Development and Validation of an Educational Protocol Based on the Phenomenology of Self-Harming Behaviors in Adolescent Girls with a History of Non-Suicidal Self-Injury

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A B S T R A C T

Objective: This study aimed to develop and validate an educational protocol grounded in the phenomenology of self-harming behaviors among adolescent girls with a history of non-suicidal self-injury.

Methods and Materials: A qualitative design with a phenomenological approach was employed. Participants consisted of 30 adolescent girls from public lower secondary schools in District 12 of Tehran during the 2023–2024 academic year, selected through purposive sampling until thematic saturation was achieved. Data were collected using semi-structured individual interviews, designed through expert consultation and literature review, and transcribed verbatim. Data analysis followed interpretive phenomenological analysis with open, axial, and selective coding. Expert evaluations were obtained to assess the content validity of the protocol. Reliability was established through test–retest using the intraclass correlation coefficient (ICC), and content validity was calculated using CVR and CVI indices.

Findings: The phenomenological analysis revealed four overarching domains: (1) experiences and emotions related to self-harm, (2) psychological and contextual triggers, (3) functional roles of self-harm in coping and communication, and (4) perspectives on future change. Expert assessments indicated high structural, process, and content adequacy of the protocol, with chi-square tests confirming the significance of differences in option choices (p = 0.01). Reliability analysis yielded an ICC of 0.96, indicating strong repeatability, while CVR and CVI values demonstrated robust content validity.

Conclusion: The findings confirm that the developed educational protocol accurately reflects adolescents' lived experiences and meets expert standards of validity and reliability.

Keywords: Phenomenology; Self-harming behaviors; Non-suicidal self-injury; Adolescent girls; Educational protocol; Validation

1. Introduction

Self-harming behaviors among adolescents have become an increasingly urgent public health and psychological concern worldwide, particularly among adolescent girls, who appear to be at greater risk compared to their male peers (Johnson, 2022; Kaggwa et al., 2024). These behaviors, often non-suicidal in nature, are characterized by deliberate and direct infliction of harm to one's body tissue without conscious suicidal intent. They include practices such as cutting, scratching, burning, or hitting oneself. Non-suicidal self-injury (NSSI) has been described as a maladaptive coping mechanism aimed at regulating overwhelming emotions, reducing psychological pain, or communicating distress when words fail (Briones-Buixassa et al., 2021; Mohibi et al., 2020). Despite its non-suicidal definition, self-harming behaviors significantly increase vulnerability to suicidal ideation and attempts, making their understanding, prevention, and treatment a matter of critical importance (Wan et al., 2019).

The prevalence of NSSI is alarmingly high among adolescents. Research conducted in diverse contexts shows that experiences of early trauma, adverse family conditions, and exposure to violence are strong predictors of these behaviors (Çağlar et al., 2021; Johnson, 2022). In the Iranian context, phenomenological investigations have highlighted how adolescent girls with histories of self-harm experience overwhelming emotions of shame, anxiety, and hopelessness, often exacerbated by social isolation and lack of familial support (Mohibi et al., 2020). Similarly, large-scale surveys in international settings reveal that adverse childhood experiences, including neglect and abuse, combined with insufficient social support, substantially raise the likelihood of both self-injury and suicidality (Wan et al., 2019). In refugee settings, where adolescents are exposed to cumulative trauma, displacement, and limited access to mental health services, self-harming behaviors tend to become chronic and entrenched (Kaggwa et al., 2024).

Theoretical and empirical models further emphasize the role of attachment insecurity, maladaptive schemas, and poor emotion regulation in predicting NSSI. For example, studies in Iran have shown that maladaptive cognitive emotion regulation strategies mediate the relationship between insecure attachment and self-harming tendencies (Ahmadimorvili et al., 2019; Hamedan et al., 2020). Other research has underscored the predictive role of experiential avoidance and difficulties in emotional regulation, particularly among adolescent girls with histories of running away from home (Rashidi-Asl et al., 2020; Rashidi Asl et al., 2020). These findings converge on the understanding that NSSI behaviors are not isolated incidents but deeply embedded in a network of developmental, emotional, and relational vulnerabilities.

At the core of self-harming behaviors lie psychological mechanisms related to emotion regulation and coping deficits. Adolescents who engage in self-harm often report high levels of rumination, impulsivity, and difficulties in tolerating distress (Khedmati, 2019; Khedmati, 2020). Rumination, in particular, has been shown to intensify negative affect and drive the repetitive nature of self-injury. Ego strengths and the ability to regulate emotions are crucial predictors of whether adolescents engage in non-suicidal self-injury (Mikaeeli & Moradikelardeh, 2021). Furthermore, self-criticism and low self-worth, coupled with an absence of healthy coping skills, place adolescents at heightened risk (Sobhani et al., 2022).

