

# The Role of Motivational Moderators in Suicidal Ideation Among Adolescents and Young Adults: A Scoping Review

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**Objective:** This scoping review aimed to map empirical evidence on motivational moderators within the Integrated Motivational-Volitional (IMV) model that influence the transition from entrapment to suicidal ideation among adolescents and young adults.

**Methods:** This scoping review was conducted using the framework proposed by Arksey and O'Malley and refined by Levac et al, and was reported in accordance with the PRISMA extension for Scoping Reviews (PRISMA-ScR). A literature search was conducted in Scopus, PubMed/MEDLINE, and CINAHL from October to November 2025. Studies were selected using the Population, Concept, and Context framework: adolescents and young adults experiencing suicidal ideation or psychological distress; entrapment and motivational moderators within the IMV model; and any setting in which these variables were measured. Eligible studies were empirical articles published in English between 2015 and 2025. Data were extracted using a standardized extraction form and synthesized descriptively and narratively.

**Results:** A total of 10 studies were included in the review. The findings showed that motivational moderators shaped the relationship between entrapment and suicidal ideation in different ways. Loneliness, perceived burdensomeness, and thwarted belongingness generally intensified the entrapment–suicidal ideation pathway, although findings for interpersonal needs were mixed across studies. In contrast, reasons for living, meaning in life, and resilience appeared to buffer the psychological impact of entrapment. Positive future thinking showed a more complex role, as unrealistic future thinking was associated with stronger suicidal ideation in one study. Mental well-being did not consistently moderate the relationship between entrapment and later ideational outcomes.

**Conclusion:** This review indicates that suicidal ideation among adolescents and young adults is shaped by multiple interpersonal, cognitive, emotional, and existential moderators within the motivational phase of the IMV model. The findings support the relevance of the IMV framework for understanding the entrapment-to-suicidal ideation pathway, while also highlighting inconsistent evidence, heterogeneous samples, and limited longitudinal research. Further studies using robust longitudinal designs are needed to clarify how motivational moderators operate over time and inform targeted suicide prevention strategies.

**Keywords:** adolescent, entrapment, IMV model, motivational moderators, suicidal ideation

## Introduction

Suicide is a severe global public health crisis among adolescents and young adults. It is consistently ranked among the leading causes of death in young people, particularly those aged 15–29 years.<sup>1</sup> The prevalence of global suicide rate of approximately 3.77–3.8 per 100,000.<sup>2</sup> This risk increases significantly with age: older adolescents (ages 15–19) have a suicide rate of 6.04 per 100,000, compared to 0.93 per 100,000 for those aged 10–14.<sup>3,4</sup> This age range is developmentally important because it includes the transition from adolescence to young adulthood, a period marked by rapid biological, psychological, social, educational, and role-related changes that may increase vulnerability to psychological distress and suicidal thoughts.<sup>5</sup> Although suicide death represents the most severe outcome, suicidal ideation often emerges earlier in the suicidal process and may indicate vulnerability to subsequent self-harm, suicide

attempts, or death by suicide.<sup>6</sup> Therefore, understanding suicidal ideation among adolescents and young adults is essential because this period represents a critical window for early identification and prevention before suicidal thoughts escalate into suicidal behavior.

The impact of suicidal ideation among adolescents and young adults extends far beyond individual psychological distress, imposing a substantial burden at developmental, familial, clinical, and societal levels. Mental health problems are common during adolescence and young adulthood, and depression, anxiety, and behavioural disorders are among the leading causes of illness and disability among adolescents.<sup>7</sup> Clinically, early-onset suicidal ideation can disrupt emotional regulation, identity development, academic functioning, peer relationships, and family connectedness. In young adulthood, suicidal ideation may also interfere with educational transition, employment, autonomy, intimate relationships, and the formation of adult social roles.<sup>8</sup> Interpersonally, suicidal ideation may be worsened by environmental and relational stressors, including family conflict, peer disconnection, school or university stress, bullying, trauma exposure, and perceived social isolation. These developmental and contextual pressures highlight the need to understand not only the presence of suicidal ideation, but also the psychological mechanisms that explain how adolescents and young adults move from distress to suicidal thinking.<sup>9</sup>

Several theoretical frameworks have been developed to explain suicidal ideation and suicidal behavior. Ideation-to-action theories, including the Interpersonal Theory of Suicide, the Three-Step Theory, the Integrated Motivational-Volitional model, and the Fluid Vulnerability Theory, share the assumption that the development of suicidal ideation and the progression from suicidal ideation to suicidal behavior are distinct processes.<sup>10</sup> The Interpersonal Theory of Suicide emphasizes perceived burdensomeness and thwarted belongingness as central contributors to suicidal desire, whereas the Three-Step Theory highlights the interaction between psychological pain, hopelessness, connectedness, and suicide capability.<sup>11</sup> Although these models have contributed substantially to suicide research, they often focus on selected psychological constructs or specific transitions within the suicidal process. In contrast, the Integrated Motivational-Volitional model is particularly appropriate for this review because it provides a broader ideation-to-action framework and explicitly identifies motivational moderators that may influence whether feelings of entrapment develop into suicidal ideation.<sup>6</sup>

To understand the complex causes of suicidal behavior, the Integrated Motivational-Volitional (IMV) model, originally developed by O'Connor and later refined by O'Connor and Kirtley, offers a comprehensive ideation-to-action framework.<sup>6</sup> The model divides the suicide trajectory into three interacting phases: the pre-motivational phase, the motivational phase, and the volitional phase. The pre-motivational phase describes the biopsychosocial context in which suicidal ideation and behavior may emerge, the motivational phase explains how suicidal ideation develops, and the volitional phase explains how suicidal thoughts may progress into suicide attempts or death by suicide.<sup>12</sup> The core of the IMV model is its motivational phase. This phase outlines a central pathway in which feelings of defeat lead to a deep sense of entrapment, which in turn contributes to suicidal ideation. Importantly, this process is influenced by motivational moderators.<sup>13</sup> These moderators, such as lack of belonging, perceived burdensomeness, future thinking, resilience, reasons for living, meaning in life, mental well-being, and social support, may determine whether an entrapped individual develops suicidal thoughts.<sup>14</sup> By separating the emergence of suicidal ideation from the transition to suicidal behavior, the IMV model provides a useful framework for identifying modifiable psychological and interpersonal factors among adolescents and young adults before suicidal thoughts escalate into suicidal acts.

