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FROM THE EDITOR

Dear esteemed readers,

It is with great excitement and pride that we present to you a new issue of our journal. The continued publication of our journal and the opportunity to connect with our valued readers is both a source of joy and a significant responsibility. With each issue, we are committed to sharing timely, high-quality, and interdisciplinary research that contributes to the growing field of well-being.

The sustained development and increasing international visibility of our journal have been made possible through the valuable contributions of our authors and researchers. In addition to the quality of academic output, we place great importance on adherence to ethical principles throughout the publishing process. We therefore expect our authors to comply with formal and ethical standards, and we remain committed to fostering a constructive and scholarly approach at every stage of the peer review process.

I would like to express my sincere gratitude to all those who have contributed to the publication of this journal—our authors, reviewers, advisors, editorial team, and all individuals involved in the technical aspects of production. Open and transparent publishing practices, such as the inclusion of ORCID identifiers, are of particular importance to us as they enhance accessibility for readers and strengthen academic credibility.

This issue once again highlights the international nature of our journal, with contributions from diverse regions. It features six articles authored by researchers from five different countries: Türkiye, Portugal, China, Indonesia, and Vietnam. These studies, which span theoretical, practical, and methodological perspectives, are expected to make meaningful contributions to the field of well-being.

We invite all researchers working in the field of well-being, as well as members of the broader academic community with an interest in this area, to continue supporting our journal as authors, reviewers, translators, readers, and critics. We hope this issue will offer an inspiring and enriching reading experience.

With best regards,

Prof. Dr. Çağla GÜR

Editor-in-Chief

EDİTÖRDEN

Saygıdeğer okurlar,

Sizlerle bir yeni sayıda daha buluşmanın heyecanını ve gururunu yaşıyoruz. Dergimizin yayın hayatında ilerleyişini sürdürerek siz değerli okurlarımızla buluşmaya devam etmesi, bizim için hem büyük bir mutluluk hem de önemli bir sorumluluk anlamına geliyor. Her yeni sayıda, iyi oluş alanına katkı sağlayacak güncel, nitelikli ve disiplinlerarası çalışmaları sizlerle paylaşmayı bir görev biliyoruz.

Dergimizin gelişimini sürdürmesi, alanında uluslararası bir kaynak olarak görünürlüğünü artırması, yazarlarımızın ve araştırmacılarımızın katkılarıyla mümkün olmaktadır. Akademik üretimin niteliği kadar, üretim sürecinin etik ilkelerle uyum içinde yürütülmesini de önemsiyoruz. Bu nedenle, yazarlarımızdan biçimsel ve etik standartlara uygun hareket etmelerini bekliyor; değerlendirme sürecinin her aşamasında yapıcı ve bilimsel bir yaklaşımı desteklemeye devam ediyoruz.

Dergimizin yürütülmesinde emeği geçen herkese—yazarlarımıza, hakemlerimize, danışmanlarımıza, editör kadromuza ve teknik süreçlerde katkı sunan tüm çalışanlara—bir kez daha içtenlikle teşekkür ederim. ORCID numaralarının paylaşılması gibi açık ve şeffaf yayıncılık ilkeleri, hem okuyucuya erişim kolaylığı sağlamakta hem de akademik güvenilirliğe katkıda bulunmaktadır.

Bu sayıda, farklı coğrafyalardan gelen katkılar dergimizin uluslararası niteliğini bir kez daha gözler önüne sermektedir. Aralarında Türkiye, Portekiz, Çin, Endonezya ve Vietnam'ın da bulunduğu beş farklı ülkeden yazarlar tarafından hazırlanan toplam altı makale yer almaktadır. Alanın kuramsal, uygulamalı ve metodolojik yönlerini kapsayan bu çalışmaların, iyi oluş literatürüne katkı sağlayacağına inanıyoruz.

İyi oluş alanında çalışan tüm araştırmacıları ve bu alana ilgi duyan akademik topluluğu, dergimize katkı sunmaya, çalışmalarını paylaşmaya ve birlikte düşünmeye davet ediyor; yeni sayımızın ilham verici bir okuma deneyimi sunmasını diliyorum.

Saygılarımla,

Prof. Dr. Çağla GÜR

Baş Editör

TABLE OF CONTENTS/ İÇİNDEKİLER**Research Articles/Araştırma Makaleleri****The Pursuit of Happiness at Work: Behavior Pathway of Gen Z Employees** **105-119**

Gita Widya Laksmi Soerjoatmodjo

Psychometric Properties of the Self-Hate Scale in an Arabic-Speaking Population **120-135**

Burcu Büge, Feyza Nur Karapınar

The Role of Family Functioning and Social Connectedness in Shaping Individual Quality of Life During the COVID-19 Pandemic **136-155**Leonor Alves Torres, Joana Barreira, Catarina Vitorino,
Maria Cristina Canavarro, Carlos Carona**Review Articles/İnceleme Makaleleri****A Systematic Review of Mindfulness Research with Preschool Children** **156-185**

Esra Ataman, Neslihan Avcı

Workplace Resilience of Young Adults: Systematic Reviews and Research Orientations in a Developing Country **186-202**

Thien-Vu Giang, Thuy-Giang Vu, To-Oanh Phan-Thi

Promoting Second Language Learners' Well-Being: A Positive Psychology Review of Factors, Practices, and Directions **203-222**

Hanwei Wu



The Pursuit of Happiness at Work: Behavior Pathway of Gen Z Employees

İşyerinde Mutluluğun Peşinde: Z Kuşağı Çalışanlarının Davranışsal Yolu

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Abstract

This study explores how young employees from Generation Z pursue happiness at work through a series of proactive and adaptive behaviors. Grounded in Self-Determination Theory, the research proposes a psychological pathway in which job crafting enhances career adaptability, which subsequently fosters work engagement and thriving, ultimately leading to greater workplace happiness. A cross-sectional survey was conducted with 462 employed Gen Z individuals in Indonesia, using validated instruments to measure job crafting, career adaptability, work engagement, thriving at work, and happiness at work. Structural equation modeling supported the hypothesized serial mediation model. The results demonstrate that job crafting significantly predicts greater career adaptability, which in turn leads to higher levels of engagement and thriving—two psychological experiences that contribute substantially to workplace happiness. The total indirect effect of job crafting on happiness at work through these mediators was statistically significant. These findings highlight that workplace happiness is not merely a product of external conditions or fixed individual traits but can be actively cultivated through motivational and developmental mechanisms. By underscoring the dynamic interplay of personal agency, adaptive capacity, and psychological vitality, this study contributes to the expanding literature on positive organizational behavior. Practical implications are offered for HR practitioners and organizational leaders to support Gen Z employees by fostering environments that encourage job crafting, adaptability development, and sustained engagement—thereby enabling them to experience meaningful happiness at work.

Keywords: Job Crafting, Career Adaptability, Work Engagement, Thriving at Work, Happiness at Work

Öz

Bu çalışma, Z kuşağına mensup genç çalışanların işyerinde mutluluğu, proaktif ve uyum sağlayıcı davranışlar dizisi yoluyla nasıl aradıklarını incelemektedir. Öz Belirleme Kuramı'na (Self-Determination Theory) dayanan araştırma, iş tasarımı (job crafting) davranışının kariyer uyarlanabilirliğini artırdığı, bunun da işte bağlılık (work engagement) ve işte gelişme (thriving at work) düzeylerini yükselttiği, nihayetinde ise işyeri mutluluğunu desteklediği psikolojik bir yol önermektedir. Endonezya'da çalışan 462 Z kuşağı bireyle kesitsel bir anket çalışması gerçekleştirilmiştir. İş tasarımı, kariyer uyarlanabilirliği, işte bağlılık, işte gelişme ve işyeri mutluluğunu ölçmek için geçerliliği kanıtlanmış ölçekler kullanılmıştır. Yapısal eşitlik modellemesi (SEM) önerilen sıralı aracılık modelini desteklemiştir. Bulgular, iş tasarımı, kişisel özerklik, uyum kapasitesi ve psikolojik enerjinin dinamik rolünü ortaya koyarak olumlu örgütsel davranış literatürüne katkı sağlamaktadır. İnsan kaynakları uzmanları ve yöneticiler için, Z kuşağı çalışanlarının iş tasarımı, uyarlanabilirlik geliştirme ve sürekli bağlılık yoluyla desteklenmesine yönelik pratik öneriler sunulmaktadır.

Anahtar Kelimeler: İş Tasarımı, Kariyer Uyarlanabilirliği, İşe Bağlılık, İşte Gelişme, İşyerinde Mutluluk

Introduction

As Generation Z increasingly enters the workforce, scholarly interest has grown in understanding how young employees conceptualize and pursue happiness at work (Andrea et al., 2016; Burger et al., 2021; Janssen & Carradini, 2021; Pueschel et al., 2020). This cohort, shaped by formative experiences markedly different from previous generations, has come of age amidst economic volatility, accelerated digitalization, and global crises such as the COVID-19 pandemic. Hence, their career expectations extend beyond conventional notions of stability, emphasizing flexibility, personal relevance, and psychological sustainability (Francis & Hoefel, 2018).

In contrast to earlier generations that prioritized job security and financial stability, Generation Z is more inclined to seek meaning, personal growth, and emotional fulfillment in their professional lives (Benítez-Márquez et al., 2022; Francis & Hoefel, 2018; Guan, 2024; Open Knowledge, 2021). However, the pursuit of workplace happiness among Gen Z employees is not solely driven by individual motivations; it is also shaped by the organizational structures and cultural contexts in which they are embedded. This generational shift necessitates a more nuanced understanding of how happiness at work is constructed, especially in emerging economies, where traditional hierarchical norms intersect with evolving expectations of younger employees (IDN Research Institute, 2024).

Happiness at work refers to a comprehensive positive appraisal of one's job experience, encompassing emotional satisfaction, work enjoyment, and a sense of fulfillment (Salas-Vallina & Alegre, 2021a). Distinct from conventional job satisfaction, it reflects broader indicators of psychological well-being within the workplace. From a behavioral science perspective, happiness at work is understood as the culmination of motivational and adaptive processes—triggered by proactive job behaviors and sustained through engagement and thriving (Elayan et al., 2023; Sudibjo & Manihuruk, 2022).

While happiness at work has been associated with a range of psychological and behavioral factors, prior research has often examined these elements in isolation—focusing primarily on single predictors such as job satisfaction or engagement (Geldenhuys et al., 2021). Consequently, there remains a limited understanding of how proactive behaviors, adaptive capacities, and motivational states function collectively within an integrated psychological process. This fragmented approach leaves an important gap in the literature: how do these mechanisms interact dynamically to foster enduring workplace happiness? Addressing this question is crucial for developing a holistic framework of employee well-being, particularly in a changing workforce.

To address this research gap, this study adopts Self-Determination Theory (SDT) as a guiding framework to explain how individuals pursue well-being by fulfilling three fundamental psychological needs: autonomy, competence, and relatedness (Ryan et al., 2017). When these needs are met, employees are more likely to exhibit intrinsic motivation, proactive behaviors, and sustained engagement at work (Deci et al., 1989; Gagné & Deci, 2005). In organizational settings, such motivational resources are manifested through job crafting (Rošková & Faragová, 2020), the development of career adaptability (Jiang, 2017) and experiences of thriving (Goh et al., 2022) - all of which serve as key antecedents to happiness at work and broader psychological well-being (Ryan & Deci, 2020). Yet, when these psychological needs are thwarted, individuals may exhibit diminished motivation, reduced adaptability, and eventual disengagement (Zhou & George, 2001).

Building on this framework, the current study proposes a serial mediation model to examine how job crafting fosters happiness at work through career adaptability, work engagement, and thriving. Few existing studies offer integrative frameworks to explain how multiple psychological mechanisms interact over time to foster well-being at work. The present study not only addresses this theoretical gap but also contributes to the cross-cultural validation of SDT, extending the applicability of positive organizational constructs across diverse institutional contexts.

Job crafting refers to the self-initiated changes employees make to their job tasks, relationships, and cognitive framing in order to enhance work meaningfulness and align job demands with personal strengths and interests. Wrzesniewski and Dutton (2001) define it as the physical and cognitive modifications individuals apply to the task and relational boundaries of their work. Through job crafting, employees actively shape their work environment, thereby satisfying the core SDT needs for autonomy and competence (Gagné et al., 2022; Hulshof et al., 2020; Plomp et al., 2019; Ryan et al., 2017). In this study, job crafting is conceptualized as the initial proactive behavior that activates a cascade of adaptive and motivational processes leading toward workplace happiness.

Career adaptability is a psychosocial resource reflecting an individual's capacity and readiness to manage career-related tasks, transitions, and traumas. Comprising four dimensions—concern, control, curiosity, and confidence—it enables individuals to anticipate and navigate future career challenges effectively (Jiang, 2017; Maggiori et al., 2017). By enhancing employees' sense of personal agency and competence, career adaptability fulfills fundamental psychological needs, promoting sustained engagement and well-being (Ma et al., 2023; Rottinghaus et al., 2005; Zhao et al., 2022).

Work engagement is defined as a positive, fulfilling, work-related state of mind characterized by vigor, dedication, and absorption (Taris et al., 2020; van Tuin et al., 2020). Engaged employees exhibit high levels of energy and resilience, deep involvement in their tasks, and intense focus (van den Berg et al., 2013; Wang et al., 2020). From an SDT perspective, engagement arises when the work context supports employees' autonomy, competence, and relatedness (Meyer, 2008). Within the proposed model, work engagement mediates the relationship between career adaptability and thriving at work, serving as a motivational catalyst.

Thriving at work refers to a dynamic psychological state wherein employees experience both vitality and continuous learning (Spreitzer et al., 2005). It reflects not only the feeling of being energized but also the perception of personal growth and development—both of which signal the fulfillment of basic psychological needs in SDT (Farid et al., 2023). In this study, thriving is positioned as a key transitional state that bridges the motivational experience of engagement to the broader outcome of happiness at work.

Despite growing interest in the predictors of workplace happiness, most existing frameworks tend to emphasize direct, isolated relationships between individual variables and happiness at work. Hence, the dynamic interactions that unfold over time tend to be overlooked. For Generation Z employees navigating rigid organizational structures, workplace happiness should be reconceptualized not as a static trait or end-state, but as a dynamic psychological outcome shaped by personal initiative, adaptability, and developmental support.

This limitation is particularly salient in high power distance and collectivistic cultural contexts such as Indonesia, where workplace hierarchies often constrain employees from proactively redefining their roles. This study proposes a behavioral pathway model in which job crafting initiates a sequence of psychological mechanisms—career adaptability, work engagement, and thriving—that culminate in happiness at work. This model aims to illuminate how young employees in hierarchical and transitional work environments actively shape their work experiences in pursuit of psychological well-being (see Figure 1).

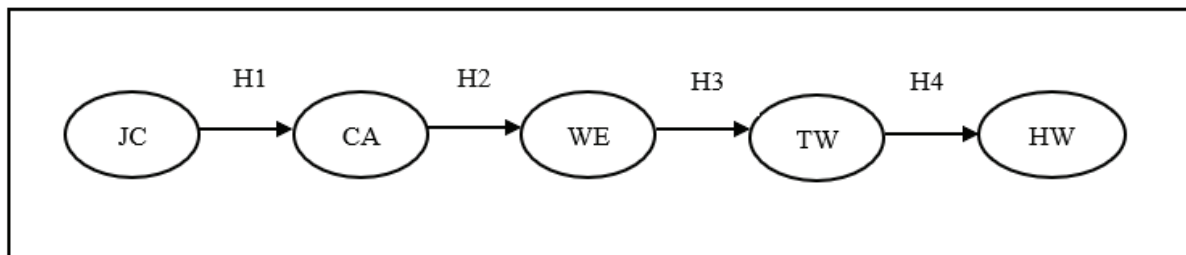


Figure 1. Proposed conceptual framework

Based on the theoretical framework and proposed model, the following hypotheses are formulated:

H1. Job crafting positively predicts career adaptability

H2. Career adaptability positively predicts work engagement.

H3. Work engagement positively predicts thriving at work.

H4. Thriving at work positively predicts happiness at work.

H5. Job crafting indirectly influences happiness at work through a serial mediation of career adaptability, work engagement, and thriving at work.

Method

This study employed a quantitative approach with a cross-sectional survey design to examine the sequential behavioral pathways contributing to happiness at work among Generation Z employees in Indonesia. To test the proposed serial mediation model, structural equation modeling (SEM) was utilized.

The target population comprised Indonesian Gen Z employees, defined as individuals born between 1997 and 2005 who had formal work experience. Eligible participants were aged between 18 and 27 years and currently employed at the time of data collection. Convenience sampling was applied, and participants were recruited through targeted social media advertisements and professional networks to ensure diversity across sectors and regions.

The model tested in this study included five central constructs: job crafting, career adaptability, work engagement, thriving at work, and happiness at work. These variables were selected based on SDT, which

posits that the fulfillment of basic psychological needs fosters sustained motivation and psychological well-being (Gagné & Deci, 2005, 2014). Each construct represents a critical stage in the proposed behavioral pathway model.

To ensure cultural and linguistic validity, all instruments were subjected to forward and backward translation. This process was followed by expert panel reviews to assess semantic and conceptual equivalence. Revisions were made based on expert feedback, with minor linguistic adjustments to enhance clarity, cultural resonance, and item relevance for the Indonesian context.

Data were collected entirely online using a secure survey platform. All instruments were selected based on theoretical relevance and prior validation in similar populations. Confirmatory factor analyses (CFA) were conducted to assess construct validity, and model revisions were made where necessary to optimize fit.

