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Negative Self-Perceptions and Non-Suicidal Self-Injury Severity: Examination of the Benefits and Barriers Model in Indonesia

Olumsuz Benlik Algıları ve İntihar Amaçlı Olmayan Kendine Zarar Verme Şiddeti: Endonezya'da Faydalar ve Engeller Modelinin İncelenmesi

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Abstract

This study addresses the high rates of non-suicidal self-injury (NSSI) among university students in Indonesia, specifically exploring the role of low self-esteem in contributing to more severe NSSI. Despite the documented link between low self-esteem and NSSI, the mechanisms underlying this relationship remain unclear. This research evaluates a mediation model proposing that low self-esteem leads to more severe NSSI through increased self-punishment motivations. Additionally, it tests the Benefits and Barriers Model of NSSI in the Indonesian context. Data were collected from 248 Indonesian students with a history of NSSI, who completed an online survey measuring NSSI characteristics, self-esteem, and self-punishment motivations. Mediation was assessed using structural equation modeling with bootstrapped 95% percentile-corrected confidence intervals, where NSSI severity was defined by frequency, recency, and versatility. The results confirm that self-punishment significantly mediates the relationship between low self-esteem and NSSI severity, supporting the Benefits and Barriers Model in Indonesia. While the mediation effect was partial, indicating other contributing factors, the findings suggest that help-seeking barriers, such as stigma and limited access to care, may exacerbate NSSI severity. These results emphasize the need for interventions that address not only self-punishment but also broader emotional, social, and cultural factors. Further research is necessary to examine these additional factors and contextual barriers in greater depth.

Keywords: Non-Suicidal Self-Injury, Self-esteem, Self-punishment, University Student

Öz

Bu çalışma, Endonezya'daki üniversite öğrencileri arasında yüksek oranda görülen intihar dışı kendine zarar verme (NSSI) vakalarını ele almakta ve özellikle düşük öz saygının daha şiddetli NSSI'ye katkıda bulunmadaki rolünü araştırmaktadır. Düşük öz saygı ile NSSI arasındaki belgelenmiş bağlantıya rağmen, bu ilişkinin altında yatan mekanizmalar belirsizliğini korumaktadır. Bu araştırma, düşük öz saygının artan öz cezalandırma motivasyonları yoluyla daha şiddetli NSSI'ye yol açtığını öne süren bir aracı modelini değerlendirmektedir. Ek olarak, Endonezya bağlamında NSSI'nin Faydaları ve Engelleri Modelini test etmektedir. Veriler, NSSI geçmişi olan ve NSSI özelliklerini, öz saygıyı ve öz cezalandırma motivasyonlarını ölçen çevrimiçi bir anketi tamamlayan 248 Endonezyalı öğrenciden toplanmıştır. Aracı etki, NSSI şiddetinin sıklık, yakınlık ve çok yönlülük ile tanımlandığı, önyüklemeli %95 yüzdelik dilim düzeltilmiş güven aralıkları ile yapısal denklem modellemesi kullanılarak değerlendirilmiştir. Sonuçlar, öz-cezalandırmanın düşük öz saygı ile kendine zarar verme davranışının şiddeti arasındaki ilişkiye önemli ölçüde aracılık ettiğini doğrulamakta ve Endonezya'daki Faydalar ve Engeller Modelini desteklemektedir. Aracılık etkisi kısmi olmakla birlikte, diğer katkıda bulunan faktörleri de göstermekte, bulgular damgalanma ve sınırlı bakım erişimi gibi yardım arama engellerinin kendine zarar verme davranışının şiddetini artırabileceğini düşündürmektedir. Bu sonuçlar, yalnızca öz-cezalandırmayı değil, aynı zamanda daha geniş duygusal, sosyal ve kültürel faktörleri de ele alan müdahalelere duyulan ihtiyacı vurgulamaktadır. Bu ek faktörleri ve bağlamsal engelleri daha derinlemesine incelemek için daha fazla araştırmaya ihtiyaç vardır.