A growing body of research has tested the IMV model and generally supports its value as a framework for understanding suicidal ideation and behavior. A recent systematic review concluded that the IMV model is a promising framework for understanding and preventing suicide, with defeat, entrapment, and related variables serving as potentially useful targets for suicide prevention.<sup>15</sup> However, despite its relevance, the evidence on motivational moderators among adolescents and young adults remains fragmented. Some studies have examined adolescents or teenagers, whereas others have included students, young adults, adult community participants, and psychiatric inpatients.<sup>14,16</sup> This developmental and clinical heterogeneity suggests that IMV-related moderators may operate differently across age groups and contexts. Existing studies also vary in the moderators examined, including loneliness, perceived burdensomeness, thwarted belongingness, resilience, reasons for living, meaning in life, mental well-being, and future thinking.<sup>13</sup> Moreover, although most studies examine suicidal ideation as the

primary outcome, some evidence includes closely related ideational outcomes such as self-harm thoughts, which requires careful conceptual distinction.<sup>17</sup> As a result, it remains unclear which motivational moderators are most consistently associated with the entrapment-to-suicidal ideation pathway among adolescents and young adults.

Previous reviews have contributed to understanding suicide theories, ideation-to-action frameworks, and the broader evidence supporting the IMV model.<sup>14,15,18</sup> However, limited attention has been given to mapping motivational moderators within the IMV model specifically among adolescents and young adults. This gap is clinically important because this developmental period is marked by heightened vulnerability, changing interpersonal relationships, increasing autonomy, and exposure to school, university, employment, and social role transitions. It is also academically important because current evidence remains heterogeneous, with mixed findings regarding moderators such as belongingness, perceived burdensomeness, loneliness, resilience, future thinking, mental well-being, reasons for living, and meaning in life. To address this gap, this scoping review aimed to map and synthesize existing research on motivational moderators that influence the transition from entrapment to suicidal ideation among adolescents and young adults, using the Integrated Motivational-Volitional model as a guiding framework. By organizing this fragmented literature, this review seeks to clarify how motivational moderators may inform future research, risk assessment, and suicide prevention strategies for adolescents and young adults.

## Method

### Design

This study used a scoping review design with an approach developed by Arksey and O'Malley and strengthened by Levac et al<sup>19,20</sup> The purpose of this approach is to systematically map available scientific evidence, identify research gaps, and summarize key findings related to motivational moderators in the entrapment-to-suicidal ideation pathway among adolescents and young adults. This approach was chosen because the available literature is conceptually diverse, fragmented across multiple constructs, and has not yet been synthesized within the Integrated Motivational-Volitional (IMV) framework, making a scoping review the most appropriate method for identifying key concepts, clarifying theoretical applications, and highlighting gaps that require further research.

A formal review protocol was not registered in an external database; however, the review procedures were defined before screening and data extraction to enhance transparency and consistency. The scoping review process was carried out through five main stages, namely: (1) identifying the research question, (2) searching for relevant literature, (3) selecting studies based on inclusion and exclusion criteria, (4) extracting and mapping data, and (5) preparing synthesis and reporting the results in a narrative manner. Although Arksey and O'Malley described consultation as an optional stage, and Levac et al recommended consultation to enhance methodological rigor and applicability, stakeholder consultation was not conducted in this review because the aim was to map and synthesize published empirical evidence. This issue was considered when interpreting the applicability of the findings. Each stage was carried out systematically to ensure transparency and replicability of the research. The reporting of this scoping review followed the PRISMA extension for Scoping Reviews (PRISMA-ScR) checklist.<sup>21</sup>

### Identifying Research Questions

This review aimed to identify and synthesize what has been described in the published literature about motivational moderators that influence the transition from entrapment to suicidal ideation among adolescents and young adults. The research question was:

What motivational moderators have been examined in the entrapment-to-suicidal ideation pathway among adolescents and young adults within the motivational phase of the Integrated Motivational-Volitional model?

The objective was to map empirical evidence, theoretical applications, and research gaps that inform current understanding of the entrapment-to-suicidal ideation pathway within the IMV model in this population.

## Search Strategy

A systematic literature search was conducted across three major electronic databases: Scopus, PubMed/MEDLINE, and CINAHL. These databases were selected for their extensive coverage of international literature in psychiatry, psychology, nursing, and public health. The literature search was conducted from October to November 2025. The search strategy was developed using the PCC framework, consisting of Population, Concept, and Context, as recommended for scoping reviews. The search combined Boolean operators (AND, OR), truncation where appropriate, and database-specific indexing terms such as Medical Subject Headings (MeSH) in PubMed/MEDLINE.

The conceptual framework for the search terms was built upon three core domains: the target population, the theoretical framework and primary outcome, and the specific motivational moderators of interest. Keywords used included Population (P) terms targeting adolescents, teenagers, youth, students, and young adults experiencing suicidal ideation or psychological distress; Concept (C) terms encompassing entrapment, defeat, suicidal ideation, and specific motivational moderators such as thwarted belongingness, perceived burdensomeness, resilience, reasons for living, loneliness, future thinking, social support, mental well-being, and emotion regulation within the IMV model; and Context (C) terms covering any setting where these variables were measured. The search was limited to articles published in English between 2015 and 2025 to capture recent empirical evidence on the IMV model and motivational moderators while maintaining relevance to contemporary suicide prevention research among adolescents and young adults.

## Study Selection

Inclusion and exclusion criteria were established to ensure the suitability of the studies to the research objectives, based on the PCC framework. Inclusion criteria included: (1) Population: studies involving adolescents and young adults, broadly defined as individuals aged approximately 10–29 years, or studies with samples described as adolescents, teenagers, youth, students, or young adults when relevant to suicide research; (2) Concept: studies investigating entrapment, defeat, suicidal ideation, or closely related ideational outcomes such as self-harm thoughts when examined within the defeat–entrapment pathway of the IMV model; (3) Conceptual focus: studies examining at least one motivational moderator, such as thwarted belongingness, perceived burdensomeness, resilience, reasons for living, loneliness, future thinking, mental well-being, meaning in life, or social support, that shapes the entrapment-to-suicidal ideation mechanism within the IMV model; (4) Context: studies conducted in any setting where entrapment and suicidal ideation or related ideational outcomes were measured; and (5) Publication type: empirical studies including experimental, quasi-experimental, analytical observational, descriptive observational, and qualitative designs, published in English between 2015 and 2025.

