



Validation of the Interpersonal Forgiveness Indonesian Scale: An examination of its psychometric properties using confirmatory factor analysis

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Abstract: In recent years, research has highlighted the essential role of forgiveness in fostering interpersonal relationships and preserving social harmony. However, more precise measurement methods are necessary, particularly in the Indonesian context. The purpose of this study was to develop the Interpersonal Forgiveness Indonesian Scale. The investigation rigorously explores the construct by implementing confirmatory factor analysis. To evaluate the instrument's reliability, we used McDonald's omega coefficient. This study included 549 adults aged 18 to 35 from Yogyakarta, with a mean age of 23.09, including 258 males and 291 females. The loading values for revenge and avoidance factors were .724 to .841 and .796 to .845, respectively; while benevolence varied more, ranging from .538 to .824. The McDonald's omega value of .953 indicated excellent reliability. Robust correlations between the items and factors on the Interpersonal Forgiveness Indonesian Scale demonstrate its effectiveness and relevance in Indonesia. Future research should explore the dynamics of interpersonal forgiveness across diverse regions in Indonesia to gain a better understanding of the phenomenon within distinct cultural contexts.

Keywords: avoidance; benevolence; interpersonal forgiveness; revenge

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Introduction

Research indicates a strong association between forgiveness and health outcomes, particularly for individuals diagnosed with functional disorders (Sirotiak et al., 2024). A significant and growing corpus of literature (e.g. Barcaccia et al., 2023; Ho et al., 2020; Zhang et al., 2020; Zhou et al., 2021) supports the notion that forgiveness plays a pivotal role in regulating negative emotions. Barcaccia et al. (2020), Cleare et al. (2019), Fuente-Anuncibay et al. (2021) and Mróz and Kaleta (2023) suggest that it reduces negative emotions and repetitive thoughts.

Empirical evidence (Brady et al., 2023; Brudek & Kaleta, 2023; Crapolicchio et al., 2021) suggests that forgiveness fosters positive emotional states and engenders prosocial behaviors toward transgressors. It entails acknowledging one's emotional responses to transgression with compassion, while eschewing the reinforcement of negative affect (Horowski, 2022; Schönherr, 2024), a perspective underpinned by experts in the field (Mullen et al., 2023; Smallen, 2019).

Studies have identified an inverse relationship between forgiveness and depressive symptoms across diverse age cohorts (Barcaccia et al., 2020, 2023). Furthermore, a consistent correlation between forgiveness and overall well-being has been demonstrated (Abu-Raiya & Ayten, 2020; Gao et al., 2022; Long et al., 2020; Strelan et al., 2020).

The literature on forgiveness highlights its role in initiating behavioral change and fostering healthy relational dynamics. According to Radulovic et al. (2019) and Wang et al. (2022), forgiveness entails suppressing self-centered impulses in favor of prioritizing relationships and personal well-being, in alignment with the principles of interdependence theory. This perspective has gained support from recent academic research (Cao et al., 2021; Gordon, 2020; McCullough et al., 2006), which conceptualizes

forgiveness as a shift in motivation that leads to decreased retaliation; a higher likelihood of reconciliation; persistent kindness in the face of initial grievances.

Forgiveness represents compassionate motives in the aftermath of an offense (Krok & Zarzycka, 2021; Quintana-Orts et al., 2022; Recoder et al., 2021; Twardawski et al., 2023; Witvliet et al., 2020), signifying a significant psychological shift within interpersonal relationships (Chi et al., 2019; Johnson et al., 2023). The significance of forgiveness in nurturing healthy relational dynamics has been highlighted, with the potential to enhance spiritual connectedness by promoting qualities such as humility, grace and unconditional love (Skalski-Bednarz & Toussaint, 2024).

The study conducted by Toussaint et al. (2019) yielded surprising results, indicating no significant association between forgiveness and enhanced vocational outcomes, an outcome that defied conventional expectations. Research indicates that people are more inclined to forgive romantic partners than casual acquaintances (Lathren et al., 2021), while studies suggest that forgiveness is pivotal in forging and sustaining positive relationships, even after transgressions (Hirst et al., 2019; Pandey et al., 2023; Paula da Silva & Bachkirov, 2023).