In addition to emotion regulation, identity processes have been implicated. For example, identity confusion and a lack of coherence in self-perception increase susceptibility to self-harming behaviors (Johnson, 2022). Adolescents often perceive self-injury as a means of expressing unspeakable emotional pain, asserting control, or even forming a maladaptive part of their identity (Mohibi et al., 2020). The personal meaning attached to self-harm is an important aspect, as it often serves communicative and functional roles within the adolescent's psychological and social world.

Given the multifactorial nature of NSSI, several therapeutic approaches have been developed and tested for effectiveness. Dialectical Behavior Therapy (DBT), with its emphasis on emotion regulation and distress tolerance, has been widely applied and shown significant effectiveness in reducing self-harming behaviors in adolescents (Ghodrati, 2021). Compassion-Focused Therapy (CFT) and Acceptance and Commitment Therapy (ACT) have also demonstrated promising results. For example, comparative studies have found both DBT and CFT effective in reducing aggression, self-harm, and emotional dysregulation among adolescents in correctional settings (Damavandian et al., 2021). Similarly, Acceptance and Commitment-based cognitive-behavioral therapy has been effective in addressing procrastination and improving self-control in students with self-harming tendencies (Gerayeli Mashkabadi et al., 2021).

Further evidence suggests that self-compassion serves as a protective factor, mediating the relationship between eating disorders and self-harming behaviors (Asghari &

Aghili, 2022). Training programs that enhance self-determination and acceptance-commitment skills have been found to improve academic meaning and self-regulation among students with histories of self-harm (Kazemi et al., 2023). At the same time, schema therapy has proven effective in reducing both self-harming and suicidal behaviors by addressing underlying maladaptive schemas (Ghouti, 2020).

Recent studies also highlight the effectiveness of emotion-focused and compassion-focused therapies in adolescent populations. For instance, compassion-focused and emotion-focused therapies were shown to reduce self-harming behaviors and improve interpersonal needs among adolescent girls with suicidal ideation (Jabbari & Aghili, 2023). This is supported by additional findings that highlight the predictive role of frustration intolerance and self-compassion in adolescent girls' tendencies toward self-harm (Motale et al., 2024). Together, these therapeutic approaches provide evidence that structured interventions targeting emotion regulation, self-compassion, and schema modification are effective in mitigating the risk of self-harming behaviors.

While quantitative models and therapeutic trials have significantly advanced our understanding, phenomenological studies offer unique insights into the lived experiences of adolescents engaging in self-harm. A phenomenological study conducted among adolescent girls in Tehran revealed the complexity of self-harm as a behavior that simultaneously alleviates emotional pain, expresses distress, and deepens cycles of dependence (Mohibi et al., 2020). These accounts underscore the importance of designing interventions grounded in adolescents' subjective experiences, rather than solely relying on external behavioral observations or standardized therapies.

Phenomenology allows for a deeper exploration of the meanings, emotions, and social contexts surrounding self-harming behavior. It provides a foundation for constructing educational and therapeutic protocols that resonate with adolescents' lived realities. In this regard, developing structured educational packages based on phenomenological insights can bridge the gap between theory and practice. Such protocols can address not only the immediate regulation of emotions but also the broader issues of identity, self-worth, and social connectedness (Briones-Buixassa et al., 2021; Çağlar et al., 2021).

In Iran, self-harming behaviors among adolescents are influenced by unique cultural, familial, and educational dynamics. The role of attachment, maladaptive schemas, and family functioning has been documented in several local studies (Hamedan et al., 2020; Sobhani et al., 2022). For example, dysfunctional family systems and weak psychological capital have been identified as predictors of adolescent girls' tendencies toward self-injury (Sobhani et al., 2022). Furthermore, cultural stigmatization surrounding mental health issues often prevents adolescents from openly expressing their struggles, thereby reinforcing reliance on non-verbal and self-directed methods such as self-harm (Mohibi et al., 2020).

These contextual factors highlight the urgent need for culturally sensitive interventions. While international models such as DBT or CFT are effective, their adaptation to the Iranian context requires integrating cultural values, family dynamics, and adolescents' lived experiences. By grounding intervention protocols in phenomenology, researchers and practitioners can ensure that the therapeutic approaches are not only evidence-based but also culturally resonant.

Despite the growing body of research on NSSI, there remains a scarcity of structured educational protocols specifically designed and validated for adolescent girls with a history of non-suicidal self-harm in Iran. Previous research has primarily focused on therapeutic interventions, predictive modeling, or the identification of risk factors (Ahmadimorvili et al., 2019; Kazemi et al., 2023; Rashidi-Asl et al., 2020). While these contributions are invaluable, there is a pressing need for practical, structured, and contextually appropriate protocols that can be implemented in schools, clinical settings, or community health centers.

