). In some cases, both terms have been used interchangeably (Zanarini, et al., 2007). Recent empirical research confirms that emptiness is closely associated with feelings of loneliness, isolation, and particularly hopelessness (Klonsky, 2008). In a sample of 45 young non-suicidal self-injury (NSSI) patients (35 women, 10 men), the authors reported that the correlation (r) of emptiness with hopelessness was very high before (.73) and after self-injury (.84). Consequently, Klonsky (2008) concluded that verbal descriptions of feelings of hopelessness, isolation, and loneliness might be useful for evaluating emptiness.

Fourth, the relationship between the subjective, inner feelings of emptiness (perceived emptiness) and the objective measures of social isolation has received little attention to date. It is possible that individuals feeling empty are indeed objectively and non-pathologically evaluating a situation of actual social isolation. For instance, empty feelings can be a normal response to an objective loss (e.g. bereavement) (Peteet, 2011). Alternatively, empty feelings could be a distorted emotion in vulnerable subjects (Peteet, 2011), such as those with BPD or narcissistic personality. This is important because social isolation is closely associated with SB (Hall-Lande et al., 2007; Trout, 1980). Social support may ameliorate both emptiness and loneliness (Wilson, 2004), thus helping to decrease suicide risk (Houle, Mishara, & Chagnon, 2005; Poudel-Tandukar et al., 2011).

Fifth, another conflicting issue, or rather question, regarding emptiness is whether or not chronic feelings of emptiness are part of a broader construct, that of either cognitive constriction (Heinrich et al., 2008) or mental pain (psychache) (Chavez-Hernandez et al., 2009; Chavez-Hernandez et al., 1991; Orbach, 2007; Orbach, 2003a; Orbach et al., 2003b). Mental pain is conceptualized by Orbach et al. (2003b) as "a perception of negative changes in the self and its functions that are accompanied by negative feelings." In their study, the authors operationalized the concept of mental pain using a content and factorial analysis of self-reports in a sample of 513 adults (383 women and 129 men). The study's scale consisted of nine factors (in order of importance): irreversibility, loss of control, narcissist wounds, emotional flooding, freezing, self-estrangement, confusion, social distancing, and emptiness. This study suggests that the importance of

emptiness is marginal in the overall conceptualization of mental pain. Authors interested in expanding their understanding of the concept of emptiness are recommended to refer to Orbach's work (Orbach, 2007; Orbach, 2003a; Orbach et al., 2003b).

Sixth, as for the relationship with other symptoms of BPD, chronic feelings of emptiness have been considered as a symptom of affect regulation instability (Koenigsberg, et al., 2001; Stoffers, et al., 2010). In the factorial analysis of a study, however, it was included in the factor "disturbed relatedness" alongside with unstable relationships and identity disturbance (Sanislow, Grilo, & McGlashan, 2000). Identity diffusion can be subjectively experienced as feelings of emptiness (Koenigsberg, 2010), and both symptoms have been found to strongly correlate (Taylor, 1994). In any case, the three concepts (affective instability, identity disturbance, and feelings of emptiness) have been found to be closely related (Koenigsberg, 2010). See Figure 1.

Finally, in contrast to impulsivity, very little is known about the underlying biology of emptiness. This is important because some of the core BPD symptoms, such as chronic feelings of emptiness, abandonment, and identity disturbance appear to be resistant to pharmacological treatment (Stoffers, et al., 2010). However, Steinberg et al. (1997) suggested that cholinergic mechanisms are implicated in some of the core symptoms of BPD, including emptiness, and thus have potentially useful clinical implications. These authors administered physostigmine, an acetylcholinesterase inhibitor, to BPD patients, other personality disorder patients, and healthy controls. BPD patients displayed a greater and sooner dysphoric response to the physostigmine challenge. In addition, personality disordered patients who displayed a depressive response to physostigmine were more likely to present symptoms of unstable relationships, affective instability, identity confusion, and a sense of emptiness. Therefore, psychotropics with anticholinergic activity (e.g. tricyclics, low potency antipsychotics) might prove useful in BPD patients presenting treatment-resistant symptoms. As a matter of fact, major non-depressed suicide repeaters treated with paroxetine, one of the SSRIs with major anticholinergic action, were less likely to attempt suicide than major non-depressed repeaters with a placebo (Verkes et al., 1998). Although highly speculative, the elevated prevalence of nicotine dependence in patients diagnosed with BPD and narcissistic PD suggest that some individuals with PD may use cigarette smoking as a way of self-medication (Pulay, et al., 2010).