- Job crafting was measured using the Overarching Job Crafting Scale (OJCS) developed by Vansbelle (2017), consisting of four items assessing self-initiated modifications in job tasks and structures (e.g., “I change my job so it would better fit with who I am”). All items demonstrated strong and significant factor loadings (0.89–1.00), with acceptable residual variances below 0.65. No problematic indicators were identified.
- Career adaptability was assessed using the Career Adapt-Abilities Scale – Short Form (CAAS-SF) by Maggiori et al. (2017). This 12-item scale covers four dimensions: Concern, Control, Curiosity, and Confidence (e.g., “I think about what my future will be like”; “I take responsibility for my actions”). One item, CA_06 (“I count on myself”), showed a relatively weak factor contribution (loading = 0.85; residual variance = 0.84). A revised model excluding this item improved overall fit, with standardized loadings ranging from 0.89 to 1.16.
- Work engagement was measured using the Utrecht Work Engagement Scale - 9 (UWES-9) developed by Schaufeli & Bakker (2004). The nine items reflect three dimensions: Vigor, Dedication, and Absorption (e.g., “At my work, I feel bursting with energy”; “My job inspires me”). The model showed excellent fit, with all standardized loadings between 0.75 and 1.00 and statistically significant.
- Thriving at work was measured using a 10-item scale developed by Porath et al. (2012). It consisted of 10 items measuring two dimensions: learning (e.g. “*I continue to learn more as time goes by*”) and vitality (e.g. “*I feel alive and vital*”). One reverse-coded item (TW_08R: “I do not feel very energetic”) showed poor factor loading and residual overlap. Removing this item led to improved model fit, with loadings ranging from 0.83 to 1.34.
- Happiness at work was measured using the Shortened Happiness at Work Scale (SHAW) adapted by Salas-Vallina and Alegre (2021b). This nine-item scale captures Engagement, Job Satisfaction, and Affective Organizational Commitment (e.g., “At my job, I feel strong and vigorous”; “I feel emotionally attached to this organization”). Item HW_05 (satisfaction with pay) showed weak contribution and high residual variance (0.81). Excluding HW_05 improved internal consistency, with remaining items loading between 0.90 and 1.21.

Prior to participation, all respondents were presented with an informed consent form detailing the purpose of the study, their rights as participants, and data protection measures. Participation was voluntary and anonymous.

Data were analyzed using JASP statistical software. The analytical process involved several stages. First, confirmatory factor analysis (CFA) was conducted to validate the measurement model. This was followed by evaluation of model fit indices and examination of direct and indirect effects within the proposed serial mediation framework.

Preliminary data screening confirmed that key statistical assumptions were met. All variables demonstrated acceptable skewness and kurtosis values (within ± 2), indicating normal distribution. Tests also confirmed linearity and the absence of multicollinearity. To assess the potential for common method bias, Harman's single-factor test was performed, and results indicated no dominant factor, suggesting that bias was not a significant concern.

The final sample was demographically diverse, including respondents from multiple regions and industry sectors across Indonesia. This diversity enhances the generalizability of the findings within the context of Generation Z employees in emerging economies.

Results

A total of 462 respondents participated in the study. The final sample included individuals from across Indonesia, including Java, Sumatra, Kalimantan, and Eastern Indonesia, with a majority residing in major urban centers such as Jakarta, Surabaya, and Medan. This geographic and demographic diversity reflects the decentralized and evolving nature of Indonesia's emerging workforce, particularly among Generation Z employees.

Descriptive statistics for the five primary study variables are presented in Table 1. Mean scores ranged from 15.28 to 50.65, with standard deviations between 3.00 and 6.49. The Shapiro–Wilk test indicated statistically significant deviations from normality for all variables ($p < .001$). However, skewness and kurtosis values remained within acceptable thresholds for structural equation modeling (SEM) under robust estimation procedures. These findings supported the use of robust SEM techniques in subsequent analyses.

Table 1. Descriptive statistics of study variables

Variable	Mean	SD	Min	Max	Skewness	Shapiro-Wilk (p)
Job Crafting	15.28	3.00	4.00	21.00	.96	<.001
Career Adaptability	50.65	5.25	36.00	60.00	.97	<.001
Work Engagement	34.13	6.20	11.00	45.00	.98	<.001
Thriving at Work	40.48	5.07	23.00	50.00	.98	<.001
Happiness at Work	32.82	6.49	12.00	45.00	.98	<.001

Note. Skewness = Shapiro-Wilk W statistic. All p-values indicate non-normal distribution.

Table 2 presents Pearson's correlation coefficients among the five core study variables. All intercorrelations were positive and statistically significant at the $p < .001$ level, providing preliminary support for the hypothesized relationships.

The strongest association was observed between work engagement and happiness at work ($r = .81$, $p < .001$), indicating a high degree of overlap between motivational states and well-being outcomes. Additionally, moderate-to-strong correlations were found between job crafting and career adaptability ($r = .55$), as well as between career adaptability and thriving at work ($r = .65$). These results are consistent with the proposed sequential mediation model, in which proactive and adaptive capacities are expected to contribute cumulatively to psychological well-being.

Table 2. Pearson's correlation among the study variables

Variable	1	2	3	4	5
Job Crafting	-				
Career Adaptability	.55***	-			
Work Engagement	.55***	.56***	-		
Thriving at Work	.55***	.65***	.76***	-	
Happiness at Work	.52***	.48***	.81***	.66***	-

Note. * $p < .05$. ** $p < .01$. *** $p < .001$.

The structural model was evaluated using multiple fit indices and variance explained in the endogenous variables (see Table 3). The results indicate that the model accounts for a substantial proportion of variance in the key outcome variables. Specifically, the model explained 49.8% of the variance in career adaptability, 54.0% in work engagement, 89.5% in thriving at work, and 78.7% in happiness at work. These R^2 values suggest a strong explanatory capacity, particularly for the final outcomes in the proposed behavioral pathway. The high proportion of explained variance in thriving and happiness underscores the robustness of the sequential mediation mechanism.

Table 3. Model fit indices and explained variance

Index	Value
CFI	.89
TLI	.88
RMSEA [90% CI]	.56 [0.05-0.06]
SRMR	0.06
Hoelter's Critical N (.05)	204.78

As shown in Table 4, all hypothesized direct paths in the model were positive and statistically significant ($p < .001$), providing strong support for the proposed behavioral sequence. Specifically, job crafting significantly predicted career adaptability ($\beta = 0.71$, $p < .001$), which in turn significantly predicted work engagement ($\beta = 0.74$, $p < .001$). Work engagement positively predicted thriving at work ($\beta = 0.95$, $p < .001$), which subsequently predicted happiness at work ($\beta = 0.89$, $p < .001$). The indirect effect of job crafting on happiness at work—operating through the full sequence of career adaptability, work

engagement, and thriving—was also statistically significant ($\beta = 0.44$, 95% CI [0.377, 0.493]). These results confirm the hypothesized serial mediation mechanism, in which proactive behavior initiates a chain of adaptive and motivational processes culminating in workplace happiness. The model accounted for a substantial proportion of variance in key outcomes, explaining 89.5% of the variance in thriving at work and 78.7% in happiness at work, underscoring the strength and coherence of the proposed framework.

Table 4. Path estimates in the serial mediaton model

Path	β	SE	z	p	95% CI
Job Crafting → Career Adaptability (H1)	.71	.03	22.27	<.001	[.64, .77]
Career Adaptability → Work Engagement (H2)	.74	.03	28.11	<.001	[.68, .79]
Work Engagement → Thriving at Work (H3)	.95	.01	91.33	<.001	[.93, .97]
Thriving at Work → Happiness at Work (H4)	.89	.02	60.44	<.001	[.86, .92]
Job Crafting → Happiness at Work (H5 indirect)	.44	.03	14.76	<.001	[.38, .49]

All five hypotheses (H1–H5) were fully supported by the structural equation modeling results (see Table 5). The direct paths from job crafting to career adaptability (H1), career adaptability to work engagement (H2), work engagement to thriving at work (H3), and thriving at work to happiness at work (H4) were all positive and statistically significant ($p < .001$). In addition, the indirect effect of job crafting on happiness at work via the sequential mediators—career adaptability, work engagement, and thriving—was also significant (H5), confirming the presence of a full serial mediation mechanism.

These findings offer robust empirical support for the proposed theoretical framework, demonstrating how proactive job behaviors trigger a cascade of psychological and behavioral adaptation processes that ultimately enhance happiness at work. The results align with the assumptions of SDT, reinforcing the importance of need-fulfilling work experiences in cultivating sustainable employee well-being.

Table 5. Summary of hypothesis testing

Hypothesis	Description	Result
H1	Job crafting positively predicts career adaptability	Supported
H2	Career adaptability positively predicts work engagement.	Supported
H3	Work engagement positively predicts thriving at work	Supported
H4	Thriving at work positively predicts happiness at work	Supported
H5	Job crafting indirectly influences happiness at work through a serial mediation of career adaptability, work engagement, and thriving at work	Supported

Discussion

The findings of this study offer compelling support for the proposed behavioral pathway linking job crafting to happiness at work through a sequence of adaptive and motivational mechanisms. Consistent with Hypothesis 1, job crafting significantly predicted career adaptability ($\beta = .71$, $p < .001$), affirming prior research that highlights the role of proactive role modification in fostering adaptive psychological

resources (Maggiori et al., 2017). Generation Z employees who actively reshape their work environments demonstrate a heightened sense of agency, aligning tasks with personal strengths and fostering greater control over their career trajectories.

Hypotheses 2 and 3 were likewise supported, as career adaptability predicted work engagement ($\beta = .74, p < .001$), which in turn predicted thriving at work ($\beta = .95, p < .001$). This sequence reflects a developmental progression in which adaptive capacity enables deeper psychological investment, culminating in vitality and continuous learning—two hallmark components of thriving (Schaufeli & Bakker, 2004; Spreitzer et al., 2012). These findings align with SDT, which posits that fulfillment of autonomy and competence needs fosters internalized motivation and sustained engagement (Ryan et al., 2017).

Moreover, thriving at work emerged as a strong predictor of happiness at work ($\beta = .89, p < .001$), underscoring the centrality of growth-oriented experiences and vitality in generating positive affect within organizational settings (Porath et al., 2012). Crucially, the total indirect effect from job crafting to happiness at work—via career adaptability, engagement, and thriving—was statistically significant ($\beta = .44, p < .001$), confirming the model's processual logic. Rather than functioning in isolation, proactive and adaptive behaviors appear to operate synergistically, forming a dynamic psychological pathway that culminates in workplace well-being.

This study examined a serial mediation model grounded in SDT (Deci & Ryan, 2000) to explain how proactive and adaptive behaviors contribute to happiness at work among Generation Z employees in Indonesia. The results provide strong empirical support for the proposed model, confirming that job crafting indirectly predicts happiness at work through a sequential pathway involving career adaptability, work engagement, and thriving.

Each path in the model was statistically significant, indicating a coherent developmental process. Job crafting predicted career adaptability, suggesting that self-initiated changes in work roles foster the psychological resources needed to navigate evolving career demands (Maggiori et al., 2017). This is particularly relevant for Generation Z employees, who often seek alignment between work and personal strengths. Career adaptability, in turn, predicted work engagement, highlighting the importance of future-oriented self-regulation in driving deeper psychological involvement. Engagement predicted thriving—an energizing state of vitality and learning—underscoring the motivational engine that sustains well-being over time (Schaufeli & Bakker, 2004; Spreitzer et al., 2012). Finally, thriving significantly predicted happiness at work, confirming that feelings of growth and energy are central to positive affect in organizational contexts (Porath et al., 2012).

These results reinforce SDT's core proposition: well-being emerges when individuals experience autonomy, competence, and relatedness (Deci et al., 2017). Job crafting reflects autonomous initiative, career adaptability signals competence and control, and thriving manifests as the integration of intrinsic motivation with meaningful experience. Together, these constructs offer a comprehensive account of how young employees navigate complex work environments to sustain happiness.

This study contributes to the literature on positive organizational behavior by integrating four previously fragmented constructs—proactive behavior (job crafting), psychological adaptability (career adaptability), motivational engagement (work engagement), and psychological vitality (thriving)—into a single, process-based model. Previous research has often examined these variables in isolation (Maggiori et al.,

2017; Plomp et al., 2019; van Tuin et al., 2020), whereas the present study demonstrates that they form an interdependent pathway leading to well-being.

Importantly, this study also responds to calls for culturally contextualized models. Conducted in Indonesia - a country characterized by collectivist values and high power distance (Hofstede, 2001) - the findings challenge the notion that proactive work behaviors are only viable in autonomy-supportive, Western contexts. The data suggest that even in hierarchical organizational cultures, young employees can engage in bottom-up change when supported by psychological readiness and adaptive capacity. This is a notable insight, as it expands the applicability of SDT to emerging markets where structural empowerment may be limited.

Furthermore, the discussion highlights how digital fluency and generational identity shape how happiness at work is constructed among Gen Z employees. For this cohort, job crafting may include not only traditional task modification but also digital boundary setting, content curation, and strategic online engagement for career exploration. Similarly, career adaptability may involve navigating digital visibility, hybrid skill development, and personal learning ecosystems. Thriving, in this context, may be understood not merely as emotional vitality, but as agency in building a portfolio career or aligning work with personal values.

These insights underscore the need for inclusive definitions of work-related well-being that account for the lived realities of younger, digitally native employees. Moreover, the findings support Porath et al. (2012) in showing that thriving serves as a bridge between engagement and personal growth. They also extend the literature by suggesting that digital identity and online self-construction may serve as contextual moderators of motivational pathways, particularly among Gen Z.

From a practical perspective, organizations aiming to improve workplace happiness—especially among younger employees—should invest in developmental environments that foster job crafting, career adaptability, and opportunities for thriving. This may include creating space for small-scale autonomy, peer mentoring, and open communication channels. In emerging market contexts where formal empowerment structures are limited, informal mechanisms become critical for sustaining motivation and well-being (Deci & Ryan, 2000).

One notable avenue for future research is the integration of psychological safety as a boundary condition in this behavioral pathway. Although not directly measured in the present model, psychological safety plays a key role in enabling proactive behaviors, especially in rigid organizational environments. For Gen Z, who place high value on authenticity and transparency, feeling safe to speak up, take initiative, and explore career directions is likely essential for engagement and thriving. In high power-distance cultures, promoting psychological safety may thus serve as both a strategic investment and a cultural innovation.

In sum, this study advances the understanding of how happiness at work is cultivated through a dynamic, self-driven process, even in contexts marked by cultural and structural constraints. It affirms the relevance of SDT in non-Western settings and highlights the evolving nature of proactivity, adaptability, and engagement in a digital world. Workplace happiness, as these findings suggest, is not merely the result of favorable conditions, but a constructive outcome of personal agency, psychological resources, and enabling environments.

Conclusions and Recommendations

This study provides empirical support for a behavioral pathway model that explains how Generation Z employees pursue happiness at work through a sequence of proactive and adaptive psychological mechanisms. Grounded in SDT (Deci et al., 1989), the findings confirm that job crafting contributes to workplace happiness indirectly via career adaptability, work engagement, and thriving. All hypothesized paths were supported, underscoring the model's coherence and reinforcing the theory's assertion that autonomy-supportive behaviors and internal resources jointly promote well-being.

Rather than viewing workplace happiness as a static outcome or trait-dependent phenomenon, this study conceptualizes it as a dynamic psychological state—emerging from individuals' capacity to shape their work environment, adapt to career demands, and maintain psychological vitality. This perspective offers a meaningful contribution to the literature on positive organizational behavior, particularly in understanding generational differences in employee motivation and well-being.

From a theoretical standpoint, the integration of job crafting, adaptability, engagement, and thriving into a single serial model offers a process-oriented view of well-being that has been rarely tested in emerging-market contexts. Conducted in Indonesia—a collectivist, high power-distance society—this study challenges the prevailing assumption that proactive behaviors thrive only in autonomy-supportive cultures (Hofstede, 2001). It demonstrates that, even within hierarchical systems, young employees can enact bottom-up change when equipped with sufficient psychological readiness.

At the same time, the study acknowledges several limitations. Its cross-sectional design precludes causal inference, and reliance on self-report measures introduces potential common method bias. Furthermore, the sample was limited to Gen Z employees in Indonesia, which may constrain the generalizability of findings across generations and cultural contexts.

From a systems-level perspective, the findings highlight the need for institutional adaptation. While many organizations implement well-being programs, these efforts often overlook structural rigidity, lack of autonomy, and insufficient developmental pathways. For Generation Z—who value purpose, autonomy, and rapid skill acquisition—such gaps can lead to disengagement. Rather than relying on isolated wellness initiatives, organizations must embed well-being into their core architecture, through job enrichment, participatory decision-making, and continuous learning systems.

Educational institutions also play a crucial role. The foundations of career adaptability and engagement can and should be nurtured prior to formal employment. By integrating real-world projects, mentorship opportunities, and reflective practices into curricula, universities and vocational schools can prepare graduates for psychologically sustainable careers. Embedding SDT-informed strategies into career education may enhance both motivation and resilience in workforce entry.

At the policy level, governments and professional associations can support workplace happiness by incentivizing inclusive leadership, mental health provision, and generational diversity in organizational planning. As the future of work becomes increasingly shaped by digitalization and demographic shifts, the ability to engage with the human aspirations of the next workforce generation will be a defining challenge.

For practitioners, this study offers several actionable recommendations: (1) Enable job crafting through structured platforms such as development plans, redesign conversations, and growth check-ins, (2) Build career adaptability by incorporating uncertainty-management and career goal-setting modules into training programs, (3) Support thriving by embedding indicators of vitality and learning into employee feedback systems and pulse surveys, (4) Train line managers to recognize early signs of disengagement and empower them to make small but meaningful task or role adjustments, and (5) Prioritize psychological safety, especially in hierarchical contexts, to ensure employees feel free to express ideas and take initiative.