Anahtar Kelimeler: İntihar Dışı Kendine Zarar Verme, Öz Saygı, Kendini Cezalandırma, Üniversite Öğrencisi

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Introduction

The phenomenon of non-suicidal self-injury (NSSI) is a problem frequently observed among university students. Globally, there has been an increase in NSSI cases among students between 2010 and 2021. In particular, 16% of students reported having engaged in NSSI using more than two methods, 20.3% engaged in repetitive NSSI, and 11.6% sustained severe injuries due to NSSI (Q. Xiao et al., 2022). This is consistent with the findings of Kiekens et al. (2023), who studied first-year students across 24 universities in 9 countries and reported that 17.7% of students had engaged in NSSI at some point in their lifetime, while 8.4% had engaged in NSSI in the past 12 months. Similarly, Da Silva Bandeira et al. (2022), involving 6,906 students, found that 17.8% of participants reported a history of NSSI.

In Indonesia, studies on NSSI among university students also indicate high rates. Research conducted at one Indonesian university found that 48.1% of students reported having engaged in NSSI and 22.4% reported engaging in NSSI frequently or repeatedly (Nurendah et al., 2023). Hidayati et al. (2022) also found that 38% of students had engaged in NSSI more than 10 times, and 28% had engaged in NSSI 11 to 50 times. In addition, Faradiba and Rahmatullah (2023), in a study at a university in Jakarta involving 207 participants, reported that 43.48% of participants engaged in NSSI behavior. These prevalence patterns underscore the importance of not only understanding how common NSSI is among university students but also identifying factors associated with the severity of NSSI. This focus is particularly important because more severe forms of NSSI have been linked to greater psychological distress, physical harm, and future mental health risks. To better understand why some individuals engage in more severe forms of NSSI, it is necessary to examine the psychological factors that contribute to this behavior.

Among the various factors associated with NSSI, self-esteem has emerged as one of the most consistently identified psychological correlates. Prior research suggests that bullying experiences in the university environment, academic pressure, difficulties in the learning process, and low self-esteem may contribute to the emergence of NSSI (Chen & Ma, 2023; Ghandour et al., 2024). Supporting this, multiple studies have consistently identified low self-esteem as a factor associated with individuals' involvement in NSSI (Abdelraheem et al., 2019; Meza et al., 2023). Forrester et al. (2017) noted that the association between low self-esteem and the emergence of NSSI behavior has been consistent. Junker et al. (2019) further reported that low self-esteem not only increases individuals' involvement in NSSI but also the likelihood of more frequent NSSI, and may lead to hospitalization due to NSSI-related injuries. However, more recent findings by Kim & Hur (2023) suggest a more complex pattern: individuals with a history of NSSI who had not engaged in NSSI recently were reported to have higher self-esteem than those who had engaged in NSSI more recently. This indicates that self-esteem plays an important role not only as a predictor of NSSI engagement but also as a factor in recovery from NSSI. Nevertheless, to date, relatively few studies have examined how low self-esteem is related to the severity of NSSI behavior. Therefore, research that identifies psychological mechanisms linking self-esteem to NSSI severity is needed to support the development of preventive and treatment efforts for NSSI (Nagy & Muehlenkamp, 2024). NSSI severity is generally conceptualized as the extent or seriousness of self-injurious behavior and may encompass multiple dimensions, including behavioral frequency, recency, and versatility. Examining NSSI severity is important because more severe forms of NSSI have been associated with increased psychological distress, greater functional impairment, and elevated risk for future self-injurious behavior. Therefore, identifying factors associated with NSSI severity may provide important insights for prevention and intervention efforts.

To better understand how low self-esteem may contribute to NSSI severity, a theoretical framework is needed to explain the underlying psychological processes. One such framework is the Benefits and Barriers Model of NSSI (Hooley & Franklin, 2018). Hooley and Franklin (2018) explained that individuals who engage in NSSI often experience perceived "benefits" and "barriers" that influence their involvement in NSSI. In this model, NSSI is more likely when perceived benefits (e.g., affect regulation, relief, or self-directed outcomes) are perceived as more salient, while perceived barriers (e.g., inhibiting beliefs, concerns, or constraints) are relatively weaker. Within this framework, one manifestation of low self-esteem is a negative view of the self (negative self-view), which may lead individuals to engage in NSSI. For example, individuals who develop a positive self-view may be more inhibited from engaging in NSSI, whereas those who hold a negative self-view may be more vulnerable to NSSI because they perceive certain benefits from the behavior. Importantly, applying this model to Indonesian university students is relevant because student experiences, norms, and contextual pressures may shape both perceived benefits and barriers in ways that are not fully captured in findings from other countries. However, Nagy and Muehlenkamp (2024) noted that the psychological processes through which negative self-views increase vulnerability to NSSI remain insufficiently understood.