Similar to impulsivity, chronic feelings of emptiness can also mediate the relationship between serotonin and SB (Verkes et al., 1998). These authors discovered that in a sample of 144 consecutive

recurrent suicide attempters, platelet serotonin was higher in patients diagnosed with BPD when compared to patients without this disorder. Additionally, patients meeting the criterion of "chronic feelings of emptiness and boredom" had the most significantly elevated platelet serotonin. Because low levels of platelet serotonin are associated with depression in inpatients (Mann et al., 1992), the authors suggested that a different pre-synaptic re-uptake of serotonin could be characteristic of BPD patients. A prospective, large sample study is warranted to test which psychotropic might be more useful in decreasing feelings of emptiness.

Emptiness and suicidal behavior and related behaviors

Originally, emptiness was viewed as a by-product of a loss during the process of mourning, and a premonitory sign of suicidal impulses (Furst & Ostow, 1965). In a qualitative, psychoanalytical study of five elderly men, feelings of emptiness were critical for the development of SB (Lindner, 2010). Perceived emptiness, the sense of lacking emotional and psychological support, is a relevant feeling in the suicidal process (Kramer, 2002), and a motive for suicide (Harris, 2003; Hartocolis, 1978) and self-harm (Tolchin & Perman, 2010). Indeed, feelings of meaninglessness and emptiness typically associated with rejection and isolation are considered to be "the strongest precipitating factors in self-killing" (Eskin, 2004).

Emptiness and NSSI

Emptiness has been related to NSSI (Klonsky, 2008; Muehlenkamp & Gutierrez, 2007), suicidal ideation (Heisel et al., 2005; Klonsky, 2008), and SB (Brown, Comtois, & Linehan, 2002; Klonsky, 2008). NSSI can serve as a coping mechanism, with some emotions such as anger, emotional pain, depressive affect, anxiety, rage and emptiness (Favazza & Rosenthal, 1993; Schwartz et al., 1989). In a sample of 85 female adolescents living in a long-term therapeutic community of adolescents, 41 (48%) displayed NSSI (deliberate self-lacerations, carving) (Schwartz, et al., 1989). Recently, Klonsky (2008) found that 67% of their sample of 45 NSSI participants reported feelings of emptiness at least sometimes before engaging in self-injury, and 47% at least sometimes after self-injury. In another study, the authors suggested that specific symptoms such as anger, impulsivity, and chronic emptiness are better predictors of NSSI than Axis I diagnoses alone (Muehlenkamp & Gutierrez, 2007). Therefore, examining which specific symptoms, personality traits or even life events are more closely associated with NSSI and SB, irrespective of the underlying Axis I or

Axis II diagnoses, could be a fruitful strategy. This is particularly true considering that an increasing number of researchers suggest that suicide should be placed as a “separate diagnosis on a separate Axis” in the upcoming DSM-V classification (Oquendo et al., 2008).

