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Suicide and Life-Threatening BEHAVIOR

ORIGINAL ARTICLE

An empirical investigation of the distinction between passive and active ideation: Understanding the latent structure of suicidal thought content

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Abstract

Introduction: Although the distinction between passive and active suicidal ideation is well accepted by suicide researchers and clinicians, there has been very little empirical investigation into this distinction. The current study addressed this gap by examining the latent structure of suicidal ideation based on thought content.

Method: Participants from two distinct samples of U.S. adults (n1 = 6200; n2 = 10,625) completed a self-report assessment of eight commonly experienced suicidal thoughts using the Self-Injurious Thoughts and Behaviors Interview-Revised. Exploratory structural equation modeling was used to examine the latent structure of suicidal thoughts.

Results: The two-factor model demonstrated significantly better fit than the one-factor solution across both samples. Thoughts typically classified as passive ideation strongly loaded onto one factor, whereas thoughts typically classified as active ideation loaded onto the second factor. The two factors were highly correlated and some suicidal thoughts exhibited meaningful cross-loading.

Conclusion: Our results suggest that passive and active ideation are two distinct constructs. Although they often co-occur, passive and active ideation are not nested constructs and should not be viewed as gradients of one underlying construct. Our findings suggest that at a minimum both passive and active ideation should be included in all suicide risk assessments and screenings.

KEYWORDS

factor analysis, latent structure, suicidal thoughts

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INTRODUCTION

Suicidal ideation is one of the strongest predictors of suicide attempts (Franklin et al., 2017), though most people who think about suicide do not engage in suicidal behavior, and very little is known about the transition from suicidal thoughts to behaviors (Klonsky et al., 2018). One factor that might contribute to this limited progress is the surprising paucity of research on the basic phenomenology of suicidal thoughts (Kleiman et al., 2017; Nock et al., 2009). Consequently, the field has made a number of assumptions about suicidal thoughts, including the notion that some thoughts are higher risk and more likely to transition to suicidal behavior than others (e.g., Paykel et al., 1974). Contemporary ideation-to-action theories of suicide are partially based on this premise, proposing that suicidal behavior most often occurs when active—but not passive—suicidal ideation is coupled with factors facilitating the ability to attempt suicide. For instance, the Interpersonal Theory of Suicide (ITS; Van Orden et al., 2010) posits that the presence of either perceived burdensomeness or thwarted belongingness is sufficient to engender passive suicidal ideation, whereas active ideation occurs when both mental states are experienced simultaneously; active ideation then progresses to suicidal behavior when coupled with the acquired capability for suicide. Similarly, the Three Step Theory of Suicide (3ST; Klonsky & May, 2015) differentiates between weaker and stronger suicidal ideation by proposing that pain (physical or psychological), coupled with hopelessness prompts weaker thoughts of suicide, whereas stronger (i.e., active) ideation occurs when this pain is greater than an individual's connectedness to others. Similar to ITS, the Three Step Theory suggests that stronger ideation progresses to suicidal behavior when coupled with the acquired capability for suicide. Contemporary empirical studies within these frameworks are, therefore, inadvertently couched within the distinction between active and passive suicidal ideation. Importantly, however, the conceptualization of passive and active ideation has shifted over time, and psychometric studies of commonly used measures of suicidal ideation suggest that this distinction is not clearly defined.

