



Psychological Inflexibility and Self-Critical Rumination as Predictors of Mental Wellbeing

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Abstract: Self-critical rumination, which entails the use of repetitious and severe evaluation against oneself, has always been linked with poor psychological health issues. It's hypothesized by new studies that the effects of similar maladaptive cognitive patterns on well-might be intermediated by some source processes like psychological inflexibility. Informed by the Acceptance and commitment theory, psychological inflexibility is a sign of inflexible patterns of experience avoidance and cognitive emulsion that disrupt adaptive functioning and emotional well-being. This current paper has explored the predictive equation of self-critical rumination and psychological inflexibility on well-being and has tested psychological inflexibility as a mediator of the predictive equation among a non-clinical sample of youthful grown-ups. The cross-sectional exploration design was applied. Standardized self-report measures of self-critical rumination, psychological inflexibility, and well-being (WHO-5 Well-Being indicator) were given to the sample (N- 150). The correlation, regression, and mediation analyses were used to dissect data. The correlation between Pearson demonstrated that self-critical rumination showed meaningful and positive correlations with psychological inflexibility ($r = .71$, p and significantly and negatively associated with well-being ($r = -.64$, $p < .01$). Mediation analysis verified that psychological rigidity partly intermediated the relationship between self-critical reflection and well-being (Indirect Effect = -0.446 , $p = .012$). While self-criticism directly reduced well-being, a significant portion of its impact was

conducted through increased psychological rigidity and existential avoidance. These findings suggest that clinical interventions, similar as Acceptance and Commitment Therapy (ACT), should target psychological inflexibility as a primary method to defend the well-being of people prone to high degree of self-critical rumination.

Keywords: *Psychological Inflexibility, Self-Critical Rumination, Well-Being, WHO-5, Mediation Analysis.*

1. Introduction

The global mental health landscape has reached a critical juncture, with recent reports from the World Health Organization (2024) indicating a persistent rise in emotional distress and common mental disorders despite advances in pharmacological and psychotherapeutic treatments. This trend has prompted a theoretical shift from a pathogenic model focused on symptom reduction to a salutogenic framework that emphasizes the promotion of mental well-being. Mental well-being is conceptualized not merely as the absence of psychopathology but as a positive state of functioning characterized by emotional resilience, social contribution, and personal fulfilment. Accordingly, identifying cognitive mechanisms that undermine well-being has become a central objective in contemporary psychological research.

Young adulthood represents a developmentally sensitive period marked by significant academic, social, and emotional transitions. Increased autonomy, identity exploration, and heightened emotional demands contribute to elevated vulnerability to psychological distress, with anxiety and depression rates peaking during this stage. These outcomes are strongly influenced by cognitive processing styles and self-referential evaluations, underscoring the importance of examining maladaptive cognitive patterns within this population.

One such pattern is self-critical rumination, defined as a maladaptive form of repetitive thinking involving persistent focus on perceived personal flaws and failures (Smart et al., 2016; Fearn et al., 2021). Grounded in response styles theory and the perseverative cognition framework, self-critical rumination maintains negative affect by sustaining attention on distress without facilitating problem resolution (Nolen-Hoeksema et al., 2008). Distinct from general rumination, it is characterized by self-devaluative content and has been linked trans diagnostically to depression, anxiety, eating pathology, and burnout (Mennin & Fresco, 2015). In young adults, contextual factors such as academic pressure and social comparison may further amplify its impact, contributing to cycles of low self-esteem and psychological distress.

Psychological inflexibility has been proposed as a key mechanism underlying the relationship between maladaptive cognition and diminished well-being. Rooted in Acceptance

and Commitment Therapy (ACT), psychological inflexibility refers to rigid, avoidance-based responses to internal experiences that interfere with value-consistent behavior (Bond et al., 2011). It encompasses processes such as cognitive fusion, experiential avoidance, and rigid self-concepts, which constrain adaptive functioning. The construct is theoretically grounded in Relational Frame Theory and has been consistently associated with a wide range of mental health difficulties, supporting its role as a transdiagnostic vulnerability factor (Kashdan & Rottenberg, 2010).