Emptiness and suicidal ideation

Various different methods have been applied in the measurement of suicidal ideation and emptiness. The Geriatric Depression Scale (GDS), a common screening measure for late-life depression, originally not designed to assess thoughts of death or suicide, is able to identify five domains associated with suicidal ideation: hopelessness, worthlessness, unhappiness, absence of the perception that it is “wonderful to be alive”, and emptiness (Heisel, et al., 2005). Furthermore, an interesting study of 274 psychology college students (53% women) reported that 24.7% of participants had a history of suicidal ideation and 6.9% reported at least one suicide attempt (Klonsky, 2008). In addition, chronic emptiness can be measured by the McLean Screening Instrument for Borderline Personality Disorder (MSI-BPD) (Zanarini, et al., 2003), a self-report measure of the DSM-IV BPD criteria. This scale is robustly associated with depression and less strongly with anxiety. It is of interest to note for this review that with the exception of the self-mutilation/suicidal criterion, chronic emptiness was the BPD criterion most closely associated with suicidal ideation in this study.

Emptiness and suicide attempts

Emotion relief, including feelings of emptiness, is one of the most important reasons underlying both parasuicide and suicide attempts (Brown et al., 2002). In a pilot fMRI study with eight female subjects, mental pain triggering SB was associated with decreased prefrontal activity whereas “planning and acting out suicidal impulses in response to mental pain” was related to increased activity in the frontal cortex, suggesting that SB reduces mental pain (Reisch et al., 2010). A retrospective descriptive study using an open-ended ad-hoc questionnaire stressed the importance of feelings of emptiness in the process of suicide. The authors reported that feelings of depression, sadness, disappointment, and emptiness were the emotions most frequently experienced by 50 patients with a history of SB in the aftermath of a suicide attempt (Chesley, 2003). Furthermore, Klonsky (2008) reported that chronic emptiness was the third most important BPD criterion associated with a history of suicide attempt. It was solely surpassed by the self-mutilation/suicidal criterion and impulsivity; however, the self-mutilation/suicidal criterion should

have been excluded in this study in order to avoid a well-known tautological problem of suicide research (Delgado-Gomez et al., 2011; Tyrer, 2009).

Recently, we have also conducted a set of different analyses aimed at finding the most discriminative items to classify suicide attempters. Chronic feelings of emptiness measured by the International Personality Disorder Examination Screening Questionnaire (IPDE-SQ) were more closely related to suicide attempter status than impulsivity measured by the Barratt Impulsivity Scale (BIS) (Delgado-Gomez et al., 2011). In a subsequent analysis using five multivariate techniques (linear regression, stepwise linear regression, decision trees, Lars-en, and support vector machines), chronic feelings of emptiness remained the most relevant personality factor to classify suicide attempters (Delgado-Gomez et al., 2012). Finally, we have recently proposed a novel scale with 27 items to assess suicide risk (Blasco-Fontecilla et al., 2012). In this study, we used the Lars-en algorithm to select the most suitable items from a collection of scales (IPDE-SQ, BIS, and the Holmes-Rahe social readjustment rating scale), and sociodemographic factors. Again, chronic feelings of emptiness were the most relevant personality factor in identifying suicide attempters, and were just surpassed by three stressful life event items (Change in frequency of arguments with partner, revision of personal habits, and marital separation, in order of relevance). The results of our three studies suggest that chronic feelings of emptiness had more predictive power than impulsivity, the personality trait on which the popular stress-diathesis model of suicidal behavior is based (Mann et al., 1999), when dealing with populations of suicide attempters. Overall, it seems chronic feelings of emptiness are central to suicide attempts.

One possible reason for this relative lack of information on the role of emptiness in suicide attempts is that clinicians are more interested in other aspect of SB apart from the inner, phenomenological perspective of suicidal patients. In an explorative study, Schnyder et al. (1999) compared patients’ (n=30), nurses’, and doctors’ views of the rationale for attempting suicide and emotional states immediately before a suicide attempt. They discovered healthcare providers more frequently attributed feelings of hopelessness and despair to attempts than did patients but less frequently feelings of emptiness. Emptiness (56.7%) alongside with despair (56.7%) was the most often reported emotional states preceding suicide attempts according to the patients. In contrast, barely a third of nurses (26.7%) and doctors (30.0%) elected emptiness as an important emotional state for attempting suicide. This discrepancy suggests that