Early reports distinguishing between passive and active ideation can be found in Beck's work on the development of the Scale for Suicidal Ideation (SSI; Beck & Kovacs, 1979). In these early reports, passive ideation was conceptualized as the passive avoidance of steps to save one's life, whereas active ideation referred to many aspects of suicidal ideation, including the wish to live, wish to die, reasons for living/dying, and the desire to make a suicide attempt. The definition of passive and active ideation has shifted over time, with more recent studies defining passive ideation as a desire for death and active ideation as explicit thoughts of killing oneself (e.g., Van Orden et al., 2010). These seemingly intuitive definitions often lack consensus and have a limited empirical basis, with few studies actually examining the latent structure of suicidal thoughts. Most studies in this area have used confirmatory factor analysis to examine the latent structure of the SSI, a 19-item measure that assesses various dimensions of suicide-related thoughts (e.g., frequency, intensity, and duration of suicidal ideation; specificity of planning), behaviors (e.g., writing a suicide note, practicing a suicide attempt), and environmental risk factors (e.g., availability of lethal means, opportunity to make an attempt). These studies largely support a two-factor structure for suicidal ideation—suicidal desire and resolved planning/preparation (Baertschi et al., 2019; Holden et al., 1985; Holden & DeLisle, 2005; Joiner et al., 1997; Witte et al., 2006). A few studies have supported a three-factor structure, though the specific factors from these latter studies are inconsistent (Beck & Kovacs, 1979; Clum & Yang, 1995; Steer et al., 1993). Only one study has found factors that distinguish between passive and active ideation as they are typically defined today (i.e., passive ideation = death wish; active ideation = thoughts of killing oneself; Steer et al., 1993). Rather, most studies to date have found that the wish to live, wish to die, reasons for living/dying, and thoughts of killing oneself fall on one "suicidal desire" factor (Baertschi et al., 2019; Clum & Yang, 1995; Holden et al., 1985; Holden & DeLisle, 2005; Joiner et al., 1997; Witte et al., 2006).

Factor analyses examining other suicide risk measures have also failed to support a distinction between passive and active ideation. For instance, research suggests that the Columbia Suicide Severity Rating Scale (CSSRS; Posner et al., 2011) has two factors that distinguish between suicidal ideation and behavior, with items assumed to assess passive versus active ideation consistently loading onto a single suicidal ideation factor (Madan et al., 2016; Serrani Azcurra, 2017). Additionally, the Suicidal Ideation Scale (SIS; Luxton et al., 2011) has two factors that reflect suicidal desire and resolved planning/preparation, similar to the SSI. Noticeably absent from the extant literature are studies that have explicitly examined the latent structure of suicidal ideation based on thought *content*, a critical gap when considering the distinction between passive and active ideation is typically made based on presumed differences in thought content. Given the given necessity of measuring self-reported suicidal ideation in suicide research—including testing leading theories of suicide—it is critical that the content-based structure of suicidal ideation is examined to provide a clearer conceptualization of these constructs.

The current study addresses this gap by examining the latent structure of eight common suicidal thoughts

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assessed using the Self-Injurious Thoughts and Behaviors Interview-Revised (SITBI-R; Fox et al., 2020; Nock et al., 2007). We hypothesized that there would be two factors for suicidal ideation, consistent with the perspective that passive and active ideation are distinct constructs. We also tested the competing hypothesis that passive and active ideation are different forms of one suicidal ideation construct (i.e., a single factor).

METHODS

Participants and procedures

Two unique samples of U.S. adults (n1 = 6200; n2 = 10,625) were recruited via Qualtrics Panel, an online survey company that maintains a list of several million individuals who have volunteered to participate in online surveys. The current study used quota-sampling methods to recruit a representative sample that approximates the 2010 U.S. census demographic distributions (±10% margin of error). Participants were deemed eligible for this study if they were at least 18 years of age and able to speak and understand English. Interested participants received an email invitation with a hyperlink to the survey. They were provided with an information page describing the study's purpose, risks/benefits, and investigator contact information. Consent was obtained by having participants select a button that allowed them to begin the survey. After completing the survey, all participants were provided with information for the National Suicide Prevention Lifeline Network, the Crisis Text Line, and the Veterans Crisis Line. Participants who completed the full survey received compensation in the amount agreed upon when signing up for the Qualtrics panel. The study was reviewed and approved by the University of Utah Institutional Review Board.

All study procedures were completed online. Thus, several strategies were used to ensure data quality and integrity (Bauer et al., 2020). These strategies included: (1) restriction of one response per IP address, (2) captcha images to prevent bot-generated responses, (3) a soft launch to identify errors in survey construction, (4) removal of responses with survey completion times under 4 min, a response time that is considered improbably fast by Qualtrics, (5) inclusion of reverse-scored items to identify inconsistent responding, and (6) review of open-text fields to identify nonsensical responses.