Exclusion criteria included: (1) all review types, text and opinion papers, editorials, commentaries, and conference abstracts; (2) case reports, case series, and studies without sufficient empirical data relevant to the IMV motivational phase; (3) studies focusing solely on suicide attempts, completed suicide, or non-suicidal self-injury without suicidal ideation or self-harm ideation data; (4) studies examining general psychological variables with no connection to defeat, entrapment, suicidal ideation, or the IMV motivational phase; and (5) studies conducted in animal models or non-psychological contexts.

Studies with broader adult, community, or clinical samples were considered only when they directly examined the IMV motivational phase and provided evidence relevant to motivational moderators in the entrapment-to-suicidal ideation pathway (included adolescents or young adults in the samples). These studies were retained to map the available evidence but were interpreted cautiously in relation to the adolescent and young adult focus of this review. The inclusion of self-harm thoughts was limited to studies in which self-harm ideation was assessed as an ideational outcome within the defeat–entrapment pathway, rather than as a behavioral outcome. This clarification was applied to maintain the primary focus of the review on suicidal ideation while acknowledging closely related ideational constructs. The study selection process was documented using a PRISMA flow diagram to ensure transparent reporting of identification, screening, eligibility assessment, and inclusion of studies.<sup>21</sup>

## Data Extraction

Data from eligible studies were extracted using a standardized data extraction form specifically designed to address the research questions. Extracted variables included general information, namely author, year of publication, country, and study design; research purposes; sample characteristics; measurement instruments used to assess IMV model constructs, specifically the motivational phase and moderating variables; type of ideational outcome assessed; and key findings related to motivational moderators. The extracted population data were reviewed carefully to distinguish adolescent-specific samples, young adult samples, broader adult samples, and clinical samples. Additional extracted data included the type of ideational outcome assessed, such as suicidal ideation or self-harm thoughts, to ensure conceptual clarity between suicidal ideation and related self-harm ideation outcomes. Data extraction was conducted independently by two researchers to ensure accuracy and consistency, with disagreements resolved through collaborative discussion or by involving a third researcher acting as a mediator.

## Synthesis and Reporting of Results

The extracted data were synthesized using a descriptive and thematic analysis approach. This synthesis process involved three main stages: (1) data quantification to describe the distribution of studies by publication year, country, study design, and sample characteristics; (2) thematic analysis to categorize the specific motivational moderators investigated, including positive future thinking, reasons for living, meaning in life, social support, loneliness, perceived burdensomeness, thwarted belongingness, resilience, and mental well-being, as well as the measurement instruments used for IMV model constructs and reported outcomes; and (3) conceptual mapping to identify the range of themes and patterns explored in the literature, without evaluating clinical effectiveness or implying strict causality between motivational moderators and suicidal outcomes.

Because the included studies varied in design, sample characteristics, age group, measures, and moderators examined, the synthesis was conducted narratively rather than through meta-analysis. Particular attention was given to whether evidence came from adolescent samples, young adult samples, or broader adult and clinical samples, to avoid over-generalizing findings to adolescents and young adults when the original samples were more heterogeneous. The results of this scoping review are presented descriptively and narratively in accordance with PRISMA-ScR guidelines and are used to identify research trends and knowledge gaps that require further investigation.<sup>21</sup>

## Results

### Selection of Sources of Evidence

A systematic literature search was conducted through three electronic databases: PubMed, Scopus, and CINAHL. The search was conducted from October to November 2025, with the final search completed in November 2025. The search initially identified 362 records, with no additional records found through other sources. After removing 80 duplicate records, 282 records were screened by title and abstract. Of these, 232 records were excluded because they did not meet the eligibility criteria. The remaining 50 full-text articles were assessed for eligibility, and 40 articles were excluded for the following reasons: wrong population ( $n = 16$ ), wrong concept ( $n = 14$ ), wrong publication type ( $n = 6$ ), and wrong outcomes ( $n = 4$ ). Ultimately, 10 studies were included in the final scoping synthesis. No additional records were identified through citation chasing. The article selection process is illustrated in the PRISMA flow diagram (Figure 1).<sup>22</sup>

### Characteristics of Included Studies

Ten studies were included in this review, with publication years ranging from the oldest in 2018<sup>23</sup> up to the latest in 2023.<sup>24</sup> All the studies analyzed focused on a very recent period, with nine studies, or approximately 90% of the total, published between 2020 and 2023. Geographically, these studies were spread across several Western and Asian countries, with the largest contributions coming from England and Scotland (four studies:<sup>24–27</sup> In addition, there is a significant contribution from the United States (three studies:<sup>28–30</sup> China (two studies:<sup>23,31</sup> and one study conducted in Germany.<sup>32</sup>

In terms of methodological design, these studies were dominated by cross-sectional designs (seven studies:<sup>23–25,28,30–32</sup> Only three studies used a prospective or longitudinal design with follow-up periods ranging from 3 to 12 months to evaluate