Emerging evidence suggests that psychological inflexibility may mediate the relationship between self-critical rumination and mental well-being. Specifically, self-critical rumination may exacerbate psychological inflexibility by increasing cognitive fusion and experiential avoidance, which in turn restrict adaptive coping and value-driven action. Conversely, psychological inflexibility may perpetuate rumination by limiting individuals' capacity to disengage from negative self-referential thought patterns. This reciprocal dynamic may create a reinforcing cycle that intensifies distress and undermines well-being.

Despite growing interest in these constructs, important gaps remain. Existing research has predominantly focused on clinical populations or general forms of rumination, with comparatively limited attention to self-critical rumination in non-clinical young adults. Moreover, the mediating role of psychological inflexibility in this relationship has not been sufficiently examined. Addressing these gaps is essential for advancing transdiagnostic models of mental health and informing targeted interventions.

The present study aims to examine psychological inflexibility as a mediator in the relationship between self-critical rumination and mental well-being in a non-clinical sample of young adults. By integrating these constructs, the study seeks to contribute to a more nuanced understanding of cognitive vulnerabilities and to inform interventions aimed at enhancing psychological resilience and well-being.

2. Review of Literature

Birni et al. (2025) demonstrated that both psychological flexibility and self-critical reflection fully mediated the relationship between Adverse Childhood Experiences (ACEs) and adult mental well-being. Individuals with higher ACEs showed increased self-critical reflection, suggesting a tendency to internalize negative early experiences. However, psychological flexibility emerged as a protective factor, enabling individuals to process, accept, and adapt to these experiences, thereby reducing their negative impact on well-being.

Dou et al. (2025) found that physical activity was significantly associated with lower depressive symptoms among college students. This relationship was partially mediated by psychological inflexibility, indicating that lower levels of inflexibility may explain how physical activity contributes to reduced depression. In contrast, psychological flexibility did not show a mediating effect, suggesting that reducing inflexibility may be more critical than enhancing flexibility in this context.

Aydın et al. (2023) investigated psychological inflexibility, rumination, self-compassion, and college adjustment. Results showed that inflexibility and rumination negatively predicted adjustment and psychological well-being, while self-compassion mitigated these effects. The findings highlight the interactive influence of cognitive rigidity and repetitive negative thinking on emerging adults' functioning.

Ulusoy et al. (2022) reported that psychological inflexibility played a significant mediating role in the relationship between depression and addiction severity in individuals with substance use disorders. While self-criticism was positively associated with both depression and addiction severity, it did not significantly predict addiction outcomes and was excluded from the mediation model. The findings indicate that psychological inflexibility is a key mechanism through which depressive symptoms contribute to increased addiction severity.

Ong et al. (2019) provided experimental evidence through a randomized controlled trial showing that reductions in psychological inflexibility mediated improvements in quality of life among individuals undergoing Acceptance and Commitment Therapy (ACT) for clinical perfectionism. This suggests that targeting psychological inflexibility in therapeutic interventions can effectively disrupt maladaptive cognitive patterns, such as self-criticism, and enhance overall well-being.

3. Methodology

3.1 Aim

To study psychological inflexibility and self-critical rumination as predictors of wellbeing among young adults

3.2 Objectives

1. To assess the level of self-critical rumination, psychological inflexibility, and well-being among young adults.
2. To examine the correlation between self-critical rumination, psychological inflexibility, and well-being among young adults.

3. To study psychological inflexibility and of self-critical rumination as predictors of well-being among young adults.

3.3 Hypotheses

H1: There will be a significant relationship between self-critical rumination and mental well-being among young adults.

H2: There will be a significant relationship between self-critical rumination and psychological inflexibility among young adults.

H3: There will be a significant relationship between psychological inflexibility and mental well-being among young adults.

H4: Self-critical rumination will significantly predict mental well-being among young adults.

H5: Psychological inflexibility will significantly predict mental well-being among young adults.