Although the Benefits and Barriers Model highlights the importance of negative self-views, it also proposes a more specific mechanism through which negative self-evaluations may increase vulnerability to NSSI, namely self-punishment (Hooley & Franklin, 2018). A negative self-view may lead individuals to believe that they "deserve" pain or punishment; this belief is included as one pattern of perceived "benefits" of NSSI, namely deriving affective satisfaction from punishing oneself. Accordingly, self-punishment may function as a psychological mechanism linking negative self-views to engagement in NSSI and potentially to more severe forms of NSSI.

Consistent with this framework, Callan et al. (2014), among students in the United Kingdom, found that low self-esteem was associated with higher levels of self-punishment. This suggests that individuals who feel less worthy or less confident may be more likely to engage in negative self-evaluation, which in turn may trigger self-punishing thoughts or behaviors. Likewise, Nagy & Muehlenkamp (2024), among university students in the United States, found that low self-esteem was associated with higher self-punishment, which in turn increased the frequency of more severe NSSI behavior. In addition, Lear et al. (2019) reported that self-criticism did not directly predict NSSI behavior but was associated with NSSI through self-punishment. Taken together, these findings highlight the central role of self-punishment in understanding pathways from self-evaluative vulnerabilities to more severe NSSI.

Given its proposed role in linking negative self-evaluations to NSSI outcomes, self-punishment represents an important target for further investigation among university students. Prior studies have reported that self-punishment is one of the most frequently endorsed functions of NSSI (Izzah & Ariana, 2022). Similar patterns have been observed in Indonesia. Hidayati et al. (2022), in a sample of 215 students, found that 11.24% engaged in NSSI for self-punishment reasons, making self-punishment the highest-ranked reason for students' NSSI.

Despite growing evidence that self-esteem and self-punishment are relevant to NSSI outcomes, several important gaps remain. First, previous studies have primarily focused on NSSI engagement, prevalence, or frequency rather than NSSI severity, despite evidence that more severe forms of NSSI are associated with greater psychological distress, physical harm, and future mental health risks (Junker et al., 2019; Nagy & Muehlenkamp, 2024). Second, although studies conducted in Western countries suggest that self-punishment may explain the association between low self-esteem and NSSI outcomes (Lear et al., 2019; Nagy & Muehlenkamp, 2024), it remains unclear whether this psychological mechanism operates

similarly among Indonesian university students. Consequently, evidence regarding the mediating role of self-punishment in the relationship between self-esteem and NSSI severity in the Indonesian context remains limited.

Examining this relationship in Indonesia is particularly important because cultural and contextual factors may shape how individuals perceive themselves, respond to psychological distress, and engage in self-injurious behaviors. Indonesia is generally characterized by collectivist cultural values that emphasize social harmony, interpersonal connectedness, and the fulfillment of family and societal expectations. Within such contexts, negative self-evaluations may be closely linked to feelings of shame, guilt, or perceived failure to meet important social expectations. Furthermore, mental health difficulties continue to be stigmatized in many Indonesian communities, creating barriers to help-seeking and reducing the likelihood that individuals will access professional psychological support when experiencing distress. As a result, some students may rely on maladaptive coping strategies, including NSSI, to manage overwhelming emotions. These cultural and contextual considerations highlight the importance of investigating NSSI mechanisms within Indonesia rather than assuming that findings from Western populations can be generalized directly. Despite the potential importance of these cultural influences, empirical evidence regarding the mechanisms linking self-esteem, self-punishment, and NSSI severity among Indonesian university students remains limited.