Ultimately, fostering happiness at work must be recognized not merely as a psychological concern, but as a strategic investment in organizational health and sustainability. Research shows that happy employees exhibit greater engagement, creativity, and retention (Diener & Seligman, 2004). As Generation Z continues to redefine the contours of the modern workplace, organizations that support their proactive, adaptive, and value-driven approaches will be better positioned to attract talent and thrive. By investing in empowerment and creating space for personal agency, institutions help cultivate the collective well-being and long-term resilience of the workforce.

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Psychometric Properties of the Self-Hate Scale in an Arabic-Speaking Population

Arapça Konuşan Popülasyonda Öz Nefret Ölçeği'nin Psikometrik Özellikleri

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Abstract

This study aimed to translate the Self-Hate Scale (SHS), originally developed by Turnell et al. (2019), and to evaluate its psychometric properties to determine its cultural appropriateness for Arabic-speaking populations. The present study was conducted with 500 participants, and a pilot study involving 100 participants was carried out prior to the main study. A substantial and positive correlation was identified between the Arabic and English versions following the translation of the scale into Arabic, thereby confirming linguistic equivalence. Validity and reliability analyses showed that the SHS-Arabic form confirmed seven items under a single factor with good factor loadings. Self-hate scores were positively correlated with depression and anxiety, and negatively correlated with multiple dimensions of psychological well-being, including self-compassion, self-kindness, mindfulness, self-awareness, and common humanity. Simple linear regression analyses indicated that self-hate significantly predicted increased levels of depression and anxiety, as well as reduced levels of self-compassion, self-kindness, mindfulness, self-awareness, and common humanity. These suggest the potential role of self-hate as a risk factor for mental health problems and reduced psychological well-being in individuals. In conclusion, the findings provide strong evidence that the SHS-Arabic is a valid and reliable instrument for assessing self-hate in Arabic-speaking populations. The use of the scale is recommended for researchers and clinicians to better understand self-directed negative evaluations and their complex relationships with mental health outcomes.

Keywords: Depression, Self-awareness, Self-compassion, Self-hate, Self-kindness

Öz

Bu araştırmanın amacı, Turnell ve arkadaşları (2019) tarafından geliştirilen Öz Nefret Ölçeği'ni (ÖNÖ) Arapçaya çevirmek ve Arapça konuşan popülasyonlar arasında kültürel uygunluğunu doğrulamak için ölçeğin psikometrik özelliklerini değerlendirmektir. Bu çalışma 500 katılımcıyla yürütülmüş olup, ana çalışmadan önce 100 katılımcıyla pilot çalışma gerçekleştirilmiştir. Ölçek uzmanlar tarafından Arapçaya çevrildikten sonra, Arapça ve İngilizce versiyonlar arasında anlamlı ve pozitif bir korelasyon bulunmuş ve böylece dilsel eş değerlik doğrulanmıştır. Geçerlik ve güvenilirlik analizleri, ÖNÖ Arapça formunun iyi faktör yüklemeleriyle tek bir faktör altında yedi maddeyi doğruladığını göstermiştir. Öz nefret puanları, depresyon ve kaygı puanları ile pozitif bir korelasyon gösterirken; öz anlayış, öz nezaket, farkındalık ve öz farkındalık, ortak insanlık puanları ile negatif bir korelasyon göstermiştir. Yapılan basit doğrusal regresyon analizi ile, öz nefretin depresyon, kaygı, öz anlayış, öz nezaket, farkındalık ve öz farkındalık, ortak insanlık puanlarını anlamlı düzeyde yordadığı bulunmuştur. Bunlar, öz nefretin bireylerde ruhsal sağlık sorunları ve azalmış psikolojik refah için bir risk faktörü olarak potansiyel rolünü öne sürmektedir. Sonuç olarak çalışmadaki bulgular ile ÖNÖ Arapça formunun, Arapça konuşan bireyler arasında öz nefreti değerlendirmek için geçerli ve güvenilir bir araç olduğu desteklenmektedir. Ölçeğin kullanımı, öz yönelime dair olumsuz değerlendirmeleri ve ruhsal sağlık sonuçlarıyla olan karmaşık ilişkilerini daha iyi anlamak adına araştırmacı ve klinisyenler için önerilmektedir.

Anahtar Kelimeler: Depresyon, Öz Anlayış, Öz Farkındalık, Öz Nefret, Öz Nezaket

Introduction

James (1892) defined the self as an object of knowledge, encompassing everything an individual considers as belonging to themselves and was divided into three types: The material self (including the individual's body, family, and possessions), the social self (comprising the opinions of others), and the spiritual self (encompassing the individual's feelings and desires). All aspects of the self have been described as having the capacity to evoke feelings of increased self-esteem and well-being or low self-esteem and dissatisfaction (James, 1892). Based on this, three distinct types of self-concepts have been identified: Inadequate self, which is based on self-criticism and inadequacy; hated self, which is based on self-disgust and self-hate, and reassured self, which is the compassionate and forgiving type (Gilbert et al., 2004). The psychological construct of self-hate has been the focus of extensive theoretical and empirical investigation. An individual may become the object of their own hatred, even during moments of rest, such as while sitting or lying down, and self-hate may be experienced as a mild dislike, dissatisfaction with himself, a sense of guilt, and an impulse to physically harm himself (Gabriel, 1958). Rubin (1998) described that once established, the process of self-hate tends to operate autonomously after childhood, often functioning like physiological processes. Without intervention, this process may lead to chronic and malignant effects, causing individuals to feel generalized worthlessness and inadequacy, and to engage in self-destructive behaviors. While self-hate has been defined as the most powerful human antitherapeutic agent with limitless destructive possibilities, conversely, compassion has been defined as the most powerful human therapeutic agent with the potential for constructive growth and limitless creative possibilities (Rubin, 1998).

Contemporary social scientists have noted that exposure to the hatred and hateful ideas of others can lead to self-hate, which diminishes a person's ability to thrive and move forward with their life (Green, 2016). Yao (2022) stated that self-hate can hinder one's happiness and hopes, and what is less clear, according to Freud (1916), is that this is the price of developing a superego and thus a moral conscience. A self-hating person mistreats himself, seeks ways to punish himself, punishes himself for actions he did not actually commit, and may act in ways that confirm the persecutory stance of his own psyche (Freud, 1916). This reaction is attributed to an overwhelming sense of guilt, which is partly a response to motives and impulses that he may conceal from others, although he may not be aware of them; but when he develops a superego, he cannot conceal it from himself (Yao, 2022).

The concept of self-hate has also been discussed in the context of suicide. The Interpersonal Theory of Suicide posits that an individual's desire to die is strongly influenced by the belief that their existence constitutes a burden and that their death is more valuable than their life; this perceived burden has been argued to have a self-hate aspect (Van Orden et al., 2010). Additionally, research has shown significant associations among self-hate and suicide behaviors, with self-hate linked to non-suicidal self-harming behaviors (Gilbert et al., 2004). In the study conducted by Lieberman et al. (2023), a significant relationship was also found between self-hate and suicidal behavior. Individuals with psychiatric disorders who self-harm have been found to display a more hateful sense of self than healthy individuals or those with the disorder alone (Nilsson et al., 2022). Turnell et al. (2019), who developed the Self-Hate Scale, also found that self-hate has been identified as a significant predictor of suicidal ideation, with thwarted belongingness partially moderating the relationship between the two. Karslı (2024) also states that self-hate, linked to decreased self-esteem, is positively associated with suicide risk.

Furthermore, self-hate is associated with a range of other psychological difficulties. Turnell et al. (2019) found that self-hate was positively associated with perceived burden, thwarted belonging, depression, and anxiety, while it was negatively associated with well-being and self-esteem. Büge and Bilge's (2022)

study revealed that self-hate accounted for scores on measures of depression, anxiety, and interpersonal sensitivity. External shame and self-criticism, especially self-hate, are associated with and mediate the link to depressive, anxious, and stress symptoms (Castilho et al., 2017). Self-hate, external shame, and fear of self-compassion indirectly predict non-suicidal self-injury, through their effect in daily peer hassles and depression (Xavier et al., 2016). Self-hate has been defined as a fundamental element in the depression of children and adolescents (Kim et al., 2021). Moreover, the correlation between self-hate and body image seems to be especially significant for adolescent depression (Mullarkey et al., 2019). It has been found that elevated self-hate can negatively influence treatment participation and interpersonal dynamics, potentially increasing the risk of negative outcomes in eating disorders (Björck et al., 2007). This pervasive negativity towards the self extends beyond these difficulties. For example, Mills et al. (2007) found that a self-hating orientation appears to be connected to paranoid ideation, even when other factors like depression and self-reassurance are considered. This finding highlights the potential importance of critical self-experience in the development of paranoid beliefs. Additionally, self-hate is considered to be an insufficiently understood symptom in borderline personality disorder, which may hinder recovery and increase the risk of self-harm and suicide attempts (Wilner et al., 2024). Considering its widespread negative effects, such as psychological disorders, suicidal thoughts, diminished self-esteem, and a variety of difficulties, assessing self-hate is essential for promoting psychological well-being.

Dwairy (1997) has noted that since Arab society is characteristically familial, self-expression will often be met with rejection and punishment, and that these societal values will put some individual needs (e.g., self-actualization, sexual needs, the need to express anger) in conflict with the needs and will of the family. Traditional Arabs tend to identify with their families, often because of their repressed personal needs, and see themselves as entirely responsible for their difficulties. Therefore, they may often engage in a lot of self-blame and self-punishment (Dwairy, 1997). The Arab family discourages the development of the self or ego and encourages the development of a strict conscience or superego in accordance with traditional societal values (Dwairy, 1991). However, beyond family dynamics, some researchers have suggested that the increasing prevalence of online hate speech targeting Arabs may influence self-perception and identity (Alshoaibi, 2018; Elzayady et al., 2023), which could potentially contribute to self-hate, although direct empirical evidence for this link remains limited. An example of such hate speech is the portrayal of Arabs as uncivilized and barbaric, a stereotype dating back to Ferdowsi (Saad, 1996). This prejudiced view has been linked to factors such as limited education, strong authoritarian tendencies, and the belief that Arabs are an economic threat to Americans (Johnson, 1992). In Arab societies, shame is culturally intertwined with perceptions of being judged by others, which significantly influences self-evaluation (Fekih-Romdhane, Malaeb, et al., 2023). Experiences of discrimination among Arab American populations have been associated with diminished self-esteem and psychological distress, largely due to a reduced sense of personal control (Moradi & Hasan, 2004). Furthermore, it has been argued that hate speech can erode an individual's self-esteem by disregarding their agency and fundamental rights (Seglow, 2016).

Based on information in the literature, some scales that can be associated with self-hate (negatively, e.g., self-esteem, self-worth; positively, e.g., shame, self-disgust) have been identified. Several scales measuring these related constructs have been adapted for use in Arabic-speaking populations. These include the External and Internal Shame Scale (EISS; Fekih-Romdhane, Malaeb, et al., 2023), the Single-Item Self-Esteem Scale (A-SISE; Fekih-Romdhane, Bitar et al., 2023), the Edinburgh Self-Disgust Scale (ESDS; Alanazi, 2017), and the Contingencies of Self-Worth Scale (CSW; Kazarian, 2009). However, a scale directly measuring self-hate has not been found in Arab societies. The current research aims to evaluate the validity and reliability of Self-Hate Scale, originally introduced in Turnell et al. (2019), following its translation with Arabic-speaking populations. Given the cultural nuances surrounding shame,

self-expression, and family dynamics in Arab societies, and the potential impact of online hate speech, understanding self-hate within this population is crucial. Firstly, this adaptation will provide a culturally relevant instrument for Arabic-speaking populations, enabling more accurate self-hate research. Secondly, it will equip clinicians with a valuable assessment tool for developing culturally sensitive interventions. The rich linguistic diversity of Arabic makes this adaptation particularly valuable. Recognizing that self-hate, with its profound negative implications, contrasts with self-compassion, frequently perceived as its opposite, which is significantly associated with increased life satisfaction, further emphasizes the critical relevance of this research for the domain of well-being (Kotera et al., 2022; Zessin et al., 2015). Furthermore, the study will explore relationships between self-hate, depression, anxiety, and self-compassion within the Arabic-speaking sample, contributing to a deeper understanding of self-hate and informing the development of culturally sensitive support systems for improved mental health.

Method

Sample

The original scale was translated into Arabic by 30 professionals who met the criteria set by the International Test Commission (2017), ensuring linguistic equivalence. To assess equivalence, a bilingual sample of 177 individuals (65% female, 35% male), fluent in both English and Arabic and aged between 18 and 64 ($M = 26.6$, $SD = 7.9$), was recruited. Following this, a pilot study was conducted with a separate group of 100 participants (84% female, 16% male) aged between 18 and 47 ($M = 23.9$, $SD = 5.2$), selected to represent the target population. The psychometric evaluation of the SHS was then performed on a main sample of 500 Arabic-speaking adults (74% female, 26% male) aged between 18 and 62 years ($M = 27.54$, $SD = 9.48$), who were recruited using snowball and convenience sampling methods. Table 1 displays descriptive information for this primary group.

Table 1. Sample demographics and characteristics ($n = 500$)

Variable	<i>n</i> (%)
Gender	
Female	371 (74.2)
Male	129 (25.8)
Age group	
18-25	318 (63.6)
26-54	166 (33.2)
55-65	16 (3.2)
Education	
No formal education	5 (1)
Primary school	14 (2.8)
High school	67 (13.4)
Bachelor's degree	363 (72.6)
Postgraduate	51 (10.2)
Relationship status	
Single	279 (55.8)
Engaged	26 (5.2)
In a relationship	37 (7.4)
Married	127 (25.4)
Divorced	27 (5.4)

Income	Widowed	4 (0.8)
	Very low	9 (1.8)
	Low	38 (7.6)
	Medium	383 (76.6)
	High	59 (11.8)
	Very high	11 (2.2)
Work status	Yes	200 (40)
	No	300 (60)
Country of origin	Algeria	2 (0.4)
	Armenia	1 (0.2)
	Bangladesh	1 (0.2)
	Canada	2 (0.4)
	Egypt	67 (13.4)
	Ethiopia	1 (0.2)
	Germany	2 (0.4)
	Iraq	11 (2.2)
	Jordan	18 (3.6)
	Kuwait	9 (1.8)
	Lebanon	44 (8.8)
	Libya	6 (1.2)
	Malaysia	1 (0.2)
	Palestine	35 (7)
	Qatar	1 (0.2)
	Republic of Kazakhstan	1 (0.2)
	Russian Federation	2 (0.4)
	Saudi Arabia	57 (11.4)
	Sudan	2 (0.4)
	Syria	178 (35.6)
	Tunisia	1 (0.2)
	Turkey	17 (3.4)
	UAE	37 (7.4)
	United States	1 (0.2)
	Yemen	3 (0.6)
Currently living	Algeria	1 (0.2)
	Austria	1 (0.2)
	Canada	6 (1.2)
	Denmark	1 (0.2)
	Egypt	30 (6)
	Germany	9 (1.8)
	Iraq	1 (0.2)
	Jordan	7 (1.4)
	Kuwait	6 (1.2)
	Kyrgyz Republic	2 (0.4)
	Lebanon	20 (4)
	Libya	1 (0.2)
	Malaysia	2 (0.4)
	Netherlands	7 (1.4)

Palestine	20 (4)
Qatar	3 (0.6)
Saudi Arabia	50 (10)
Syria	17 (3.4)
Tunisia	1 (0.2)
Turkey	258 (51.6)
UAE	45 (9)
UK	1 (0.2)
United States	10 (2)
South Africa	1 (0.2)

Procedure and Data Collection

Daniel B. Fassnacht, corresponding author of the original SHS, provided authorization in writing via email for the adaptation and usage in Arabic. Additionally, all necessary approvals were granted by the Research Ethics Committee of Istanbul Sabahattin Zaim University (Approval Number: 2024/09). Participants provided informed consent, affirming that their involvement in the study was entirely voluntary. Researchers shared the questionnaire links with participants who preferred to complete them online using Google Forms.

Measures

Demographic Information Form

This was prepared by researchers. Participants received questions about their gender, age, education level, marital status, income level, employment status, where they are from, and where they live.

Self-Hate Scale (SHS)

This scale was developed by Turnell et al. (2019) to assess levels of self-hate in the past year. Participants are asked to rate how true each statement is for them on a Likert scale from 1 (not true for me at all) to 7 (very true for me). The scale consists of 7 items and the total score is calculated by averaging all items. High scores indicate high self-hate. Validity and reliability studies of the scale have been conducted, and strong internal consistency ($\alpha = 0.96$) has been observed.

Beck Depression Inventory (BDI)

BDI was developed by Beck et al. (1961) to evaluate symptoms of depression. The Arabic adaptation made by Abdel-Khalek (1998) was used in this study. It is a 21-item scale that people fill out considering the past week and answer by selecting the appropriate item between 0-3. Internal consistency was calculated based on data from four Arab countries. Cronbach's alpha coefficients were found to be .77, .82, .89, .67 for participants in Egypt, Saudi Arabia, Kuwait, and Lebanon, respectively. In this study, strong internal consistency has also been observed ($\alpha = 0.92$).

Beck Anxiety Inventory (BAI)

The Arabic adaptation of the BAI, originally developed by Beck et al. (1988) and adapted by Al-Shatti (2015), was used in this study. The scale consists of 21 items that assess anxiety symptoms over the past week, with responses ranging from 0 to 3. The scale demonstrated split-half consistency between 0.70

and 0.97, while Cronbach's alpha coefficients ranged from 0.83 to 0.90. Additionally, alpha coefficients for internal consistency were reported between 0.88 and 0.92, and the test-retest reliability coefficient was found to be 0.79. In this study, alpha coefficients for internal consistency are reported as 0.95.

