

Article type:
Original Research

1 Department of Counseling, Boj.C, Islamic Azad University, Bojnourd, Iran.
2 Department of Psychology, Qu.C., Islamic Azad University, Quchan, Iran.
3 Department of Counseling, Boj.C, Islamic Azad University, Bojnourd, Iran.

Corresponding author email address:
mmohammadipour@iau.ac.ir



Article history:

Received 20 Jul 2025
Revised 29 Aug 2025
Accepted 25 Sep 2025
Published online 01 Nov 2025

How to cite this article:

Malekzadeh, F. Z., Mohammadipour, M., & Jajarmi, M. (2025). Psychometric Properties of the Adolescent Identity Instability Questionnaire. *International Journal of Body, Mind and Culture*, 12(8), 225-231.



© 2025 the authors. This is an open access article under the terms of the Creative Commons Attribution-NonCommercial 4.0 International (CC BY-NC 4.0) License.

Psychometric Properties of the Adolescent Identity Instability Questionnaire

Fateme Zhinous. Malekzadeh¹, Mohammad. Mohammadipour^{2*},
Mahmoud. Jajarmi³

ABSTRACT

Objective: The present study was conducted to examine the psychometric properties of the Identity Instability Questionnaire in adolescents with self-injurious behavior.

Methods and Materials: The present study was fundamental (basic) in purpose, developmental in its methodological approach, and psychometric in nature. The statistical population in the present study consisted of all male and female students of the second grade of public schools with self-injurious behavior in Gonbad-Kavos city in the academic year 2024-25. Of which 315 people (200 girls and 115 boys) were selected non-randomly and purposefully. The Lechner Identity Hyperstability Questionnaire (2023) was used to collect data. Data analysis included mean, standard deviation, confirmatory factor analysis, and convergent validity and reliability using SPSS 28 and SMART PLS 3 statistical software.

Findings: Confirmatory factor analysis showed that the measurement model of the Identity Instability Scale with 20 items had a good fit. The factor loading of all items was higher than 0.50, the composite reliability and Cronbach's alpha were higher than 0.70, and the convergent validity was higher than 0.50. The results of the item analysis method showed that the items had an appropriate degree of difficulty and had a normal distribution.

Conclusion: The results of this study indicated the suitability of the psychometric properties of the Identity Instability Questionnaire for use in adolescents with self-injurious behavior. Future research can use this tool for diagnostic and therapeutic purposes in adolescents with self-injurious behavior.

Keywords: Identity instability, self-injurious behavior, psychometrics, validity, reliability.

Introduction

Adolescence is a turbulent and challenging period of life (Veloso-Besio et al., 2023). Stress and worry are common at this stage, as adolescents face substantial physical, psychological, and cognitive changes and naturally react to these transformations (Orben et al., 2020). At times, such tension and stress can draw them toward self-damaging behaviors (Goñi-Sarriés et al., 2025). Studies indicate that 17% of adolescents, 13% of adults, and 6% of adults over 25 have a history of at least one episode of self-harm (Aggarwal et al., 2021). Self-harm is a major public health concern in many societies (Alves et al., 2025). In Iran, research has reported a self-harm rate of 9 per 100,000 people, with adolescents accounting for about 10% of cases (Miri et al., 2022).

Self-injurious behaviors generally refer to acts in which a person, without suicidal intent, directly or indirectly harms themselves, including scratching the skin, cutting, burning, head banging, hitting oneself, and similar behaviors (Clark et al., 2025). In the DSM-5-TR, self-harm encompasses two categories: direct self-injury (e.g., self-cutting) and indirect self-harm (e.g., risk-taking behaviors, substance and alcohol misuse; (He et al., 2025). Although self-harm occurs in both clinical and non-clinical populations, its prevalence peaks during adolescence (roughly ages 12–18) and generally declines into adulthood (Asadolahi & Gholamipour, 2023; Hambleton et al., 2022). Meta-analytic findings estimate that 22.9% of adolescents have engaged in some form of self-injurious behavior; longitudinal meta-analyses further suggest that individuals who self-harm have a 27.4% higher likelihood of suicide than others (He et al., 2025). Chronic self-harm imposes a considerable burden on health-care systems, as many individuals require ongoing medical care and hospitalization due to their injuries (Zhang et al., 2025). These trends underscore the need for further study.