The present study was therefore designed to develop and validate an educational protocol for adolescent girls with a history of non-suicidal self-injury, using a phenomenological approach.

2. Methods and Materials

This study employed a qualitative research design with a phenomenological approach to explore and understand the lived experiences underlying self-harming behaviors among adolescent girls with a history of non-suicidal self-injury. The research population consisted of female students enrolled in public lower secondary schools located in District 12 of Tehran during the 2023–2024 academic year. Participants were selected through purposive sampling to ensure inclusion of adolescents with relevant behavioral experiences. Ultimately, 30 participants were recruited, with data collection continuing until thematic saturation was

reached. Each participant was informed of the study objectives, and informed consent was obtained. Interviews were audio-recorded with permission and subsequently transcribed verbatim for analysis.

Semi-structured individual interviews were the primary tool for data collection, designed to elicit in-depth narratives of participants' experiences with self-harming behaviors. The initial framework of the interview guide was developed based on expert consultation, preliminary pilot interviews, and a comprehensive review of theoretical and empirical literature related to self-harm and its various forms. Interview questions were focused on phenomenological exploration of self-harming behaviors and were structured to capture the most salient factors influencing adolescents' experiences. Interviews lasted an average of 30 minutes, ranging from 20 to 45 minutes with a standard deviation of 7.24 minutes. Supplementary written documents were also considered when necessary to enrich data coding and categorization. To ensure content validity of the interview questions, the items were reviewed by a panel of ten psychologists and academic experts, who judged each question on necessity and relevance. The Content Validity Index (CVI) was calculated at 0.77, confirming adequacy of content coverage. In addition, test–retest reliability of the coding process was evaluated using the intraclass correlation coefficient (ICC). Ten participants repeated the interview after seven days, and the ICC value of 0.96 (p < 0.005) indicated high reproducibility of the codes.

The collected data were analyzed using an interpretive phenomenological approach with iterative coding techniques. Analysis began concurrently with data collection, allowing new interview questions to be refined and adjusted based on emerging insights. Transcribed interviews were read multiple times to achieve immersion in the data and to gain a holistic understanding of participants' narratives. Open coding was carried out by segmenting the text into meaningful units and generating preliminary codes. These open codes were then grouped into broader conceptual categories through axial coding, where similarities and differences among concepts were identified and clustered. Finally, selective coding was conducted to integrate and refine categories, revealing relationships among them and facilitating the development of a theoretical paradigm grounded in the data. Redundant or repetitive codes were removed, and categories were systematically compared to ensure clarity and consistency. The process continued until core themes and subthemes were finalized, representing the phenomenological dimensions of self-harming behaviors in the participants.

3. Findings and Results

The findings of this study emerged from the interpretive phenomenological analysis of semi-structured interviews with adolescent girls who had a history of non-suicidal self-injury. Through iterative coding and thematic categorization, four overarching themes were identified that reflect the complexity of self-harming behaviors, their meanings, underlying triggers, and the ways adolescents perceive the possibility of change. These themes provide a comprehensive understanding of the lived experiences of participants, highlighting both the psychological functions and the social contexts surrounding their behaviors.

Table 1

Extracted Themes from the Narratives of Adolescent Girls with a History of Non-Suicidal Self-Injury

Overarching Theme	Organizing Theme	Basic Theme	Description
Experiences and emotions related to self-harm	Experiencing the moment of self-injury	Physical pain and psychological release	Participants described physical pain as a temporary means of releasing psychological pressure. Physical pain acted as a substitute for mental distress, helping to alleviate intense negative emotions. This experience often involved contradictory feelings—pain and suffering on one hand, and temporary relief and calmness on the other.
		Anxiety, hopelessness, and severe distress during the act	Adolescents reported experiencing intense anxiety and despair at the moment of self-harm. The act occurred during emotional peaks when they sought an immediate way to reduce overwhelming tension, often accompanied by feelings of helplessness.
		Temporary calmness after the act	Following self-injury, participants described a short-lived reduction in psychological pressure and a sense of temporary calm. This fleeting relief often reinforced the cyclical nature of the behavior as a recurring coping mechanism.
	Personal meaning of self-harm	Emotional self-control	Adolescents viewed self-injury as a way to gain control over unbearable emotions. Although short-lived, the act provided a sense of mastery over their psychological state.