The present study also contributes to the literature by extending the Benefits and Barriers Model of NSSI (Hooley & Franklin, 2018) to a non-Western context. Although the model proposes that negative self-views increase vulnerability to NSSI through self-punishment motives, empirical support for this pathway has been derived predominantly from Western samples, including university students in the United Kingdom and the United States (Callan et al., 2014; Lear et al., 2019; Nagy & Muehlenkamp, 2024). To our knowledge, no previous study in Indonesia has specifically examined whether self-punishment mediates the relationship between self-esteem and NSSI severity among university students. By testing this theoretically grounded mediation pathway in an Indonesian sample, the present study evaluates the cross-cultural applicability of the Benefits and Barriers Model and contributes to a broader understanding of psychological mechanisms underlying NSSI across diverse cultural settings.

Accordingly, we hypothesized that lower self-esteem would be associated with greater NSSI severity. Furthermore, we hypothesized that self-punishment would mediate the relationship between self-esteem and NSSI severity, such that lower self-esteem would be associated with higher levels of self-punishment, which in turn would be associated with greater NSSI severity.

Method

Participants

A total of 506 responses were received, of which 248 respondents met the inclusion criteria and were retained for analysis. The remaining 258 responses were excluded due to failure to meet one or more screening requirements (e.g., NSSI within the past year, ever/current NSSI, intentional NSSI, and/or NSSI without suicidal intent).

Participants were recruited using an online questionnaire via Google Forms, which was distributed through various platforms, including Instagram, Twitter, WhatsApp, email, and Telegram. As compensation for their participation, 10 randomly selected respondents were each provided with an e-wallet balance of Rp250.000.

The final sample consisted primarily of female participants (n = 215, 86.7%), with male participants comprising 13.3% (n = 33). The age range of participants was 18 to 22 years, with the majority being 20 years old ($\bar{X}$ = 20.13, SD = 1.12) and 21 years old ($\bar{X}$ = 20.80, SD = 1.35). The distribution of participants by age was as follows: 18 years old ($\bar{X}$ = 27, SD = 1), 19 years old ($\bar{X}$ = 51, SD = 0.9), 20 years old ($\bar{X}$ = 61, SD = 1.4), 21 years old ($\bar{X}$ = 62, SD = 1.8), and 22 years old ($\bar{X}$ = 47, SD = 2.1).

Regarding university affiliation, the majority were from public universities (57.3%), with participants from private universities making up 42.7%. In terms of education level, most participants were pursuing a Bachelor's degree (88.7%), with a smaller portion in Diploma/Vocational programs (11.3%). Participants were also classified by semester, with the majority being in Semester 4 (23.0%), followed by Semester 6 (18.1%), Semester 2 (20.6%), and Semester 1 (8.9%). The least represented were Semester 9 (0.8%).

To manage potential adverse effects, the questionnaire included a link for reporting complaints or adverse impacts. Respondents who reported complaints were contacted by the researcher and provided initial psychological first aid under the supervision of a clinical psychologist.

This study was conducted with ethical approval obtained from the Konsorsium Psikologi Ilmiah Nusantara (KPIN) ethics committee (Approval No. 114/2024 Etik/KPIN).

Measurement

Demographics. Participants completed demographic questions assessing gender, age, university affiliation, education level, and three control questions.

Non-Suicidal Self-Injury Severity. Several variables derived from the Inventory of Statements About Self-Injury (Klonsky & Glenn, 2009) were used to assess the overall severity of NSSI behaviors. Consistent with previous research (Hamza & Willoughby, 2018), NSSI severity was conceptualized as a multidimensional construct reflected by NSSI frequency, recency, and versatility. NSSI frequency refers to the total number of lifetime NSSI episodes. To facilitate data normalization, responses were categorized as follows: (1) once, (2) 2–4 episodes, (3) 5–9 episodes, (4) 10–20 episodes, (5) 21–50 episodes, and (6) more than 50 episodes. Higher frequency is considered indicative of greater severity because repeated engagement may reflect a more persistent pattern of self-injurious behavior. NSSI recency reflects the time elapsed since the most recent NSSI episode. Participants indicated whether their last episode occurred within the past week (6), within the past month (5), within the past 2–6 months (4), 6 months to 1 year ago (3), 1–2 years ago (2), or more than 2 years ago (1). More recent engagement in NSSI is generally considered indicative of greater severity, as it suggests the behavior remains current and potentially ongoing. NSSI versatility was defined as the total number of different NSSI methods an individual had used throughout their lifetime. Greater versatility is considered a marker of severity because the use of multiple methods may reflect broader and more entrenched engagement in self-injurious behavior. Taken together, frequency, recency, and versatility provide a comprehensive assessment of NSSI severity by capturing how often the behavior occurs, how recently it has occurred, and how many forms it takes. The ISAS is a widely used measure of NSSI and has demonstrated good construct validity (Klonsky & Olino, 2008) and strong test–retest reliability (Glenn & Klonsky, 2011).