Reviews of the psychopathology literature on self-injury suggest two principal classes of causes: interpersonal and intrapersonal factors (Hambleton et al., 2022; Kovács et al., 2021). Interpersonal factors include demonstrations of independence, maintaining boundaries, exerting interpersonal influence, bonding with peers, retaliation, self-care, sensation seeking, and displays of tolerance or toughness (Hosseini-motlaq & Rahimi, 2024). In contrast, intrapersonal factors

internally elicit and reinforce self-injury (Zhou et al., 2024). Most research focusing on intrapersonal factors indicates that these behaviors are often impulsive and associated with psychiatric difficulties and diverse personality traits (Randazzo & Ammari, 2025).

Adolescence is a critical period for identity formation (Bogaerts et al., 2023). Erikson (1968) defined identity as a subjective sense of continuity over time, whereas identity confusion is characterized by a diffuse lack of purpose and the inability to commit to life choices (Collicot et al., 2025). Studies show that individuals who engage in self-harm typically experience higher levels of identity instability than those who do not (Valladares-Garrido et al., 2024). People who self-injure may feel they have little control over their lives, which can lead to confusion about identity and personal values (Kovács et al., 2021). Identity instability refers to a state in which a person—or a group—experiences ambiguity, confusion, or uncertainty about identity (García-Iglesias et al., 2022). This state is especially common during life transitions such as adolescence or major life changes e.g., divorce or migration; (Sun et al., 2024).

Recent research has shown a significant association between identity instability and adolescent self-harm (Kaufman et al., 2020). Self-harm is often used as a mechanism for coping with negative emotions or filling the void arising from identity confusion (Kovács et al., 2021). An adolescent lacking a stable sense of self may resort to self-injury to temporarily restore a feeling of control or to reduce internal tension (Fonagy et al., 2019). This link highlights not only the research importance of identity instability but also its clinical relevance. Despite its importance, few instruments have been developed to assess identity instability, particularly in high-risk groups such as adolescents who self-harm. The Identity Instability Questionnaire designed by (Lechner, 2023) is a recent and psychometrically sound tool in this area, constructed to measure key dimensions of identity instability and supported by acceptable validity and reliability in international samples.

However, psychometric studies emphasize that instruments must be validated within the cultural and linguistic context of the target population (Van de Vijver & Leung, 2021). In collectivist cultures such as Iran, the experience of identity, its meaning, and even the expression of adolescents' harmful behaviors may differ from Western societies (Massoodi et al., 2025);

therefore, a psychometric evaluation of the Persian version of this questionnaire is essential. In Iran, much of the adolescent literature has focused on social, religious, or academic identity (Bahmani et al., 2022; Massoodi et al., 2025), yet there is no dedicated, validated instrument for measuring identity instability. At the same time, domestic studies and clinical reports indicate a rising rate of self-harm among adolescents, and psychological interventions require precise tools for screening and identifying those at risk. This research gap justifies the present study. The current research was designed to examine the psychometric properties of the Lechner Identity Instability Questionnaire 2023 among adolescents engaging in self-injurious behavior during 2024–2025.