Previous research demonstrates that the aspirations for long-term relational dynamics influence the consequences of forgiveness (Hodge et al., 2022). Costa et al. (2021) suggest that it positively influences psychological well-being only when there is a solid commitment to the individual who caused harm. Haslip et al. (2019) assert that extending forgiveness to a friend can improve the psychological well-being of children.

In addition, Warsah (2020) underlines the significance of pardoning a significant other, deeming it essential for cultivating constructive relationships. Abbott (2024) also highlights that

forgiveness is important in interpersonal relationships and fosters positive emotions such as love. Moreover, Záhorcová et al. (2023) characterize forgiveness as a transformative experience entailing the relinquishment of anger or resentment, linked with fostering positive emotions.

Despite persistent scientific endeavors, forgiveness still lacks a universally accepted definition in the context of interpersonal relationships. Forster et al. (2020) recognized the complexities of forgiveness. The research of Aziz and Yildirim (2020), Bankard et al. (2023), Band-Winterstein et al. (2024) and Velez and Idrobo (2024) also emphasize such complexities. Chen et al. (2023) provided empirical evidence demonstrating that forgiveness reduces a person's desire for revenge and enhances positive interactions with the offender. Notwithstanding the acknowledged merits of forgiveness, Ceylan-Batur et al. (2023) discerned a cohort of individuals who exhibit reluctance in pardoning those who have transgressed against them.

In psychological studies, researchers have developed various tools to assess forgiveness quantitatively. Noteworthy among these are the Forgiveness Likelihood Scale developed by Rye et al. (2001); the Heartland Forgiveness Scale developed by Thompson et al. (2002, 2005); the 15-item Bolton Forgiveness Scale (BFS) created by Amanze and Carson (2019); the Enright Forgiveness Inventory – 30 (EFI-30) developed by Enright et al. (2022). In addition to these instruments, the Enright Self-Forgiveness Inventory (ESFI) addresses the domain of self-forgiveness and underwent rigorous validation through a study by Kim et al. (2022). These tools mark significant advancements in how psychological research methodologically measures forgiveness.

Development of a more precise tool for assessing interpersonal forgiveness within the

Indonesian context is imperative. Amajida et al. (2023) utilized the TRIM-18 scale, specifically adapted to suit the Indonesian milieu. Their investigation targeted two groups: individuals currently experiencing distress in romantic relationships, and those who have encountered such distress in the past. However, narrowing the focus exclusively to individuals presently navigating romantic relationship challenges may have facilitated a more in-depth examination of the concept.

Nouri et al. (2021) conducted a study to validate and establish the reliability of the Persian version of TRIM-18 for assessing adolescent forgiveness. Additionally, Záhorcová and Dockal (2022) identified and removed a non-functional item from the Slovak version of TRIM-18, resulting in its adjustment and renaming to TRIM-17. Furthermore, Barcaccia et al. (2023) provided evidence supporting the strong psychometric properties of the Italian adaptation of TRIM-18, affirming its reliability and validity for practical application.

McCullough et al. (1998) conducted a comprehensive study to develop a metric for quantifying interpersonal forgiveness. Over time, McCullough et al. (2006) enhanced this instrument to more accurately encapsulate the multifaceted nature of forgiveness. These methodological refinements assured the reliability and precision of the tool in evaluating interpersonal forgiveness. While the initial version of the instrument predominantly focused on aspects of revenge and avoidance (McCullough et al., 1998), subsequent revisions by McCullough et al. (2006) broadened its scope to encompass the dimension of benevolence, thereby rendering it a more exhaustive and valuable instrument for assessing interpersonal forgiveness.

Our study focuses on developing a reliable and robust tool that facilitates academic investigation into interpersonal forgiveness, explicitly focusing

on the Indonesian cultural context. For our research, we developed the Interpersonal Forgiveness Indonesian Scale (IFIS), drawing upon the foundational framework provided by McCullough et al. (2006). We carefully refined the instrument to align more closely with the unique nuances of Indonesian cultural perspectives.