Self-Compassion Scale (SCS)

The Arabic adaptation of the scale, originally developed by Neff (2003) and adapted by Jondi and Tantawi (2021), was used in this study. Cronbach's alpha coefficients of the scale were reported to range between 0.89 and 0.94, indicating a high level of reliability. Factor analysis using the Varimax rotation method revealed that the scale comprises three factors: Self-kindness, mindfulness and self-awareness, and common humanity. In this study, internal consistency has been observed as 0.80 for SCS.

Adaptation Process

A total of 30 professionals, including specialists in Arabic and English as well as independent psychologists who satisfied the requirements of possessing adequate knowledge of the language, content, and culture, translated the scale's original form into Arabic (International Test Commission, 2017). The translations were presented to language experts and field experts other than the translation team to be compared in terms of language and meaning, and the same and different translations were evaluated. The scale translated into Arabic was back translated by language experts who were fluent in both languages and compared with the original text. After selecting the Arabic translation of each item, the original SHS and the Arabic version were presented to the participants to measure the language equivalence. A significant positive correlation ($r = .93, p < .001$) was found between the scores obtained from the English and Arabic versions of the SHS, and language equivalence was achieved. A pilot application was conducted for the form whose language validity was ensured, and it was seen that the scale was ready to be applied to the sample with a strong internal consistency coefficient ($\alpha = .90$). The findings of the analysis of item total correlations varied from .62 (item 6) to .83 (item 2).

Data Analysis

To do Exploratory Factor Analysis (EFA; $n = 250$) and Confirmatory Factor Analysis (CFA; $n = 250$), the collected data were divided at random in two equal parts (Fabrigar et al., 1999). According to Van Orden et al. (2012), the self-hate is an uncommon occurrence, and given that Likert-scale data often deviate from strict normality, and that factor analytic methods (particularly with large samples) are relatively robust to moderate violations of normality (Floyd & Widaman, 1995), no data transformations were performed. To examine the Arabic version of the SHS's construct validity, item-total correlation analyses and EFA were carried out. Subsequently, internal consistency was evaluated, followed by CFA to assess model fit based on the structure revealed by EFA. Concerning likelihood-based estimation, acceptable fit criteria included a Tucker-Lewis Index (TLI) and Comparative Fit Index (CFI) near 0.95, with a standardized root mean square residual (SRMR) around 0.08, and a root mean square error of approximation (RMSEA) near 0.06 (Hu & Bentler, 1999). Convergent and divergent validity were examined through an analysis of the associations among the SHS, BDI, BAI, and SCS. Additionally, the impact of self-hate on self-compassion, depression, and anxiety ratings was evaluated using simple linear regression analysis. Lisrel 8.51 was used for CFA, and SPSS 25.0 was used for validity and EFA analyses. The research conducted was not pre-registered; however, materials and statistical codes can be obtained by contacting the author listed for correspondence.

Results

Upon the random division of the set of data in half for the EFA and CFA parts, no statistically significant variations among either of the groups were found on all of the tests ($p > .05$). The results of the initial subsample's examination of item-total correlations varied from .65 to .76. These values revealed that all items met the criteria for retention, allowing EFA to proceed without removing any items (Clark & Watson, 1995).

Table 2. Results of item-total correlations and factor loadings of Self-Hate Scale

Items	Item-total correlations	Factor loadings
I hate myself (item 1)	.65	.84
I am a failure (item 2)	.72	.83
I feel disgusted when I think about myself (item 3)	.76	.83
I am ashamed of myself (item 4)	.75	.80
I have no value (item 5)	.75	.79
I wish I could escape from myself (item 6)	.70	.78
I am not proud of myself (item 7)	.72	.75

The sample size and data suitability for EFA were confirmed by the KMO test and Bartlett's Test of Sphericity ($KMO = .89$; Bartlett $\chi^2_{(21)} = 1023.465$, $p < .001$). EFA was performed using principal components analysis with varimax rotation, and all items yielded factor loadings exceeding .30. The analysis revealed a single factor having eigenvalues above 1, which was corroborated by the scree plot, which also showed a single component. This component accounted for 64.5% of the overall variance, yielding a 7-item scale that was both reliable and valid. The scale exhibited a Cronbach's alpha of .91 ($M = 13.19$; $SD = 8.53$). Refer to Table 2 regarding item-total correlations and detailed factor loadings upon rotation.

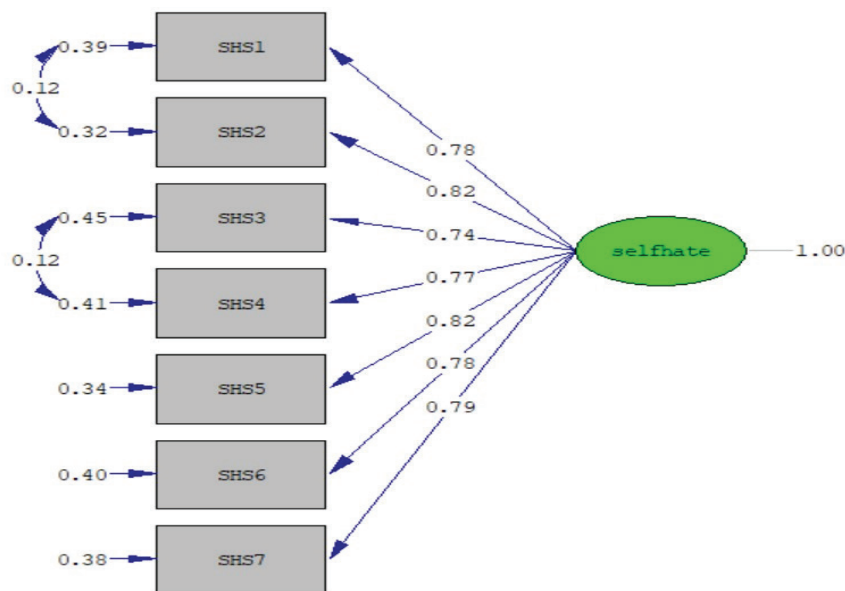


Figure 1. Path diagram of the Arabic Self-Hate Scale

CFA verified that the measure, derived by applying EFA with the second half of the divided dataset, demonstrated construct validity. As stated by Hu and Bentler (1999), the model fit was evaluated using various indices, showing a good fit on several (CFI = .97; NNFI [TLI] = .95; SRMR = .03), acceptable fit ($\chi^2/df = 3.80$), but not meeting the criteria regarding RMSEA (= .11). As a result, adjustments among items 1 & 2 and 3 & 4 were put forward. These modifications were theoretically justified, as items 1 and 2 both reflect intense self-critical cognitions (e.g., self-hate and perceived failure), while items 3 and 4 capture overlapping emotional responses such as self-disgust and shame. These conceptual similarities may lead to shared residual variance beyond what is accounted for by the latent factor. Following the proposed adjustments, the updated version showed good fit to each of the criteria ($\chi^2/df = 1.56$; CFI = 0.99; NNFI = 0.99; RMSEA = .05; SRMR = .02), displayed by Figure 1. Additionally, the change in chi-square values proved that an adjusted version outperformed the original version by a substantial margin ($\chi^2_{(12)} = 19.1, p < .01$).

Table 3. Pearson correlation coefficients between self-hate, depression, anxiety, self-compassion, self-kindness, mindfulness and self-awareness, common humanity

	1	2	3	4	5	6	7
1.SHS ¹	1	.60***	.18***	-.55***	-.45***	-.49***	-.39***
2.BDI ²		1	.31***	-.51***	-.43***	-.47***	-.31***
3.BAI ³			1	-.21***	-.15**	-.23***	-.12**
4.SCS ⁴				1	.87***	.84***	.67***
5.SCSSL ⁵					1	.56***	.45***
6.SCSMSA ⁶						1	.40***
7.SCSCH ⁷							1

* $p < .05$, ** $p < .01$, *** $p < .001$

¹SHS: Self-Hate scores; ²BDI: Beck Depression Inventory scores; ³BAI: Beck Anxiety Inventory scores; ⁴SCS: Self-Compassion Scale scores; ⁵SCSSL: Self-Kindness subscale scores of Self Compassion Scale; ⁶SCSMSA: Mindfulness and Self-Awareness subscale scores of Self Compassion Scale; ⁷SCSCH: Common Humanity subscale scores of Self Compassion Scale.

Table 3 shows the results of the correlation analysis conducted to evaluate criterion-related validity. Accordingly, SHS was found to be significantly positively correlated with BDI scores ($r = .60, p < .001$) and BAI scores ($r = .18, p < .001$). SHS was also found to be significantly negatively correlated with scores of the SCS ($r = -.55, p < .001$), SCSSL ($r = -.45, p < .001$), SCSMSA ($r = -.49, p < .001$), and SCSCH ($r = -.39, p < .001$).

Regression analyses revealed that self-hate accounted for 36% of the variance in depression ($\beta = 0.6$; $t = 16.728$; $p < .001$), 3% in anxiety ($\beta = 0.182$; $t = 4.13$; $p < .001$), 31% in self-compassion ($\beta = -0.554$; $t = -14.857$; $p < .001$), 21% in self-kindness ($\beta = -0.455$; $t = -11.399$; $p < .001$), 23% in mindfulness and self-awareness ($\beta = -0.486$; $t = -12.396$; $p < .001$), and 15% in common humanity ($\beta = -0.394$; $t = -9.579$; $p < .001$), thus confirming its predictive validity. These findings are presented in Table 4.

Table 4. Results of regression analyses

Variable	<i>R</i>	<i>R</i> ²	<i>Adj. R</i> ²	<i>F</i>	β	<i>t</i>
Depression	0.60	0.36	0.36	279.830***	0.600	16.728***
Anxiety	0.18	0.03	0.03	17.056***	0.182	4.130***
Self-compassion	0.56	0.31	0.31	220.731***	-0.554	-14.857***
Self-kindness	0.46	0.21	0.21	129.948***	-0.455	-11.399***
Mindfulness & self-awareness	0.49	0.24	0.23	153.651***	-0.486	-12.396***
Common humanity	0.39	0.16	0.15	91.755***	-0.394	-9.579***

* $p < .05$, ** $p < .01$, *** $p < .001$

SHS was administered twice, with a two-week interval between the first and second administrations. A reliability analysis for test-retest was performed with 67 participants (80.6% female, 19.4% male). According to the results, the test-retest reliability coefficient was found to be .84 ($p < .001$).

Discussion

The English SHS was translated into Arabic by thirty independent professionals. Subsequently, both the original SHS and the Arabic version were administered to 177 English-proficient participants. A significant positive correlation among the two versions ($r = .93$, $p < .001$) indicated their equivalence. The pilot study with 100 participants demonstrated strong internal consistency ($\alpha = .90$). To evaluate construct validity, item-total correlations were examined, followed by an EFA carried out on a sample of 500 participants, resulting in a unidimensional 7 item structure. CFA later supported this structure following two proposed modifications. The scale demonstrated strong internal consistency with a Cronbach's alpha coefficient ($\alpha = .91$) and exhibited a test-retest reliability score of .84 for the entire scale.

The convergent validity of the SHS was evaluated by examining the correlations among self-hate, depression, anxiety, self-compassion, self-kindness, mindfulness and self-awareness, and common humanity were evaluated. Self-hate demonstrated a positive correlation with depression and anxiety, while exhibiting a negative correlation with self-compassion, self-kindness, mindfulness and self-awareness, and common humanity. The positive correlation between BDI and SHS scores supports the assertion that self-hate is associated with self-dissatisfaction, guilt, and self-harming impulses (Gabriel, 1958). Depression and anxiety are often seen together (Jacobson & Newman, 2017; Kalin, 2020; Tiller, 2012). However, in the present study, the relationship between self-hate and depression and anxiety was not found to be close to each other, and a lower correlation was found between anxiety and self-hate than other variables. The low correlation ($r = .18$) between self-hate and anxiety may indicate cultural influences; this contrasts with the stronger associations generally observed in the original SHS development and other adaptations (Turnell et al., 2019; Büge & Bilge, 2022), implying a possible culture-specific divergence. This suggests the role of cultural context in shaping emotional experiences and self-perception (Dwairy, 2006). Since fears and psychiatric disorders in Arab populations are attributed to reasons such as the devil, evil spirits, and divine punishment, individuals and their families may be reluctant to express their symptoms openly and may exhibit somatic symptoms (Al-Krenawi, 1999; Eapen and Ghubash, 2004; Fakhr El-Islam & Abu-Dagga, 1992). Another factor is that religiosity and anxiety may have an inverse relationship and a protective role in Arabic-speaking and Muslim individuals (Abdel-Khalek et al., 2019). Furthermore, the expected inverse association, self-hate being negatively related to self-compassion (Rubin, 1998), was also observed, consistent with the negative correlation reported by Büge and Bilge (2022) in the Turkish

adaptation study of the SHS. These findings are also consistent with the results of Mills et al. (2007), which demonstrated that paranoid beliefs were linked to self-criticism, particularly self-hating and self-persecuting tendencies, and negatively correlated with self-kindness and self-reassurance abilities. This may suggest a broader pattern where self-hate is associated with diminished capacities for self-compassion and kindness, potentially contributing to the development and maintenance of both emotional distress and maladaptive cognitive patterns.

According to statistical analyses of regression carried out to evaluate predictive validity, self-hate explained 36% of depression, 31% of self-compassion, 23% of mindfulness and self-awareness, 21% of self-kindness, 15% of common humanity, and 3% of anxiety. The present study supports research findings that people who experience self-hate will also feel a general sense of worthlessness and inadequacy and may engage in self-destructive behavior (Rubin, 1998). The prediction of depression by self-hate was found to be supportive of the results in the original SHS study and the Turkish adaptation study (Büge & Bilge, 2022; Turnell et al., 2019). Additionally, the results of this study align with network analyses highlighting the centrality of self-hating cognitions, alongside loneliness, sadness, and pessimism, in adolescent depression (Mullarkey et al., 2019). This suggests that self-hate may be a critical factor in the experience of depression, and therefore a relevant target for interventions, as supported by our regression findings. Given the central role of self-hate in depression, it is important to consider factors that may mediate or buffer this effect. For instance; pressure, shame, and stigma from family and society in Arabic-speaking societies can be addressed, and the buffering effect of factors such as religion can be considered (Fekih-Romdhane, Malaeb, et al., 2023; Tobin, 2000). Furthermore, self-compassion, mindfulness and self-awareness, and common humanity, all inversely predicted by self-hate, are known to improve mental health by promoting emotion regulation, making them potential therapeutic targets, especially for individuals who engage in emotional avoidance (Inwood & Ferrari, 2018). These results support the idea that interventions targeting self-hate may indirectly foster self-compassion, which in turn leads to improved mental health outcomes (Muris & Petrocchi, 2017). It is also supported that mindfulness, together with therapeutic techniques addressed with attachment styles, will help reduce depression and anxiety by positively affecting attitudes towards the self (Barcaccia et al., 2020). These findings emphasize the significance of self-hate as a crucial focus for both mitigating psychopathology and improving overall psychological well-being. The study clarifies inverse correlations between self-hate and protective characteristics, such as self-compassion, mindfulness, and common humanity, consequently enhancing the existing research on the correlation between self-related conceptions and well-being outcomes.

Conclusions and Recommendations

One primary limitation of the present study is the use of a non-clinical sample. This may have led to an underestimation of the relationship between self-hate and symptoms of depression and anxiety, which are often more severe in clinical populations. Future research should investigate this relationship in a clinical setting to determine if the effects observed here generalize to individuals with mental health disorders. Another limitation concerns the gender imbalance in the sample, with a high proportion of female participants. This may restrict the generalizability of the findings, particularly if experiences or correlates of self-hate differ by gender. Future research should examine this issue in more detail using samples with a more balanced gender distribution. A further noteworthy limitation relates to the cultural heterogeneity of the sample. While including Arabic-speaking individuals from 25 countries (see Table 1) adds cultural richness, it also introduces interpretative complexity. The "Arabic-speaking population" is not homogeneous, and cultural, religious, and sociopolitical factors may differently shape experiences of self-hate. Moreover, a substantial portion of the participants were of Syrian origin (35.6%) and residing in Turkey (51.6%), suggesting that a considerable number may be Syrian refugees or migrants exposed to

potential stressors such as trauma, discrimination, or acculturation challenges. Although these contextual factors were not directly assessed, they could meaningfully influence levels of self-hate and should be addressed in future research. Separate studies focusing on specific cultural or national subgroups may also help clarify these nuances.

The findings of this study demonstrate that the SHS-Arabic Form is a psychometrically sound instrument for use with Arabic-speaking populations. This validated Arabic version of the SHS is a valuable tool for researchers and mental health professionals. Given the association of self-hate with various aspects of self and mental health symptoms, the SHS-Arabic Form holds potential as a valuable tool in both research and clinical settings. Because self-related concepts like self-hate have been linked to psychopathology and treatment outcomes (Bhar & Kyrios, 2016), this tool is expected to benefit Arabic-speaking individuals, researchers, and mental health professionals. In particular, the SHS-Arabic Form may help identify individuals at risk of diminished well-being due to self-hate and support the development of early interventions aimed at fostering self-compassion and improving emotional well-being. Furthermore, it may facilitate cross-cultural research by offering insights into self-hate across diverse Arabic-speaking communities and supporting the development of culturally sensitive interventions.

