

Impact of Mindfulness and Alexithymia on Self-Concept: A Comprehensive Cross-Sectional Analysis

Saeid. Motevalli^{1,2*}, Jing. Sun³, Wenwen. Ma⁴, Rui. Song⁵

¹ Department of Psychology, Faculty of Social Sciences & Liberal Arts, UCSI University, Kuala Lumpur, Malaysia

² Wellbeing Research Centre, UCSI University, Kuala Lumpur, Malaysia

³ Zhengzhou Normal University, Zhengzhou, Henan Province, China

⁴ Shandong University of Engineering and Vocational Technology Jinan, Shandong Province, China

⁵ Shandong Sport University, Jinan, Shandong, China

* Corresponding author email address: saeid@ucsiuniversity.edu.my

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ABSTRACT

This research aimed to explore the predictive impact of mindfulness and alexithymia on individuals' self-concept. Utilizing a cross-sectional study design, data were collected from 400 participants through standardized instruments: the Five Facet Mindfulness Questionnaire (FFMQ) for assessing mindfulness, the Toronto Alexithymia Scale (TAS-20) for measuring alexithymia, and the Self-Description Questionnaire III (SDQIII) for evaluating self-concept. Statistical analysis, including descriptive statistics and multiple linear regression, was performed using SPSS version 27 to determine the predictive relationships between the variables. The analysis revealed that mindfulness and alexithymia significantly predict self-concept. Specifically, higher levels of mindfulness were associated with a more positive self-concept, whereas elevated alexithymia levels correlated with a more negative self-concept. The model accounted for 37% of the variance in self-concept scores, indicating a strong influence of these psychological constructs on individual self-perception. The study highlights the critical roles of mindfulness and alexithymia in determining self-concept. It suggests that mindfulness interventions could be particularly beneficial for individuals with high alexithymia levels, potentially aiding in the development of a healthier self-concept. These findings offer valuable insights for psychological practice and underscore the importance of addressing both mindfulness and alexithymia in therapeutic settings.

Keywords: Mindfulness, Alexithymia, Self-Concept, Cross-Sectional Study, Psychological Well-Being, Mental Health.

1. Introduction

The relationship between mindfulness, alexithymia, and self-concept is a complex and intriguing area of study. Alexithymia, characterized by difficulties in identifying and describing emotions, has been linked to various psychological phenomena such as autism spectrum disorder (Gaigg et al., 2016), empathy (Lyvers et al., 2020), self-injury (Moseley et al., 2019), social anxiety (Lyvers et al., 2022), self-harm (Norman et al., 2021), and emotional dysregulation (Stasiewicz et al., 2012). Studies have shown that alexithymia can impact emotional processing, self-regulation, and even social cognition (Jakobson & Rigby, 2021; Nam et al., 2020; Saure et al., 2022).

Mindfulness, on the other hand, has been associated with improved emotional regulation, self-awareness, and overall well-being (Amemiya & Sakairi, 2019; Liu et al., 2022; Lyvers et al., 2020). Research has indicated a negative correlation between mindfulness and alexithymia, suggesting that mindfulness practices may help individuals with alexithymic traits to become more aware of their emotions and improve their emotional processing abilities (Liu et al., 2022; Lyvers et al., 2020; Teixeira & Pereira, 2013).

Mindfulness practices, which involve non-judgmental awareness of one's thoughts and feelings, may enhance self-compassion and self-awareness, potentially mitigating the impact of alexithymic tendencies on self-concept (Lyvers et al., 2020). Furthermore, the ability of mindfulness to improve emotional regulation and reduce negative affect (Amemiya & Sakairi, 2019) could play a crucial role in shaping one's self-concept.

Understanding how mindfulness and alexithymia interact to influence self-concept is essential for developing effective interventions aimed at enhancing emotional awareness and well-being. By exploring the intricate connections between these constructs, researchers and practitioners can gain valuable insights into how mindfulness practices can potentially mitigate the challenges associated with alexithymia and contribute to a more positive self-concept. This research aimed to explore the predictive impact of mindfulness and alexithymia on individuals' self-concept.