Methods

Participants

The study comprised 549 adult participants from the Special Region of Yogyakarta, aged 18 to 35 ($M = 23.09$, $SD = 0.51$); 258 were male and 291 females.

Item Development

We created the IFIS based on the framework developed by McCullough et al. (2006). This inventory assesses three important interpersonal forgiveness factors: revenge, avoidance and benevolence. The assessment consists of 18 statement items, with five focusing on revenge, seven on avoidance and six on benevolence.

Content Validity

Research questionnaires are pivotal in accurately measuring constructs (Wallwey & Kajfez, 2023; Zickar & Keith, 2023). Effectively quantifying constructs through questionnaires is contingent upon meticulously depiction and elucidation of the measured variables (Fischer, 2023). This investigation aimed to evaluate the appropriateness of different items for measuring the IFIS in an adult demographic. A panel of four experts with advanced degrees in psychology, including specialist in psychometrics, conducted an assessment of the questionnaire scale items. Content validity index (CVI) methodology was employed to validate the content. This approach facilitates the calculation of a CVI score for individual items alongside a composite score for the overall scale.

Aslam et al. (2023), Kang and Foster (2024), Núñez-López et al. (2024) and Wong et al. (2024) also used this content validation technique in their studies. It is essential to note the following information from the study conducted by Madadzadeh and Bahariniya (2023), who explain that when engaging in content validation with four raters, the minimum values for both the Individual Content Validity Index (I-CVI) and the Scale Content Validity Index (S-CVI) must be at least 1. In our case, three items failed to achieve the requisite I-CVI score during the validation process. Consequently, modifications were implemented for items 15, 16 and 18, as guided by the expert recommendations, to enhance their qualitative attributes.

The specific modifications made to these items were as follows: "Despite the bad things (s)he has done, I want to be able to have a positive relationship again" was revised to "Despite the bad things (s)he has done, I want to rebuild a positive relationship with him/her again." Similarly, "Even though (s)he caused me anguish, I ignored my hurt in an attempt to have a positive relationship with him/her" was rephrased to "Even though (s)he hurt me, I put aside my pain to continue a good relationship with him/her." Finally, "I have let go of my anger so that I can repair and create a healthy relationship with him/her" was adjusted to "I have let go of anger so that I can restore good relations with him/her."

Field Testing

After completing the initial content analysis, the investigation progressed to the practical phase, in which we conducted field trials for the IFIS. The field study encompassed 549 adults residing in the Special Region of Yogyakarta, who actively participated by completing online questionnaires. The construct validity of the scale was evaluated using an 18-item instrument, employing a Likert scale with four response options: *strongly disagree*,

disagree, agree, and strongly agree. During this phase, we carefully performed rigorous testing of all 18 items.

Data Analysis

We utilized the collected data to evaluate the IFIS and establish its reliability and validity. The experts had confirmed the validity of the scale content. To thoroughly evaluate the reliability of each aspect of the IFIS and to detect potential errors in our multi-item measurement scale, we applied McDonald's coefficient omega statistical method (Chen et al., 2024). Notably, it is essential that an item only be considered significant if it exhibits a factor loading value above .300 (Coşkun et al., 2023; Mollaoglu & Boy, 2024; Shandiz et al., 2023; Steenkamp & Maydeu-Olivares, 2023).

We employed confirmatory factor analysis (CFA) to validate the results and empirical findings, utilizing LISREL 10.20 software and using

the maximum likelihood estimation method. Throughout this analytical process, the response options of each item were treated as continuous variables, adhering to the conventional methodologies prevalent in quantitative research studies.

Results

Descriptive Statistics

The dataset, comprising responses from the 549 individuals, reveals an average test score of 66.25, with a standard deviation 5.91. Table 1 details the descriptive statistical analysis, emphasizing the variability in individual item scores, which exhibit mean values spanning from 3.12 to 3.50. Furthermore, the observed standard deviations across these items range from 0.61 to 0.95, demonstrating varying degrees of response consistency across the dataset.