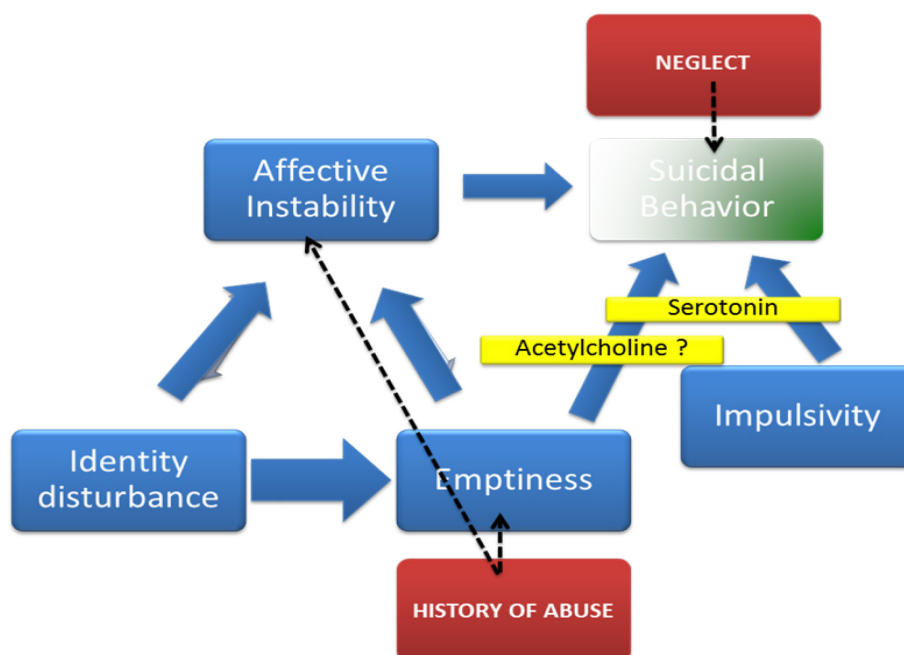
healthcare providers undervalue the significance of emptiness. As a matter of fact, hopelessness was one of the most frequently reported symptoms (70%) by both nurses and doctors in this study. In addition, a panel of experts on suicide critically discussed a series of videotaped interviews of suicide attempters, and concluded that contemporary mental healthcare practice often undervalues the subjective experience of suicide attempters, and that current clinical evaluations of SB are clinician-centered rather than patient-centered (Michel, et al., 2002).

The abovementioned discrepancy might also be explained by the nosological confusion regarding the boundaries of emptiness and hopelessness (see above). In our initial PUBMED search, we obtained just 21 entries for the association between emptiness and suicide, in contrast to the 893 references resulting for the relationship between hopelessness and suicide. Although both terms are closely related (Klonsky, 2008), they appear to play different roles in SB. Hopelessness is a good predictor of suicide in the long-term (beyond 1 year), but not in the short-term (Cochrane-Brink et al., 2000). Emptiness seems to be more closely related to acute suicidal crises, and therefore a more valuable symptom in the short-term prediction of SB (e.g., in emergency departments). Emptiness appears to be a critical precipitant factor of SB (Eskin, 2004). This might be particularly true for patients diagnosed with borderline personality organization (Kernberg, 2007). Borderline and narcissistic individuals can attempt suicide when

experiencing acute states of anguish associated with emptiness (Singer, 1977). A history of childhood abuse has also been associated with feelings of emptiness. In contrast, a history of childhood neglect is more closely associated with SB (Oldham et al., 1996). Because abuse and neglect are frequently comorbid, it is tempting to speculate that the link between emptiness and SB is based in the interaction between abuse and neglect in childhood (see Fig. 1.).