The Brief Rosenberg Self-Esteem Scale. Self-esteem was measured using the Brief Rosenberg Self-esteem Scale (Monteiro et al., 2022), a 5-item version of the original Rosenberg Self-esteem Scale. The scale consists of three negatively worded and two positively worded statements, rated on a 4-point Likert scale from 1 (Strongly Disagree) to 4 (Strongly Agree). Negatively worded items were reverse-scored,

with higher total scores indicating higher self-esteem. The B-RSES demonstrated good to excellent reliability in previous studies, with coefficients ranging from .72 to .99. In the present study, it showed good reliability and was deemed appropriate for use with university students.

The Inventory of Statements About Self-Injury Function. The self-punishment function of NSSI was measured using the corresponding subscale of the Inventory of Statements About Self-Injury (Klonsky & Glenn, 2009). This subscale consists of three items rated on a 3-point Likert scale ranging from 0 (Not Relevant) to 2 (Highly Relevant). Total scores range from 0 to 6, with higher scores indicating greater endorsement of self-punishment as a motive for engaging in NSSI. In the present study, the self-punishment subscale demonstrated a Cronbach's alpha of .61. Although this value falls below the conventional .70 criterion, it may be considered acceptable for a brief three-item subscale, as reliability estimates are often attenuated when scales contain only a small number of items (Boateng et al., 2018; L. Xiao et al., 2024). Nevertheless, the relatively modest reliability suggests that measurement error may be present, which could attenuate observed associations involving self-punishment.

Statistical Analysis

The analysis of data was conducted utilizing Jamovi version 2.6.44. The Kolmogorov-Smirnov test was employed to evaluate normality. Structural Equation Modeling was employed to investigate the proposed mediation model (refer to Figure 1). The model fit was assessed using various standard indices: the chi-square value relative to degrees of freedom (χ^2/df), the Comparative Fit Index (CFI; Bentler, 1990), and the Root Mean Square Error of Approximation (RMSEA; Marsh et al., 2007). A χ^2/df score under 3 is deemed acceptable, although values below 2 are seen as favorable. CFI values of .90 indicate a satisfactory match, whereas values surpassing .95 are deemed excellent. RMSEA values below .10 signify a borderline fit, below .08 denote an acceptable fit, and below .05 represent a good match (Browne & Cudeck, 1992).

The model fit indices for the present investigation demonstrated an exceptional match across all metrics: CFI = 1.000, TLI = 1.002, NFI = .991, RFI = .979, IFI = 1.001, and PNFI = .397. These values collectively demonstrate that the proposed model aligns closely with the observed data.

The mediation hypothesis was evaluated by examining the indirect influence of self-esteem on NSSI severity via self-punishment, using percentile-corrected bootstrapping with 5000 samples to produce 95% confidence intervals. Bootstrapping was chosen for its efficacy in evaluating indirect effects (Preacher & Hayes, 2008), with percentile-corrected bootstrapping preferred over bias-corrected bootstrapping to mitigate the risk of Type I errors (Tibbe & Montoya, 2022).