Methods and Materials

The present study was fundamental in aim and methodologically, a developmental psychometric investigation. The statistical population comprised all male and female students in upper-secondary (senior high) grades at public schools in Gonbad-e Kavus during the 2024–2025 academic year (1403–1404 SH) who engaged in self-injurious behavior. To avoid rule-of-thumb sampling Moradi et al., (2021), the sample size was determined in G*Power with $\alpha = 0.05$ (95% confidence), assuming a small effect size of 0.60 on a 5-point Likert scale; the required sample was estimated at 300. To reach this target (plus a 10% allowance), 330 questionnaires were distributed online; ultimately, data from 315 students were analyzed. Sampling was nonprobability and purposive. Inclusion criteria were self-injurious behavior and willingness to participate; students who provided incomplete data or did not meet entry criteria were excluded.

All procedures observed ethical considerations. Participation was voluntary, and informed consent was obtained from both parents and students. Data were kept confidential, and students identified as high risk for self-harm were referred to psychology and counseling centers.

Psychometric evaluation employed confirmatory factor analysis (CFA), item analysis, and the LOOP method to assess the validity and reliability of the Identity Instability Scale. The maximum Type I error rate for hypothesis testing was set at $p \leq .05$. Data were

analyzed using SPSS 28 and SMART PLS 3. Given the exploratory and novel nature of the questionnaire and the study model, a partial least squares (PLS) approach was used for model testing.

Measures

Identity Instability Questionnaire (Lechner, 2023)

Developed by Lechner, (2023), this instrument consists of 21 items rated on a 5-point Likert scale (1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, 5 = strongly agree). It has two subscales: Self-Disconnection (void/empty/self-empty identity; items 1–14) and Other-Reliance (enmeshed/self-involved identity status; items 15–21). Higher total and subscale scores indicate greater identity instability, self-disconnection, and reliance on others. Reported Cronbach's alphas for Self-Disconnection, Other-Reliance, and the total scale were .73, .80, and .88, respectively (Lechner, 2023).

Convergent validity was examined using the Spann-Fischer Coherence Scale, a 16-item instrument rated on a 6-point Likert scale (1 = strongly disagree to 6 = strongly agree). Total score is the sum of item scores, with items 5 and 7 reverse-coded in advance; higher scores indicate greater coherence. The correlation with the Identity Instability Questionnaire was $r = .38$, indicating acceptable convergent validity.

Discriminant validity was assessed using the Santa Clara Brief Self-Compassion Scale, a 5-item measure rated on a 7-point Likert scale (1 = not at all true of me to 7 = very true of me). The total score is the sum of item scores; higher scores reflect greater self-compassion. The correlation obtained was $r = .50$, which was judged acceptable for discriminant validity. The questionnaire has not previously been examined in an Iranian sample, and the present study aimed to standardize it for use in Iran.

Findings and Results

Of the participants, 200 (63.5%) were female and 115 (36.5%) were male. The mean age was 17.36 years ($SD = 0.59$; range = 13–20). The measurement model of the Identity Instability Questionnaire was evaluated via confirmatory factor analysis using partial least squares (PLS) in SmartPLS. Given the exploratory and novel nature of the instrument, PLS was selected for model estimation. Item validity was examined using factor

loadings ($\geq .50$) and their significance ($t > 1.96$). Convergent validity was assessed with the average variance extracted (AVE $\geq .50$). Reliability was examined via Cronbach's alpha and composite reliability (CR $\geq .70$).

All items loaded above .50, except Item 1, which showed an unacceptable/weak loading and was removed from the final model. The path coefficients from

the two components—Self-Disconnection and Other-Reliance—to the latent construct of identity instability were .98 and .95, respectively, indicating strong associations. Model fit indices indicated acceptable fit: NFI = .92; SRMR = .073 ($< .08$). Overall, fit indices supported the measurement model.