3.4 Variables

Independent Variable (IV): Self-Critical Rumination and Psychological Inflexibility

Dependent Variable (DV): Well-Being.

3.5 Research Design

A correlational research design was employed. Specifically, a mediation model was utilized to explore the indirect pathways through which the predictor variable influences the outcome variable.

3.6 Sample

- Sample Size: $N = 150$.
- Sampling Style: Convenient sampling
- Inclusion Criteria: *Individuals aged between 18 and 27 years.
 - Participants proficient in English.
 - Consent to participate in the study.
- Exclusion Criteria:
 - Individuals currently undergoing intensive psychiatric treatment.
 - Incomplete survey responses.

3.7 Tools Used

Self-Critical Rumination Scale (SCRS): The Self-Critical Rumination Scale (Smart et al., 2016) was used to assess the frequency of self-critical thoughts. It is a 10-item self-report measure rated on a 7-point Likert scale, with higher scores indicating greater self-critical rumination. The scale demonstrated high internal consistency in the present study ($\alpha = .92$).

Acceptance and Action Questionnaire-II (AAQ-II): Psychological inflexibility was measured using the Acceptance and Action Questionnaire-II (Bond et al., 2011). This 7-item scale assesses experiential avoidance on a 7-point Likert scale, where higher scores reflect greater psychological inflexibility. The scale showed good reliability ($\alpha = .88$).

World Health Organization-5 Well-Being Index (WHO-5): Mental well-being was assessed using the WHO-5 (WHO, 1998), a 5-item measure evaluating positive well-being over the past two weeks. Responses are rated on a 6-point scale and converted to a 0–100 score, with higher scores indicating better well-being. The scale demonstrated good internal consistency ($\alpha = .86$).

3.8 Procedure

Data were collected offline using hard-copy questionnaires administered in educational and professional settings. Participants provided informed consent and were assured of confidentiality and voluntary participation. Completed responses were collected and later digitized for analysis.

3.9 Data Analysis

Statistical analyses were conducted using jamovi (Version 2.3). Descriptive statistics and normality indices were computed, followed by Pearson's correlation analysis. Mediation analysis was performed using the jmv module to estimate direct and indirect effects, with 95% confidence intervals used to determine the significance of the mediation pathway.

4. Results

The data were analyzed to examine the relationships between psychological inflexibility, self-critical rumination, and mental well-being among young adults. Preliminary analyses were conducted to assess descriptive statistics and correlations among the study variables. Following this, multiple linear regression analysis was performed to determine whether psychological inflexibility and self-critical rumination significantly predicted mental well-being. The results of these analyses are presented below.

Table 1. *Distribution of Participants Across Low, Medium, and High Levels of Study Variables (N=150)*

Variable	Low (%)	Medium (%)	High (%)	Mean	SD
Self-Critical Rumination (SCRS)	32 (21.33%)	89 (59.33%)	29 (19.33%)	24.35	6.20

Acceptance and Action Questionnaire (AAQ-II)	28 (18.67%)	92 (61.33%)	30 (20.00%)	23.98	9.31
WHO-5 Wellbeing Index	32 (21.33%)	86 (57.33%)	32 (21.33%)	59.65	19.38

Table 2. Descriptive Statistics and Normality Indicators ($N = 150$)

Variable	M	SD	Skewness	Kurtosis	Shapiro–Wilk W	p
Self-Critical Rumination (SCRS)	24.40	6.20	-0.01	-0.97	0.971	.003
Psychological Inflexibility (AAQ-II)	24.00	9.31	0.17	-1.11	0.954	< .001
Mental Well-Being (WHO-5)	59.70	19.40	-0.14	-0.86	0.971	.003

Descriptive analyses indicated that participants reported moderate levels of self-critical rumination ($M = 24.35$, $SD = 6.20$), psychological inflexibility ($M = 23.98$, $SD = 9.31$), and mental well-being ($M = 59.65$, $SD = 19.38$). Skewness and kurtosis values fell within acceptable ranges, supporting approximate normality and the use of parametric analyses.

