

## The Model for Predicting Self-Harming Behaviors Based on Cognitive Emotion Regulation Strategies and Emotional Distress Tolerance in Adolescents Visiting Harm Reduction Centers in Tehran: The Mediating Role of Internalized Shame

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## 1. Round 1

### 1.1. Reviewer 1

Reviewer:

The introduction effectively contextualizes adolescence as a transitional phase, but it would benefit from a more explicit definition of adolescence within the context of your study. The sentence "Adolescence, as a transitional period from childhood to maturity..." could be enhanced by clarifying the age range, particularly since adolescence is widely debated (e.g., 12–25 years). Consider adding: "Adolescence, typically defined as the period between 12 and 18 years, is a transitional phase during which individuals experience significant physical, hormonal, and psychological changes."

You mention the importance of adolescence in shaping identity and future decision-making but do not reference theories or models of identity formation. Consider integrating Erikson's theory of psychosocial development to strengthen this argument. For example: "Erikson (1968) posited that adolescence is a critical stage for identity formation, which significantly impacts future decision-making."

The phrase “self-harm occurs across various societies and cultures” could be improved by addressing cultural variability more directly. Are there notable cultural differences in the prevalence or expression of self-harming behaviors? Consider rephrasing to: "Self-harm is observed in various societies and cultures, although the prevalence and expression of these behaviors may vary significantly based on cultural context (D'Oliveira-Costa et al., 2020)."

The sentence "Various studies have demonstrated a relationship between cognitive emotion regulation strategies and self-harming behaviors" is useful but could benefit from specific references to studies or meta-analyses that support this claim. For example: "Multiple studies (e.g., Shahbazi-Rad & Mohammadi, 2021) have demonstrated that maladaptive cognitive emotion regulation strategies, such as rumination, are positively associated with self-harming behaviors."

The description of emotional distress tolerance is comprehensive, but you may want to explain how this construct connects with self-harming behaviors. For instance: "Low emotional distress tolerance has been shown to increase vulnerability to self-harming behaviors by preventing individuals from engaging in healthier coping mechanisms when faced with overwhelming emotions (Erol & Inozu, 2023)."

While you introduce the concept of internalized shame well, a deeper exploration of its psychological mechanisms could strengthen the argument. How does internalized shame lead to self-harm, from a cognitive or emotional perspective? For example: "Internalized shame may lead to self-harm as individuals attempt to cope with their negative self-views and feelings of unworthiness by engaging in behaviors that provide temporary relief from emotional pain (Woodford et al., 2024)."

The discussion of internalized versus externalized shame could be improved by tying these concepts back to self-harming behaviors more directly. For example: "While both internalized and externalized shame are linked to psychological distress, internalized shame, which involves negative self-evaluation, is particularly associated with self-harming behaviors due to the desire to escape self-directed negative emotions (McLaughlin et al., 2022)."

The method section introduces the descriptive-correlational approach, but it would benefit from a more detailed explanation of the rationale for using structural equation modeling (SEM). For instance: "Given the complex relationships between cognitive emotion regulation strategies, emotional distress tolerance, and internalized shame, SEM was chosen as it allows for the testing of direct and indirect effects among multiple variables simultaneously."

Table 1 presents descriptive data but lacks some necessary statistical details. Including measures of central tendency (mean, median) and dispersion (standard deviation, interquartile range) would provide more insight into the data distribution. You could also consider including bivariate correlations between key variables.

Response: Revised and uploaded the manuscript.

## 1.2. Reviewer 2

Reviewer:

The phrase "self-harming behaviors in adolescents" is used repeatedly. To avoid redundancy, you might vary the terminology in subsequent mentions. For example: "These behaviors are often categorized as non-suicidal self-injury (NSSI), which differs from suicidal behaviors in that it is not intended to result in death (Glenn & Klonsky, 2013)."

The sentence "Some individuals may attempt to relieve emotional pain and alleviate psychological stress through self-harm..." would benefit from a more specific discussion of the mechanisms behind these behaviors. Are these behaviors related to deficits in emotion regulation, impulsivity, or a learned coping strategy? A suggestion might be: "Self-harming behaviors are often considered a maladaptive coping mechanism used to manage intense negative emotions or psychological stress, particularly in the absence of effective emotion regulation skills (Asarnow et al., 2021)."

While you mention that "cognitive emotion regulation refers to managing and manipulating emotionally evocative information," a more detailed explanation would clarify its role. The sentence could be expanded to: "Cognitive emotion regulation involves both cognitive reappraisal, where individuals reinterpret negative emotions in a more adaptive way, and cognitive avoidance, where individuals attempt to suppress or ignore distressing thoughts (Nysse-Carris et al., 2018)."

The introduction of Gross and Thompson's (2007) model is valuable, but you could clarify the distinction between adaptive and maladaptive strategies by providing more specific examples. For instance: "Adaptive strategies, such as positive reappraisal and perspective-taking, involve actively changing one's emotional experience in a healthy way, whereas maladaptive strategies, such as rumination and self-blame, can exacerbate emotional distress and increase the risk of self-harming behaviors (Daniel et al., 2019)."

You note that research has not adequately addressed the simultaneous examination of the primary factors predicting self-harming behaviors. It would be useful to cite a gap in the literature here, such as: "Despite the growing literature on self-harm, few studies have simultaneously examined the interplay between cognitive emotion regulation, emotional distress tolerance, and internalized shame as predictors of self-harming behaviors."

You mention that "limited research has explored these significant factors simultaneously" without citing specific studies that support this gap. To strengthen the point, it would be beneficial to reference any notable works that have addressed this issue, or lack thereof. For example: "Although some studies (e.g., Hatkevich et al., 2019) have explored these factors in isolation, the combined influence of these constructs remains underexplored."

The inclusion criteria specify "having a clearly defined gender and sexual identity as male or female." This may inadvertently exclude transgender individuals, as acknowledged, but it could be useful to further clarify why transgender individuals were excluded and whether this affects the generalizability of the study. Consider stating: "This exclusion criterion was based on the specific focus of the harm reduction centers in District 12, which cater primarily to cisgender adolescents."

The average age of participants is reported, but you could provide more context regarding the distribution of age within the sample. For example: "The average age of participants was 16.49 years (SD = 1.42), with a range from 14 to 18 years, ensuring a representative sample across the adolescent age spectrum."

The discussion of the mediating role of internalized shame is clear but would benefit from referencing specific findings from the results section to support claims. For example: "As demonstrated in the results, internalized shame significantly mediated the relationship between cognitive emotion regulation strategies and self-harming behaviors, suggesting that individuals with low emotional regulation may experience heightened shame, which in turn increases vulnerability to self-harm."

You mention that "individuals using positive strategies view negative events in a more constructive light," but it would strengthen your argument to incorporate the mechanisms through which positive strategies reduce self-harming behaviors. For instance: "Positive strategies, such as reappraisal, enable individuals to reinterpret negative events in a less distressing manner, reducing emotional vulnerability and, in turn, the likelihood of engaging in self-harming behaviors (Gross & Thompson, 2007)."

Response: Revised and uploaded the manuscript.

## 2. Revised

Editor's decision after revisions: Accepted.

Editor in Chief's decision: Accepted.