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The Role of Family Functioning and Social Connectedness in Shaping Individual Quality of Life During the COVID-19 Pandemic

COVID-19 Pandemisi Sürecinde Bireysel Yaşam Kalitesinin Şekillenmesinde Aile İşleyişi ve Sosyal Bağlılığın Rolü

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Abstract

The COVID-19 pandemic disrupted individuals' well-being, social ties and family dynamics. While family and social interactions and bonds are known to enhance psychological adjustment and well-being, their role in influencing individual quality of life during times of crisis remains underexplored. The aims of this study were: to investigate the relationship between family functioning, social connectedness and individual quality of life; and to examine the direct and indirect effects of family functioning on the individual quality of life, through social connectedness, during the COVID-19 pandemic. A cross-sectional study was conducted with 814 participants, using self-report measures. Correlation coefficients were calculated to analyze the associations between variables. Regression-based analyses were performed to examine direct and indirect effects. Social connectedness mediated the link between family functioning and individual quality of life. This mediation model explained 41% of the variance in individual quality of life. These findings highlight the importance of positive family functioning and the sense of safeness and connectedness within the larger social environment in promoting individual quality of life during the COVID-19 pandemic. Interventions that strengthen family relationships seem to foster social bonds and ultimately improve quality of life outcomes in times of societal stress.

Keywords: COVID-19, Family Functioning, Individual Quality of Life, Pandemic, Social connectedness.

Öz

COVID-19 pandemisi, bireylerin iyi oluşunu, sosyal bağlarını ve aile dinamiklerini bozmuştur. Aile işleyişi ve sosyal bağlılığın psikolojik uyum ve iyi oluşu artırdığı bilinmesine rağmen, kriz zamanlarında bireysel yaşam kalitesi üzerindeki etkileri yeterince araştırılmamıştır. Bu çalışmanın amaçları; aile işleyişi, sosyal bağlılık ve bireysel yaşam kalitesi arasındaki ilişkiyi incelemek, ve COVID-19 pandemisi sırasında sosyal bağlılık aracılığıyla aile işleyişinin bireysel yaşam kalitesi üzerindeki doğrudan ve dolaylı etkilerini araştırmaktır. Kesitsel bir çalışma olan bu araştırma, öz-bildirim ölçekleri kullanılarak 814 katılımcıyla gerçekleştirilmiştir. Değişkenler arasındaki ilişkileri analiz etmek için korelasyon katsayıları hesaplanmıştır. Doğrudan ve dolaylı etkileri incelemek için regresyona dayalı analizler yapılmıştır. Aile işlevselliği ile bireysel yaşam kalitesi arasındaki ilişkiyi sosyal bağlılık değişkeni aracılığıyla açıklayan aracılık modeli, bireysel yaşam kalitesindeki varyansın %41'ini açıklamıştır. Bu bulgular, COVID-19 pandemisi sürecinde bireysel yaşam kalitesinin artırılmasında olumlu aile işlevselliğinin ve daha geniş sosyal çevrede güven ve bağlılık duygusunun önemini ortaya koymaktadır. Aile içi ilişkileri güçlendirmeye yönelik müdahalelerin, sosyal bağları destekleyerek toplumsal stres dönemlerinde yaşam kalitesini artırabileceği görülmektedir.

Anahtar Kelimeler: COVID-19, Aile İşleyişi, Bireysel Yaşam Kalitesi, Pandemi, Sosyal bağlılık



Introduction

Connecting with others represents a fundamental human experience that fosters a sense of belonging, purpose and well-being. From early life to major milestones, relationships profoundly influence how individuals adapt to adverse contexts (Cacioppo & Patrick, 2008; McGoldrick et al., 2016). Social connectedness refers to the relationships and interpersonal networks that provide emotional and practical support, foster trust, and facilitate the exchange of resources and knowledge (Edwards et al., 2018). These social connections are essential to mental and physical health (Allen et al., 2021; Edwards et al., 2018; Long et al., 2022; Umberson & Montez, 2010; Xu et al., 2021), forming the foundation for resilience and happiness (Edwards et al., 2018; Kim & Sul, 2023; Umberson & Montez, 2010). Specifically, indicators such as perceived family support, satisfaction with personal relationships and a sense of community offer valuable insights into the strength of human connectedness (Xu et al., 2021).

Family unit characterizes the fundamental basis of social bonds, providing a stable and nurturing environment for emotional support and personal growth (Bronfenbrenner, 1986; McGoldrick et al., 2016; Schwab et al., 2002; Woodman & McArthur, 2017; Xu et al., 2021). Positive family functioning improves mental health outcomes and well-being, such as greater emotion regulation, resilience, and lower levels of distress and anxiety symptoms, providing a vital buffer against adverse life conditions (Gallardo-Peralta et al., 2022; Hart et al., 2020; Lo et al., 2024; Walsh, 1996; Wang et al., 2015; Woodman & McArthur, 2017; Zhang et al., 2024).

The quality of family relationships often exceeds the quantity of broader social interactions (Gallardo-Peralta et al., 2022). However, strong social ties outside the family unit are also crucial for fostering healthier and more functional individuals (Cacioppo & Patrick, 2008; Edwards et al., 2018; Umberson & Montez, 2010). The lack of robust family or social connections has been identified as a significant predictor of psychological distress, including anxiety and depression (INSA, 2020). Cultivating meaningful relationships enhances adaptive coping mechanisms, reduces feelings of loneliness and builds supportive networks, emphasizing the indispensable role of family and social support in improving quality of life (QoL) (An et al., 2024; Cahuas et al. 2023; Edwards et al., 2018; Gallardo-Peralta et al., 2022; Huigita-Gutiérrez & Cardona-Arias, 2016; Lynch et al., 2008; Mendonca et al., 2023; Pineda et al., 2022; Wang et al., 2015; Zengin et al., 2017). QoL can be defined as the “individuals' perceptions of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns” (World Health Organization, p.3, 2012).

Disruptions to well-being and social bonds during the COVID-19 pandemic

Well-being is built on essential elements such as trust, safety, predictability, and a shared vision of a flourishing society (Walsh, 2020). However, this complex foundation was profoundly destabilized when the World Health Organization (WHO) declared the novel coronavirus disease (COVID-19), a global pandemic. In response to this unexpected crisis, Portugal established a state of emergency, instituting strict confinement measures and severely restricting daily life social routines (Gouveia et al., 2021; INSA, 2020; Vitorino et al., 2024).

The implementation of lockdowns, quarantine measures, physical distancing and the prohibition of in-person activities resulted in a significant transformation in how individuals lived and connected (British Medical Association, 2020; Eicher et al., 2021; Gouveia et al., 2021; INSA, 2020). These public health measures led to a continuous and widespread experience of different losses: including the grief of loved ones or the fear of losing them (British Medical Association, 2020; Prime et al., 2020; Walsh, 2007; Walsh, 2020), the interference in physical connections with family members and social networks (Long et al.,

2022; Prime et al., 2020; Solmi et al., 2022; Walsh, 2020), and the disruption on the economic sphere (British Medical Association, 2020; Feinberg et al., 2021; Gayatri & Puspitasari, 2022; INSA, 2020; Pillay & Barnes, 2020; Prime et al., 2020; Solmi et al., 2022; Vitorino et al., 2024; Walsh, 2020). Furthermore, the disruption of pre-pandemic routines and aspirations, along with the emotional disorientation, led to a world that became largely unrecognizable (Walsh, 2007; Walsh, 2020).

For many individuals, the accumulated effects of the COVID-19 pandemic had significantly diminished their QoL, revealing the fragility of mental and emotional well-being during times of crises (British Medical Association, 2020). This disruption has led to a surge in mental health challenges, including heightened symptoms of anxiety, depression, stress and fear (Ding et al., 2021; Feinberg et al., 2021; Gayatri & Puspitasari, 2022; Manchia et al., 2022; Paulino et al., 2020). These data mirror the effects seen in previous epidemics, such as SARS, MERS and Ebola, which also resulted in lasting psychological strain, and contributed to widespread mental health issues and negative well-being (INSA, 2020).

Yet, amid this adversity, the global crisis has revealed a lasting truth: social connection is the foundation of resilience and well-being (Gayatri & Puspitasari, 2022; Ho et al., 2022; Umberson & Montez, 2010; Walsh, 2020). In moments of collective trauma, such as a global pandemic, feelings of helplessness and uncertainty are expected. However, these trials also awaken an intrinsic, universal drive to seek help, support, and safety in one another (Walsh, 2007; Walsh, 2020). The pain of separation serves as a reminder of the irreplaceable value of close, loving relationships, reinforcing that humanity thrives through enduring connections between individuals (Walsh, 2020; Xu et al., 2020).

Challenges to family functioning during the COVID-19 pandemic

Family functioning refers to the degree to which a family supports the well-being of its members and how effectively they interact with each other (Epstein et al., 1978). The McMaster Model of Family Functioning identifies six essential elements that underpin strong family dynamics: (1) problem-solving, to ensure balance and support (Epstein et al., 1978); (2) open communication, which fosters understanding and strengthens bonds (Epstein et al., 1978; Jackson, 1981; Lo et al., 2024; Schwab et al., 2002; Urbńska-Grosz et al., 2024); (3) defined roles that provide stability through caregiving, managing tasks and ensuring safety (Epstein et al., 1978; Minuchin, 1974); (4) affective responsiveness, which nurtures compassion and understanding (Epstein et al., 1978; Schwab et al., 2002); (5) affective involvement that deepens bonds and promotes closeness (Epstein et al., 1978); (6) behavior control, which sustains harmony by guiding interactions and resolving conflicts (Epstein et al., 1978; Schwab et al., 2002). When these elements align, they foster growth, resilience and connection, balancing practical needs with emotional support to strengthen family bonds and foster hope through adversity (Schwab et al., 2002; Walsh, 2020).

However, during the COVID-19 pandemic, family dynamics were disrupted, with the crisis adding new stressors to the developmental challenges families were already facing. These stressors included economic upheaval (Gayatri & Puspitasari, 2022; Ho et al., 2022; Walsh, 2020), health risks (British Medical Association, 2020; Solmi et al., 2022) and social isolation (Feinberg et al., 2021; Frade et al., 2021; Walsh, 2020). Many struggled to maintain emotional stability, relational cohesion, and effective functioning (Walsh, 2020), as reflected in a reported increase in family violence during this period (Campbell, 2020; Gayatri & Puspitasari, 2022).

Given that family support is a critical determinant of mental, emotional, social well-being (Epstein et al., 1978; Lo et al., 2024; Woodman & McArthur, 2017), as well as personal QoL (Cubero-Plazas et al., 2023; Gallardo-Peralta et al., 2022; Grevenstein et al., 2019; Huigita-Gutiérrez & Cardona-Arias, 2016; Júnior

et al., 2021; Skeens et al., 2023; Wang et al., 2015; Yang et al., 2022), disruptions in this area can have far-reaching consequences on individual outcomes. These include heightened risks of developing depression (Birgisdóttir et al., 2023; INSA, 2020; Urbańska-Grosz et al., 2024), anxiety (Birgisdóttir et al., 2023; INSA, 2020; Wang et al., 2015) and psychological distress (INSA, 2020), which became particularly evident throughout this global health crisis (Feinberg et al., 2021; Fernandes et al., 2020; Gayatri & Puspitasari, 2022; Kim et al., 2024; Wang et al., 2015; Walsh, 2020).

A family-systems perspective highlights how family members are interconnected and how family processes are key in crisis response. The ways a family adapts to managing stress, adjust routines, and build resilience shapes both individual well-being and long-term functioning of the entire family (Walsh, 1996). Therefore, strengthening family relationships during the COVID-19 pandemic helped fostering feelings of safety, enhanced adjustment, and supported the development of both individual and collective resilience (Edwards et al., 2018; Hart et al., 2020; Walsh, 2020; Wang et al., 2015). Notably, higher resilience was associated to fewer pandemic worries, reduced anxiety and depression symptoms, underscoring its importance in safeguarding mental health during crises (Gayatri & Puspitasari, 2022; Ho et al., 2022; Walsh, 2020).

In conclusion, the global crisis highlighted social connection and positive family functioning as key foundations of resilience, well-being and quality of life (Cubero-Plazas et al., 2023; Feinberg et al., 2021; Gallardo-Peralta et al., 2022; Gayatri & Puspitasari, 2022; Júnior et al., 2021; Mendonca et al., 2023; Skeens et al., 2023; Yang et al., 2022). By identifying and fostering the processes that strengthen these dimensions, families and communities can emerge from crises more unified and better prepared to face future adversities (British Medical Association, 2020; Walsh, 1996). Relational bonds and adaptation are not merely responses to hardship, they represent essential pathways to building a supportive and prosperous society (British Medical Association, 2020; Edwards et al., 2018).

The current study

This study aimed to enhance the understanding of how family functioning impacted individual QoL, particularly in the context of the COVID-19 pandemic. It focused on examining the relationship between these factors, while emphasizing the mediating role of social connectedness.

To ensure preparedness for future crises, it was considered crucial to learn from the COVID-19 pandemic response. Research indicated that this global crisis negatively affected several outcomes in the general population, including mental and physical health (Frade et al., 2021; Gayatri & Puspitasari, 2022; INSA, 2020; Paulino et al., 2020; Solmi et al., 2022) and family dynamics (Solmi et al., 2022). Additionally, many individuals experienced a decline in their QoL (British Medical Association, 2020; Eicher et al., 2021).

Despite increasing awareness of the importance of positive family support and relationships (Cubero-Plazas et al., 2023; Skeens et al., 2023; Wang et al., 2015) and connection to others (Cooney et al., 2013; Holt-Lunstad et al., 2017; Mendonca et al., 2023) for QoL, there is still a need to understand the mechanisms through which these factors interact, especially during global crises. Existing studies have provided valuable insights but have not yet explored the mediating role of social connectedness in this dynamic. This gap underscores the importance of examining these relationships thoroughly to support the development of interventions that strengthen family and social resources and guide public health responses in future crises.

The objectives of this study were: (1) to investigate the relationships between family functioning, social connectedness and individual QoL within the general population; and (2) to examine both the direct and indirect effects of family functioning on the individual QoL of the general population, through social connectedness during the COVID-19 pandemic.

The first hypothesis of this study anticipated that family functioning would be positively associated with social connectedness and individual QoL; and that social connectedness would also be positively associated with individual QoL. For the second hypothesis, it was expected that family functioning would influence individual QoL, both directly and indirectly, with social connectedness serving as a mediator in this relationship.

Method

Participants and Procedures

This study employed a quantitative, cross-sectional, correlational design, and was developed within the broader research project. The study received ethical approval from Universidade de Coimbra, and the ethical principles outlined in the Declaration of Helsinki for research involving human participants (World Medical Association, 2013).

Data were primarily collected through online questionnaires using the LimeSurvey® platform ($n = 667$). In addition, 147 participants completed paper-based questionnaires. No incentives were offered. The study utilized a non-probabilistic snowball sampling method for participant recruitment, which could have introduced limitations to the generalizability of the findings.

The project was disseminated through multiple communication channels to maximize reach, including social media platforms (e.g., Facebook© and Instagram©), targeted emails to potential participants and community organizations, and outreach to various media outlets, such as online news platforms.

To ensure data quality, several procedures were implemented: Attention-check questions were included to identify distracted or negligent participation (Gummer et al., 2021). Participants' email and IP addresses were verified to detect and exclude potential automated responses. A seriousness check was also conducted by screening response patterns, such as repeatedly selecting the same answer throughout the questionnaire (Aust et al., 2012). To prevent missing data, the online version employed forced answering, requiring participants to respond to all items before proceeding (Godinho et al., 2020).

The introductory page of the survey outlined the objectives and procedures of the study, and emphasized the voluntary, anonymous and confidential nature of participation. Participants provided informed consent by selecting the option to confirm their understanding and agreement to the terms established for this study.

To be eligible for participation, individuals were required to be at least 18 years old and proficient in Portuguese. Data collection spanned nine months, from September 2021 to June 2022, yielding a final sample of 814 participants aged 18–85 years old ($M = 38.02$, $SD = 13.08$). A comprehensive overview of the participants' sociodemographic and clinical characteristics is presented in the Results section.

Measures

Sociodemographic and clinical questionnaire

The questionnaire was developed specifically for the research project to gather data on sociodemographic characteristics (e.g., age, gender, marital status, academic degree, professional status, household composition), clinical history (e.g., previous psychological or psychiatric treatment) and health-related information about COVID-19 exposure (e.g., "Were you in prophylactic isolation?", "Were there any of your family members or significant others infected with the coronavirus?").

Short Version of the General Functioning Subscale of the McMaster Family Assessment Device

The short version of the General Functioning Subscale of the McMaster Family Assessment Device (Epstein et al., 1983; Boterhoven de Haan et al., 2014; Vitorino et al., 2020), consisting of six positive items, was adapted from the original General Functioning 12-item subscale (GF12), which evaluates both positive and negative dimensions of family functioning. The shortened version (GF6+) was developed by removing negatively phrased items, resulting in a six-item scale (e.g., “In times of crisis, we can turn to each other for support”; “We feel accepted for who we are”).

Responses are rated on a 4-point Likert scale, ranging from 1 (*strongly disagree*) to 4 (*strongly agree*), with the total score divided by the number of items, producing a final mean score between 1 (*worse functioning*) and 4 (*best functioning*). While the original GF12 subscale also exhibited strong internal consistency ($\omega = .92$; $\alpha = .92$), no prior data were available on the reliability of the GF6+ subscale. In the current study, the GF6+ subscale demonstrated excellent internal consistency ($\omega = .92$; $\alpha = .92$).

The Portuguese translation of the shortened version was conducted with prior authorization from the original scale’s authors, following a forward–backward translation procedure. First, the scale was independently translated from English into Portuguese by two researchers fluent in both languages and familiar with the conceptual framework of the instrument. Their translations were compared, and a consensus version was produced.

Subsequently, a third individual, who was fluent in English but unfamiliar with the original version of the scale, performed a back-translation of the Portuguese version into English. Finally, both versions were compared and integrated to ensure conceptual equivalence and consistency in the final Portuguese version of the scale.