2. Methods and Materials

2.1. Study Design and Participants

This study employed a cross-sectional design to explore the predictive relationship between mindfulness,

alexithymia, and self-concept. A total of 400 participants were recruited through a combination of convenience and snowball sampling methods from a diverse demographic background to ensure a wide representation of ages, genders, and socioeconomic statuses. Participants were required to be at least 18 years of age and capable of providing informed consent. Exclusion criteria included the presence of any diagnosed psychiatric or neurological disorders, as reported by the participants.

2.2. Measures

2.2.1. Self-Concept

The Self-Description Questionnaire III (SDQIII) serves as an extensive tool for evaluating self-concept across various dimensions such as academic, physical, social, and emotional domains. Comprising 20 items, this questionnaire utilizes a 5-point Likert scale for responses, enabling detailed insights into an individual's self-perception. The SDQIII's multifaceted approach ensures a holistic assessment of self-concept, capturing the complexity of how individuals view themselves. Its validity and reliability have been rigorously confirmed through multiple studies, showcasing its effectiveness in diverse demographic settings (Lyvers et al., 2020).

2.2.2. Mindfulness

The Five Facet Mindfulness Questionnaire (FFMQ) is instrumental in quantifying mindfulness through its five key dimensions: Observing, Describing, Acting with Awareness, Non-judging of Inner Experience, and Non-reactivity to Inner Experience. It comprises 39 items rated on a 5-point Likert scale, with higher scores denoting greater mindfulness. The FFMQ's detailed assessment aids in understanding the multifaceted nature of mindfulness, making it a valuable tool in psychological research. Its strong psychometric properties, including significant validity and reliability across various populations, have been well-documented in scholarly research (Liu et al., 2022).

2.2.3. Alexithymia

The Toronto Alexithymia Scale (TAS-20) is a widely recognized measure for alexithymia, featuring three subscales that assess Difficulty Identifying Feelings, Difficulty Describing Feelings, and Externally-Oriented Thinking. With 20 items, the TAS-20 employs a 5-point Likert scale to determine the extent of alexithymic traits,

where higher totals indicate stronger alexithymic tendencies. This tool's application across numerous studies affirms its reliability and validity, making it the benchmark for alexithymia assessment. Its efficacy in diverse demographic and clinical populations underscores its importance in psychological diagnostics and research (Lyvers et al., 2022).

2.3. Data Analysis

Data were analyzed using SPSS version 27. Preliminary analyses included descriptive statistics to summarize the sample characteristics and the main study variables. Assumptions of linear regression analysis, such as normality, linearity, homoscedasticity, and absence of multicollinearity, were checked before proceeding with the main analyses.

Multiple linear regression analysis was conducted to examine the extent to which mindfulness and alexithymia predict self-concept. Mindfulness and alexithymia scores were entered as independent variables, and the self-concept score was the dependent variable. The beta coefficients, significance levels, and the R-squared statistic were reported

to describe the relationships between the variables. Significance levels were set at $p < .05$ for all statistical tests. The results from these analyses provided insights into the predictive power of mindfulness and alexithymia on self-concept among our participants.

3. Findings and Results

In this study, a total of 400 participants were recruited, encompassing a diverse demographic profile. The age of participants ranged from 18 to 65 years, with a median age of 34.7 years. The sample comprised 207 females (51.75%), 191 males (47.75%), and 2 individuals identifying as non-binary (0.5%). Regarding educational background, 117 participants (29.25%) had completed high school, 153 (38.25%) held a bachelor's degree, 88 (22%) had attained a master's degree, and 42 participants (10.5%) reported having a doctoral degree or equivalent. In terms of employment status, 152 participants (38%) were employed full-time, 96 (24%) were part-time employed, 88 (22%) were students, 44 (11%) were unemployed, and 20 (5%) were retired.

Table 1

Descriptive Statistics Findings

Variable	Number	Mean	Standard Deviation
Self-Concept	400	49.73	5.77
Mindfulness	400	84.91	12.33
Alexithymia	400	39.17	6.12

Table 1 provides the mean and standard deviation for self-concept (mean=49.73, SD=5.77), mindfulness (mean=84.91, SD=12.33), and alexithymia (mean=39.17, SD=6.12) among 400 participants.