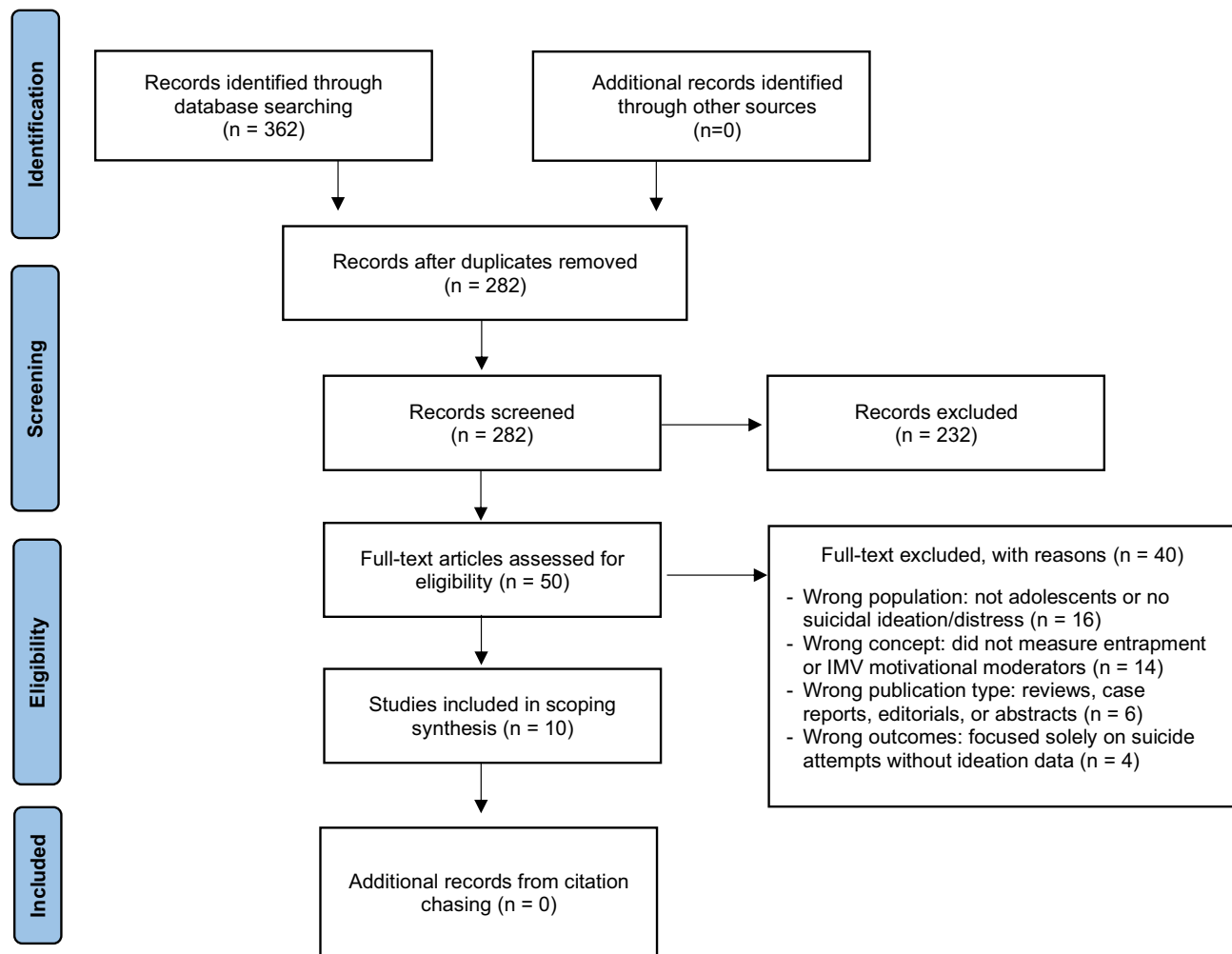


Figure 1 PRISMA Flow Diagram.<sup>22</sup>

the development of suicidal ideation over time.<sup>26,27,29</sup> Data collection methods consistently involved the use of validated self-report instruments, such as the Entrapment Scale and the Defeat Scale, to measure components of the motivational phase. One study specifically combined a questionnaire with a semi-structured diagnostic interview using the Self-Injurious Thoughts and Behaviors Interview-Revised (SITBI-R).<sup>29</sup> Most authors emphasize the importance of future longitudinal research to evaluate the nature and course of suicidal ideation in more depth.

Participants in the studies analyzed covered a wide age range, but there was a strong focus on the adolescent population (five studies:<sup>23,26,28,29,31</sup> Other studies involved samples of college students and young adults (two studies:<sup>27,30</sup>) as well as the general adult population, but included adolescents and young adults in their studies (two studies:<sup>24,25</sup>). One study specifically focused on a high-risk clinical sample, namely psychiatric inpatients who had recently experienced a suicidal crisis or suicide attempt.<sup>32</sup> Sample sizes varied widely, ranging from 74 participants in an intensive study<sup>29</sup> up to 8,113 participants in a large-scale, population-based survey.<sup>28</sup>

### Motivational Moderators in the Transition from Entrapment to Suicidal Ideation

The motivational phase of the IMV model explains how experiences of defeat may lead to feelings of entrapment, which may then contribute to suicidal ideation. Across the included studies, this transition was not presented as automatic; rather, it was shaped by a range of psychological, interpersonal, cognitive, and existential moderators. These moderators included loneliness, thwarted belongingness, perceived burdensomeness, reasons for living, meaning in life, resilience, mental well-being, and positive future thinking.

Most included studies examined suicidal ideation as the primary ideational outcome. However, one study assessed self-harm thoughts as a closely related ideational outcome within the defeat–entrapment pathway. Therefore, the synthesis primarily focuses on suicidal ideation while explicitly distinguishing self-harm thoughts from suicidal ideation where relevant. This distinction is important because suicidal ideation and self-harm thoughts may overlap conceptually and clinically, but they should not be treated as identical constructs. The characteristics and key findings of the included studies are summarized in [Table 1](#).

### Interpersonal Relationships and Loneliness

Interpersonal variables were among the most frequently examined motivational moderators in the included studies. The findings suggest that interpersonal disconnection may intensify the relationship between entrapment and suicidal ideation, although the strength and consistency of this moderating role varied across samples and contexts.

Loneliness was found to moderate the relationship between entrapment and suicidal ideation, with higher levels of loneliness strengthening this association. More recent evidence further differentiated loneliness into family, romantic, and social dimensions.<sup>25</sup> Family, romantic, and global loneliness moderated the entrapment-to-suicidal ideation pathway, whereas social loneliness did not consistently show the same effect.<sup>24</sup> These findings suggest that the quality and type of interpersonal disconnection may be more important than loneliness as a general construct.

Thwarted belongingness and perceived burdensomeness showed mixed findings across studies. In Chinese adolescents, both thwarted belongingness and perceived burdensomeness strengthened the association between entrapment and suicidal ideation, whereas resilience weakened this association.<sup>31</sup> In a German psychiatric inpatient sample, the interaction between thwarted belongingness and perceived burdensomeness moderated the entrapment-to-suicidal ideation pathway, although a ceiling effect was observed at more extreme levels of risk.<sup>32</sup> In contrast, a prospective study of young adults in Scotland found no evidence that thwarted belongingness or perceived burdensomeness moderated the relationship between entrapment and suicidal ideation.<sup>27</sup> Taken together, these findings suggest that interpersonal needs may function as motivational moderators, but their effects may depend on sample characteristics, baseline risk level, developmental stage, and measurement approach.

### Meaning in Life and Reasons for Living

Positive psychological factors also emerged as important protective moderators in the entrapment-to-suicidal ideation pathway. Reasons for living and meaning in life appeared to buffer the association between entrapment and suicidal ideation, suggesting that perceived purpose, valued life goals, and reasons to remain alive may reduce the likelihood that entrapment develops into suicidal thinking.