Table 1

CFA results: validity and reliability of the Identity Instability Questionnaire

| Component | Item no. | Loading | <i>t</i> | AVE | Composite reliability | Cronbach's α |
|--------------------|----------------|---------|----------|-----|-----------------------|---------------------|
| Self-Disconnection | 2 | .77 | 21.55 | .62 | .95 | .94 |
| | 3 | .83 | 31.76 | | | |
| | 4 | .81 | 29.94 | | | |
| | 5 | .86 | 26.58 | | | |
| | 6 | .88 | 46.15 | | | |
| | 7 | .86 | 34.40 | | | |
| | 8 | .88 | 49.54 | | | |
| | 9 | .86 | 38.90 | | | |
| | 10 | .82 | 24.63 | | | |
| | 11 | .57 | 8.01 | | | |
| | 12 | .66 | 13.30 | | | |
| | 13 | .70 | 14.18 | | | |
| | Other-Reliance | 14 | .66 | | | |
| 15 | | .87 | 56.00 | | | |
| 16 | | .80 | 28.73 | | | |
| 17 | | .87 | 41.36 | | | |
| 18 | | .87 | 48.57 | | | |
| 19 | | .79 | 20.39 | | | |
| 20 | | .74 | 16.43 | | | |
| 21 | | .74 | 16.21 | | | |

As shown, all retained items demonstrated adequate loadings (min = .57 for Item 11; max = .88 for Items 6 and 8). Item 1 loaded below .50 and was removed; the final questionnaire thus comprised 20 items. All loadings were significant ($t > 1.96$; $p < .05$). AVE values ranged

from .62 (Self-Disconnection) to .66 (Other-Reliance), supporting convergent validity. Reliability indices exceeded .70 for both CR and α , indicating good internal consistency; the total-scale Cronbach's alpha was .963.

Table 2

Item analysis for the Identity Instability Questionnaire (selected indicators)

| Component | Item (abbrev. translation) | Mean | SD | Skew | Kurtosis | Item-total (partial) | α if deleted |
|--------------------|---|------|------|-------|----------|----------------------|---------------------|
| Self-Disconnection | I don't know who I am. | 3.01 | 0.79 | 0.86 | -0.46 | .735 | .962 |
| | When someone asks "Who are you?"; I don't know what to say. | 2.72 | 0.97 | 0.41 | -0.84 | .784 | .961 |
| | I feel confused inside. | 3.10 | 0.92 | 0.64 | 0.31 | .724 | .962 |
| | I feel I am not a stable person. | 2.49 | 0.97 | 0.99 | 0.89 | .830 | .960 |
| | I feel I have lost my true self. | 3.44 | 0.72 | -0.60 | -0.62 | .830 | .960 |
| | I don't feel confident about myself. | 2.77 | 0.97 | 0.56 | 0.45 | .859 | .960 |
| | I feel a sense of inner identity void. | 3.12 | 0.59 | -0.31 | -0.55 | .861 | .960 |
| | I feel different inside than I appear outside. | 3.16 | 0.68 | -0.29 | -0.72 | .813 | .961 |
| | There are parts of me I can't understand. | 3.35 | 0.85 | -0.38 | 0.23 | .771 | .961 |
| | I feel incomplete. | 3.50 | 0.80 | -1.15 | 1.09 | .536 | .964 |
| | I am not sure about my identity. | 2.46 | 0.73 | 0.63 | 0.48 | .589 | .963 |
| | I often struggle when reflecting on my identity. | 3.62 | 0.80 | -0.36 | 0.20 | .657 | .963 |
| | I feel I haven't found my true self. | 3.78 | 0.84 | -0.72 | 0.16 | .616 | .963 |

| Other-Reliance | | 2.53 | 0.65 | 0.10 | 0.64 | .823 | .961 |
|----------------|--|------|------|-------|-------|------|------|
| | Others' opinions of me matter more than my own. | | | | | | |
| | I sometimes feel I don't belong to a particular persona. | 3.39 | 0.75 | -0.13 | -1.27 | .662 | .962 |
| | In an intimate relationship, I don't know what the relationship means. | 3.29 | 0.92 | -0.04 | 0.79 | .883 | .960 |
| | I am easily influenced by others. | 3.20 | 0.94 | -0.12 | 1.04 | .783 | .961 |
| | I don't adapt quickly to new situations. | 3.07 | 0.82 | -0.04 | 1.27 | .707 | .962 |
| | If a situation makes me interested in a different lifestyle, I can't keep at it because I get bored. | 3.19 | 0.77 | -0.10 | -1.09 | .568 | .964 |
| | I try to act like others so I'll be accepted as part of the group. | 3.29 | 0.90 | -0.54 | -0.84 | .711 | .962 |