The decision to use the GF6+ rather than the full GF12 was primarily guided by practical considerations, such as reducing participant burden and minimizing response fatigue, as well as enhancing clarity by eliminating negatively worded items. While the GF12 offers a broader assessment by capturing both positive and negative aspects of family functioning, the GF6+ retains the core conceptual content and has demonstrated strong psychometric properties (Boterhoven de Haan et al., 2014). Given that family functioning was one of the constructs evaluated in this study, the shorter version offered a more efficient option without compromising reliability or construct validity.

Social Safeness and Pleasure Scale

The Social Safeness and Pleasure Scale (SSPS) (Gilbert et al., 2009; Pinto-Gouveia et al., 2008) is a self-report measure comprising 11 items designed to assess how individuals perceive their social environment, specifically in terms of warmth, safety and soothing qualities. It focuses on aspects such as feeling protected, satisfied and connected to others (e.g., “I feel secure and wanted”; “I feel content within my relationships”; “I feel connected to others”). Participants responded to this instrument using a 5-point Likert scale, ranging from 1 (*almost never*) to 5 (*almost all the time*). The total score was obtained by summing the responses to all items, with higher scores reflecting stronger perceptions of social security and connectedness. In the present study, the scale demonstrated excellent internal consistency ($\omega = .95$; $\alpha = .95$).

Europe Health Interview Surveys Quality of Life Abbreviated Instrument

The EUROHIS-QOL-8 (Schmidt et al., 2006; Pereira et al., 2011) is a one-dimensional self-report measure designed to provide a brief yet comprehensive assessment of QoL. It encompasses multiple indicators

(e.g., "How satisfied are you with yourself"; "How satisfied are you with your ability to perform your daily activities"; "How satisfied are you with your personal relationships") and integrates key elements from the WHOQOL-100 and WHOQOL-BREF instruments developed by WHO (2012). This instrument consists of eight items reflecting the physical, psychological, social and environmental domains. Participants rate their experience of the last two weeks on a 5-point Likert scale, ranging from 1 (*not at all*) to 5 (*completely*). The total score is calculated by summing the item responses, ranging from 8 to 40, with higher scores indicating a more favorable perception of QoL. In this study, the instrument demonstrated good levels of internal consistency ($\omega = .88$; $\alpha = .87$).

Statistical Analysis

Throughout the project, Statistical Package for Social Sciences (SPSS, version 29.0; IBM SPSS, Chicago, IL, USA), and the PROCESS computation tool (version 4.2 for SPSS) (Hayes, 2022) were utilized for statistical analyses. A preliminary analysis conducted with the G*Power tool indicated that a minimum of 776 participants was required to detect small effects in the planned analyses, such as correlation and mediation analyses (Faul et al., 2009). The reliability of the measures was assessed using McDonald's omega and Cronbach's alpha coefficients, considered optimal if the values were higher than .80 (Nunnally & Bernstein, 1994). Descriptive statistics were obtained for all the variables under study.

To analyze the associations among the variables under investigation, Pearson's bivariate correlation coefficients were calculated and classified according to the following guidelines: ± 0.10 to ± 0.29 (weak), ± 0.30 to ± 0.49 (moderate), and ± 0.50 to ± 1.0 (strong) (Cohen, 1998).

To identify potential variables that should be introduced as covariates in the mediation model, Pearson correlations were calculated between the dependent variable (individual QoL) and relevant sociodemographic and clinical variables. The association between age and individual QoL was statistically significant ($r = .12$, $p < .001$). Gender was also significantly associated with individual QoL ($r = .1$, $p < .01$), as well as academic degree ($r = .18$, $p < .001$). Regarding psychologic/psychiatric treatment history, the correlation was statistically significant with individual QoL ($r = .24$, $p < .001$). Therefore, age, gender, academic degree, and psychologic/psychiatric treatment were controlled for the subsequent tested models.

A simple mediation model (Model 4) was performed to examine the regression-based mediating effect of social connectedness on the link between family functioning and individual QoL (Hayes, 2012; Hayes, 2022). The statistical significance of the indirect effects was tested using a bootstrapping procedure with 10 000 samples, which generated 95% bias-corrected and accelerated confidence intervals (95% BCaCIs) (Tabachnick & Fidell, 2007). The indirect effect was significant when the value of zero was not contained in the confidence intervals. Additionally, AMOS software was used to calculate the p -value of the indirect effect. The corresponding effect size was interpreted using the coefficient of determination (R^2), classified as small ($R^2 \geq 0.02$), medium ($R^2 \geq 0.13$), and large ($R^2 \geq 0.26$) (Cohen, 1992). For all the analyses conducted in this study, results were considered statistically significant at a p -value lower than .05.

Results

Sociodemographic and clinical characteristics of the sample

The sample obtained consisted of 814 participants, with ages ranging from 18 to 85 years ($M = 38.02$, $SD = 13.08$). The majority of respondents identified as women ($n = 696$, 85.5%) and lived in urban areas ($n = 526$, 64.3%). Nearly half of the participants were either married or in a non-marital partnership ($n = 393$, 48.3%). In terms of socioeconomic status, most participants were classified as pertaining to medium/high socioeconomic backgrounds ($n = 446$, 54.8%). Regarding health-related factors, 50.9% ($n = 414$) of participants reported a history of psychiatric or psychological treatment. Additionally, 16.6% ($n = 135$) had been identified as being at high risk for complications from COVID-19, 35.3% ($n = 287$) had been infected

with the coronavirus, and 52.5% ($n = 425$) had been in prophylactic isolation. Table 1 provides a detailed summary of the sociodemographic and clinical characteristics of the sample.

Table 1. Sociodemographic and Clinical Characteristics of the Study Sample

Characteristic	<i>N</i>	%
Gender		
Women	696	85.5
Men	115	14.1
Non-binary	3	0.4
Marital status		
Single	346	42.5
Married/Non-marital partnership	393	48.3
Divorced/Separated	64	7.9
Widowed	11	1.4
Academic degree		
No formal education	1	0.1
Primary school	52	6.4
High school	239	29.4
Bachelor's degree	323	39.7
Master's degree	166	20.4
Doctorate (PhD)	16	2.0
Missing	17	2.1
Socioeconomic status ^a		
Low	168	20.6
Middle	407	50.0
High	39	4.8
Missing	200	24.6
Professional status		
Remote work	43	5.3
In-person work	469	57.6
Hybrid work (remote and in-person)	66	8.1
Retired	32	3.9
Unemployed	61	7.5
Student	107	13.1
Missing	36	4.4

Characteristic	<i>N</i>	%
Residential area		
Urban	523	64.3
Rural	288	35.4
Missing	3	0.4
Number of household members		
0 - 2	300	36.8
3 - 6	509	62.5
More than 6	3	0.4
Missing	2	0.2
Previous psychiatric/psychological treatment		
Yes	414	50.9
No	399	49.0
Missing	1	0.1
Risk group for COVID-19		
Yes	135	16.6
No	677	83.2
Missing	2	0.2
Diagnosed with COVID-19		
Yes	287	35.3
No	525	64.5
Missing	2	0.2
Prophylactic isolation		
Yes	425	52.2
No	385	47.3
Missing	3	0.1

Note. *N* = 814. The mean age of participants was 38.02 years old (*SD* = 13.08).

^a The socioeconomic status was determined using a classification system for the Portuguese context based on the participants' professional status and educational levels (Simões, 1994).

Correlations between variables

All correlations were statistically significant and positive. Results revealed a moderate correlation between family functioning and individual QoL. Additionally, two strong associations were identified: between family functioning and social connectedness, and between individual QoL and social connectedness. Matrix of inter-correlations and the descriptive statistics of the variables are presented in Table 2.

Table 2. Descriptive Statistics and Inter-correlations for Study Variables (N = 814)

Variables	<i>M</i>	<i>SD</i>	1	2
1. Family functioning	19.46	3.74	--	
2. Social connectedness	39.75	9.72	.55**	--
3. Individual QoL	20.70	5.47	.46**	.60**

** $p < .01$

Mediation model

The regression-based analysis demonstrated that heightened levels of family functioning were positively associated with greater social connectedness ($b = 1.3$, $SE = .08$, 95% CI [1.16, 1.46]), and that higher levels of social connectedness, in turn, were also positively associated with greater individual QoL ($b = .26$, $SE = .19$, 95% CI [0.22, 0.30]). The directional pathway of this mediation is illustrated in Figure 1.

The direct effect of family functioning on individual QoL was found to be significant ($b = .26$, $SE = .48$, 95% CI [0.17, 0.36]). In addition, the indirect effect of family functioning on individual QoL through social connectedness was also significant ($b = .34$, $SE = .35$, 95% CI [0.27, 0.41]). This finding suggests that the relationship between family functioning and individual QoL is likely to be mediated by social connectedness. Overall, the model explained 41% of the variance in individual QoL outcomes ($R^2 = .41$, $F(6, 782) = 89.68$, $p < .01$), reflecting a large effect size. The direct, indirect, and total effects regarding the examined model are detailed in Table 3.

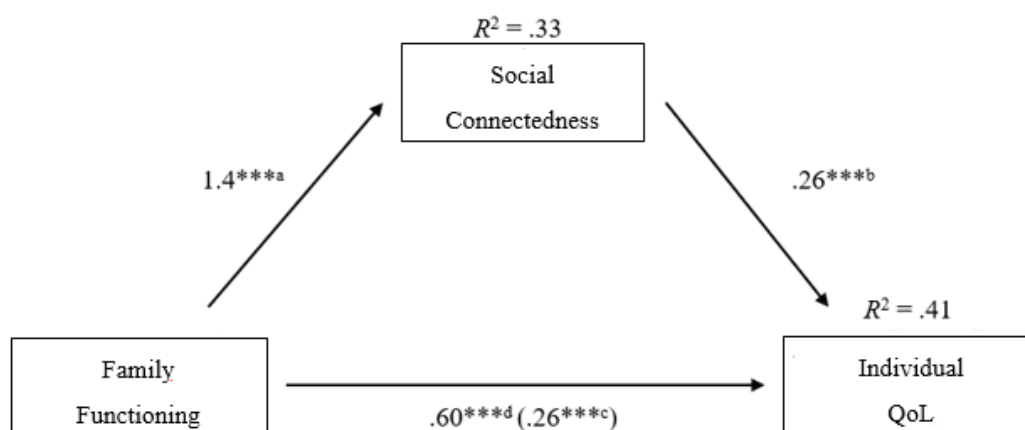


Figure 1. Family functioning as a Predictor of Individual QoL, with Social Connectedness as the Key Mediator

Note. The values shown in the arrows represent the unstandardized regression coefficients. Standardized coefficients (β) are indicated with superscript letters and reported below. In the predictor-criterion path, the value outside the parentheses represents the total effect of family functioning on individual QoL. The value inside the parentheses refers to the direct effect after including the mediating variable. Covariates were omitted to facilitate reading.

^a $\beta = .50$

^b $\beta = .46$

^c $\beta = .18$

^d $\beta = .41$

*** $p < .001$

Table 3. Direct, Indirect, and Total Effects of Family Functioning on Individual QoL

Effects	b	SE	t	p	95% CI ^a
Direct effect					
Family Functioning → Individual QoL	0.26	.48	5.50	< .001	[0.17; 0.36]
Indirect effect					
Family Functioning → Social Connectedness → Individual QoL	0.34	.35	—	< .001	[0.27; 0.41]
Total effect					
Family Functioning → Individual QoL	0.60	.46	13.19	< .001	[0.51; 0.69]

^a CI = confidence interval

Discussion

Beyond its wide-ranging societal effects, the COVID-19 pandemic brought attention to the critical impact of family dynamics on individual QoL. To the best of our knowledge, this was the first study to explore the mediating role of social connectedness in the relationship between family functioning and individual QoL, within the general population. The observed findings revealed how family support and relationships may enhance QoL, both direct and indirectly, through the cultivation of a deeper sense of connection to others. Specifically, the main findings may be summarized as follows: first, there was a positive correlation between family functioning and both social connectedness and individual QoL; and second, social connectedness was found to mediate the relationship between family functioning and individual QoL.

The results confirmed the hypothesis that family functioning would positively correlate with both social connectedness and individual QoL, demonstrating moderate and strong correlations, respectively. This suggests that individuals who perceive their families as having positive dynamics (e.g., mutual support, acceptance, and open communication, emotional expression, and collaborative problem-solving) are more likely to feel a strong sense of belonging outside the family unit. Conversely, the existence of social ties beyond family may strengthen positive family dynamics. In addition, they tend to be more satisfied with their overall life, especially in the context of the COVID-19 pandemic, even if this relationship is most probably bidirectional. These findings align with previous research, emphasizing that family constitutes a primary developmental context, and provides a secure base for broader social relationships and interactions beyond the immediate household (An et al., 2024; Bronfenbrenner, 2022; Edwards et al., 2018; Grevenstein et al., 2019; Minuchin, 1974). Moreover, extensive research has shown that positive family dynamics and rich interactions can profoundly enhance various aspects of life, such as general health (An et al., 2024; Cubero-Plazas et al., 2023; Huigita-Gutiérrez & Cardona-Arias, 2016), cognitive function (An et al., 2024; Cubero-Plazas et al., 2023), emotional well-being (An et al., 2024), and core developmental skills (Huigita-Gutiérrez & Cardona-Arias, 2016), which may ultimately improve QoL (Cubero-Plazas et al., 2023; Gallardo-Peralta et al., 2022; Grevenstein et al., 2019; Huigita-Gutiérrez & Cardona-Arias, 2016; Júnior et al., 2022; Lakomý, 2024; Wang et al., 2015; Yang et al., 2022). These protective effects are particularly salient during periods of crises, as evidenced by the benefits of positive family functioning on one's QoL during the COVID-19 pandemic (Skeens et al., 2023) and in contexts of serious illness (Rolland, 2012).

In addition, the strong positive correlation between social connectedness and individual QoL suggests that individuals who feel more connected to others (e.g., feeling safe, supported, accepted, understood, and satisfied in their relationships), whether through friendships, community ties, or other social networks, tend to report a higher QoL and vice-versa. This finding corroborated our hypothesis, and a substantial body of research, highlighting the significant impact of meaningful relationships in providing a solid foundation for life satisfaction, personal fulfillment, and individual well-being (Cooney et al., 2013; Edwards et al., 2018; Holt-Lunstad et al., 2017; Huang et al., 2019; Jiménez-Torres et al., 2021; Lynch et al., 2008; Mendonca

et al., 2023; Zengin et al., 2017), as well as their potentially bidirectional links. Although the literature has consistently emphasized the importance of social ties for QoL, the unique circumstances of the COVID-19 pandemic have been notably addressed in previous research. In this regard, Kung (2023) noted how the COVID-19 pandemic revealed the essential role of social connections in individuals' lives, underscoring that building and strengthening social bonds is a key factor in promoting and maintaining well-being during challenging times.

The mediation analysis revealed that family functioning was indirectly associated, via social connectedness, with individual QoL, suggesting that this putative mediator variable may play a key role in explaining the relationship between family functioning and individual QoL. Moreover, the large effect size of the proposed model highlights the critical need of fostering family connections and social bonds to enhance individuals' satisfaction with their lives. These findings suggest, in concordance with the dimensions of general family functioning examined in our study, that families who effectively navigate stressors (Gayatri & Puspitasari, 2022), foster balance and support (An et al., 2024; Edwards et al., 2018; McGoldrick et al., 2016; Woodman & McArthur, 2017), show compassion and understanding (McGoldrick et al., 2016; Woodman & McArthur, 2017), promote emotional involvement (An et al., 2024), and maintain good communication (Gayatri & Puspitasari, 2022; Woodman & McArthur, 2017) may create an environment that nurtures the necessary skills to build and strengthen interpersonal connections (Grevenstein et al., 2019). This, in turn, may contribute to individuals' perception of their social environment as safe, warm, and soothing, ultimately improving one's well-being outcomes and perceptions (Cooney et al., 2013; Holt-Lunstad et al., 2017; Huang et al., 2019; Mendonca et al., 2023), specifically during the COVID-19 pandemic (Cahuas et al., 2023; Humphrey et al., 2022; Matos et al., 2021; Pineda et al., 2022; Skeens et al., 2023).

The present study has important implications for both clinical practice and public health policy. The multifaceted repercussions of the COVID-19 pandemic have drastically eroded many individuals' QoL (British Medical Association, 2020; Eicher et al., 2021; Kim et al., 2024; Skeens et al., 2023) and have disrupted many family systems, challenging the dynamics of family relationships (Campbell, 2020; Feinberg et al., 2021; Gayatri & Puspitasari, 2022; Ho et al., 2022; Walsh, 2020). These results suggest that targeted interventions may focus on strengthening core family competencies through multiple ways. First, evidence-based family intervention programs should prioritize communication skills to enhance emotional expression, interpersonal acceptance, and active listening. These programs should also incorporate structured problem-solving techniques and boundary-setting exercises to address pandemic-induced family relationship difficulties. Second, at the community level, psychoeducational programs should cultivate stress co-regulation strategies in families, while hybrid (online and in-person) support groups and public health campaigns would promote wider access to such resilience-building initiatives. Third, policy plans should include increased funding for accessible family mental health services, particularly during a global health crisis and its aftermath. Implementing such multi-level interventions could enhance the acknowledgement of families as crucial social resources and help them navigate current and future challenges.

Conclusions and Recommendations

This study contributes to the growing body of evidence highlighting the central role of family functioning in enhancing individual QoL, particularly through the mediating influence of social connectedness. In the context of the COVID-19 pandemic, these findings underscore how positive family dynamics, marked by open communication, mutual support, and emotional engagement, can foster stronger social ties beyond the family unit, which, in turn, are closely associated with higher levels of individual well-being. The large effect sizes observed in this study support the theoretical model proposed and highlight the importance of nurturing both family and broader social relationships in enhancing QoL, especially during periods of widespread disruption.