Measures

An abbreviated, self-report version of the Self-Injurious Thoughts and Behaviors Interview-Revised (SITBI-R; Fox et al., 2020; Nock et al., 2007) was used to assess suicidal thoughts. Prior research supports the use of self-report formats of the SITBI-R, demonstrating that the self-report format has comparable reliability and validity to the interview format (Fox et al., 2020). Participants were asked if they have ever experienced eight common suicidal thoughts: (1) *I wish I could disappear or not exist*; (2) *I wish I were never born*; (3) *My life is not worth living*; (4) *I wish I could go to sleep and never wake up*; (5) *I wish I were dead*; (6) *Maybe I should kill myself*; (7) *I should kill myself*; (8) *I am going to kill myself*. Items that were positively endorsed were followed by an additional question asking when they most recently experienced the thought (*within the past month*, *within the past year*, *more than a year ago*). Responses to these items were used to create binary variables for the lifetime and past-month presence of each suicidal thought.

Data analysis

We used exploratory structural equation modeling (ESEM) utilizing the MPlus 8.3 software to examine the latent structure of suicidal thoughts. We used ESEM rather than confirmatory factor analysis to allow for greater flexibility with regard to item cross-loading (Xiao et al., 2019). We performed separate examinations of both one-factor and two-factor oblique models for lifetime and past month suicidal ideation for each sample. Model fit was determined using the following criteria: non-significant chi-square, root mean square error of approximation (RMSEA) <0.05, comparative fit index (CFI) >0.95, Tucker Lewis Index (TLI) >0.95, and Standardized Root Mean Square Residual (SRMSR) <0.08 (Hu & Bentler, 1999). Analyses were repeated with Sample 2 for replication purposes.

RESULTS

Demographic characteristics for Sample 1 are summarized in Table 1. Our sample was predominantly White (62.4%) and non-Hispanic (85.2%). Of the 6200 participants, 51.0% were women, 40.8% were ages 25–44, 44.6% had a college education, and 14.2% served in the U.S. Military. As reported in Bryan, Bryan, and Anestis (2020), rates of lifetime suicidal ideation were 36.5% (n = 2260) and rates of past month ideation were 13.9% (n = 862).

Demographic characteristics for Sample 2 are summarized in Table 2. Sample 2 was predominantly White (61.9%) and non-Hispanic (65.0%). Of the 10,625 participants, 51.0% were women, 23.2% had a Bachelor's degree, and 13.5% served in the U.S. Military. The mean age of participants was 45.39. Rates of lifetime suicidal ideation

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TABLE 1 Participant demographics for Sample 1

	n	%
Age		
18–24	643	10.4
25–44	2530	40.8
45–64	1993	32.1
65+	1034	16.7
Sex		
Male	3038	49.0
Female	3162	51.0
Race		
Caucasian	3870	62.4
Black or African American	676	10.9
Asian	803	13.0
Alaskan Native or American Indian	177	2.9
Multiracial	217	3.5
Other	457	7.4
Ethnicity		
Not Hispanic	5281	85.2
Hispanic	919	14.8
Education		
High school	2539	41.0
College	2765	44.6
Graduate degree	896	14.5
Military		
Yes	883	14.2
No	5317	85.8
Lifetime suicidal ideation		
Yes	2260	36.5
No	3940	63.5
Past month suicidal ideation		
Yes	862	13.9
No	5340	86.1

TABLE 2 Participant demographics for Sample 2

	n	%
Age	45.39 (M)	25.20 (SD)
Sex		
Male	5206	49.0
Female	5149	51.0
Race		
Caucasian	6577	61.9
Black or African American	1307	12.3
Asian	703	6.6
Alaskan Native or American Indian	398	3.7
Other	1640	15.4
Ethnicity		
Not Hispanic	6910	65.0
Hispanic	3715	35.0
Education		
Some high school	422	4.0
High school diploma or GED	2268	21.3
Some college or associate's degree	3897	36.6
Bachelor's degree	2460	23.2
Graduate degree	1578	14.9
Military		
Yes	1430	13.5
No	9195	86.5
Lifetime suicidal ideation		
Yes	3468	32.6
No	7157	67.4
Past month suicidal ideation		
Yes	1266	11.9
No	9359	88.1

were 32.6% ($n = 3468$), and rates of past month ideation were 11.9% ($n = 1266$).