Table 1

Descriptive Analysis of Items

Item	<i>M</i>	<i>SD</i>	Skewness	Kurtosis
01 ^a	3.32	0.68	-0.86	0.87
02 ^a	3.50	.070	-1.48	2.19
03 ^a	3.33	0.78	-1.12	0.90
04 ^a	3.44	0.74	-1.26	1.17
05 ^a	3.39	0.67	-0.98	1.17
06 ^a	3.31	0.84	-1.15	0.69
07 ^a	3.27	0.84	-1.03	0.43
08 ^a	3.12	0.95	-0.88	-0.18
09 ^a	3.22	0.89	-0.96	0.06
10 ^a	3.27	0.88	-1.05	0.28
11 ^a	3.36	0.80	-1.22	1.06
12 ^a	3.24	0.85	-1.01	0.39
13	3.40	0.63	-0.78	0.65
14	3.42	0.71	-1.21	1.43
15	3.36	0.71	-1.09	1.40
16	3.38	0.73	-1.19	1.46
17	3.50	0.61	-1.06	1.30
18	3.40	0.70	-1.09	1.17

^a reverse items

Evaluation of the distribution characteristics through the median values for absolute skewness and kurtosis yielded values of 1.077 and 0.977 respectively. The assessment utilized reverse-scored responses for items one to twelve, the methodological approach to interpreting data (García-Fernández et al., 2022).

According to Kangwanrattanakul and Krägeloh (2024), skewness values ranging from -1.96 to +1.96 signify a distribution adhering to normality criteria, particularly in samples exceeding 300 participants. In addition, Sovey et al. (2022) established that kurtosis values within the range of -7 to +7 are in line with normal distribution parameters.

Goodness-of-fit

Our study compared a one-factor model with a more complex three-factor model. The findings presented in Table 2 confirm that the three-factor model is more effective than the one-factor. Established benchmarks further support this conclusion: the root mean square error of approximation (RMSEA) was .065, comfortably below the recommended thresholds of .070 (Steiger, 2007) or .080 (Fu et al., 2022). The standardized root mean square residual (SRMR) was .033, falling below the thresholds of .080 (Lin & Hsu, 2022) or .060 (Shi et al., 2022). The comparative fit index (CFI) was .956, surpassing the minimum value of .950 (Edwards & Konold, 2023; Rahayu et al., 2022). In addition, the Tucker-Lewis index (TLI) was .949, exceeding the minimum threshold of .900 (Campos et al., 2021; Chen, Liang et al., 2022). This empirical evidence supports the methodological rigor and construct validity of the three-factor model in our research.

Item Parameter Estimates

Figure 1 presents a path diagram that clarifies the structure of the IFIS. The diagram distinguishes

three key factors, each defined by items with loading values higher than .050, a threshold in line with the minimum criteria set by Cheung et al. (2024) and Jang et al. (2023). The loading values for the revenge factor ranged from .724 to .841, while those for the avoidance factor ranged from .796 to .845. The benevolence factor exhibited wider variation, with loading values ranging from .538 to .824.

Correlation between Factors

The analysis employed a three-factor model to examine the data, as detailed in Table 3. The table indicates the correlations between the three integral IFIS factors. The findings reveal a robust positive correlation between the factors of revenge and avoidance, documented as $r = .875$, with a significance level of $p < .001$. Moreover, we observed significant positive correlations across the three IFIS factors, with correlation coefficients ranging from .785 to .875. These findings highlight the strong and statistically significant relationships among the IFIS factors.

Reliability Estimates

Measuring tools in psychometrics are considered reliable if their internal consistency coefficient exceeds .700 (Chen et al., 2024; Karahan et al., 2023; Trpkovici et al., 2023). For better reliability, this coefficient should ideally exceed .800 (Cao et al., 2024); to be considered excellent, it must exceed .900 (Dabbagh et al., 2023; Juanamasta et al., 2023; Lee et al., 2023). We utilized McDonald's omega to evaluate the IFIS and discovered that the coefficients for its dimensions were .877 for revenge, .934 for avoidance, and .874 for benevolence, thus indicating high reliability. When assessed as a unified model, the IFIS demonstrates an omega coefficient of .953, signifying excellent reliability.