Table 3. Inter-correlations between Study Variables

Variable	Self- Critical Rumination	Psychological Inflexibility	Mental Wellbeing
Self-Critical Rumination	—		
Psychological Inflexibility	.713***	—	
Mental Well-Being	-.638***	-.553***	—

Pearson's correlation coefficients were computed to test the relationships between the variables. The results in Table 5.2 indicate that Self-critical rumination was strongly positively associated with psychological inflexibility ($r = .71$, $p < .001$). Both self-critical rumination ($r = -.64$, $p < .001$) and psychological inflexibility ($r = -.55$, $p < .001$) were significantly negatively correlated with mental well-being, supporting the hypothesized relationships.

Table 4. Multiple Linear Regression Predicting Mental Well-Being ($N = 150$)

Predictor	B	SE	t	p
Intercept	107.319	4.923	21.80	< .001
Self-Critical Rumination	-1.548	0.279	-5.55	< .001
Psychological Inflexibility	-0.416	0.186	-2.24	.027

Note. $R^2 = .426$ B = unstandardized regression coefficient; SE = standard error. R^2 = proportion of variance in mental well-being explained by the predictors.

Multiple regression analysis indicated that self-critical rumination and psychological inflexibility jointly predicted mental well-being, accounting for 42.6% of the variance ($R^2 = .426$, $p < .001$). Both variables emerged as significant negative predictors, with self-critical rumination ($B = -1.548$, $p < .001$) demonstrating a stronger effect than psychological inflexibility ($B = -0.416$, $p = .027$).

Table 5. Mediation Analysis Examining Psychological Flexibility as a Mediator Between Self-Critical Rumination and Psychological Well-Being ($N = 150$)

			95% Confidence Interval			
Effect	Estimate	SE	Lower	Upper	Z	p
Indirect	-0.446	0.178	-0.812	-0.0795	-2.51	.012
Direct	-1.548	0.245	-2.071	-1.0672	-6.32	<.001
Total	-1.993	0.203	-2.405	-1.6008	-9.82	<.001

Note. Indirect effect represents the mediating role of psychological flexibility in the relationship between self-critical rumination and psychological well-being. CI = confidence interval; LL = lower limit; UL = upper limit.

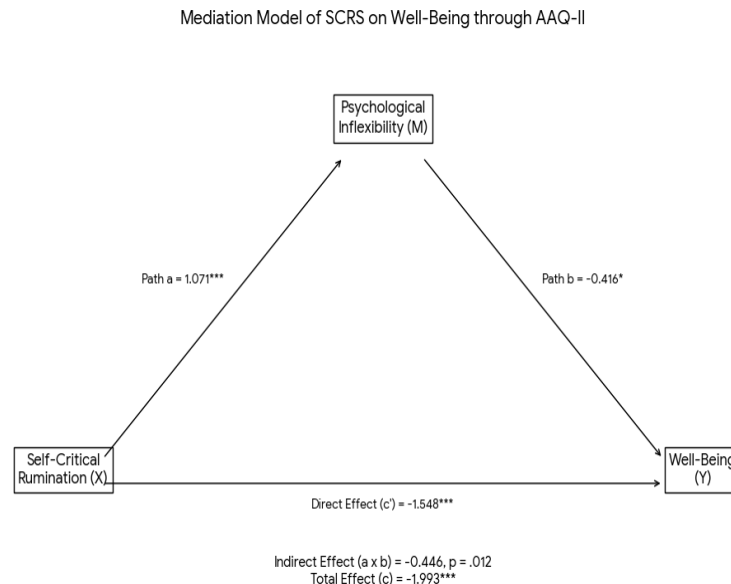


Figure 1. The indirect effect of self-critical rumination on psychological wellbeing through psychological inflexibility

Mediation analysis further demonstrated that psychological inflexibility partially mediated the relationship between self-critical rumination and well-being. The indirect effect was significant ($B = -0.446$, $p = .012$), with confidence intervals not crossing zero, while the direct effect remained significant ($B = -1.548$, $p < .001$). This indicates that self-critical

rumination impacts well-being both directly and indirectly through increased psychological inflexibility.