Reasons for living significantly weakened the relationship between entrapment and suicidal ideation in adolescent and student samples. In a Chinese adolescent sample, the effect of entrapment on suicidal ideation was significant among individuals with low reasons for living but became non-significant among those with high reasons for living.<sup>23</sup> Similarly, among students in the United States, reasons for living and the presence of meaning in life moderated the association between entrapment and suicidal ideation.<sup>30</sup> Suicidal ideation was highest when entrapment was high and meaning in life was low. These findings suggest that protective cognitive and existential resources may interrupt the progression from feeling trapped to developing suicidal ideation.

The distinction between having meaning in life and searching for meaning also appears important. The presence of meaning in life functioned as a protective factor, whereas merely searching for meaning may not provide the same protective effect when individuals have not yet established clear reasons for living.<sup>30</sup> This finding highlights the importance of assessing not only whether adolescents and young people are searching for purpose, but also whether they perceive their lives as meaningful and worth continuing.

### Resilience and Positive Future Thinking

Individual cognitive and emotional resources were also identified as moderators in the motivational phase of the IMV model. Resilience and future thinking may shape how adolescents interpret entrapment, cope with distress, and evaluate their perceived capacity to escape from adverse circumstances.

**Table 1** Characteristics and Key Findings of Included Studies

Author, Year	Research Purposes	Sample & Age	Country	Design	IMV Size	Key Findings
Okado et al, 2021 <sup>28</sup>	Examining risk/protective factors for the transition of ideas to action in adolescents.	8113 high school students (Grades 9–12).	United States (Hawaii)	Cross-sectional	Items ideas and experiments, disinhibition, academic achievement, school safety.	Disinhibition predicts escalation from ideation to experimentation; high academic achievement is associated with lower risk.
Pollak et al, 2021 <sup>29</sup>	Testing defeat/entrapment and positive future thinking in adolescents.	74 adolescents (12–19 yrs; M=16.27).	United States (New York)	Prospective (3 and 6 months) and Cross-sectional.	SDES (Defeat/Entrapment), SIQ (Ideas), FTT (Future Thinking).	The strongest relationship in adolescents with the ability to think about the future is unrealistically positive.
Russell et al, 2020 <sup>26</sup>	Examining the role of mental well-being in relationships of defeat, entrapment, and self-harm.	573 high school adolescents (15–17 yrs; M=15.35).	Scotland (UK)	Prospective (6 months).	SVEMWBS (Well-being), DS (Defeat), ES (Entrapment).	Mental well-being did not moderate the relationship between entrapment and thoughts of self-harm.
Moscardini et al, 2021 <sup>30</sup>	Determining the role of reasons for living and meaning of life as moderators.	195 students (18–54 years; M=19.66).	United States (Louisiana)	Cross-sectional.	ES (Entrapment), BRFL (Reasons for Living), MLQ (Meaning of Life), BSSI (Ideas).	RFL & presence of meaning in life moderate the impact of entrapment on suicidal ideation.
McClelland et al, 2021 <sup>25</sup>	Exploring loneliness as a moderator between defeat-entrapment and entrapment-SI.	400 adult residents (18–76 yrs; M=35.3).	England (UK)	Cross-sectional.	DS (Defeat), ES (Entrapment), UCLA Loneliness Scale, SPS-SI.	Loneliness moderated both the defeat-entrapment and entrapment-suicidal ideation relationships.
Ren et al, 2018 <sup>23</sup>	Examining self-esteem, entrapment, reasons for living (RFL), and suicidal ideation.	1074 adolescents (11–18 yrs; M=13.83).	China	Cross-sectional.	RSES (Self-Esteem), ES (Entrapment), BRLI (RFL).	Reasons for living moderates the relationship between entrapment and suicidal ideation.
Wetherall et al, 2021 <sup>27</sup>	Testing the load/membership (IPT) as a moderator on the IMV track.	2420 young adults.	Scotland (UK)	Prospective (12 months).	DS, ES, INQ (Burdensomeness/Belongingness), BSSI.	No evidence was found that thwarted belongingness or perceived burdensomeness moderated the entrapment-idea pathway.
Li et al, 2020 <sup>31</sup>	Testing the central pathway of IMV & moderators (PB, TB, resilience) in adolescents.	1239 adolescents (10–19 yrs; M=14.07).	China	Cross-sectional.	BHS (Defeat), ES (Entrapment), INQ, SRI-25 (Resilience).	PB, TB, and resilience moderate the entrapment-idea relationship; PB/TB strengthens, resilience weakens.
McClelland et al, 2023 <sup>24</sup>	Testing loneliness type (family, romantic, social) as a moderator.	582 participants (included young adults)	England (UK)	Cross-sectional.	SELSA (Loneliness), ES (Entrapment), SPS (Ideas), PHQ-9 (Depression).	Family, romantic, and global (not social) loneliness independently moderated the entrapment-ideation relationship.
Lucht et al, 2020 <sup>32</sup>	Validating the motivational phase of IMV in a high-risk clinical sample.	308 psychiatric patients (included young adults)	Germany	Cross-sectional.	DS (Defeat), ES (Entrapment), INQ, BSS (Idea).	The TB*PB interaction moderates the entrapment-idea relationship through a “ceiling effect” at extreme levels of distress.

Resilience weakened the association between entrapment and suicidal ideation in Chinese adolescents.<sup>31</sup> However, this finding should be interpreted as an association rather than evidence that resilience directly prevents suicidal ideation, because the available evidence is primarily observational. Adolescents with higher resilience appeared less likely to report suicidal ideation in the presence of entrapment, suggesting that resilience may buffer the psychological impact of feeling trapped.

Positive future thinking showed a more complex pattern. Although future-oriented thinking is often considered protective, one study found that high but unrealistic positive future thinking strengthened the relationship between defeat/entrapment and suicidal ideation among adolescents.<sup>29</sup> This suggests that future thinking may not always be protective; its effect may depend on whether future expectations are realistic, attainable, and supported by coping resources. Unrealistic positive future thinking may intensify distress when adolescents perceive a widening gap between desired futures and current feelings of entrapment.

