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Do reasons for living protect against suicidal thoughts and behaviors? A systematic review of the literature

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ABSTRACT

Background: Few studies have investigated protective factors against suicide.
Objectives: To identify whether reasons for living (RFL), measured with the Reasons for Living Inventory (RFLI), protect against suicidal ideation (SI), attempts (SA) and suicide death.
Method: This systematic review followed the PRISMA (Preferred Reporting Items for Systematic reviews and Meta-Analysis) statement guidelines. PubMed database was searched for studies published until October 2015. Studies were eligible if they used RFLI or one of its versions. All eligible studies were included, regardless of study design, quality indicators, and target populations. No publication year limit was imposed. We included 39 studies.
Results: RFL may protect against SI and SA and yield a predictive value. The role of two specific reasons for living (Moral Objections to Suicide and Survival and Coping Beliefs) was particularly emphasized. No study investigating suicide death was found.
Conclusion: RFL may moderate suicide risk factors and correlate with resilience factors. Moreover, RFL may depend on and interact with numerous factors such as DSM-IV Axis I disorders, personality disorders and features, coping abilities and social support. Clinicians could develop therapeutic strategies aimed at enhancing RFL, like Dialectical Behavior Therapy and Cognitive Behavioral Therapies, to prevent suicidal thoughts and behaviors and improve the care management of suicidal patients.

1. Introduction

Suicide is a major public health issue. According to the World Health Organization, more than 800,000 people kill themselves every year worldwide. The term suicide encompasses a broad spectrum ranging from wish to die, suicidal ideation (SI), suicidal plans, suicide attempts (SA) to suicide death. The magnitude of this phenomenon requires a better understanding of the suicidal process and finding more effective solutions to reduce its occurrence, impact and consequences.

Several studies have identified suicide risk factors, such as psychiatric disorders, gender, hopelessness, impulsiveness, personal and family history of suicidal behavior, and childhood abuse (Mann et al., 1999; Oquendo et al., 2004). Efforts to reduce suicide rates mainly targeted these risk factors but these strategies remained insufficient and few studies focused on protective factors. A detailed review listed many resilience factors (Johnson et al., 2011), suggesting that clinicians should screen and target them to prevent and reduce suicide risk. Among them, reasons for living (RFL) were mentioned but their potential protective effect against suicide has yet to be evidenced. RFL are reasons that one clings to for “staying alive” and “not killing oneself” (Linehan et al., 1983). Authors postulated that RFL could act as protective factors and created the Reasons For Living Inventory (RFLI) (Linehan et al., 1983), an instrument designed to identify protective factors

Abbreviations: SI, suicidal ideation; SA, suicide attempts; RFL, reasons for living; RFLI, Reasons For Living Inventory; RFL-OA, RFL Scale-Older Adult version; SCB, Survival and Coping Beliefs; MOS, Moral Objections to Suicide; RF, Responsibility to Family; CC, Child-related Concerns; FOS, Fear of Suicide; FSD, Fear of Social dDisapproval; AUD, Alcohol Use Disorder; BPD, Borderline Personality Disorder.

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against suicide (Malone et al., 2000). It is a self-assessment questionnaire that includes six subscales: Survival and Coping Beliefs (SCB), Moral Objections to Suicide (MOS), Responsibility to Family (RF), Child-related Concerns (CC), Fear of Suicide (FOS) and Fear of Social disapproval (FSD). These 6 subscales result in 48 items (72 with the additional items). Every item is evaluated on a 6-level Likert scale, from 1 ("Not at all important") to 6 ("Extremely important"). Therefore, clinicians can assign a total RFLI score, corresponding to the sum of all items, and/or a score for each subscale. Higher scores mean that individuals exhibit higher RFL.

RFLI is a well-documented, reliable and validated tool (Cole, 1989; Connell and Meyer, 1991; Dyck, 1991; Linehan et al., 1983; Osman et al., 1999, 1996, 1993; Range and Penton, 1994; Rich and Bonner, 1987). It was used in clinical samples (Demyttenaere et al., 2014; Malone et al., 2000) and community groups: adults (Miller et al., 2001; Osman et al., 1999), college students (Osman et al., 1993; Range and Penton, 1994), adolescents (Cole, 1989; Connell and Meyer, 1991; Osman et al., 1996) and older adults (Miller et al., 2001; Segal et al., 2008; Segal and Needham, 2007). Additional versions were validated: the Brief Reasons for Living Inventory for Adolescents (BRFL-A) (Osman et al., 1996), the College Student RFLI (CS-RFL) (Lee and Oh, 2012), RFLI for Young Adults (RFL-YA) (Gutierrez et al., 2002) and RFL Scale-Older Adult version (RFL-OA) (Edelstein et al., 2009). RFLI was also translated and validated in Spanish (Garza and Cramer, 2011), Italian (Pompili et al., 2007), Swedish (Dobrov and Thorell, 2004), Korean (Lee and Oh, 2012), Chinese (Chan, 1995) and Malaysian (Aishvarya et al., 2014).