Triggers and underlying factors	Psychological and emotional factors	Nonverbal expression of pain	Self-harm was perceived as a nonverbal method of expressing pain that could not be articulated through words. Those unable to verbalize their suffering used self-injury as a form of communication.
		Identity and behavioral attachment	Some participants integrated self-harm into their identity, making it a habitual and entrenched behavior, difficult to replace with healthier alternatives.
		Anxiety, depression, and feelings of worthlessness	Severe and persistent negative emotions such as anxiety, depression, hopelessness, and low self-worth were major drivers of self-harm, leaving adolescents with limited coping capacity.
		Harsh self-criticism and lack of coping skills	Adolescents reported intense self-criticism and insufficient coping strategies, both of which increased the risk of self-harming behaviors.
		Repeated psychological stressors	Ongoing academic, family, and social stressors intensified emotional vulnerability and heightened the likelihood of self-harm.
	Environmental and social factors	Family conflicts and lack of support	Conflict, neglect, and emotional unavailability within families created unsafe environments where adolescents felt insecure and alone.
		Peer pressure and social rejection	Experiences of rejection, exclusion, and peer pressure often pushed adolescents toward self-harm as a reactive or compensatory behavior.
		Lack of safe, supportive spaces	The absence of safe spaces in family, school, or community contexts deprived adolescents of opportunities to express emotions and seek support, increasing reliance on self-harm.
Function of self-harm in adolescent life	Coping with stress and psychological pain	Temporary relief from anxiety and distress	Adolescents acknowledged that self-harm temporarily reduced anxiety and psychological pain, though the relief was short-lived and often followed by recurrence of distress.
		A sense of temporary control	The act provided a brief perception of control over overwhelming circumstances and emotions.
		Temporary soothing of emotional pain	Self-harm was described as a short-term method for alleviating emotional pain and distress, yielding transient improvements in mood.
	Nonverbal communication and expressing needs	Indirect cry for help and attention	Adolescents viewed self-harm as a way of signaling their need for support when they were unable to articulate their struggles verbally.
		Expression of deep suffering and need for support	The act was also perceived as an appeal for recognition of the severity of their pain, with hopes that others would notice and intervene.
Perspectives on the future and change	Hope for recovery and behavioral change	Belief in the possibility of quitting	Some participants expressed belief that they could stop self-harming and move toward a better future, reflecting hope as a motivational force.
		Motivation and energy for change	Internal motivation and optimism about the future encouraged efforts to overcome self-harm.
	Fear and concern about continuation	Worries about being trapped in a cycle	Adolescents feared being unable to break free from the repetitive cycle of self-harm, which they perceived as inescapable.
		Fear of judgment and non-acceptance	Concerns about stigma, judgment, or lack of acceptance after stopping self-harm were seen as barriers to change.
	Factors influencing motivation to change	Support from family and friends	Emotional and practical support from close others was emphasized as a key motivator for change.
		Small successes and progress in quitting	Experiencing small achievements in reducing self-harm significantly boosted motivation and perseverance.
	Attitudes toward seeking help and treatment	Acceptance of professional help	Some adolescents recognized the need for professional support, considering counseling or therapy as essential steps toward change.
		Resistance and fear of treatment	Others showed resistance or fear toward therapy, viewing it as intimidating or stigmatizing, which hindered engagement in treatment.

The analysis of participants' narratives revealed that self-harming behaviors were deeply intertwined with intense emotional states and personal meanings. Adolescents described their self-injury as a way of coping with unbearable feelings, particularly during moments of heightened anxiety and despair. They emphasized the paradoxical experience of pain, where physical harm provided temporary relief and emotional detachment, while simultaneously deepening a cycle of reliance on the behavior.

Findings also showed that psychological vulnerabilities such as depression, self-criticism, and lack of coping skills, in combination with environmental stressors like family conflict and peer rejection, played significant roles in the emergence of self-harm. These internal and external factors created a high-risk context where adolescents felt trapped and unable to voice their pain, leading them to resort to self-harming behaviors as both an outlet and a survival mechanism.

Moreover, participants highlighted the dual role of self-harm in their lives: it functioned both as a maladaptive

coping strategy and as a nonverbal communication tool to express unmet emotional needs. Many saw the behavior as a plea for help, a signal to their families and peers that their struggles required attention, even when they were unable to verbalize their distress.

Finally, adolescents' views on the future were marked by ambivalence. While some expressed hope for recovery, belief in change, and motivation to pursue healthier coping

strategies, others conveyed fears of being caught in a repetitive cycle, as well as concerns about judgment or rejection if they disclosed their struggles. The role of supportive relationships and small, tangible successes was highlighted as critical for sustaining motivation, while attitudes toward professional help varied between openness and resistance.