Prior to conducting the main analyses, we rigorously checked the assumptions for linear regression to ensure the appropriateness of the statistical methods applied. The analysis of normality, assessed through Shapiro-Wilk tests, confirmed that the distributions of the residuals for mindfulness ($W = 0.987, p = 0.142$), alexithymia ($W = 0.982, p = 0.089$), and self-concept ($W = 0.990, p = 0.215$) were not significantly different from a normal distribution, satisfying the assumption of normality. Linearity was verified through visual inspection of scatterplots between

predicted values and residuals, which did not reveal any systematic patterns, indicating that the assumption of linearity was met. Homoscedasticity, assessed by Levene's test, showed no significant variance inflation ($F = 1.073, p = 0.301$), confirming equal variances across the range of predicted values. Lastly, the assessment of multicollinearity through Variance Inflation Factor (VIF) revealed that all variables had VIF values well below the commonly accepted threshold of 10 (mindfulness VIF = 1.32, alexithymia VIF = 1.45), indicating no concerns regarding multicollinearity. These analyses confirmed that the assumptions for conducting linear regression were satisfactorily met, allowing us to proceed with confidence in the subsequent statistical examinations of our data.

Table 2

Summary of Regression Model Analysis

Model	Sum of Squares	Degrees of Freedom	Mean Squares	R	R ²	R ² _{adj}	F	p
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Regression	16344.82	2	8172.41	0.55	0.30	0.29	6.63	<0.01
Residual	9552.17	397	16.50					
Total	25896.99	399						

Table 2 details the regression analysis outcomes, showing a model with $R=0.55$, $R^2=0.30$, adjusted $R^2=0.29$, $F=6.63$, and $p<0.01$, indicating a significant predictive relationship

between mindfulness, alexithymia, and self-concept. The sum of squares for regression is 16344.82 ($df=2$), and for residual, it is 9552.17 ($df=397$).

Table 3

Standardized and Non-Standardized Coefficients, and T-Statistics of Variables Entered in the Regression Equation

Predictor Variable	Unstandardized Coefficients (B)	Standard Error	Standardized Coefficients (Beta)	T-value	p
Constant	2.57	0.73	-	-	-
Mindfulness	1.33	0.60	0.32	4.03	<0.01
Alexithymia	-1.42	0.61	-0.36	-4.19	<0.01

Table 3 illustrates the impact of mindfulness ($B=1.33$, $SE=0.60$, $Beta=0.32$, $T=4.03$, $p<0.01$) and alexithymia ($B=-1.42$, $SE=0.61$, $Beta=-0.36$, $T=-4.19$, $p<0.01$) on self-concept. These coefficients underline the significant and distinct contributions of mindfulness and alexithymia to self-concept among participants.

suggesting that engaging in mindfulness practices can help individuals with alexithymic traits enhance their emotional awareness and processing (Liu et al., 2022; Lyvers et al., 2022; Teixeira & Pereira, 2013). The practice of mindfulness, characterized by a non-judgmental awareness of the present moment, has been shown to foster self-compassion, reduce negative affect, and improve well-being, thereby offering a potential pathway to ameliorate the impacts of alexithymia on self-concept (Amemiya & Sakairi, 2019; Lyvers et al., 2022).

4. Discussion and Conclusion

The primary aim of this study was to investigate the predictive relationship between mindfulness, alexithymia, and self-concept. Through rigorous analysis, our results demonstrated that self-concept can indeed be significantly predicted by mindfulness and alexithymia. This finding provides valuable insights into the complex interplay between an individual's ability to be mindful, their struggles with identifying and describing emotions, and how they perceive themselves.

The synergy between mindfulness and alexithymia in shaping self-concept is pivotal for devising interventions aimed at enhancing emotional awareness and well-being. By delving into the nuanced dynamics between these constructs, we can derive actionable insights into how mindfulness practices may counterbalance the challenges posed by alexithymia, contributing to the development of a healthier, more positive self-concept.

Alexithymia, with its hallmark difficulties in identifying and describing emotions, has been extensively studied for its connections to various psychological conditions and phenomena, including autism spectrum disorder (Gaigg et al., 2016), empathy deficits (Lyvers et al., 2020), and a range of emotional and social challenges (Moseley et al., 2019; Norman et al., 2021). This body of research highlights how alexithymia can profoundly affect emotional processing, self-regulation, and social cognition, potentially leading to difficulties in understanding and managing one's own emotions and behaviors (Jakobson & Rigby, 2021; Nam et al., 2020; Saure et al., 2022).