The main objective of this review was to investigate the relationships between reasons for living and suicidal behavior. We sought to determine if reasons for living protect against one or more aspects of suicidal behavior (suicide ideation, suicide attempt, suicide death).

2. Methods

This review followed the PRISMA (Preferred Reporting Items for Systematic reviews and Meta-Analysis) statement guidelines. A PubMed literature search was conducted by C.L. from October 2014 to October 2015. We found no Mesh terms for "reasons for living". The search terms "reasons for living", "reasons for living inventory", "RFL", "RFLI" were individually combined with the following: "suicide", "suicidal ideation", "suicidal thoughts", "suicide attempts", "suicidal behavior", "suicidal acts", "self-harm", "suicide death", "completed suicide", "protective" and "resilience". We included studies that: (i) used the RFLI or one of its versions; (ii) investigated the link between RFL and suicidal thoughts and behaviors as primary or secondary objectives; and iii) were published in English, Spanish or French. All studies published from 1983 (date of publication of the first study on RFLI) to October 2015 were included, with no publication year limit. All populations were considered. All studies that had available full text were included, regardless of the study design or its quality. When the full text was not available, we contacted the authors. Studies with no full text available were excluded when authors had not replied. Out of 663 studies, 37 were included, and 2 additional articles were included from the references (Fig. 1).

2.1. Reasons for living and suicidal ideation, attempts and suicide death

Firstly, a negative association between RFL and suicidal thoughts and behaviors does not imply that these factors protect against suicide, since other factors might moderate their protective effect (Johnson et al., 2011). Thus, our results will differentiate the association between RFL and suicidal thoughts and behaviors (positive or negative), and the protective and predictive value of RFL.

2.1.1. Reasons for living (total score) and suicidal ideation

Scientific evidence supported a negative association between RFL and SI (Table 1).

All reviewed studies but one showed that high RFL correlated with low levels of SI in clinical samples (with mood disorders or schizophrenia), healthy populations, adults, adolescents, and elderly subjects. The sole study that provided inconsistent findings found that this negative association was true only in subjects with no previous SI (Rieger et al., 2014). Although most of these studies were cross-sectional, a randomized, double blind, parallel-group study and a follow-up survey yielded similar findings (Demyttenaere et al., 2014; Zhang et al., 2011). Low scores on the RFLI were found to positively predict SI. Overall, results suggested that a high RFL score may protect against SI (Lee, 2011; Zhang et al., 2011; Rieger et al., 2014).

2.1.2. Reasons for living (total score) and suicide attempts

Eight studies found that individuals with lifetime SA had a significantly lower RFLI score (see Table 2) (Mann et al., 1999; Edelstein et al., 2009; Aishvarya et al., 2014; Bagge et al., 2014; Oquendo et al., 2000; Lizardi et al., 2009; Wang et al., 2013a; Blasczyk-Schiep et al., 2011), one study showed that this was only true for women (Wang et al., 2013b) and another one reported no association between history of SA and RFL (Gilbert et al., 2011). A reverse association emerged between number and lethality of SA and RFL (Lizardi et al., 2009). Two follow-up studies underlined that RFL predicted SA (Oquendo et al., 2004; Galfalvy et al., 2009) and two others evidenced that RFL predicted SA in women only (Lizardi et al., 2007; Oquendo et al., 2007). According to Lizardi et al. (2007), a one-point increase in the RFL score meant a 3.4% decrease in SA probability. High RFL scores were described as protective factors against suicidal behavior (Wang et al., 2013a). However, a recent study on a very high-risk population reported inconsistent findings: RFL did not represent protective factors in adolescent inpatients who attempted suicide (Consoli et al., 2015).

2.1.3. RFLI and suicide death

To our knowledge, there are no data linking suicide death to RFL.

2.2. Specific reasons for living inventory subscales and suicidal ideation, attempts and suicide death

2.2.1. Moral Objections to Suicide

The Moral Objections to Suicide (MOS) subscale consists of four items: three items relate to religion ("only God has the right to end life"; "I am afraid of going to Hell"; "My religion forbids it") and the last item is a moral belief ("I consider it morally wrong"). This subscale evaluates the way one perceives suicide and to which extent one deems it acceptable.

In 5 out of 9 studies, we found that MOS correlated conversely with SI (Table 3). Evidence showed that evaluating MOS could be very effective in detecting patients not disclosing their suicidal thoughts (Richardson-Vejlgaard et al., 2009a). Inconsistent findings were reported. One study compared patients with mood disorders belonging to three ethnic groups (Whites, Blacks and Hispanics) and found this inverse link in Whites and Hispanics but not in Blacks (Richardson-Vejlgaard et al., 2009b). Indeed, Blacks showed the highest MOS scores and, at the same time, the highest levels of SI, suggesting that other factors, like cultural affiliation, may influence this association. The remaining studies provided non-