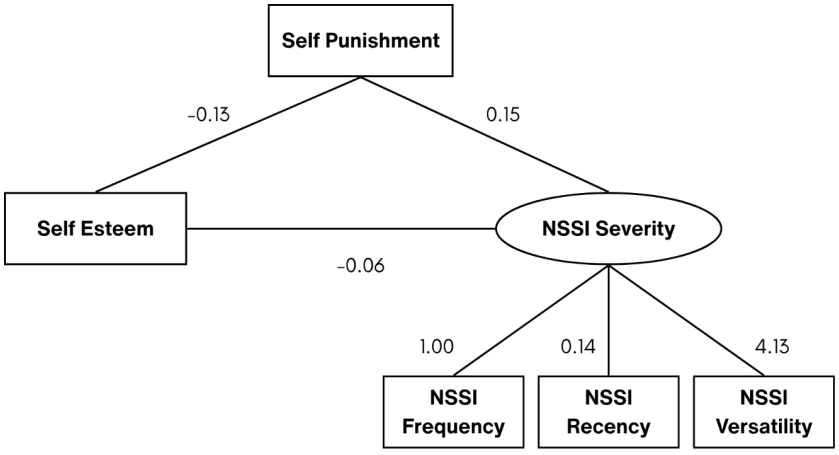

Figure 1. Structural Equation Modeling

Results

NSSI Overview and Correlations Model

The majority of respondents (n = 190, 76.61%) reported engaging in more than six types of NSSI. The most common method was cutting (n = 80, 32.26%), followed by hitting or slapping oneself (n = 66, 26.61%) and pulling hair (n = 48, 19.35%). Most respondents first engaged in NSSI between the ages of 11 and 16 (n = 122, 49.19%), and the largest group's most recent engagement (n = 83, 33.47%) occurred within the past month. Regarding pain perception, n = 111 (44.76%) reported experiencing pain sometimes during NSSI, n = 76 (n = 76, 30.65%) reported experiencing pain, and n = 61 (24.60%) reported not feeling pain. A majority (n = 219, 88.31%) engaged in NSSI alone. Over half (n = 142, 57.26%) reported engaging in NSSI less than an hour after feeling the urge. Notably, n = 233 (93.95%) expressed a desire to stop NSSI, and n = 152 (61.29%) indicated they needed help to stop.

Table 1. Descriptive and Intercorrelation

Variable	1	2	3	4	5	M	SD
1. Self-Punishment	—					4.58	1.39
2. Self-esteem	-.244***	—				10.83	2.62
3. NSSI Versatility	.256***	-.228***	—			9.35	3.92
4. NSSI Recency	0.044	-0.145*	0.106	—		4.42	1.09
5. NSSI Frequency	.258***	-.230***	.887***	-0.11	—	5.52	0.94

Note: Values below the diagonal represent Pearson correlation coefficients. M = Mean; SD = Standard Deviation. $p < .05$, $p < .01$, $p < .001$. No correlations in the present study reached the $p < .01$ significance level.

Descriptive statistics and bivariate correlations among the study variables are presented in Table 1. Self-esteem was negatively correlated with self-punishment ($r = -.244$, $p < .001$), NSSI versatility ($r = -.228$, $p < .001$), and NSSI frequency ($r = -.230$, $p < .001$). Self-punishment showed positive correlations with NSSI versatility ($r = .256$, $p < .001$) and NSSI frequency ($r = .258$, $p < .001$). NSSI versatility and NSSI frequency were strongly positively correlated ($r = .887$, $p < .001$). In contrast, NSSI recency demonstrated only weak, largely non-significant associations with the other study variables, with the exception of a small negative correlation with self-esteem ($r = -.145$, $p < .05$).

Mediation Model

Based on the structural equation modeling results (see Figure 1), the hypothesized mediation model demonstrated excellent fit with the data. The Comparative Fit Index (CFI = 1.000), Tucker–Lewis Index (TLI = 1.002), Normed Fit Index (NFI = .991), Relative Fit Index (RFI = .979), and Incremental Fit Index (IFI = 1.001) all exceeded conventional thresholds for good fit (Hu & Bentler, 1999). The Parsimony Normed Fit Index (PNFI = .397) reflected the model's parsimony.