Despite the contributions of this study, some limitations should be taken into consideration. First, the sample presented a notable gender imbalance, with a greater proportion of women than men, which may have influenced the results. This discrepancy highlights the importance of conducting future studies with more gender-balanced and representative samples to ensure broader generalizability of findings. Second, the sample was embedded within a Western European cultural context, which may limit the external validity of the results. Cultural variations in family functioning and social connectedness could yield different patterns of association with individual QoL in other regions. Third, the cross-sectional design constitutes a significant limitation, as it precludes the establishment of causal relationships among family functioning, social connectedness, and individual QoL, which, although theoretically driven, may be largely bidirectional. Fourth, data collection was conducted during a specific phase of the COVID-19 pandemic, which may limit the generalizability of the findings to other stages of this public health crisis. Fifth, although attention-check questions and data validation procedures were implemented to enhance reliability, factors such as participant inattentiveness and potential misunderstanding of survey items should be acknowledged as potential sources of bias. Finally, data were collected exclusively through self-report measures, which may be influenced by social desirability bias and subjective interpretation. As such, participants could provide responses that were deemed socially acceptable rather than accurately reflecting their genuine experiences. Furthermore, self-reports highly rely on individuals' self-awareness, which may not fully capture the complexities of psychological and relational dynamics.

Future research should:

- Adopt longitudinal designs to effectively track family functioning and connection to others over time, providing deeper insights into the mechanisms through which they influence one's QoL.
- Examine these relationships across diverse populations and cultural contexts to assess the generalizability of the findings.
- Focus on other potential mediators (e.g., individual resilience, emotion regulation, couples' dyadic coping) to refine a family-based model of individual QoL that could provide a more comprehensive understanding of the dynamics uncovered in this study.
- Incorporate family QoL outcomes in stress-coping research, as this broader perspective could enrich interpretations of how social bonding may contribute to well-being at both individual and systemic levels.

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A Systematic Review of Mindfulness Research with Preschool Children

Okul Öncesi Dönem Çocuklarıyla Yapılan Bilinçli Farkındalık (Mindfulness) Araştırmalarının Sistemik İncelenmesi

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Abstract

Mindfulness is a skill that enables individuals to accept their thoughts and feelings without judgement and to focus on their immediate experiences. It is important to determine the effects of mindfulness activities on children during the preschool period, as this is critical for their development. In this study, the systematic review method was used to examine the effects of mindfulness practices conducted with preschool children on their development. It is expected that the study will contribute to the scientific literature in terms of understanding the effects of mindfulness on children's different developmental areas and behaviours; it is also expected that it will serve as a guide on the development of educational programmes and intervention practices to support mindfulness skills at an early age. The research included scientific studies and theses on mindfulness in preschool children (36-72 months) in Google Scholar, YÖK Thesis Centre, Tandfonline, ProQuest, EBSCO, Wiley Online Library, MEDLINE, Sage Journals, DergiPark, and JSTOR databases, which were conducted between 2015-2025 and could be accessed in full text. The databases were searched using the keywords "mindfulness" and "preschool" in English and "okul öncesi," "mindfulness," and "bilinçli farkındalık" in Turkish, which were determined by considering the subject title and the relationship with the purpose of the study. As a result of the search, 51 sources, 11 theses, and 40 studies were included in the review. The research results show that mindfulness-based programs have the potential to positively affect children's executive functioning, self-regulation skills, and social-emotional development. This study highlights the importance of early interventions and offers evidence-based guidance for future educational programs.

Keywords: Preschool, Early Childhood, Mindfulness, Systematic Review

Öz

Bilinçli farkındalık (mindfulness), bireyin duygu ve düşüncelerini yargılamadan kabul etmesini ve anlık deneyimlerine odaklanmasını sağlayan bir beceridir. Çocukların gelişimleri açısından kritik öneme sahip olan okul öncesi dönemde uygulanan bilinçli farkındalık çalışmalarının, çocuklar üzerindeki etkilerini saptamak önem arz etmektedir. Bu çalışmada, okul öncesi dönem çocuklarıyla yürütülen bilinçli farkındalık uygulamalarının çocukların gelişimleri üzerindeki etkilerini ortaya koymak amacıyla sistematik derleme yöntemi kullanılmıştır. Yapılan çalışmanın, bilinçli farkındalığın çocukların farklı gelişim alanları ve davranışları üzerindeki etkisini anlamaya yönelik olması bakımından bilimsel literatüre katkı sağlayacağı; ayrıca, erken yaşta bilinçli farkındalık becerilerini desteklemeye yönelik eğitim programları ve müdahale uygulamaları geliştirilmesine ışık tutması açısından yol gösterici olacağı beklenmektedir. Araştırmaya, 2015-2025 yılları arasında gerçekleştirilmiş ve tam metin olarak erişilebilen; Google Akademik, YÖK Tez Merkezi, Tandfonline, ProQuest, EBSCO, Wiley Online Library, MEDLINE, Sage Journals, DergiPark ve JSTOR veri tabanlarında yer alan; okul öncesi dönem (36-72 ay) çocuklar ile bilinçli farkındalık (mindfulness) konulu bilimsel araştırmalar ve tezler dahil edilmiştir. Veri tabanlarında konu başlığı ve çalışmanın amacıyla ilişkisi göz önünde bulundurularak belirlenen İngilizce "mindfulness", "preschool" ve Türkçe "okul öncesi", "bilinçli farkındalık", "mindfulness" anahtar sözcükleri kullanılarak tarama yapılmıştır. Tarama sonucunda incelemeye 11 tez ve 40 araştırma olmak üzere toplam 51 kaynak alınmıştır. Araştırma sonuçları, bilinçli farkındalık (mindfulness) temelli programların çocukların yürütücü işlevleri, öz düzenleme becerileri ve sosyal-duygusal gelişimleri üzerinde olumlu etkiler yaratma potansiyeline sahip olduğunu göstermektedir. Bu çalışma, erken müdahalelerin önemini vurgulamakta ve gelecekteki eğitim programları için kanıta dayalı rehberlik sunmaktadır.

Anahtar Kelimeler: Okul Öncesi Dönem, Bilinçli Farkındalık, Mindfulness, Sistemik İnceleme



Introduction

The preschool period is considered a stage of life during which developmental domains are more closely interrelated than at any other time, and the foundation for many essential life skills is established. It has been scientifically demonstrated that this period is characterized by both significant opportunities and major risks, and its influence extends across the lifespan (Shonkoff, 2010). In this regard, the quality of education provided during preschool years and the development of skills necessary for navigating a rapidly changing and evolving world are of critical importance. Among the 21st-century skills, the concepts of adaptability and emotional resilience have gained prominence. The classroom environment and teachers' practices play a vital role (Jennings, 2019).

Mindfulness has emerged as a concept that helps individuals cope with various difficulties and stressors, contributing to their psychological balance and enhancing their ability to remain present in the moment (Napoli, 2004). Children who participate in mindfulness practices at an early age demonstrate significant gains in emotional and social development. These gains include increased empathy, improved skills in recognizing and expressing emotions, and the use of more effective emotion regulation strategies. Children who develop mindfulness skills tend to remain calmer in stressful situations and show greater resilience in the face of challenges. These outcomes are suggested to enhance the likelihood of exhibiting positive behaviors and maintaining emotional well-being in later years (Duff, 2024).

According to Kabat-Zinn (2005), mindfulness is “the state of being in the present moment with an open and non-judgmental attitude” (p. 14). Killingsworth and Gilbert (2010) emphasized that individuals often dwell on the past or worry about the future, which prevents them from noticing the present moment. This pattern of thinking may have a negative impact on well-being. Mindfulness practices offer a structured way to refocus attention and reconnect with internal strengths such as calmness, resilience, and clarity (Kabat-Zinn, 2005). Mindfulness practices have been shown to positively influence children's abilities to recognize, regulate, and accept their thoughts and emotions; to act according to their emotional states; to demonstrate empathy; and to manage negative behaviors (Erten & Güneş, 2024).

In contrast to the sense of separation created by cognitive awareness, sensory-based attention provides a shared foundation that supports social connection among individuals. Mindfulness-based practices contribute to strengthening the role of sensory awareness in daily life by enhancing individuals' interaction with the external world (Carmody, 2015). Mindfulness is regarded as an enlightening, liberating, and empowering approach for individuals. It illuminates aspects of one's life that are often avoided or overlooked, allowing individuals to clearly perceive the realities that they might otherwise suppress. It is liberating in that it transforms the way individuals interpret themselves and the world, helping them to break free from recurring behavioral and cognitive patterns. By intentionally directing attention, mindfulness also empowers individuals by granting access to deep inner resources, such as creativity, intelligence, imagination, clarity, determination, the capacity for conscious decision-making, and wisdom (Kabat-Zinn, 2005).

Children are often regarded as natural masters of mindfulness due to their innate "present-moment intelligence" (Snel, 2019). However, as they grow older, their tendency to reflect on the past or imagine the future can diminish or suppress this inherent ability. It has been noted that “mindfulness training in children, like language learning, is more effective the earlier it is introduced” (Atalay, 2019, p. 117). Sustaining the desire to remain in the present moment through mindfulness practices during early childhood is of critical importance. Mindfulness programs designed for children play a significant role in guiding the development of fundamental human capacities and promoting holistic growth (Snel, 2019).

Mindfulness practices in early childhood have been found to positively influence children's executive functions (Li et al., 2019; Aydın & Özbey, 2022; Shlomov et al., 2023; Xie et al., 2022, 2024; Rajbhandari,

2023), as well as their emotion regulation and self-regulation skills (Paslı & Temel, 2024; Berti & Cigala, 2022; Türkent, 2023; Tonga Çabuk, 2023; Berger et al., 2024). In this context, scientifically examining mindfulness practices implemented inwith children is essential for the development and widespread implementation of effective educational programs.

A review of the literature reveals that mindfulness studies have been conducted with preschool children, and that existing systematic analyses tend to focus on the impact of mindfulness on specific developmental domains. However, no comprehensive systematic review has been identified that examined all mindfulness-based interventions implemented in preschool-aged children. The present systematic review aims to contribute significantly to the literature by examining the effects of mindfulness practices on the overall development of preschool children. Furthermore, mindfulness applications during the preschool years are expected to serve as a guide for researchers to identify new research directions related to supporting various developmental domains through early interventions.

The following questions were addressed in this study:

1. How is the distribution of studies on mindfulness to be analysed within the scope of the research according to years and types?
2. What is the distribution of studies on mindfulness to be analysed within the scope of the research according to the countries and types of studies conducted?
3. What is the distribution of the programs applied in the studies conducted on mindfulness to be analyzed within the scope of the research according to the duration of implementation?
4. What is the distribution of the studies conducted on mindfulness to be analysed within the scope of the research according to the ages of the participants?
5. What dimensions have been examined in studies on mindfulness within the scope of this research?

Method

This study presents a systematic review of research examining the effects of mindfulness practices on preschool children aged 36–72 months old. A systematic review is a type of research that systematically and transparently identifies, selects, and critically appraises relevant studies to address a specific research question. During the review process, data from the included studies were extracted and analyzed (Moher et al., 2009). The data for this review were structured using the PICOS framework and were reported in accordance with the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines.

PICOS Approach

The PICOS approach is a widely used framework in systematic reviews for structuring research questions, defining eligibility criteria for study selection, and guiding the analytical process. By clearly outlining the criteria for study inclusion and the outcomes to be assessed, PICOS contributes to making systematic reviews more comprehensive, transparent, and methodologically robust (Methley et al., 2014).

The "Participants" component of the PICOS framework refers to defining the target group included in the study. This study included typically developing preschool children aged 3 to 6 years (36–72 months) who participated in mindfulness-based interventions. Children with special needs were excluded from the review because they may have demonstrated different patterns of developmental responses to mindfulness interventions.

The "Interventions" component refers to the programs implemented directly with the participants. This review included studies that administered mindfulness-based interventions directly to preschool children aged 3–6 years (36–72 months). Studies in which mindfulness interventions were delivered to parents or preschool teachers with the aim of indirectly assessing effects on children were excluded.

The "Comparisons" component involves evaluating the outcomes of groups that received mindfulness interventions in comparison to those that received either standard educational programs or no intervention. This review included studies that compared mindfulness intervention groups with control groups that received traditional teaching methods or no training. Studies without control groups or valid comparison conditions were excluded.

The "Outcomes" component refers to the targeted outcomes examined in the studies. The included studies focused on evaluating the effects of mindfulness practices on children's developmental domains or specific skills.

The "Study Design" component encompasses the methodological characteristics of the included studies. This review incorporates empirical research articles and theses published in either Turkish or English. Meta-analyses, literature reviews, book chapters, and web-based content were excluded. The PICOS criteria established in this review are listed in Table 1.

Table I. Design Of The Research According To PICOS Criteria

PICOS element	Inclusion Criteria	Exclusion Criteria
P (Population/Participants)	Healthy developing children receiving mindfulness interventions in preschool period (3-6 years, 36-72 months)	Children with special needs
I (Intervention)	Mindfulness practices (group, individual sessions, play-based practices, etc.).	Studies in which the effects of the programme applied to parents or preschool teachers on children were determined
C (Comparison/Comparisons)	Studies comparing control groups receiving and not receiving mindfulness practices or groups receiving traditional teaching methods	Non-comparative research
O (Outcome/Results)	Studies examining the effects of mindfulness practices on children's developmental areas or skills	
S (Study Design):	Research studies in Turkish and English (articles, theses)	Systematic reviews, meta-analyses, book chapters, web site news

PRISMA Guide

The Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines were developed to ensure transparent and complete reporting of systematic reviews (Page et al., 2021).

In the identification phase, studies suitable for inclusion were identified through a comprehensive screening process. For this review, both research articles and theses on mindfulness practices with preschool children aged 36–72 months were identified through searches of multiple academic databases and search engines. These included Google Scholar, YÖK Thesis Center, Taylor & Francis (Tandfonline), ProQuest, EBSCO, Wiley Online Library, MEDLINE, Sage Journals, DergiPark, and JSTOR. The search covered the period from 2015 to 2025 and included only full-text accessible sources. Keywords used for the search were determined based on the alignment between the study objective and the topic, and included: “mindfulness” and “preschool” (English); “mindfulness”, “mindful awareness”, and “okul öncesi” (Turkish). The search yielded a total of 736 records: 410 from Google Scholar, 8 from YÖK Thesis Center, 154 from Tandfonline, 54 from ProQuest, 67 from EBSCO, 8 from Wiley, 21 from MEDLINE, and 4 each from Sage Journals, DergiPark, and JSTOR.

All records were imported into EndNote, and 95 duplicates were removed. A total of 549 records were excluded after content screening due to irrelevance. The remaining 94 studies were then assessed in detail. Of these, 8 were excluded for involving children outside the 36–72 month age range, and 35 were excluded for methodological reasons (e.g., inclusion of children with special needs, indirect application via parents or teachers or lack of a control group). Finally, 51 studies met the inclusion criteria and were included in the final review. A PRISMA flow diagram is shown in Figure 1.

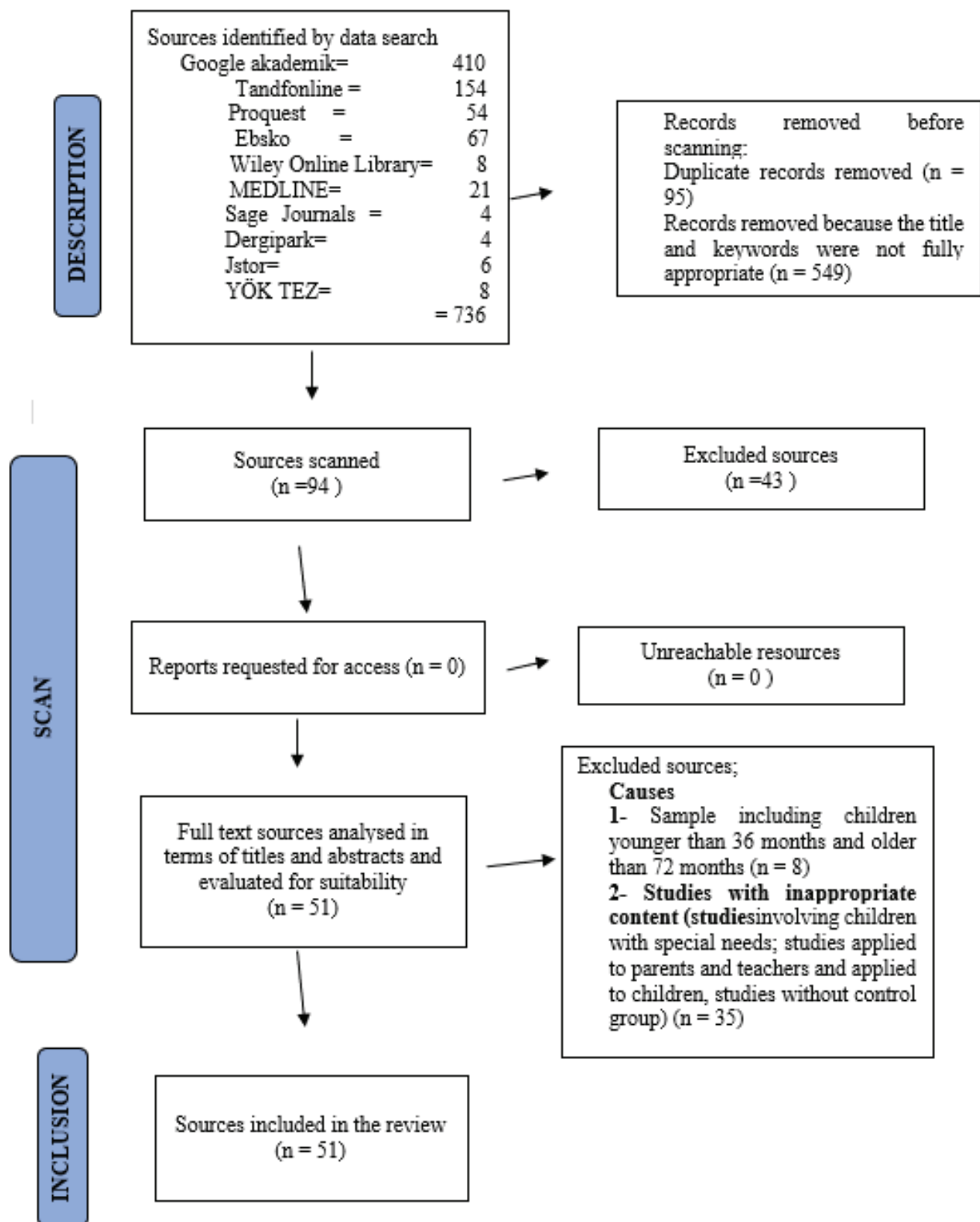


Figure 1: PRISMA Flowchart

Results

In this section, the systematic analysis data of the studies included in the scope of the study are categorised in accordance with the sub-objectives formed in line with the purpose of the study and presented in the findings.