Table 2
Goodness-of-fit Indices; Two Hypothetical Models

Model	RMSEA	SRMR	CFI	TLI
1-factor	.106	.054	.879	.863
3-factor	.065	.033	.956	.949

Figure 1
Confirmatory Factor Analysis Model

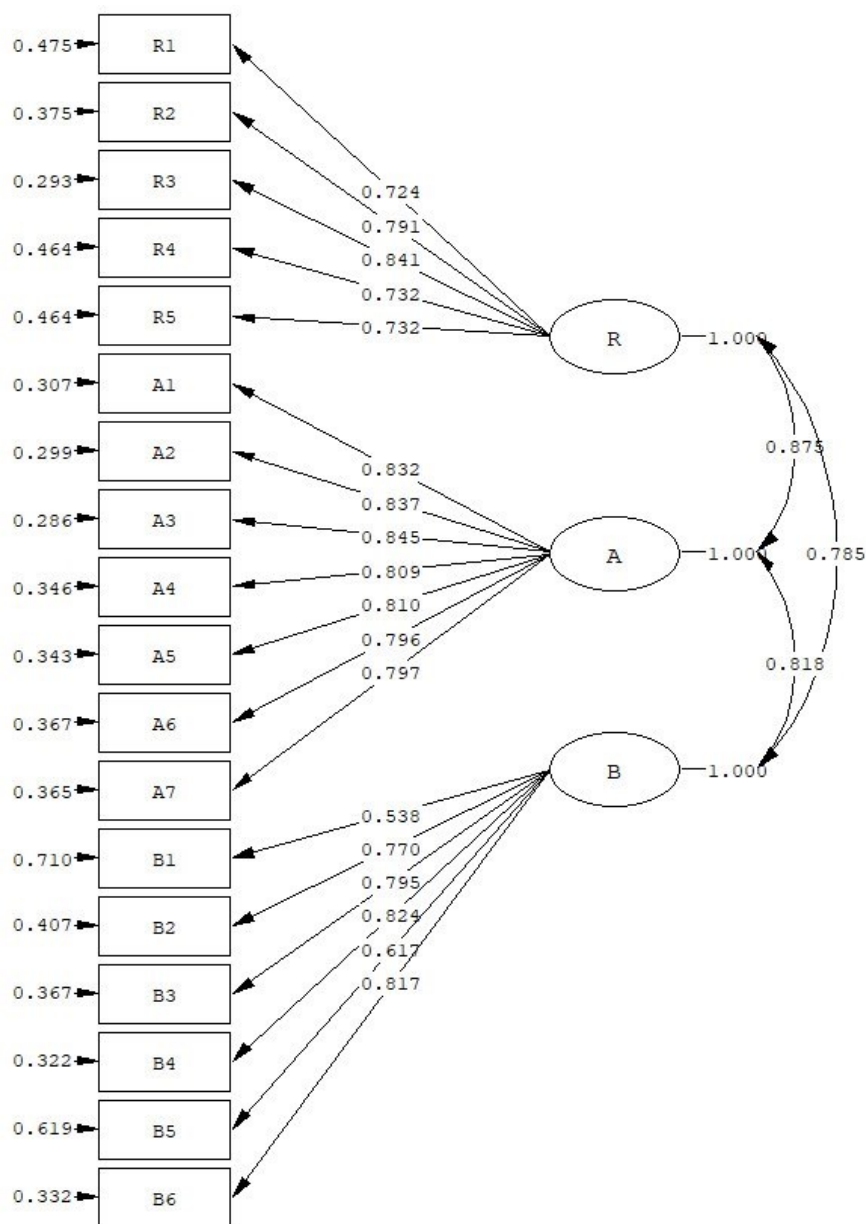


Table 3
Factor Correlation

Factor	Correlation		
	Revenge	Avoidance	Benevolence
Revenge	1	.875	.785
Avoidance	.875***	1	.818
Benevolence	.785***	.818***	1

*** $p < .001$.

Discussion

This study contributes to the literature by presenting a comprehensive framework for understanding interpersonal forgiveness, as informed by expert perspectives and empirical analysis. Field testing conducted with 549 participants informed the development of the framework, while the analytical procedures involved performing CFA and evaluating reliability indices, specifically McDonald's coefficient omega. The findings reveal that the three components of interpersonal forgiveness—revenge, avoidance and benevolence—show robust reliability metrics, with the omega values ranging between .874 and .934. The results empirically support the validity and reliability of the identified factors as essential measures of interpersonal forgiveness.