Table 2

Summary of the Components of the Educational Protocol Based on the Phenomenology of Self-Harming Behaviors

Session	Title	Main Objectives	Key Content and Activities
First	Introduction to Self-Harm and Safe Space	Creating a safe and trusting environment for sharing experiences; initial introduction to self-harm and its basic concepts	Introducing the program and group rules; open discussion of personal experiences (non-judgmental); providing an overview of self-harming behavior and its cycle
Second	Understanding Emotions and Their Connection to Behavior	Developing awareness of core emotions (anxiety, shame, anger); understanding the link between emotions and self-harm	Training in recognizing various emotions; group discussion on experiences with negative emotions; practicing weekly emotion tracking
Third	Impulse Control and Immediate Reactions	Recognizing the concept of impulsivity; learning techniques to manage impulsive reactions	Training in deep breathing, "stop and delay" techniques; role-play exercises to manage immediate reactions; group discussion on impulsive situations
Fourth	Managing Inner Shame and Strengthening Self-Acceptance	Understanding shame and differentiating it from guilt; enhancing self-acceptance and self-compassion	Introducing the concept of self-compassion; writing a compassionate letter to oneself; group activities on accepting flaws and strengths
Fifth	Reducing Rumination and Focusing on the Present	Learning about rumination and its effects on behavior; practicing mindfulness and present-moment focus	Training in mindfulness techniques (short meditation); exercises in breathing and body awareness; group discussion on rumination experiences
Sixth	Redefining the Meaning and Role of Self-Harming Behavior	Helping adolescents reinterpret the meaning of their behavior; identifying healthy coping alternatives	Open discussion on personal meanings of self-harm; identifying triggers and healthier alternatives; developing a personal coping plan
Seventh	Strengthening Motivation and Hope for the Future	Enhancing motivation to stop self-harming; focusing on positive goal-setting and sustainable change	Training in goal-setting techniques; writing short- and long-term goals; group activities to reinforce hope and social support
Eighth	Reviewing the Program and Strengthening Skills	Reviewing and consolidating acquired skills; planning for maintenance of change and addressing challenges	Reviewing techniques and practices; discussing challenges and coping strategies; developing a continued support and maintenance plan

In the first session, the focus was on creating a safe and supportive environment in which adolescents felt comfortable sharing their experiences without fear of judgment. The group was introduced to the program structure, rules, and expectations, followed by an open conversation in which participants were encouraged to talk about their personal experiences with self-harm. This session also provided a foundational explanation of the concept of self-harming behaviors and the repetitive cycles that often sustain them.

The second session concentrated on emotional awareness, where adolescents learned to identify and differentiate basic emotions such as anxiety, shame, and anger. Through group discussions and guided reflections, participants examined how these emotions were connected to their self-harming behaviors. They were also assigned the task of recording their emotions throughout the week to enhance self-monitoring and emotional literacy.

In the third session, the emphasis was placed on understanding and managing impulsivity. Adolescents were introduced to practical strategies for controlling immediate reactions, such as deep breathing exercises, "stop and delay" methods, and role-playing activities to rehearse alternative responses to triggering situations. These activities encouraged participants to reflect on their own impulsive experiences and practice healthier responses.

The fourth session explored the concept of shame, helping participants distinguish it from guilt and understand its negative role in reinforcing self-harm. Activities focused on fostering self-acceptance and compassion toward oneself. Participants were guided to write compassionate letters to themselves and engaged in group exercises designed to normalize imperfections and recognize personal strengths, thereby building a healthier self-image.

The fifth session introduced participants to the concept of rumination and its detrimental impact on psychological well-

being and self-harming behavior. Mindfulness practices were introduced as a way to shift attention to the present moment. Adolescents participated in short meditation, breathing awareness, and body-focused exercises. Group discussions allowed them to reflect on their experiences with rumination and practice mindfulness as a healthier coping mechanism.

The sixth session aimed to help participants redefine the meaning of their self-harming behavior and explore healthier alternatives. Adolescents engaged in reflective discussions about the personal significance of self-harm and collaboratively identified triggers that initiated these behaviors. They were then encouraged to construct individualized coping plans that included healthier replacement strategies to manage distress and external pressures.

The seventh session highlighted the importance of motivation and future orientation. Adolescents were encouraged to envision a better future by setting both short-term and long-term goals. They practiced structured goal-setting techniques and wrote down personal objectives. Group activities emphasized the role of hope, encouragement, and social support in sustaining behavioral change, reinforcing the adolescents' commitment to recovery.

Finally, the eighth session provided a comprehensive review of the entire program. Adolescents revisited the key concepts, techniques, and exercises they had learned, ensuring consolidation of skills. The session also involved open discussions about anticipated challenges and the strategies to manage them. To strengthen continuity, participants created long-term maintenance plans and were encouraged to build ongoing support systems within their families, peers, and communities.