Sample 1

Results of the four ESEMs for Sample 1 are summarized in Table 3. Both the one-factor and two-factor models demonstrated reasonably good fit for lifetime and past month ideation. However, the two-factor model showed especially good fit for both lifetime ($\chi^2(13) = 39.18$, $p = 0.0002$; RMSEA = 0.018, CFI = 1.000, TLI = 0.999; SRMR = 0.008) and past month ideation ($\chi^2(13) = 16.50$, $p = 0.223$; RMSEA = 0.007, CFI = 1.00, TLI = 1.00, SRMR = 0.006). Additionally, the two-factor model demonstrated significantly better fit than the one-factor solution for both lifetime ($\chi^2_{diff}(7) = 235.86$, $p < 0.001$) and past month ideation ($\chi^2_{diff}(7) = 164.18$, $p < 0.001$).

Item factor loadings for the two-factor models are displayed in Table 4. For both lifetime and past month ideation, Items 1–5 loaded onto factor one and Items 6–8 load onto factor two. For lifetime ideation, Item 6 ("Maybe I should kill myself") demonstrated meaningful loading onto both factors (>0.3; Schmitt & Sass, 2011); notably, Items 3 ("My life is not worth living") and 5 ("I wish I were dead") also exhibited some degree of cross-loading (>0.2). For past month ideation, Items 5 and 6 demonstrated some degree of cross-loading (>0.2). Additionally,

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TABLE 3 Model fit statistics

Model	χ^2	df	RMSEA (90% CI)	CFI	TLI	SRMR
Sample 1 Lifetime						
One factor	275.04	20	0.045 (0.041, 0.050)	0.996	0.994	0.028
Two factor	39.18	13	0.018 (0.012, 0.025)	1.000	0.999	0.008
Sample 1 Past month						
One factor	180.68	20	0.036 (0.031, 0.041)	0.997	0.995	0.028
Two factor	16.50	13	0.007 (0.00, 0 0.015)	1.000	1.000	0.006
Sample 2 Lifetime						
One factor	440.98	20	0.045 (0.041, 0.048)	0.991	0.987	0.036
Two factor	67.64	13	0.020 (0.015, 0.025)	0.999	0.997	0.012
Sample 2 Past month						
One factor	188.67	20	0.028 (0.025, 0.032)	0.995	0.992	0.030
Two factor	21.40	13	0.008 (0.000, 0.014)	1.000	0.999	0.008

Abbreviations: CFI, Comparative Fix Index; RMSEA, root mean square error of approximation; SRMSR, Standardized Root Mean Square Residual; TLI, Tucker-Lewis Index.

TABLE 4 Item factor loadings

	Sample 1 Lifetime		Sample 1 Past month		Sample 2 Lifetime		Sample 2 Past month	
	1	2	1	2	1	2	1	2
1. I wish I could disappear or not exist	0.978	−0.113	1.098	−0.185	0.892	−0.006	0.899	0.001
2. I wish I were never born	0.879	0.020	0.868	0.069	0.568	0.291	0.720	0.166
3. My life is not worth living	0.631	0.294	0.810	0.134	0.406	0.487	0.735	0.180
4. I wish I could go to sleep and never wake up	0.894	−0.002	0.942	0.000	0.687	0.192	0.939	−0.027
5. I wish I were dead	0.754	0.223	0.705	0.282	0.371	0.605	0.543	0.431
6. Maybe I should kill myself	0.397	0.564	0.271	0.703	0.215	0.696	0.340	0.617
7. I should kill myself	0.196	0.797	0.038	0.950	0.006	0.957	−0.007	0.993
8. I am going to kill myself	−0.004	0.951	−0.012	0.950	−0.076	0.973	0.153	0.798

the correlation among the two factors was notably high for both lifetime ($\beta = 0.867$, $p < 0.001$) and past month ($\beta = 0.899$, $p < 0.001$) suicidal ideation.