The CFA results present a compelling fit for the IFIS. According to the findings, the RMSEA stands at .065, the SRMR at .033, the CFI at .956, and the TLI at .949. These indices, considered collectively, affirm the congruence of the scale with established CFA criteria, thereby underscoring its validity in measuring aspects of interpersonal forgiveness. As illustrated in Figure 1, the empirical analysis demonstrates a significant correlation between individual items and the respective dimensions of revenge, avoidance and benevolence. This highlights the proficiency of the IFIS in capturing the multifaceted nature of interpersonal forgiveness. For a detailed enumeration of the

items associated with each dimension, please refer to the Appendix.

In their seminal work, Mullen et al. (2023) explain that interpersonal forgiveness involves the relinquishing of resentment, negative judgments, and antagonistic behavior toward offenders. This process is instrumental in the sustenance and enhancement of interpersonal relationships, a phenomenon rigorously examined by Goodwin et al. (2020), Grover et al. (2020), Zhang et al. (2020) and Zhou (2020). It is imperative to acknowledge that forgiveness may transpire independently of an apology from the offender, thereby serving as a personal mechanism for the aggrieved individual's well-being (Kaleta & Mróz, 2022; Wenzel et al., 2023).

The foundational elements of interpersonal forgiveness are grounded in empathy and the development of narratives to comprehend the nuances of the offense, as delineated in the research by Fourie et al. (2020), Gabay et al. (2020) and Tiwari et al. (2023). Moreover, elements influencing the quality of relationships, such as the degree of commitment within a friendship, have been identified as pivotal in facilitating forgiveness. Grøntvedt et al. (2020), Cao et al. (2021) and Fitzgerald (2022) provide empirical evidence supporting this correlation. Furthermore, Liao et al. (2024) found that individuals possessing higher levels of forgiveness show a greater readiness to forgive following interpersonal conflicts, leading to improved emotional well-being.

Recent studies highlight the significant positive effects of forgiveness as a crucial social behavior that promotes benevolent thoughts, emotions and actions towards wrongdoers (Chen, Zhao et al., 2022). Beyond immediately improving relationships, forgiveness nurtures a broader empathy and kindness, improving social cohesion (Cornish et al., 2020; Ermer et al., 2022).

Forgiveness within romantic partnerships is essential for ameliorating interpersonal conflicts, as highlighted by Behrens et al. (2024). Furthermore, a positive correlation exists between the propensity to forgive and the likelihood of contributing to charitable endeavors, as evidenced by Fincham et al. (2020), and engagement in voluntary activities, as suggested by Tao et al. (2020). These associations underline the significance of forgiveness in nurturing societal welfare.

Forgiveness is instrumental in reinforcing social bonds, a notion elucidated by Glaz (2019). It plays a central role in resolving conflicts and promoting prosocial behaviors, as discussed by Kupferberg and Hasler (2023). The empirical literature underscores the importance of forgiveness in the sustenance of intimate relationships and the enhancement of personal contentment, with notable contributions from Halilova et al. (2020), Satici (2020) and Tessy et al. (2022). Moreover, the inclination towards forgiveness appears more pronounced among individuals who possess a heightened sense of interconnectedness, reflecting a commitment to preserving interpersonal ties, as posited by Major et al. (2020). This body of research highlights the significance of forgiveness as an essential mechanism for fostering personal and societal harmony.