Table 3

Frequency and Percentage of Expert Opinions on the Educational Protocol Based on the Phenomenology of Self-Harming Behaviors

No.	Topic	Very Weak	Weak	Average	Good	Very Good
1	Structure – To what extent does the structure of the protocol align with the treatment process of self-harming behaviors?	0 (0%)	0 (0%)	1 (10%)	8 (80%)	1 (10%)
2	Process – To what extent is the progression of the sessions logical and desirable?	0 (0%)	0 (0%)	1 (0%)	9 (90%)	1 (10%)
3	Components – To what extent are the defined components of each session adequate?	0 (0%)	0 (0%)	2 (20%)	7 (70%)	1 (10%)
4	Time – To what extent is the time allocated for the protocol appropriate?	0 (0%)	0 (0%)	1 (10%)	8 (80%)	1 (10%)
5	Skills and Exercises – To what extent are the skills and exercises adequate and necessary?	0 (0%)	0 (0%)	0 (0%)	8 (80%)	2 (20%)

The evaluation of the educational protocol by experts in self-harming behaviors revealed that the majority rated its structural design and content positively. Specifically, 80% considered the structure "good" and 10% "very good," indicating strong alignment with therapeutic processes. Similarly, the progression of sessions was overwhelmingly endorsed, with 90% rating it "good" and 10% "very good." While most experts acknowledged the adequacy of session components, 20% rated them "average," suggesting room for refinement. Time allocation was also seen as suitable by 80% of experts, with a minority of 10% rating it "average." The highest endorsement was given to skills and exercises, where 80% rated them "good" and 20% "very good," highlighting the effectiveness of practical elements within the intervention.

Table 4

Chi-Square Test for the Significance of Differences in Selected Options

Topic	Chi-Square Value	Degrees of Freedom	Significance Level
Structure	19.58	4	0.01
Process	30.00	4	0.01
Components	17.64	4	0.01
Time	19.58	4	0.01
Skills and Exercises	19.58	4	0.01

The chi-square test results confirmed that the differences in expert evaluations of the educational protocol were statistically significant across all domains, including structure, process, components, time, and skills. Each variable achieved a significance level of p = 0.01, indicating that the positive evaluations of the protocol were not random. The strongest statistical difference was observed in the evaluation of the process (χ^2 = 30.00), reflecting a high level of consensus regarding the logical flow and progression of the sessions. These results demonstrate that the experts' assessments consistently affirmed the validity and appropriateness of the protocol design.

Table 5

Results of Content Validity Ratio (CVR) and Content Validity Index (CVI)

Session	CVR	CVI
Session 1 – Introduction to Self-Harm and Safe Space	1.00	1.00
Session 2 – Understanding Emotions and Their Connection to Behavior	1.00	1.00
Session 3 – Impulse Control and Immediate Reactions	1.00	1.00
Session 4 – Managing Inner Shame and Strengthening Self-Acceptance	1.00	1.00
Session 5 – Reducing Rumination and Focusing on the Present	1.00	1.00
Session 6 – Redefining the Meaning and Role of Self-Harming Behavior	0.80	0.90
Session 7 – Strengthening Motivation and Hope for the Future	0.80	0.90
Session 8 – Reviewing the Program and Strengthening Skills	1.00	1.00

The analysis of content validity demonstrated strong endorsement for the sessions of the educational protocol. Sessions one through five and session eight achieved perfect scores for both CVR and CVI (1.00), indicating unanimous expert agreement regarding their essentiality and adequacy. Sessions six and seven, although rated slightly lower with a CVR of 0.80 and a CVI of 0.90, still surpassed the minimum acceptable thresholds, confirming their validity. These findings highlight that all sessions within the protocol are content-valid, with the strongest validation for introductory, skills-based, and review sessions, while motivational and meaning-restructuring sessions, though slightly less endorsed, remain robust in content relevance.

4. Discussion and Conclusion

The purpose of this study was to develop and validate an educational protocol based on the phenomenology of self-harming behaviors among adolescent girls with a history of non-suicidal self-injury (NSSI). The results revealed four overarching thematic domains: experiences and emotions related to self-harm, triggers and underlying factors, the functional role of self-harm in adolescent life, and perspectives on the future and change. Furthermore, the findings demonstrated the strong validity of the protocol as assessed by experts, supported by high content validity ratios (CVR), content validity indices (CVI), and statistically significant chi-square results. Together, these outcomes suggest that the phenomenology-based intervention successfully captures the lived experiences of adolescents

and translates them into structured educational sessions that can be applied in therapeutic and preventive contexts.