### Mental Well-Being and Self-Harm Thoughts

General mental well-being was examined as a potential moderator in relation to defeat, entrapment, and self-harm thoughts. One prospective study among high school students in Scotland found that mental well-being did not moderate the relationship between entrapment and subsequent self-harm thoughts, although it was negatively associated with self-harm risk.<sup>26</sup>

Because this study assessed self-harm thoughts rather than suicidal ideation as the primary outcome, its findings were synthesized as evidence relating to a closely associated ideational outcome rather than as direct evidence of suicidal ideation. This distinction is important for maintaining conceptual clarity in the review.<sup>28</sup> While self-harm thoughts and suicidal ideation may overlap clinically and theoretically, they should not be treated as identical constructs. Therefore, findings from this study were used to inform understanding of the broader ideational pathway within the IMV motivational phase without overgeneralizing conclusions about suicidal ideation.

### Identification of Knowledge Gaps

Based on the evidence mapping, several major knowledge gaps were identified. First, the current evidence remains dominated by observational designs, particularly cross-sectional studies.<sup>23,28,31,32</sup> Although three prospective studies were included, there remains a lack of multi-wave longitudinal research capable of testing temporal pathways among defeat, entrapment, motivational moderators, and suicidal ideation.<sup>26,27,29</sup> No randomized controlled trials were identified, which limits conclusions about whether modifying motivational moderators can reduce suicidal ideation.

Second, the included studies relied heavily on self-report instruments to assess defeat, entrapment, suicidal ideation, and motivational moderators.<sup>25,30</sup> Although these instruments are useful for capturing subjective psychological experiences, reliance on self-report measures may increase the risk of reporting bias, especially in sensitive topics such as suicidal ideation and self-harm thoughts.<sup>29</sup> Future research would benefit from combining self-report measures with clinical interviews, ecological momentary assessment, or multi-informant data.

Third, evidence for interventions targeting motivational moderators within the IMV model remains limited. The included studies identified several potentially modifiable targets, including loneliness, perceived burdensomeness, thwarted belongingness, resilience, reasons for living, meaning in life, and future thinking.<sup>23,30</sup> However, few studies have tested whether interventions designed to modify these factors can reduce suicidal ideation among adolescents and young people. Therefore, future research should move beyond observational testing of the IMV model toward intervention development and evaluation.

### PAGER Framework Synthesis

A synthesis of findings from the included studies was organized using the PAGER framework, consisting of Patterns, Advances, Gaps, Evidence for Practice, and Research Recommendations. This framework was used to move beyond descriptive reporting and to critically map how motivational moderators shape the entrapment-to-suicidal ideation pathway within the IMV model. The synthesis revealed a consistent pattern in which entrapment emerged as a central proximal factor associated with suicidal ideation, while moderators such as loneliness, reasons for living, meaning in life,

resilience, perceived burdensomeness, thwarted belongingness, mental well-being, and future thinking shaped the strength or direction of this association.

The PAGER framework also highlighted methodological progress, particularly the inclusion of prospective studies and multidimensional assessments of interpersonal factors. However, important gaps remain, including limited longitudinal evidence, limited adolescent-specific samples, absence of intervention studies, and the need for clearer distinction between suicidal ideation and self-harm thoughts. The PAGER synthesis is presented in [Table 2](#).

## Discussion

This scoping review synthesizes empirical evidence on various motivational moderators within the Integrated Motivational–Volitional Model that influence the transition from feeling trapped to the emergence of suicidal ideation. Overall, the findings from the ten studies analyzed suggest that the emergence of suicidal ideation is not an automatic consequence of feelings of defeat or entrapment, but rather a psychological process influenced by a number of moderating factors, both interpersonal and intrapersonal. Variables such as loneliness, unmet interpersonal needs, reasons for living, meaning in life, resilience, and future thinking patterns play a significant role in strengthening or weakening the relationship between entrapment and suicidal ideation. These findings support the central assumption of the IMV model, which states that the motivational phase is a critical stage in which various psychological factors interact before suicidal ideation fully develops.<sup>33</sup>

One of the most consistent findings in the literature is the importance of interpersonal experiences, particularly loneliness and social disconnection. Several studies have shown that loneliness significantly strengthens the relationship between feelings of entrapment and suicidal ideation.<sup>34,35</sup> Individuals experiencing high levels of loneliness appear to be more susceptible to developing suicidal thoughts when they also experience psychological inequity. Previous study suggests that loneliness acts as a moderator, strengthening the pathway between entrapment and suicidal ideation, such that individuals with higher levels of loneliness report greater levels of suicidal ideation when experiencing feelings of entrapment.<sup>36</sup> Loneliness in family and romantic relationships has been found to have strong and independent moderating effects, while social loneliness does not always demonstrate the same strong influence on suicidal ideation.<sup>37,38</sup> These findings suggest that the absence of intimate emotional relationships has a more profound psychological impact than simply limited social interaction in general.

In addition to loneliness, other interpersonal constructs derived from the Interpersonal Theory of Suicide have also emerged as important moderators: thwarted belongingness and perceived burdensomeness. These two factors significantly strengthen the relationship between entrapment and suicidal ideation.<sup>39</sup> Adolescents who feel trapped, socially isolated, or burdensome to others exhibit a significantly higher risk of suicide. However, findings regarding the role of these two variables are not entirely consistent across populations.<sup>40</sup> Previous study found a ceiling effect, where the moderating role of thwarted belongingness and perceived burdensomeness became less pronounced when levels of both variables were very high.<sup>41</sup> No evidence that these two variables moderated the relationship between entrapment and suicidal ideation over a longer follow-up period.<sup>42</sup> This inconsistency suggests that the role of interpersonal factors may be influenced by population characteristics, the severity of psychological conditions, and different sociocultural contexts.

In addition to interpersonal factors, the literature consistently highlights the role of positive psychological factors as a protective factor against suicidal ideation. The two most frequently identified variables are reason for living and meaning in life. Several studies have shown that individuals with a strong sense of purpose in life are more likely to withstand the psychological impact of feeling trapped.<sup>43,44</sup> In individuals with high reason for living scores, the relationship between entrapment and suicidal ideation may even become statistically insignificant. Another study showed that the presence of meaning in life moderated the relationship between entrapment and the severity of suicidal ideation.<sup>45</sup> Suicidal ideation was highest among individuals who experienced strong feelings of entrapment but had low meaning in life. Conversely, individuals with a clear sense of purpose in life were more likely to maintain hope and motivation to endure psychological distress.<sup>45,46</sup> These findings also emphasize the importance of distinguishing between the presence of meaning in life and the process of searching for meaning in life.<sup>47</sup> Individuals still in the process of searching for meaning in life may not necessarily enjoy the same strong psychological protection as those who have truly found meaning in their lives.