Recent scholarly investigations into gender distinctions concerning the propensity for forgiveness reveal that men exhibit a higher likelihood of forgiving and an enhanced capacity to

transcend previous injustices than women (Kaleta & Mróz, 2022). Despite these gender-specific differences, their research also finds that both men and women exhibit similar positive traits related to the propensity to forgive. The empirical analysis delineates an inverse relationship between forgiveness and factors such as negativity, anxiety, inadequate anger management, and depression. Positive affectivity significantly correlates with a higher likelihood of engaging in forgiving behaviors (Mróz & Kaleta, 2023).

Karremans et al. (2020) emphasize the significant impact of forgiveness on individual health, highlighting its crucial role in psychological processes. Ho et al. (2022) further emphasize the need for more scholarly inquiry into the effects of forgiveness on the well-being of adults in Indonesia. Their research identifies two types of forgiveness: emotional and decisional. Evidence from Wang et al. (2022) and Li et al. (2024) also indicates that emotional forgiveness is more strongly associated with improved well-being compared to decisional forgiveness, suggesting nuanced differences in how these types of forgiveness affect overall health.

Wu et al. (2022) and Ye et al. (2022) show that emotional coping is crucial in facilitating forgiveness and promoting personal development after traumatic incidents. Central to forgiveness is the relinquishment of negative sentiments towards the transgressor, a process deemed independent of the transgressor's worthiness, as discussed by Schumann and Walton (2022). Rodrigues et al. (2024) propose that the security of attachment to parental figures correlates with an individual's propensity for interpersonal forgiveness.

Forgiveness is a transformative psychological process, transitioning from resentment to compassion and extending generosity towards offenders. This conceptualization underscores its significance in fostering empathetic and forgiving

interactions (Praptomojati & Subandi, 2020; Russell, 2020). Subsequent research has illuminated the impact of cultural variances on forgiveness practices, with specific studies highlighting these differences in Indonesian contexts (Cook et al., 2024; Nashori et al., 2020). Comparative analysis between Indonesian and French students elucidated the cultural dimensions of forgiveness (Tittler & Wade, 2019), further emphasizing the critical role of decisional forgiveness within culturally-attuned interventions aimed at Indonesian adults (Cook et al., 2022).

Masaryková et al. (2022) discuss the concept of forgiveness, primarily focusing on emotional forgiveness in interpersonal dynamics. Theories suggest that forgiveness is more common in collectivist societies, and aims to maintain relationships rather than promote emotional healing (Kurniati et al., 2020). A study conducted in Indonesia identified that forgiving others can significantly improve an individual's well-being more immediately than merely experiencing emotional forgiveness (Cook et al., 2022). This finding underlines the need for additional research into the practices of forgiveness and their cultural ramifications within the Indonesian context.

In the VIA Inventory of Strengths (VIA-IS) detailed by Ruch et al. (2021), forgiveness is one of 24 key character strengths within its assessment framework. The trait falls within the virtue category of temperance, a classification further supported by the work of Ford et al. (2023). The role of forgiveness in behavior regulation and the mitigation of excess aligns with the theoretical models proposed by Worthington and van Zyl (2021).

The importance of forgiveness extends to its significant impact on improving psychological well-being in emerging adults, aiding in creating positive emotional states (Tessy et al., 2022). Furthermore, Rahman et al. (2019) highlight the intermediary role of forgiveness in the connection

between self-compassion and ego depletion, specifically among students in Indonesia.

The VIA-IS inventory presents a scientifically robust self-assessment mechanism that evaluates an adult's 24 character strengths and virtues, including the construct of forgiveness, as delineated by Ruch et al. (2021). As discussed by van Monsjou et al. (2023), forgiveness constitutes the alleviation of emotional distress engendered by perceived injustices, embracing human fallibility, initiating reconciliation, and generously offering opportunities for redemption to others, characterized by empathetic understanding.

According to Koopmann-Holm et al. (2020) and Karremans et al. (2020), practices such as meditation, aimed at facilitating emotional release and stress management, can enhance this particular strength. Substantially, the act of forgiveness has been highlighted as a contributory factor to the promotion of effective interpersonal relations (Toussaint et al., 2019); cohesive teamwork dynamics (Kachel et al., 2021); employee satisfaction (Khan et al., 2021); and overall psychological well-being (Fincham & May, 2024).