Item means fell between ~2.46 and 3.78, indicating adequate item difficulty (no floor/ceiling effects). Skewness and kurtosis for all items were within -2 to +2, supporting item-level normality. All corrected item-total

correlations exceeded .50, and "alpha if deleted" showed no substantial increase, indicating each item contributed meaningfully to internal consistency.

Table 3

Fornell-Larcker discriminant validity and descriptive statistics

| Variables | Self-Disconnection | Other-Reliance | Identity Instability (Total) |
|-------------------------------------|--------------------|----------------|------------------------------|
| Self-Disconnection | .78 | | |
| Other-Reliance | .75 | .81 | |
| Identity Instability (Total) | .92 | .87 | .76 |
| Mean | 40.54 | 21.96 | 62.49 |
| SD | 9.63 | 5.19 | 14.73 |
| Skewness | -0.48 | -0.57 | -0.46 |
| Kurtosis | 1.17 | -0.65 | 0.81 |

Note. Diagonal elements are \sqrt{AVE} . All correlations were statistically significant ($p < .001$).

As shown, Fornell-Larcker criteria were met: the square roots of AVE (bolded) exceeded the inter-construct correlations, supporting discriminant validity. The correlation between Self-Disconnection and Other-Reliance was strong ($r = .75, p < .001$). On a 20-item, five-point scale (range: 20-100; theoretical midpoint = 60), the sample mean for the total scale was 62.49, i.e., 2.49 points above the theoretical midpoint. Skewness and

kurtosis for the total scale and both subscales fell within -2 to +2, indicating approximately normal distributions. Together, the CFA/PLS results and item analysis support the validity (convergent and discriminant) and reliability of the Persian version of the Identity Instability Questionnaire in adolescents with self-injurious behavior.

Discussion and Conclusion

Identity instability is a key construct in adolescent psychology, referring to a lack of coherence and stability in one's identity, confusion about values and goals, and frequent shifts in feelings and behaviors (Erikson, 1968; Luyckx et al., 2025). Adolescents with identity instability often struggle to choose academic pathways, manage interpersonal relationships, and make major life decisions, and this instability can co-occur with self-injurious behaviors and emotional difficulties (Côté, 2006). In the present study, the psychometric properties of the Persian version of the Identity Instability Questionnaire were examined using confirmatory factor analysis (CFA) and item analysis to determine its structure, reliability, and validity among Iranian

adolescents who engage in self-injury. Data were analyzed in SPSS 28 and SmartPLS 3, enabling detailed evaluation of factor loadings, model fit, and item quality.

CFA results indicated that the 20-item measurement model demonstrated acceptable fit. Model-fit indices—including CFI, TLI, RMSEA, and SRMR—fell within conventional benchmarks, showing that the questionnaire's factor structure corresponded well with the sample data. All item loadings exceeded 0.50, indicating meaningful associations between items and their respective constructs and confirming each item's capacity to capture facets of identity instability. In other words, each item functioned effectively and in line with the scale's intent.

Reliability was satisfactory: both Cronbach's alpha and composite reliability (Kaufman et al.) surpassed

0.70, suggesting strong internal consistency and dependable, replicable results. Convergent validity (AVE > 0.50) indicated that more than half of the variance in each construct was explained by its items, supporting the scale's success in measuring the intended concept. Item analysis showed that all items displayed appropriate difficulty and approximately normal distributions, indicating adequate ability to differentiate participants across levels of identity instability and balanced response patterns—both essential for structural analyses and hypothesis testing. Given the questionnaire's exploratory and novel application, the use of a partial least squares approach (PLS-SEM) allowed testing of structural relations among constructs and supported the Identity Instability Questionnaire as a valid tool for Iranian adolescents.