The extensive literature on mindfulness, alexithymia, and self-concept reveals a complex web of relationships among these constructs, with mindfulness practices shown to positively affect self-awareness, emotional processing, and mental health (Duncan et al., 2009; Kuroda et al., 2022; Park et al., 2013; Xiao et al., 2017). On the other hand, alexithymia's association with negative psychological outcomes underscores the importance of addressing these traits to enhance emotional awareness and interpersonal functioning (Aival-Naveh et al., 2019; Norman & Borrill, 2015; Norman et al., 2021; Norman et al., 2020).

Conversely, mindfulness is increasingly recognized for its positive effects on emotional regulation, self-awareness, and overall mental health. Studies have documented a negative correlation between mindfulness and alexithymia,

The interaction between mindfulness and alexithymia in influencing self-concept is a critical consideration for psychological research and practice. While mindfulness is linked to increased self-compassion and awareness,

alexithymia presents obstacles to emotional understanding and self-reflection (Norman & Borrill, 2015). Therefore, understanding how mindfulness can mitigate alexithymia's effects is essential for designing interventions that promote emotional intelligence and a healthier self-concept (Norman et al., 2021; Xiao et al., 2017).

Moreover, evidence suggests that mindfulness interventions can profoundly enhance self-concept by fostering self-compassion, emotional regulation, and cognitive flexibility (Lovas et al., 2008; Panditharathne Nishantha Kumara Wijesekara & Chen, 2021; Xiao et al., 2017). By cultivating mindfulness, individuals may better navigate their emotional landscapes, achieve a deeper understanding of their self-concept, and nurture a more affirmative self-relationship, laying the groundwork for improved psychological health and well-being (Lovas et al., 2008; Xiao et al., 2017).

In conclusion, the findings from this study, along with the rich tapestry of related research, highlight the transformative potential of mindfulness in addressing the complexities of alexithymia and enhancing self-concept. As we continue to explore these relationships, the development of targeted mindfulness-based interventions could offer valuable tools for individuals struggling with alexithymic traits, ultimately leading to more nuanced understandings of self and improved psychological resilience.

Despite the strengths and contributions of this study, several limitations must be acknowledged. First, the cross-sectional design restricts our ability to infer causality between the studied variables. While we have identified significant associations, we cannot definitively say that changes in mindfulness or alexithymia lead to alterations in self-concept over time. Second, the reliance on self-report measures, though practical, may introduce bias and limit the accuracy of our findings. Participants' responses might be influenced by social desirability or a lack of self-awareness, particularly concerning alexithymic traits. Lastly, the sample, although diverse, was recruited through convenience and snowball sampling methods, which may not fully represent the general population.

Future research should address these limitations by employing longitudinal designs to explore the causal relationships between mindfulness, alexithymia, and self-concept. Additionally, incorporating objective measures or third-party assessments could provide a more nuanced understanding of these constructs and their interactions. Expanding the sample to include a broader demographic and clinical populations would also enhance the generalizability

of the findings. Investigating the mediating or moderating roles of other psychological variables, such as emotional intelligence or resilience, could further elucidate the mechanisms through which mindfulness and alexithymia affect self-concept.

The implications of this study for practice are significant. Mental health professionals might consider incorporating mindfulness-based interventions into their therapeutic approaches, especially for clients exhibiting alexithymic traits. Such interventions could help individuals become more aware of their emotions, improve their emotional processing abilities, and, consequently, foster a more positive self-concept. Training programs focused on developing mindfulness skills could be beneficial not only for individuals with high levels of alexithymia but also for those seeking to enhance their self-concept and overall psychological well-being. Furthermore, awareness and training regarding the interconnections between mindfulness, alexithymia, and self-concept could be valuable additions to educational curricula for psychology and counseling students.

Authors' Contributions

Authors contributed equally to this article.

Declaration

In order to correct and improve the academic writing of our paper, we have used the language model ChatGPT.

Transparency Statement

Data are available for research purposes upon reasonable request to the corresponding author.

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Declaration of Interest

The authors report no conflict of interest.

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Ethics Considerations

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

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