Additionally, emptiness can be included in multiple factor analyses where it is compounded with other similar terms involved in suicide attempts. In a factorial analysis of 123 adolescent inpatients sample with BPD, chronic feelings of emptiness and the suicidal mutilation/behavior criterion were clustered together in the first factor of the study (Becker, McGlashan, & Grilo, 2006). In another study, feelings of inner emptiness were considered to be part of a suicidal type (type 2) alongside with hopelessness and apathy (Kind, 1990). Other factorial analyses carried out in adult inpatient units have yielded different factorial solutions. Within their study, Clarkin et al. (1993) reported a three-factor solution. Their first factor, reflecting problems with self and others, included emptiness, identity disturbance, fears of abandonment, and unstable relationships. Suicidal threats or gestures, alongside with affective instability and uncontrolled anger, were part of the second factor encompassing problems with the regulation of affect.

Figure 1. Hypothetical Pathway Model of the relationship between emptiness and suicidal behavior.



Sanislow et al. (2000) also reported a three-factor solution where emptiness and SB were included in separate factors. The first factor (disturbed relatedness) included identity disturbance, chronic emptiness, and unstable relationships. The second factor (behavioral dysregulation) included impulsivity and the self-mutilation/suicidal criterion of BPD. The third factor (affective dysregulation) included inappropriate anger, affective instability, and frantic efforts to avoid abandonment. In conclusion, all these factorial analyses strongly suggest that emptiness, affective instability, and impulsivity may interact and increase the risk of SB. For instance, BPD patients experiencing emptiness might try to fill up this feeling using impulsive behaviors such as binge eating, substance abuse or drug overdoses, which in turn would increase the risk of SB (Callahan, 1996).

Emptiness and completed suicide

While we conducted various database searches, we only discovered studies centered on suicide notes for this relationship. The contents of suicide letters provide interesting insights into the reasons for suicide and the mental states of decedents; however, the majority of suicide decedents don't leave a suicide note (Haines, Williams, & Lester, 2011). The feelings of emptiness are probably an important element in those who commit suicide (Kramer, 2002). Unfortunately, emptiness is not usually considered in the study of clinical notes (Hokans & Lester, 2009). A notable exception is a study analyzing the content of 398 Singaporean suicide letters. Emptiness was the second most frequent (25%) reason expressed for suicide (Chia, Chia, & Tai, 2008).

This lack of information on the topic of emptiness and completed suicides may be explained by the previously commented confusion between emptiness, hopelessness and loneliness. Contrary to emptiness, hopelessness and loneliness are symptoms typically expressed in suicide notes (Bhatia, Verma, & Murty, 2006; Chynoweth, 1977; Heim & Lester, 1991; Hokans & Lester, 2009; Matusevich, 2003; Ruiz, et al., 2003).

Limitations

The most relevant limitation of the present review is the scarce literature available. This may cast doubts about the appropriateness of reviewing this topic. However, the main objective of the present review was precisely to disentangle the apparent contradiction of emptiness as an important key to suicidal-related phenomena and the reality in which there exists very scarce evidence of this relationship.

Conclusions

The concept of emptiness seems to reflect the phenomenological, inner sense of void of some suicidal patients, and can be differentiated from other symptoms associated with social isolation such as hopelessness and loneliness (Schnyder, et al., 1999). However, the conceptualization of emptiness warrants a better delineation (Johansen, et al., 2004). It is important to develop standardized measures for emptiness (Klonsky, 2008), as there are scales measuring similar concepts (e.g. loneliness) (Russell, 1980). Compared to hopelessness, emptiness appears to be a clinical factor more closely associated with suicide repetition in the short-term. Emergency department evaluation of acute suicide crisis should incorporate questions regarding emptiness. Furthermore, chronic emptiness appears to have more predictive power than other well-established suicide predictors such as impulsivity.

Thus, we hope that the present review will help suicide researchers into deepening in the study of emptiness and SB. Further empirical research is warranted to extend our knowledge on the relationship between: emptiness and age and sex; and acute ("state emptiness") (e.g. patients with depression) and chronic emptiness ("trait emptiness") (e.g. patients with BPD); and perceived (subjective, phenomenological) and actual (objective) emptiness in subjects with SB.

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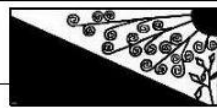
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