**Table 2** PAGER Framework: Motivational Moderators of Suicidal Ideation in the IMV Model

Pattern	Advance	Gap	Evidence for Practice	Research Recommendation
<b>Central pathway of the IMV motivational phase:</b> Defeat was consistently associated with entrapment, and entrapment emerged as a proximal correlate of suicidal ideation across several studies.	<b>Validation across diverse samples:</b> Research has extended from adult and clinical samples to community adolescents, young adults, and psychiatric inpatients.	<b>Limited temporal evidence:</b> Most studies were cross-sectional, limiting conclusions about the temporal ordering of defeat, entrapment, moderators, and suicidal ideation.	<b>Targeting entrapment:</b> Assessment and intervention should address feelings of internal entrapment, self-critical thinking, rumination, and perceived inability to escape distress.	<b>Prospective multi-wave studies</b> are needed to test the temporal assumptions of the IMV motivational phase among adolescents and young people.
<b>Protective role of meaning and reasons for living:</b> Reasons for living and the presence of meaning in life weakened the association between entrapment and suicidal ideation.	<b>Nuanced meaning assessment:</b> Studies distinguished between the presence of meaning and the search for meaning, showing that the presence of meaning may be more protective.	<b>Limited intervention evidence:</b> There is a lack of longitudinal and intervention studies evaluating meaning-centered or reasons-for-living-based approaches for reducing suicidal ideation.	<b>Holistic suicide risk assessment:</b> Clinicians should assess life meaning, reasons for living, and perceived purpose as part of adolescent mental health and suicide risk assessment.	Future research should examine whether strengthening meaning in life and reasons for living prospectively reduces suicidal ideation.
<b>Interpersonal disconnection and loneliness:</b> Loneliness, particularly family and romantic loneliness, moderated the entrapment-to-suicidal ideation pathway, whereas findings for social loneliness were less consistent.	<b>Multidimensional loneliness modeling:</b> Research has moved from global loneliness toward distinguishing family, romantic, and social loneliness.	<b>Unclear thresholds:</b> It remains unclear how duration, intensity, and type of loneliness influence the progression from entrapment to suicidal ideation.	<b>Strengthening social connection:</b> Interventions should consider family and close relational contexts, not only general peer or social connectedness.	Ecological momentary assessment and longitudinal studies are needed to examine real-time fluctuations in loneliness, entrapment, and suicidal ideation.
<b>Mixed role of interpersonal needs:</b> Thwarted belongingness and perceived burdensomeness strengthened the entrapment-to-suicidal ideation pathway in some studies but not in others.	<b>Cross-cultural and clinical testing:</b> Studies have tested interpersonal needs in adolescent, young adult, and clinical samples across different countries.	<b>Inconsistent moderator effects:</b> Findings vary by sample, baseline risk, and measurement approach, making it difficult to determine when these factors operate as moderators.	<b>Context-sensitive assessment:</b> Clinicians should assess perceived burdensomeness and belongingness in relation to family, peer, school, and clinical context.	Future studies should test whether developmental stage, culture, and baseline suicide risk explain inconsistent findings.
<b>Cognitive and emotional resources:</b> Resilience and realistic future thinking may weaken the entrapment-to-suicidal ideation pathway, whereas unrealistic future thinking may intensify risk.	<b>Recognition of complexity:</b> Research has shown that positive future thinking is not uniformly protective and may become maladaptive when unrealistic.	<b>Limited developmental evidence:</b> Few studies have examined how adolescents' cognitive development shapes future thinking, resilience, and perceived escape from entrapment.	<b>Realistic goal-setting and resilience support:</b> School and clinical programs may benefit from helping adolescents build realistic future goals and adaptive coping resources.	Future research should examine how realistic versus unrealistic future thinking interacts with entrapment over time.

(Continued)

**Table 2** (Continued).

Pattern	Advance	Gap	Evidence for Practice	Research Recommendation
<b>Self-harm thoughts as a related but distinct outcome:</b> One study examined self-harm thoughts rather than suicidal ideation within the defeat–entrapment pathway.	<b>Broader ideational mapping:</b> Including closely related ideational outcomes may help clarify the wider motivational pathway of the IMV model.	<b>Conceptual clarity is needed:</b> Suicidal ideation and self-harm thoughts should not be treated as interchangeable outcomes.	<b>Clear outcome assessment:</b> Researchers and clinicians should distinguish suicidal ideation, self-harm thoughts, suicide attempts, and non-suicidal self-injury.	Future reviews and empirical studies should clearly define and separate ideational and behavioral outcomes.

**Abbreviations:** PAGER, Patterns, Advances, Gaps, Evidence for Practice, Research Recommendations; IMV, Integrated Motivational Volitional Model; RFL, Reasons for Living; SWEMWBS, Short Warwick-Edinburgh Mental Well-being Scale.

Resilience also emerged as an important moderator in the motivational phase of the IMV model. Resilience reflects an individual's ability to maintain emotional stability and adapt when faced with psychological stress.<sup>13</sup> Empirical evidence suggests that individuals with high levels of resilience are less likely to develop suicidal ideation despite experiencing feelings of entrapment.<sup>48,49</sup> Resilience was found to significantly weaken the relationship between entrapment and suicidal ideation.<sup>50</sup> This suggests that an individual's internal capacity to manage stress and maintain a positive outlook on life may serve as an important protective mechanism in the development of suicidal ideation.

Furthermore, the literature provides interesting insights into the role of future-oriented cognitions. In general, positive thinking about the future is often considered a protective factor against suicidal behavior.<sup>51,52</sup> However, findings from research on adolescents suggest a more complex relationship. Prospective studies have found that high but unrealistic future thinking can actually strengthen the relationship between entrapment and suicidal ideation.<sup>53</sup> Adolescents with unrealistically high future expectations may experience greater disappointment when these expectations are not met, thus reinforcing their feelings of entrapment.<sup>54</sup> These findings suggest that adaptive optimism needs to be distinguished from unrealistic expectations in suicide prevention efforts.

Although a number of psychological moderators have shown clear associations with suicidal ideation, not all factors demonstrate consistent effects. While mental well-being is generally known to be negatively correlated with the risk of self-harm, prospective research in adolescents suggests that mental well-being does not directly moderate the relationship between entrapment and future suicidal ideation.<sup>55</sup> This suggests that mental well-being may act more as a general protective factor that influences psychological health broadly, but not necessarily as a specific moderator within the motivational pathways described by the IMV model.