5. Discussion

The present study examined the relationships between self-critical rumination, psychological inflexibility, and mental well-being in a non-clinical sample of young adults, with a focus on the mediating role of psychological inflexibility.

Descriptive findings indicated moderate levels across all variables. Self-critical rumination ($M = 24.35$, $SD = 6.20$) aligned with its conceptualization as a dimensional, transdiagnostic process present across populations (Ehring & Watkins, 2008; Nolen-Hoeksema et al., 2008). Psychological inflexibility ($M = 23.98$, $SD = 9.31$), measured via the AAQ-II, reflected variability in experiential avoidance (Bond et al., 2011). Psychological well-being ($M = 59.65$, $SD = 19.38$), assessed using the WHO-5, exceeded the clinical cutoff, indicating a largely non-depressed sample with notable variability. These findings support dimensional models of psychopathology (Cuthbert & Insel, 2013).

Correlational analyses supported the hypotheses. Self-critical rumination was strongly positively associated with psychological inflexibility ($r = .71$, $p < .001$), consistent with models linking repetitive negative thinking to experiential avoidance (Hayes et al., 2012; Chawla & Ostafin, 2007). Both self-critical rumination and psychological inflexibility were negatively associated with well-being ($r = -.64$ and $r = -.55$, respectively, $p < .001$), reflecting the detrimental impact of cognitive rigidity and maladaptive thinking on mental health (Aldao et al., 2010).

Regression analysis showed that both predictors accounted for 42.6% of the variance in well-being (Cohen, 1988). Self-critical rumination was a strong independent predictor ($B = -1.548$, $p < .001$), while psychological inflexibility also contributed uniquely ($B = -0.416$, $p = .027$), indicating that they represent related but distinct processes.

Mediation analysis further supported the model, with psychological inflexibility accounting for approximately 22% of the relationship between self-critical rumination and well-being. This aligns with ACT theory, which identifies experiential avoidance as central to distress (Hayes et al., 2006). However, the remaining direct effect suggests the involvement of additional mechanisms (Aldao et al., 2010).

These findings are consistent with prior research on the mediating role of psychological flexibility (Faustino et al., 2021; Birni et al., 2024) and extend this work by focusing on self-critical rumination in a non-clinical sample. The results support ACT-based models,

emphasizing that distress arises not only from maladaptive thoughts but also from rigid responses to them.

Clinically, the findings highlight the value of process-based interventions. ACT may improve well-being by enhancing flexibility (A-Tjak et al., 2015; Gloster et al., 2020), while approaches such as CBT and Compassion-Focused Therapy can target self-critical cognition (Beck, 2011; Gilbert, 2009). Integrating these approaches may be particularly beneficial.

Overall, self-critical rumination and psychological inflexibility emerge as key transdiagnostic processes contributing to reduced well-being, underscoring their importance as targets for intervention.

6. Conclusion

The present study examined the relationships among self-critical rumination, psychological inflexibility, and mental well-being in young adults, with a particular focus on the mediating role of psychological inflexibility. The findings provide empirical support for the interconnected influence of maladaptive cognitive processes and regulatory rigidity in shaping well-being. Self-critical rumination was associated with higher psychological inflexibility and lower levels of well-being, while psychological inflexibility independently predicted diminished well-being. Mediation analyses further indicated that psychological inflexibility partially explained the relationship between self-critical rumination and well-being, highlighting its role as a key underlying mechanism. These results underscore the importance of not only reducing maladaptive thought content but also transforming individuals' relationships with their internal experiences. Overall, the study contributes to transdiagnostic models of mental health by demonstrating that cognitive vulnerability and psychological rigidity jointly undermine well-being. Targeting psychological flexibility may therefore serve as a critical pathway for enhancing resilience and promoting adaptive functioning in young adults.

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Conflict of Interest

The author declares no conflict of interest

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