Sample 2 replication

Results of the four ESEMs for Sample 2 are summarized in Table 3. Consistent with Sample 1, both the one-factor and two-factor models demonstrated reasonably good fit for lifetime and past month ideation. However, the two-factor model showed especially good fit for both lifetime ($\chi^2(13) = 67.64$, $p = <0.001$; RMSEA = 0.020, CFI = 0.999, TLI = 0.997, SRMR = 0.012) and past month ideation ($\chi^2(13) = 21.40$, $p = 0.065$; RMSEA = 0.008, CFI = 1.000, TLI = 0.999; SRMR = 0.008). Additionally, the two-factor model demonstrated significantly better fit than the one-factor solution for both lifetime (χ^2_{diff} (7) = 373.34, $p < 0.001$) and past month ideation (χ^2_{diff} (7) = 167.27, $p < 0.001$).

Item factor loadings for the two-factor models for Sample 2 are displayed in Table 4. For lifetime ideation, Items 1–4 loaded onto factor one and Items 5–8 load onto factor two. Items 3 ("My life is not worth living") and 5 ("I wish I were dead") demonstrated meaningful loading onto both factors (>0.3; Schmitt & Sass, 2011). Items 2 ("I wish I were never born") and 6 ("Maybe I should kill myself") also exhibited some degree of cross-loading (>0.2). For past month ideation, Items 1–5 loaded onto factor one and Items 6–8 load onto factor two. Items 5 ("I wish I were dead") and 6 ("Maybe I should kill myself") demonstrated meaningful loading onto both factors (>0.3; Schmitt & Sass, 2011). Additionally, the correlation between the two factors was high for both lifetime ($\beta = 0.778$, $p < 0.001$) and past month ($\beta = 0.844$, $p < 0.001$) suicidal ideation.

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DISCUSSION

Although the distinction between passive and active suicidal ideation is well-accepted by suicide researchers and clinicians, there has been very little empirical investigation into this distinction. The current study addressed this gap by examining the latent structure of suicidal thought content in two large community samples of U.S. adults. Our results supported a two-factor model for suicidal ideation with the two factors conceptually aligning with the passive/active distinction. For both lifetime and past month ideation, thoughts that are typically classified as passive ideation (i.e., *I wish I could disappear or not exist*, *I wish I were never born*, *My life is not worth living*, *and I wish I could go to sleep and never wake up again*) strongly loaded onto one factor, whereas thoughts that are typically classified as active ideation (i.e., *Maybe I should kill myself*, *I should kill myself*, *and I am going to kill myself*) loaded onto the second factor. Some suicidal thoughts exhibited cross-loading onto both factors, with the thoughts, "I wish I were dead" and "Maybe I should kill myself," demonstrating the most consistent cross-loading across lifetime and past month ideation as well as across both samples. Overall, our findings provide ample evidence for a two-factor model, with some items like ambivalent thoughts about killing oneself mapping across both passive and active suicidal ideation to some extent. Additionally, the two factors were highly correlated, suggesting that although passive and active ideation are distinct constructs, they are highly related and likely to co-occur. Taken together, our findings suggest that passive and active ideation may be discrete latent constructs rather than gradients of a common underlying construct, as the two are often conceptualized (e.g., Paykel et al., 1974). Additional taxometric research would provide further insight into whether passive and active ideation are best conceptualized as discrete constructs or a dimensional continuum of worsening ideation (Siddaway et al., 2021).