In addition to thematic aspects, an analysis of the methodological characteristics of the included studies also revealed several important patterns in the literature. Most studies used cross-sectional designs, which only describe relationships between variables at a single point in time. This design limits researchers' ability to understand the temporal dynamics between defeat, entrapment, and the emergence of suicidal ideation. Although some prospective studies have begun to explore the development of suicidal ideation over three to twelve months, the number of longitudinal studies remains relatively limited. Furthermore, most studies rely on self-report instruments to measure psychological variables such as entrapment, loneliness, and suicidal ideation. While these instruments have been extensively validated, the exclusive use of self-report data has the potential to introduce response bias and limit diagnostic accuracy. Only one study explicitly combined a questionnaire with a semi-structured diagnostic interview to enhance the validity of the assessment of suicidal ideation.

An important conceptual issue emerging from the included studies is the distinction between suicidal ideation and self-harm thoughts. Most studies in this review positioned suicidal ideation as the main ideational outcome within the motivational phase of the IMV model, whereas one study examined self-harm thoughts in relation to defeat, entrapment, and mental well-being. This distinction is important because suicidal ideation refers more specifically to thoughts about

ending one's life, while self-harm thoughts may include thoughts of harming oneself with or without suicidal intent.<sup>56</sup> The inclusion of this study suggests that the motivational phase of the IMV model may capture a wider range of self-injurious thoughts, while the main synthesis remains centered on suicidal ideation.

The included studies also varied in the developmental characteristics of their participants. Although several studies focused on adolescents or teenagers, others involved students, young adults, adult community participants, or psychiatric inpatients. This variation is relevant because motivational moderators such as loneliness, perceived burdensomeness, resilience, and future thinking may operate differently across developmental stages and clinical contexts. For example, interpersonal disconnection among adolescents may be shaped by family, school, and peer relationships, whereas adult samples may reflect different relational, occupational, or clinical pressures. Differences in participant characteristics may therefore help explain why some moderators, such as thwarted belongingness, perceived burdensomeness, and loneliness, showed inconsistent effects across studies.<sup>43,57</sup>

An important issue emerging from this review is the need to maintain conceptual clarity between suicidal ideation and self-harm thoughts. Most included studies examined suicidal ideation as the primary ideational outcome within the motivational phase of the IMV model, while one prospective study examined self-harm thoughts as a closely related outcome within the defeat–entrapment pathway. Although these constructs may overlap clinically and theoretically, they should not be treated as interchangeable. Therefore, the findings of this review primarily inform understanding of suicidal ideation, while evidence related to self-harm thoughts should be interpreted as supportive but conceptually distinct. This distinction is important for improving precision in future IMV-based research and for avoiding overgeneralization of findings across different suicidal and self-harm outcomes.<sup>56</sup>

## Implications and Recommendations

This review provides several important implications for clinical practice and research in suicide prevention. Suicide risk assessment should not only focus on the presence of suicidal ideation, but also include an evaluation of motivational moderating factors such as loneliness, perceived burdensomeness, resilience, and reasons for living. By identifying these factors early, mental health professionals can detect individuals with psychological vulnerabilities even before suicidal ideation explicitly emerges. Furthermore, intervention program development should be directed at strengthening protective factors proven to mitigate the impact of entrapment, such as enhancing meaning in life, strengthening reasons for living, and developing resilience. Therapeutic approaches that help individuals establish realistic life goals and reduce rumination patterns may also contribute to preventing the development of suicidal ideation.

Interventions targeting interpersonal relationships also have an important role, particularly through programs aimed at reducing loneliness and improving the quality of family and romantic relationships, given that loneliness in intimate relationships has a strong moderating effect on the emergence of suicidal ideation. Beyond these practical implications, future research needs to develop more robust longitudinal designs to more deeply understand the dynamics of the relationship between defeat, entrapment, and various psychological moderators. The use of multi-wave designs and real-time measurement methods such as ecological momentary assessment can provide a more accurate understanding of how these psychological processes develop over time.

## Limitations

This review has several limitations that should be considered when interpreting the results. Most of the studies analyzed used cross-sectional designs,<sup>23,28,31,32</sup> so causal relationships between motivational moderators and suicidal ideation cannot be firmly established, while longitudinal evidence remains relatively limited. Furthermore, the majority of studies relied on self-report instruments to measure psychological variables such as entrapment, loneliness, and suicidal ideation, which are potentially affected by response bias and recall bias. The geographic distribution of research is also concentrated in Western and East Asian countries such as the United Kingdom, the United States, and China,<sup>23–31</sup> so the generalizability of the findings to other cultural contexts is limited. Finally, although various psychological moderators have been identified, research evaluating the effectiveness of clinical interventions specifically targeting these factors remains limited.

Another important consideration is the developmental heterogeneity of the included studies. Although this review focused on adolescents and young people, some included studies involved broader student, young adult, adult community, or psychiatric inpatient samples. This variation suggests that the motivational phase of the IMV model has relevance across different populations, but it also limits the extent to which all findings can be generalized specifically to adolescents. Future studies should prioritize adolescent-specific samples and developmental comparisons to clarify whether motivational moderators operate differently across early adolescence, late adolescence, and young adulthood.

## Conclusion

This scoping review synthesized evidence on motivational moderators within the Integrated Motivational-Volitional model that influence the transition from entrapment to suicidal ideation among adolescents and young people. The findings indicate that suicidal ideation is shaped by multiple interpersonal, cognitive, emotional, and existential factors rather than by entrapment alone. Loneliness, perceived burdensomeness, and thwarted belongingness may strengthen the entrapment-to-suicidal ideation pathway, whereas reasons for living, meaning in life, resilience, and realistic future thinking may weaken this association. These findings support the relevance of the IMV motivational phase while emphasizing that suicidal ideation among adolescents and young people is context-dependent and influenced by modifiable psychological factors.

However, the evidence remains fragmented, with most studies using cross-sectional designs, self-report measures, and heterogeneous samples. Future research should prioritize longitudinal and multi-wave designs, adolescent-specific samples, and clearer distinctions between suicidal ideation and self-harm thoughts. Intervention studies are also needed to test whether targeting motivational moderators can reduce suicidal ideation. This review provides a foundation for future IMV-based assessment and prevention strategies focused on early identification and modification of psychological factors before suicidal ideation progresses toward suicidal behavior.

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