Table 2. Direct, Indirect, and Total Effects From the Mediation Model, With Factor Loadings for the Latent NSSI Severity Variable

			95% CI			
Parameter / Path	**Estimate**	**SE**	**[Lower, Upper]**	**Standardized β**	**z**	**p**
Direct paths (structural model)						
Self-esteem → Self-Punishment (a)	-0.129	0.033	[-0.194, -0.065]	-0.244	-3.91	< .001
Self-esteem → NSSI Severity (c')	-0.064	0.027	[-0.118, -0.013]	-0.189	-2.41	0.016
Self-Punishment → NSSI Severity (b)	0.146	0.049	[0.051, 0.241]	0.227	3	0.003
Indirect and total effects						
Indirect effect (a × b)	-0.019	0.008	[-0.037, -0.005]	-0.055	-2.26	0.024
Total effect (c' + a × b)	-0.083	0.028	[-0.141, -0.029]	-0.244	-2.92	0.004
Factor loadings for NSSI Severity (measurement model)						
NSSI Severity → NSSI Frequency	1.000	—	—	0.947	—	—
NSSI Severity → NSSI Recency	0.143	0.084	[-0.014, 0.311]	0.117	1.71	0.087
NSSI Severity → NSSI Versatility	4.126	0.701	[3.205, 5.845]	0.937	5.88	< .001

The path analysis provided significant results for the proposed mediation. The total effect of self-esteem on NSSI severity was significant (β = –0.244, p = .004, 95% CI [–0.141, –0.029]). The path from self-esteem to self-punishment was significant (β = –0.244, p < .001, 95% CI [–0.194, –0.065]), indicating that lower self-esteem predicted higher self-punishment. The path from self-punishment to NSSI severity was also significant (β = 0.227, p = .003, 95% CI [0.051, 0.241]), suggesting that greater self-punishment predicted more severe NSSI. The direct effect of self-esteem on NSSI severity, controlling for self-punishment, remained significant (β = –0.189, p = .016, 95% CI [–0.118, –0.013]).

Importantly, the indirect effect of self-esteem on NSSI severity through self-punishment was significant (β = –0.055, p = .024, 95% CI [–0.037, –0.005]), supporting partial mediation. These findings suggest that self-esteem influences NSSI severity both directly and indirectly via self-punishment, highlighting the mediating role of self-punishment in this relationship.

Discussion

This study evaluated the Benefits and Barriers Model of Non-suicidal Self-Injury (Hooley & Franklin, 2018) within an Indonesian setting, specifically examining whether self-punishment mediates the relationship between self-esteem and NSSI severity. Theoretically, the findings support the model's assertion that NSSI is sustained by a combination of reinforcing functions (e.g., self-punishment as a way to atone for perceived failures) and barriers to healthier coping. The significant indirect effect of self-esteem on NSSI severity through self-punishment aligns with prior work linking self-esteem to NSSI participation and frequency and with findings that fluctuations in self-esteem may influence recovery trajectories (Forrester et al., 2017; Junker et al., 2019; Kim & Hur, 2023). Moreover, the results directly replicate Nagy and Muehlenkamp (2024), who found a substantial mediating role of self-punishment in a US college sample.

Building on this finding, the mediation effect identified in this study was only partial, meaning self-punishment does not fully account for the self-esteem–NSSI relationship. This partial mediation is consistent with the Benefits and Barriers Model's broader claim that multiple mechanisms, such as emotional regulation, interpersonal functions, self-criticism, and self-disgust, operate simultaneously (Hooley & Franklin, 2018). Consequently, although self-punishment significantly influences the link

between low self-esteem and NSSI severity, other pathways likely contribute as well. The current study did not quantify these additional mechanisms, but they warrant future investigation.

Beyond these local considerations, the present findings also suggest cross-cultural consistency. The self-esteem → self-punishment → NSSI severity pathway appears robust across the United States, the United Kingdom (Callan et al., 2014; Nagy & Muehlenkamp, 2024), and Indonesia, supporting the generalizability of the Benefits and Barriers Model. However, contextual circumstances in Indonesia may influence how this pathway manifests. Cultural values related to shame, face-saving, and collectivism could either amplify or attenuate the mediating role of self-punishment. Future research should systematically test measurement invariance across Asian and Western settings and directly measure help-seeking attitudes as a moderating variable.

In summary, this study enhances the understanding of NSSI in Indonesia, demonstrating that the pathways proposed by the Benefits and Barriers Model are relevant across contexts, yet shaped by cultural and contextual elements, particularly help-seeking barriers. Addressing these barriers alongside self-punishment and self-esteem may improve both theoretical models and clinical practice.