Forgiveness is pivotal for individuals (McCauley et al., 2022). Self-monitoring within diverse settings enables them to observe the activation and application of their forgiveness capability, identifying both precursors to its invocation also the subsequent emotional and cognitive outcomes, as noted by Vyas & Vyas (2023).

The consolidation of forgiveness as an inherent strength necessitates the delineation of contexts in which an imbalance in its application is evident, a concept explored by Booker and Perlin (2021). Through meticulous exploration of the practical implementations of forgiveness, encompassing both introspective and extrospective analyses, individuals can develop effective strategies for enhancing this virtue and navigating its related challenges (Niemic, 2023).

Conclusion

This study employed the IFIS to assess three dimensions: revenge, avoidance and benevolence. The evaluation of the 18 items tested demonstrated validity, reliability and significant correlations with the dimensions mentioned above. The IFIS was rigorously evaluated, successfully undergoing CFA assessments. The instrument exhibits considerable potential for scholars interested in exploring interpersonal forgiveness within the Indonesian milieu. However, researchers should be aware that the participant sample was exclusively from the Special Region of Yogyakarta, Indonesia, which may affect the generalizability of the findings.

The research was focused on young adults, rendering the IFIS an accurate reflection of the perspectives and experiences relevant to this younger age group. This strategic emphasis ensured that the scale's empirical outcomes and

carefully validated precision, were likely to be more adept at elucidating the intricacies of forgiveness processes and attitudes within younger demographic groups in Indonesia. Consequently, although the scale demonstrates substantial validity and reliability within this specific age group, care should be taken when attempting to extrapolate the findings to more senior demographic segments.

Future research endeavors should encompass a broader spectrum of age groups, thereby rendering the scale more universally applicable and enhancing understanding of the nuances of interpersonal forgiveness throughout the human lifespan. Moreover, future research should delve into the dynamics of interpersonal forgiveness across diverse regions within Indonesia, aiming to construct a more exhaustive and nuanced understanding of the phenomenon within distinct cultural milieus.[]

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Author Contribution Statement

Gilang Tri Prayogo Yusuf: Conceptualization; Data Curation; Formal Analysis; Funding Acquisition; Investigation; Methodology; Project Administration; Resources; Validation; Visualization; Writing of Original Draft; Final Writing, Review and Editing; Proofreading. **Ahmet Salih Şimşek:** Formal Analysis; Validation; Writing and Review; Supervision. **Farida Agus Setiawati:** Formal Analysis; Validation; Review; Supervision. **Gyanesh Kumar Tiwari:** Validation; Review; Supervision. **Amir Sam Kianimoghadam:** Validation; Review; Supervision.

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Appendix*Framework of the Interpersonal Forgiveness Indonesian Scale*

Factors	Items	Favorable	Unfavorable
Revenge	- I will make him/her pay for the bad things (s)he has done to me.		01
	- I hope something terrible happens to him/her.		02
	- I want him/her to be punished for the bad things (s)he has done to me.		03
	- I will make him/her receive adequate compensation for his/her evil deeds.		04
	- I want to see him/her suffer.		05
Avoidance	- I keep as far away from him/her as possible.		06
	- I behave toward him/her as though (s)he doesn't exist.		07
	- I do not trust him/her.		08
	- I cannot seem to get along with him/her.		09
	- I stay away from him/her.		10
	- I severed all contact with him/her.		11
Benevolence	- I will move away when I see him/her.		12
	- His/her actions wounded me, but I still want the best for him/her.	13	
	- I want to let go of all past conflicts and rebuild friendship ties with him/her.	14	
	- Despite the bad things (s)he has done, I want to rebuild a positive relationship with him/her again.	15	
	- Even though (s)he hurt me, I put aside my pain to continue a good relationship with him/her.	16	
	- I forgive him for the bad things (s)he has done.	17	
	- I have let go of anger so that I can restore good relations with him/her.	18	

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