The study population was limited to students from a single city and educational level, constraining generalizability. Purposive, online sampling may introduce selection bias. Data were self-reported and may be influenced by emotional or social factors. The cross-sectional design precluded examination of longitudinal changes in identity instability. Replicate the study in other regions and educational levels to enhance generalizability. Employ random or mixed sampling strategies to reduce selection bias. Conduct longitudinal studies to track changes in identity instability over time and its association with self-injurious behavior.

Overall, findings show that the Persian version of the Identity Instability Questionnaire is a valid and reliable instrument for assessing identity instability among Iranian adolescents who engage in self-injurious behavior. The tool can be used in clinical research, prevention programs, and psychological interventions, and may assist in identifying at-risk adolescents and informing targeted intervention design.

Acknowledgments

The authors express their gratitude and appreciation to all participants.

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. Ethical considerations in this study were that participation was entirely optional.

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.

Funding

This research was carried out independently with personal funding and without the financial support of any governmental or private institution or organization.

Authors' Contributions

All authors equally contribute to this study.

References

- Aggarwal, S., Borschmann, R., & Patton, G. C. (2021). Tackling stigma in self-harm and suicide in the young. *The Lancet Public Health*, 6(1), e6-e7. [https://doi.org/10.1016/S2468-2667\(20\)30259-0](https://doi.org/10.1016/S2468-2667(20)30259-0)
- Alves, M. I., Dias Junior, S. A., Martins, T., Felipe, A. O. B., Freitas, P. S., & Moreira, D. d. S. (2025). The Relationship Between Excessive Screen Time, Self-Harm, and Suicidal Behavior in Adolescents During the COVID-19 Pandemic: An Integrative Literature Review. *Journal of Child and Adolescent Psychiatric Nursing*, 38(2), e70015. <https://doi.org/10.1111/jcap.70015>
- Asadolahi, S., & Gholamipour, N. (2023). An Explanation of Impulsivity, Cognitive Flexibility, and Metacognitive Thinking in Non-Suicidal Self-Injury Behaviors. *International Journal of Body, Mind & Culture* (2345-5802), 10(4). [10.22122/ijbmc.v10i4.501](https://doi.org/10.22122/ijbmc.v10i4.501)
- Bahmani, M., Eslamdoust, S. F., KOUSHA, M., Abdollahi, E., & Bozorgchenani, A. (2022). Prevalence of Self-Harm Behaviors and Deliberate Self-Cutting in High School Students in Northern Iran and Its Relationship with Anxiety, Depression, and Stress. [10.32598/jhnm.32.3.2193](https://doi.org/10.32598/jhnm.32.3.2193)
- Bogaerts, A., Luyckx, K., Bastiaens, T., Sleuwaegen, E., Berens, A., & Claes, L. (2023). The Self-Concept and Identity Measure in patients with personality disorders: A psychometric evaluation and associations with identity processes, core domains of self-functioning, and personality disorder symptoms. *Assessment*, 30(7), 2184-2197. <https://doi.org/10.1177/10731911221140313>
- Clark, V. C., Ulman, S. M., Erdman, A. L., Gale, E. B., Janosky, J., & Stapleton, E. J. (2025). Athletic identity, anxiety, and depression in moderate to highly specialized female adolescent volleyball players. *Frontiers in Psychology*, 16, 1525074. <https://doi.org/10.3389/fpsyg.2025.1525074>