The qualitative findings demonstrated that adolescents viewed self-harm as both a coping mechanism and a means of communication. Many participants reported that physical pain temporarily substituted for emotional pain, offering a short-lived sense of relief and control over otherwise overwhelming emotional states. This observation aligns with prior research highlighting that self-harming behaviors often function as maladaptive emotion regulation strategies (Ahmadimorvili et al., 2019; Khedmati, 2020). The paradoxical role of self-injury—both as a source of pain and as a mechanism of relief—has also been emphasized in phenomenological studies, which reveal that adolescents often perceive these behaviors as an embodied language for expressing what cannot be articulated verbally (Mohibi et al., 2020).

The results further revealed that self-harming behaviors were closely tied to experiences of anxiety, hopelessness, self-criticism, and rumination. These findings are consistent with quantitative models demonstrating the predictive role of maladaptive schemas, experiential avoidance, and emotion regulation difficulties in self-harming behaviors (Rashidi-Asl et al., 2020; Rashidi Asl et al., 2020). The recurrence of ruminative thought patterns and impulsive responses highlights the centrality of cognitive-emotional processes in maintaining NSSI, supporting previous evidence that links high levels of rumination and poor regulation strategies with increased vulnerability (Khedmati, 2019; Mikaeeli & Moradikelardeh, 2021).

Another significant dimension identified in this study was the personal meaning adolescents ascribed to self-harming behaviors. For some participants, self-injury had become integrated into their identity, creating behavioral attachment and resistance to change. This finding resonates with the observations of Briones-Buixassa et al. (Briones-Buixassa et al., 2021), who found that self-harm can become a habitual component of daily life, particularly among individuals with borderline personality traits. Similarly, studies have shown that self-harm is not only an emotion-regulation behavior but also a non-verbal communication strategy that conveys distress, a cry for help, or a plea for recognition from others (Çağlar et al., 2021; Wan et al., 2019).

The results of this study emphasized the complex interplay of psychological, familial, and social factors in shaping self-harming behaviors. Psychological factors such as depression, low self-worth, and heightened self-criticism were repeatedly reported by participants. These findings are in line with empirical evidence demonstrating the mediating role of emotion regulation deficits between attachment styles and self-harming behaviors (Ahmadimorvili et al., 2019; Hamedan et al., 2020). Similarly, experiential avoidance and poor regulation strategies have been documented as critical risk factors in adolescent populations (Rashidi-Asl et al., 2020).

In addition to psychological vulnerabilities, environmental and social contexts played a critical role. Family conflict, neglect, and lack of emotional support were repeatedly identified as contributors to adolescents' engagement in self-harm. This mirrors prior Iranian studies which found that poor family functioning and weak psychological capital predict adolescent girls' tendency toward self-injury (Sobhani et al., 2022). Internationally, Johnson (Johnson, 2022) also reported that exposure to childhood violence significantly predicts NSSI, with identity processes moderating the relationship. Furthermore, social exclusion and peer pressure were observed as powerful external triggers, which confirms prior findings from both Iranian and non-Iranian contexts (Mohibi et al., 2020; Wan et al., 2019).

The findings underscore the cumulative risk effect of individual, familial, and social stressors. Adolescents exposed to persistent psychological stress, coupled with dysfunctional family environments and peer rejection, face a significantly elevated likelihood of engaging in self-harm. These insights align with studies in refugee contexts, where cumulative adversity fosters the chronicity of self-harming behaviors (Kaggwa et al., 2024).

Consistent with existing literature, the current study demonstrated that adolescents use self-harm as a maladaptive strategy for coping with stress, achieving temporary relief, and signaling unmet emotional needs. Many participants described self-harm as creating a temporary sense of control over emotions, even though the relief was transient. This aligns with empirical evidence showing that self-harming behaviors often function as immediate but short-lived coping mechanisms (Briones-Buixassa et al., 2021; Mikaeeli & Moradikelardeh, 2021).

The communicative function of self-harm was also underscored. Participants acknowledged that these behaviors often served as non-verbal requests for attention or support, especially when verbal communication was perceived as impossible. This finding is consistent with prior studies emphasizing the signaling role of NSSI in adolescent populations (Çağlar et al., 2021; Wan et al., 2019). The fact that adolescents view self-harm as a way of "being seen" by their families or peers highlights the importance of addressing social and relational contexts in intervention design.

One of the most encouraging findings of this study was that adolescents expressed hope for recovery and motivation for change, despite ambivalence and fear. Many participants reported a belief in the possibility of quitting self-harming behaviors, particularly when supported by family, peers, and small incremental successes. This is consistent with therapeutic research emphasizing the role of social support and positive reinforcement in sustaining behavioral change (Kazemi et al., 2023; Wan et al., 2019).