The assumption that some suicidal thoughts are higher risk and more likely to transition to suicidal behavior than others is pervasive in the field and serves as the premise for contemporary ideation-to-action frameworks (e.g., Klonsky et al., 2018; Klonsky & May, 2015; Paykel et al., 1974; Van Orden et al., 2010). Specifically, passive ideation is often thought of as a gateway to active ideation, with passive thoughts presumed to be lower risk and less likely to transition to suicidal behavior than active thoughts (e.g., Klonsky & May, 2015; Paykel et al., 1974; Van Orden et al., 2010). Based on this assumption, many suicide risk assessments utilize a hierarchical structure that involves skipping presumably "higher risk" items if an individual denies passive ideation (e.g., Beck & Steer, 1991; Posner et al., 2011). Studies have demonstrated that this hierarchical approach is error-prone, particularly the "lower risk" items that are often administered as gateway/screening items (Tabares et al., 2020). Our findings shed light on this issue, demonstrating that passive and active ideation are distinct, but related constructs. In other words, although passive and active ideation often co-occur, they are *not* nested constructs and should therefore not be viewed as gradients of one underlying construct. Thus, at a minimum, *both* passive and active ideation should be included in *all* suicide risk screenings and assessments. Relatedly, a recent meta-analysis showed that passive and active ideation confer similar risk for suicidal behaviors (Liu et al., 2020) and several other studies have demonstrated that passive and active ideators are more similar than different (May et al., 2015; Szanto et al., 1996). Our prior work has also demonstrated that both passive and active ideation are associated with increased odds of attempting suicide, with the greatest risk occurring among individuals that report both passive and active ideation (Wastler et al., 2022). Taken together, these findings raise the possibility that each distinct type of ideation increases risk, but their co-occurrence might be synergistic or additive. This possibility further supports the importance of assessing both passive and active ideation, as the presence of both might indicate a different level of risk than either state alone. Additionally, there is a growing body of literature demonstrating that other suicidogenic cognitions, such as hopelessness, entrapment, perceived burdensomeness, and unbearability, predict future suicidal behavior even though these thoughts do not involve explicit content about killing oneself (e.g., Bryan et al., 2014; Bryan, Rozek, et al., 2020). It remains unclear how these types of suicidogenic cognitions fit within the broader context of suicidal ideation and further research is needed to examine how to best conceptualize these thoughts.

Notable strengths of the current study include (1) our large sample that approximates U.S. consensus demographics, (2) our replication in a second large sample, (3) our use of ESEM, which provides flexibility with regard to item cross-loading, and (4) our inclusion of multiple items to assess suicidal thought content. Study limitations include our use of a self-report version of the SITBI-R, which raises potential concerns about recall and response bias. To mitigate this issue, we conducted analyses using both lifetime and past month ideation. Results were largely consistent across both timeframes, alleviating some concerns about recall bias. Nonetheless, further replication with the interview format of the SITBI-R would lend additional support to our claims. Additionally, the current study included community samples that were not explicitly recruited to include individuals with suicidal thoughts and behaviors. As the latent structure of suicidal ideation might be different across various groups, further

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replication in clinical, high-risk samples as well as non-clinical high-risk samples (e.g., gun owners) is warranted. Finally, the current study did not examine the relationship between passive/active ideation and suicidal behavior. Longitudinal research that examines whether passive and active ideation differentially predict future suicide attempts would provide further insight into whether this distinction is useful in understanding the transition from suicidal thoughts to behaviors. Such work has the potential to guide the refinement of contemporary ideation-to-action frameworks (Klonsky et al., 2018; Klonsky & May, 2015; Van Orden et al., 2010).

The current study was the first to investigate the latent structure of suicidal ideation based on suicidal thought content. Our findings support a two-factor structure for suicidal ideation, with content that generally aligns with the distinction between passive and active ideation. Of note, some items exhibited cross-loading, suggesting that some thoughts straddle the line between passive and active ideation. Additionally, the two factors were highly correlated, suggesting that passive and active ideation are distinct, but related constructs that often co-occur. Future research is needed to examine whether passive and active ideation differentially predict the transition to suicidal behavior.

CONFLICT OF INTEREST

Dr. CJ Bryan reported grants from the Department of Defense, the National Institute of Mental Health, the New Jersey Gun Violence Research Center, and the American Foundation for Suicide Prevention during the conduct of the study and personal fees from Oui Therapeutics outside the submitted work. Ms. AO Bryan reported personal fees from Oui Therapeutics outside the submitted work. Dr. Wastler and Dr. Khazem reported grants from the American Foundation for Suicide Prevention during the conduct of the study. Dr. Khazem reported a grant from the University of Minnesota Press during the conduct of this study. Dr. Baker reported grants from the Greater Plains Consortium during the conduct of the study and personal fees from Anduril LLC outside the submitted work.

DATA AVAILABILITY STATEMENT

CJ Bryan had full access to all the data in the study and takes responsibility for the integrity of the data and the accuracy of the data analysis.

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