- Collicot, C., Benson, A. J., Schaefer, L., & Caron, J. G. (2025). Exploring how athletes navigate identity-related changes following sport-related concussion. *Sport, Exercise, and Performance Psychology*. <https://doi.org/10.1037/spy0000379>
- Côté, J. E. (2006). Emerging adulthood as an institutionalized moratorium: Risks and benefits to identity formation. <https://doi.org/10.1037/11381-004>
- Erikson, E. H. (1968). *Identity: Youth and crisis* (Vol. 68). Norton. https://www.academia.edu/37327712/Erik_H_Erikson_Identity_Youth_and_Crisis_1_1968_W_W_Norton_and_Company_1_1
- Fonagy, P., FBA, F., & Campbell, C. (2019). Therapy for Adolescents. *Evidence-Based Treatment Approaches for Suicidal Adolescents: Translating Science into Practice*, 117. <https://doi.org/10.1176/appi.books.9781615379125.lg05>
- García-Iglesias, J. J., Gómez-Salgado, J., Fernández-Carrasco, F. J., Rodríguez-Díaz, L., Vázquez-Lara, J. M., Prieto-Callejero, B., & Allande-Cussó, R. (2022). Suicidal ideation and suicide attempts in healthcare professionals during the COVID-19 pandemic: A systematic review. *Frontiers in public health*, 10, 1043216. <https://doi.org/10.3389/fpubh.2022.1043216>
- Goñi-Sarriés, A., Gutiérrez-Valencia, M., Morata-Sampaio, L., Saiz-Fernández, L. C., Leache-Alegría, L., & Sánchez-Villegas, A. (2025). Lifestyle Habits, Problem Behaviors and Non-Suicidal Self-Injury in Adolescents: A Systematic Review with Meta-Analysis of Longitudinal Studies. *Adolescent Research Review*, 1-16. <https://doi.org/10.1007/s40894-025-00257-3>
- Hambleton, A. L., Hanstock, T. L., Halpin, S., & Dempsey, C. (2022). Initiation, meaning and cessation of self-harm: Australian adults' retrospective reflections and advice to adolescents who currently self-harm. *Counselling Psychology Quarterly*, 35(2), 260-283. <https://doi.org/10.1080/09515070.2020.1737509>
- He, X., Huang, P., Xu, X., Yu, Q., Huang, H., Yang, P., & Yang, B. (2025). Impulsivity and non-suicidal self-injury in adolescents: a systematic review and meta-analysis of longitudinal studies. *Frontiers in psychiatry*, 16, 1586922. <https://doi.org/10.3389/fpsy.2025.1586922>
- Hosseinimotlaq, M., & Rahimi, A. (2024). Comparison of Cognitive Fusion, Risk-taking, and Fathers' Communication Style between Adolescents with and without Self-harm. *International Journal of Body, Mind & Culture* (2345-5802), 11(3). [10.22122/ijbmc.v11i3.535](https://doi.org/10.22122/ijbmc.v11i3.535)
- Kaufman, E. A., Puzia, M. E., Godfrey, D. A., & Crowell, S. E. (2020). Physiological and behavioral effects of interpersonal validation: A multilevel approach to examining a core intervention strategy among self-injuring adolescents and their mothers. *Journal of Clinical Psychology*, 76(3), 559-580. <https://doi.org/10.1002/jclp.22902>
- Kovács, L. N., Schmelowszky, Á., Galambos, A., & Kökönyei, G. (2021). Rumination mediates the relationship between personality organization and symptoms of borderline personality disorder and depression. *Personality and Individual Differences*, 168, 110339. <https://doi.org/10.1016/j.paid.2020.110339>
- Lechner, C. A. (2023). *Development and Validation of the Identity Instability Scale* [Alliant International University]. <https://www.proquest.com/openview/e27032e68694045b0ee4a14343cd6aa7/1?pq-origsite=gscholar&cbl=18750&diss=y>