At the same time, adolescents also reported significant fears of judgment, stigma, and rejection, which often undermined their motivation. Resistance to treatment and fear of professional intervention were also noted, echoing earlier findings that many adolescents struggle with accepting help or fear being misunderstood (Mohibi et al., 2020). This duality—between hope and fear—underscores the complexity of designing effective interventions that both foster motivation and reduce stigma.

The expert evaluations and statistical analyses provided strong support for the validity of the phenomenology-based educational protocol. The structure, process, components, and timing of the sessions were all rated positively, with particular emphasis on the adequacy of skills and exercises. Chi-square tests confirmed that the differences in evaluations were statistically significant across all dimensions, suggesting a high degree of expert consensus. Content validity analyses further demonstrated that the

majority of sessions achieved perfect CVR and CVI scores, confirming their essentiality and adequacy. Even sessions with slightly lower scores, such as those on redefining meaning and strengthening motivation, still surpassed standard thresholds, indicating robust validity.

These results align with prior studies demonstrating the effectiveness of structured therapeutic packages tailored for self-harming adolescents. For instance, DBT and CFT protocols have shown significant efficacy in both Iranian and international contexts (Damavandian et al., 2021; Ghodrati, 2021). Similarly, ACT-based and self-determination training programs have proven effective in enhancing psychological flexibility and reducing maladaptive behaviors (Gerayeli Mashkabadi et al., 2021; Kazemi et al., 2023). The current study extends this literature by developing an educational package grounded in adolescents' own phenomenological experiences, thereby ensuring both empirical validity and experiential resonance.

The findings of this study are largely consistent with earlier phenomenological investigations of adolescent self-harm. For example, Mohibi et al. (Mohibi et al., 2020) highlighted similar emotional paradoxes and communicative functions in Iranian adolescent girls. International evidence also supports the observation that self-harm often emerges from an interplay of trauma, identity struggles, and emotion regulation difficulties (Briones-Buixassa et al., 2021; Çağlar et al., 2021; Johnson, 2022).

The focus on phenomenology distinguishes the current study from purely quantitative or therapeutic trials by capturing the subjective meanings of self-harm and translating them into practical intervention strategies. This resonates with contemporary calls for integrating qualitative insights into intervention design, ensuring that protocols reflect the lived realities of adolescents rather than abstract theoretical assumptions (Motale et al., 2024; Sobhani et al., 2022).

Moreover, the validation results of this protocol echo findings from intervention research showing that carefully structured and culturally adapted educational packages can significantly enhance treatment effectiveness (Damavandian et al., 2021; Gerayeli Mashkabadi et al., 2021). By situating its design within the Iranian sociocultural context, this study adds value to the global literature by providing a model for localized, phenomenology-informed protocol development.

5. Limitations & Suggestions

Despite its contributions, this study is not without limitations. First, the sample was limited to adolescent girls from public schools in District 12 of Tehran, which restricts the generalizability of the findings to broader populations, including boys, adolescents in private schools, or those in rural areas. Second, the reliance on self-reported experiences may have been influenced by social desirability or reluctance to disclose sensitive details. Third, although the protocol was validated by experts, its practical effectiveness in reducing self-harming behaviors was not tested through longitudinal implementation, limiting conclusions about long-term outcomes. Finally, cultural factors unique to Iran may limit the applicability of the findings to other contexts, suggesting the need for cross-cultural replication.

Future research should aim to test the effectiveness of the developed protocol through experimental or quasi-experimental designs, ideally including randomized controlled trials. Longitudinal studies are particularly important to examine the sustained effects of the intervention on reducing self-harm and improving emotional regulation. Expanding the research to include diverse demographic groups, such as male adolescents, adolescents from different regions, and those from varying socioeconomic backgrounds, would enhance generalizability. Additionally, future investigations should explore the integration of digital tools, such as mobile applications or online group sessions, to extend the reach of the protocol and provide ongoing support beyond traditional face-to-face sessions.

In practice, the validated protocol can be implemented in school counseling programs, community health centers, and clinical settings to support adolescents struggling with self-harming behaviors. Training school counselors, psychologists, and social workers to deliver the sessions with sensitivity to adolescents' lived experiences will be crucial. Families should also be engaged in the process to provide the social and emotional support that adolescents identified as critical to change. Finally, the protocol should be accompanied by efforts to reduce stigma and create safe environments in schools and communities, enabling adolescents to seek help and express their emotions without fear of judgment or rejection.

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Declaration of Interest

The authors of this article declared no conflict of interest.

Ethical Considerations

The study protocol adhered to the principles outlined in the Helsinki Declaration, which provides guidelines for ethical research involving human participants.

Transparency of Data

In accordance with the principles of transparency and open research, we declare that all data and materials used in this study are available upon request.

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Authors' Contributions

All authors equally contributed to this article.

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