Conclusions and Recommendations

This study tested the Benefits and Barriers Model of Non-Suicidal Self-Injury (Hooley & Franklin, 2018) in a sample of Indonesian university and found that self-punishment partially mediates the relationship between low self-esteem and NSSI severity. The results confirm that self-punishment is a significant mechanism linking negative self-appraisals to more severe self-injury, but the partial nature of this mediation indicates that other processes (e.g., emotion dysregulation, self-disgust, interpersonal functions) also contribute. Importantly, the study extends the cross-cultural evidence for the model, demonstrating that the self-esteem → self-punishment → NSSI severity pathway operates similarly in Indonesia and Western contexts. However, help-seeking barriers such as stigma, confidentiality concerns, and limited access to services emerged as a critical contextual factor that may amplify NSSI severity and perpetuate the cycle of self-injury, even among students who wish to stop.

Beyond its implications for understanding NSSI risk, the present findings also contribute to the broader literature on psychological well-being among university students. Low self-esteem and self-punishment may not only increase vulnerability to NSSI but also undermine positive psychological functioning by reinforcing self-critical beliefs, emotional distress, and feelings of worthlessness. Conversely, interventions that promote healthy self-esteem, self-compassion, and adaptive coping may enhance well-being while simultaneously reducing self-injurious behaviors. The findings further suggest that help-seeking behaviors play an important role in student well-being. When barriers such as stigma, shame, confidentiality concerns, and limited access to services discourage students from seeking support, psychological difficulties may persist and contribute to poorer well-being outcomes. Therefore, fostering supportive campus environments that encourage early help-seeking may serve not only as a strategy for NSSI prevention but also as an important pathway for promoting overall psychological well-being among university students.

Based on these conclusions, the following recommendations are offered for practice, policy, and future research.

For university counselors and mental health services. Screening protocols should routinely assess not only the frequency and methods of NSSI but also underlying motives, particularly self-punishment. Cognitive-behavioral and compassion-focused interventions that directly target self-critical schemata

should be prioritized over behavior-only approaches. Counseling centers can offer brief, low-stigma workshops that help students understand the self-punishment cycle and develop alternative coping strategies.

For universities and institutional policy. To reduce help-seeking barriers, universities should implement anonymous or low-disclosure support options (e.g., text-based or chat-based counseling, peer support networks with clear confidentiality protections). Campus-wide de-stigmatization campaigns that normalize mental health help-seeking and specifically address NSSI-related shame are strongly recommended. Additionally, mental health services should be integrated into routine student health check-ups to lower the threshold for first contact.

Limitations

Several limitations should be acknowledged. First, the cross-sectional design precludes causal inferences about the direction of effects among self-esteem, self-punishment, and NSSI severity. Second, all data were self-reported, raising the possibility of recall bias, social desirability bias, and common method variance. Third, the latent variable NSSI Severity relied on three indicators (frequency, recency, versatility); while the loadings for frequency and versatility were strong, the loading for recency was non-significant ($\beta = 0.117$, $p = .087$), suggesting that recency may be a less reliable indicator of the severity construct. One possible explanation is that recency reflects the timing of the most recent NSSI episode rather than the cumulative burden or chronicity of self-injurious behavior, making it less strongly associated with overall NSSI severity in this sample. Future research should further examine alternative indicators of NSSI severity and evaluate the role of recency across different populations. Fourth, the study did not directly measure other hypothesized mechanisms (emotion regulation, interpersonal functions, help-seeking barriers), limiting the ability to test the full Benefits and Barriers Model. Fifth, the sample consisted entirely of university students in Indonesia, which may limit generalizability to non-student or clinical populations. In addition, the sample was predominantly female. Although no specific data were collected regarding differential participation rates or recruitment-related factors that may have contributed to this gender imbalance, the overrepresentation of female participants may limit the generalizability of the findings. Previous research has suggested that NSSI prevalence, motivations, and help-seeking behaviors may differ across genders. Therefore, the present findings may be more representative of female university students and should be generalized to male students with caution. Finally, although the model demonstrated perfect fit indices (CFI = 1.000, RMSEA = 0.000), such values can occur when a model is very simple and has few degrees of freedom (Kenny, 2015); the relatively low parsimony fit index (PNFI = 0.397) reflects the model's simplicity, and thus the perfect fit should be interpreted with caution rather than as evidence of flawless specification.

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