- Luyckx, K., Vanderhaegen, J., Raemen, L., & Claes, L. (2025). Identity formation in adolescence and emerging adulthood: A process-oriented and applied perspective. *European Journal of Developmental Psychology*, 22(2), 168-187. <https://doi.org/10.1080/17405629.2023.2250128>
- Massoodi, A., Ramezani, A., Hamzehpour, R., Azizi, A., Moudi, S., Hamidia, A., Betyar, M., Koutanaei, S. J., & Arimi, F. A. (2025). The Prevalence of Self-harm Among Iranian High-Risk Population: A Systematic Review and Meta-Analysis. *International Journal of High Risk Behaviors and Addiction*, 14(14), e165831. <https://doi.org/10.5812/ijhrba-159754>
- Miri, M., Rezaeian, M., & Ghasemi, S. A. (2022). A systematic review on the prevalence and causes of suicide (thoughts and actions) in Iranian school and university students. *Journal of Rafsanjan University of Medical Sciences*, 21(5), 551-574. <https://doi.org/10.52547/jrums.21.5.551>
- Moradi, N., Farahani, F. A., Anaraki, D. N., & Soleimani, N. (2021). Journal of Research in Behavioral Sciences Year 2021, Volume 19, Issue. <https://doi.org/10.52547/rbs.19.1.75>
- Orben, A., Tomova, L., & Blakemore, S.-J. (2020). The effects of social deprivation on adolescent development and mental health. *The Lancet Child & Adolescent Health*, 4(8), 634-640. [https://doi.org/10.1016/S2352-4642\(20\)30186-3](https://doi.org/10.1016/S2352-4642(20)30186-3)
- Randazzo, C., & Ammari, T. (2025). Kintsugi-Inspired Design: Communicatively Reconstructing Identities Online After Trauma. *Proceedings of the ACM on Human-Computer Interaction*, 9(7), 1-31. <https://doi.org/10.1145/3757446>
- Sun, J., Ban, Y., & Liu, J. (2024). Relationship between bullying victimization and suicide ideation among Chinese adolescents: a moderated chain mediation model. *Children and youth services review*, 156, 107304. <https://doi.org/10.1016/j.childyouth.2023.107304>
- Valladares-Garrido, D., Zila-Velasque, J. P., Santander-Hernández, F. M., Guevara-Morales, M. A., Morocho-Alburqueque, N., Failoc-Rojas, V. E., Pereira-Victorio, C. J., Vera-Ponce, V. J., León-Figueroa, D. A., & Valladares-Garrido, M. J. (2024). Association between love breakup and suicidal ideation in Peruvian medical students: a cross-sectional study during the COVID-19 pandemic. *Frontiers in psychiatry*, 14, 1287036. <https://doi.org/10.3389/fpsy.2023.1287036>
- Van de Vijver, F. J., & Leung, K. (2021). *Methods and data analysis for cross-cultural research* (Vol. 116). Cambridge University Press. <https://doi.org/10.1017/9781107415188>
- Veloso-Besio, C., Cuadra-Peralta, A., Gallardo-Peralta, L., Cuadra-Fernandez, P., Quiroz, P. T., & Troncoso, N. V. (2023). The prevalence of suicide attempt and suicidal ideation and its relationship with aggression and bullying in Chilean adolescents. *Frontiers in Psychology*, 14, 1133916. <https://doi.org/10.3389/fpsy.2023.1133916>
- Zhang, W., Song, X., Wang, X., Jiang, Z., Zhang, Y., & Cui, Y. (2025). Network analysis of core factors related to non-suicidal self-injury in adolescents with mood disorders. *Frontiers in psychiatry*, 16, 1557351. <https://doi.org/10.3389/fpsy.2025.1557351>
- Zhou, S. C., Zhou, Z., Tang, Q., Yu, P., Zou, H., Liu, Q., Wang, X. Q., Jiang, J., Zhou, Y., & Liu, L. (2024). Prediction of non-suicidal self-injury in adolescents at the family level using regression methods and machine learning. *Journal of affective disorders*, 352, 67-75. <https://doi.org/10.1016/j.jad.2024.02.039>