1. Distribution of Studies on Mindfulness According to Years and Types

In line with the first research question of the systematic review, Figure 2 presents the distribution of mindfulness-related studies included in the analysis according to their publication years and types.

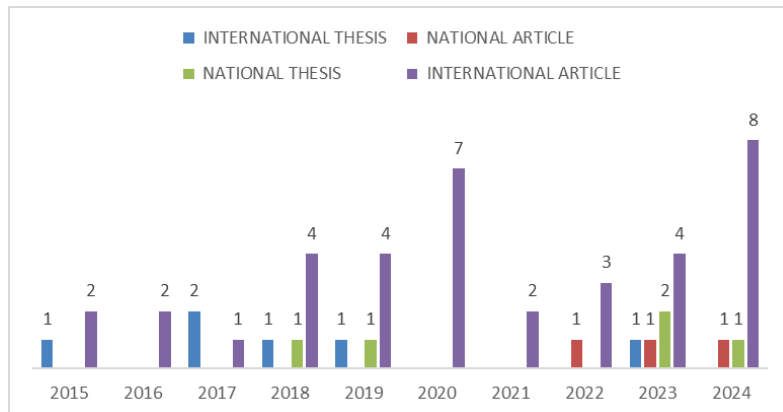


Figure 2. Distribution of Studies on Mindfulness According to Years and Types

Figure 2 presents the distribution of national articles, international articles, national theses, and international theses by publication year between 2015 and 2024. According to the data, international articles constitute the most frequently published type of work, with a notable increase observed in 2018 and 2024. Although the number of national articles has remained relatively low, the number of international theses has shown little variation over the years. By contrast, national theses have demonstrated an upward trend since 2022. Overall, it can be concluded that there is a strong interest in publishing international articles.

2. Distribution of Studies on Mindfulness According to Years and Types

In line with the second research question, Figure 3 presents the distribution of mindfulness-related studies included in the analysis by country and publication type.

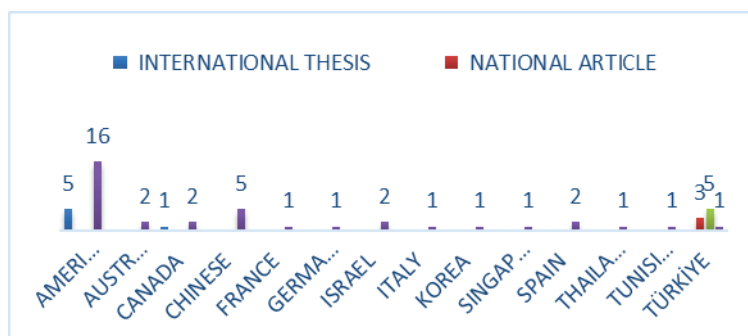


Figure 3: Distribution of Studies on Mindfulness According to Years and Types

An analysis of the distribution of mindfulness studies conducted with preschool children by country

revealed that the highest number of studies were conducted in the United States. In Türkiye, the relatively comparable numbers of articles and theses suggest that the topic of mindfulness has been addressed in a balanced manner across different academic publication types. By contrast, countries such as Germany, Australia, China, France, Spain, Israel, Italy, Canada, South Korea, Thailand, Singapore, and Tunisia appear to have conducted fewer studies in this area. Overall, the findings indicate that mindfulness research varies in intensity across countries, with the United States leading in terms of published articles, whereas Türkiye stands out in the number of thesis-based studies.

3. Distribution of the Programmes Implemented in the Studies on Mindfulness According to the Duration of Implementation

In line with the third research question, Figure 4 presents the distribution of the mindfulness programs included in the analysis according to their implementation duration.

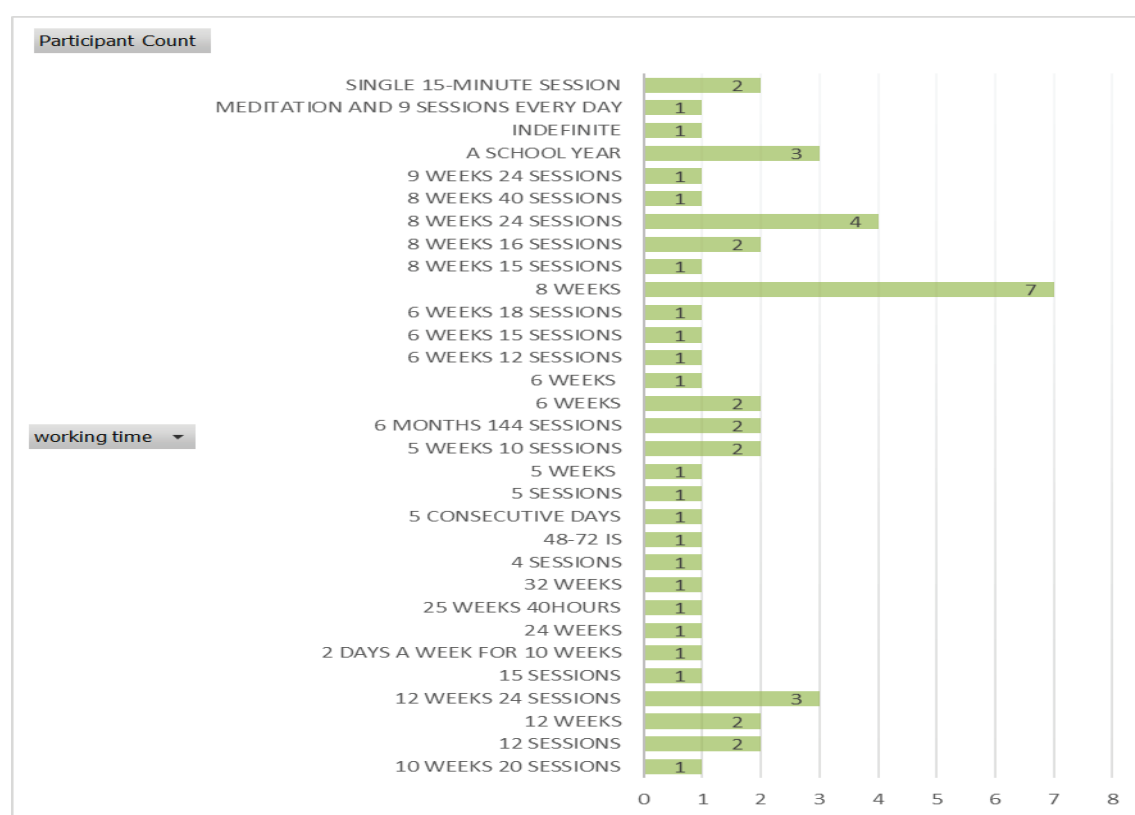


Figure 4: Distribution of the Programmes Implemented in the Studies on Mindfulness According to the Duration of Implementation

An examination of the distribution of program duration in mindfulness studies conducted with preschool children revealed that the majority of the interventions were implemented over an eight-week period. The longest program lasted for one year, while the shortest program consisted of a single 15-minute session.

4. Distribution of Participants According to Their Ages in Studies Conducted on Mindfulness

In line with the fourth research question, Figure 5 presents the age distribution of the participants in the mindfulness studies included in the analysis.

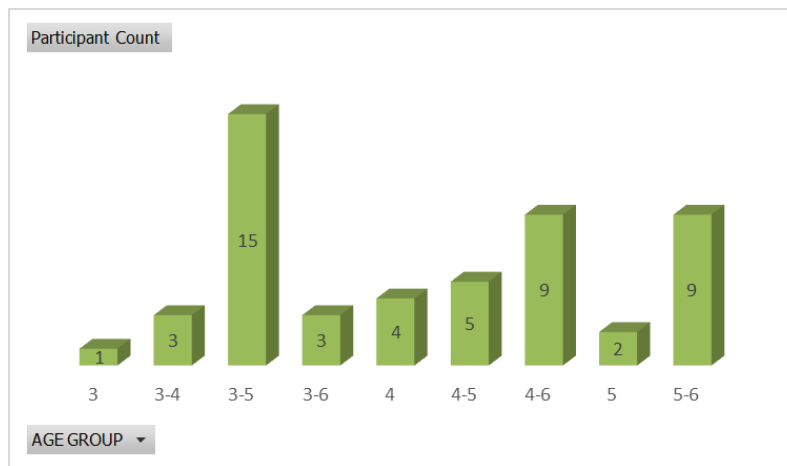


Figure 5: Distribution of Participants according to Age in Studies on Mindfulness

An analysis of participant distribution in mindfulness studies conducted with preschool children revealed that the 3–5 age group was the most frequently studied group, with a total of 15 studies. Additionally, a large number of studies focusing on the 4–6 and 5–6 age groups were also observed.

5. Dimensions of Relationships Analysed in Studies on Mindfulness

In line with the fifth research question, Table II presents the dimensions of the interrelationships examined in the mindfulness studies included in the analysis.

Table II: *Dimensions of Relationships Analysed in Studies on Mindfulness*

TOPICS EXAMINED	NUMBER OF STUDIES
Academic Performance	1
Anxiety, Social Emotional Behavior, Executive Functions	1
Attention	1
Attention And Social-Emotional Competence	1
Attention Control	1
Behavioral And Attention Regulation	1
Behavioral Problems, Adaptation Skills And Executive Functions	1
Being Careful, Being Calm, Behaving With Self-Control, Accepting And Loving Oneself, Being Caring And Helpful To Others	1
Cognitive Flexibility, Impulse Control, Working Memory	1
Emotional Intelligence	1
Emotional Resilience, Social-Emotional Well-Being And School Readiness	1
Endurance, Social Behavior And Motor Skills	1
Executive Functions	6
Executive Functions And Peer Conflict	1
Executive Functions, Eating Behaviors	1
Executive Functions, Self-Regulation	1
Executive Functions, Social Emotional Skills	1
Executive Functions, Social Skills	1
Food Neophobia	1
Internalization, Externalization, Prosocial Behaviors And Executive Functions	1
Mental Health, Self-Management, Social Emotional Skills, Executive Functions	1
Prosocial Behavior	2
Prosocial Behavior, Self-Regulation	1
Prosocial Behavior, Self-Regulation, Perspective Taking	1
Prosocial Behaviors And Hyperactivity	1
Psychological Well-Being	1
Psychosocial Adaptation And Neuropsychological Development	1
School Adaptation; (2) School Behavior Problems; And (3) Academic Outcomes.	1
School Maturity	1
Self Regulation	7
Self-Regulation, Body And Emotional Awareness, Self-Calming, Empathy, And Sensitivity To The Emotions Of Others.	1
Self-Regulation, Empathic Behaviors	1
Self-Regulation, Social Skills	1
Social Behaviors	1
Social Skills And Adaptability, Depression, Anxiety, Inattention And Hyperactivity	1
Social-Emotional Behaviors	1
Social-Emotional Skills	1
Social-Emotional Skills, Executive Function And Academic Skills	1
Well-Being, Self-Regulation, Sleep, Behavioral Problems, Academic Skills	1
Grand total	51

When the studies evaluating the effects of mindfulness-based interventions conducted with preschool children were categorized under general themes, 12 research articles (A35, A16, A39, A20, A29, A23, A6, A21, A1, A36, A37 and A31) and 2 theses (T5 and T11) were identified as focused on executive function skills. Additionally, 7 research articles (A28, A13, A15, A27, A19, A26 and A40) and 6 theses (T8, T4, T9, T10, T2 and T6) investigated the effects on self-regulation and related skills. A significant portion of the studies—19 research articles (A17, A11, A38, A25, A30, A22, A7, A8, A14, A24, A34, A2, A3, A12, A4, A18, A10, A33 and A32) and 1 thesis (T3) focused on the development of social-emotional skills. In addition studies have examined various other outcomes such as attentiveness/focus, calmness, self-controlled behavior, self-acceptance and self-love, and prosocial behaviors such as caring for and helping others. Moreover, the relationship between mindfulness practices and eating problems was explored in studies A9 and A5, whereas school readiness was addressed in thesis T7.

Discussion

Studies examining the effects of mindfulness practices on preschool children have predominantly focused on dimensions related to executive functions, self-regulation skills, and social-emotional development. Within the context of executive functions, these studies have addressed components such as attention, attention regulation, cognitive flexibility, impulse control, and working memory. Additionally, the relationship between executive function skills and peer conflict has been explored.

The effects of a twelve-session mindfulness training program on the components of executive functions,—namely attention, impulse control, working memory, and cognitive flexibility,—were investigated. Li et al. (2019) reported that the mindfulness program particularly strengthened preschoolers' attention and flexibility in managing impulses and tasks. Similarly, according to Aydın and Özbey (2022), preschoolers who participated in mindfulness activities exhibited noticeable gains in sustaining attention, controlling impulses, and retaining information over short periods."Moreover, several studies have examined the effects of mindfulness training on both hot and cold executive functions. The findings suggest that such interventions are particularly effective in tasks involving emotional regulation, which are associated with hot executive functions (Rajbhandari, 2023).

The literature also includes structured mindfulness programs such as the Mini-Mind Program, which has been assessed for its practicality and acceptance among educators and children alike. This study examined the effects of the program on key components of executive functioning, including attention, working memory, impulse control, and cognitive flexibility.

Data obtained from indirect measures revealed small -to- moderate effect sizes in favor of the intervention group for attention, impulse control, cognitive flexibility, and social skills. However, these differences were not statistically significant. In contrast, findings related to working memory were particularly noteworthy, as the data demonstrated a large effect size in this domain. Additionally, the teachers reported that the progress observed in the intervention group during the autumn term was sustained through the end of the spring term. This finding suggests that the intervention may have enduring effects.

Overall, the positive outcomes of the study indicate that mindfulness-based practices may effectively support specific dimensions of executive function skills (Wood et al., 2018).

Another mindfulness-based program whose effects have been investigated is the Kindness Curriculum. However, findings from different studies examining the impact of this program on children have yielded inconsistent results. One study based on a mindfulness- and kindness-oriented training program suggested that the intervention may be effective in enhancing children's executive function skills, particularly impulse control and cognitive flexibility (Shlomov et al., 2023). In contrast, Jansen et al. (2024), using the same

program, reported improvements in children's social and emotional skills but found no significant gains in executive function abilities.

To better understand how mindfulness-based interventions influence different components of executive functions in preschool children, it is essential that such programs be more effectively designed and implemented to support child development.

In studies focusing on vulnerable populations—such as children from low-income families or those exhibiting lower baseline executive functioning—mindfulness programs appear to have an even more pronounced effect. Zelazo et al. (2018) reported broad improvements across executive domains for all participants, yet only the group receiving both mindfulness and reflection training maintained these gains during follow-up. Similarly, Lertladaluck et al. (2021) found significant improvements in working memory and impulse control in a Thai cohort of children with low executive function scores, though no notable changes were observed in cognitive flexibility.

Additionally, a study investigating the feasibility and effectiveness of a mindfulness-based yoga program for preschool children living in communities with high levels of trauma also assessed the program's impact on attention and self-regulation. Findings revealed that the program was both feasible and effective, resulting in significant improvements in children's attention regulation and self-regulation skills (Razza et al., 2019).

Most mindfulness-based intervention programs examined in the literature range from 6 to 12 weeks in duration; however, some studies have assessed the effects of short-term or even single-session interventions. One such study was conducted by Lim and Qu (2017), who investigated the impact of a 15-minute, single-session mindfulness training program—developed based on prior research—on attentional control in preschool children. The findings indicated that the mindfulness intervention reduced the tendency toward global information processing initially inclined toward holistic strategies, and similarly reduced local information processing in children with a detail-focused cognitive style. These results suggest that mindfulness practice may enhance the use of cognitive strategies to direct attention, although it does not appear to have a direct effect on attention itself.

Busch et al. (2023) conducted another study to evaluate the effects of a brief, 15-minute mindfulness-based yoga session. Based on teacher-reported data, children who participated in the program demonstrated improvements in social-emotional behavior and executive functioning, particularly in the domain of attention. Moreover, children in the intervention group showed greater increase in the number of correct responses on the cancellation task. These findings suggest that even a short mindfulness-based yoga session may positively influence behavioral regulation and attentional functioning in preschool-aged children.

Studies examining the neuroscientific effects of mindfulness-based interventions (Xie et al., 2022, 2024; Shlomov et al., 2023) have utilized EEG, fNIRS, and multi-scale sample entropy analysis methods. These studies have demonstrated that mindfulness-based programs can influence brain activity and enhance various components of executive functioning. The findings provide concrete evidence that mindfulness training produces not only behavioral outcomes but also measurable changes in brain activation.

To better understand and directly observe the effects of mindfulness-based programs, it is essential to place greater emphasis on studies that use EEG, fNIRS, and other neuroimaging techniques. Such research is particularly valuable in exploring the impact of mindfulness on brain activation and neurocognitive processes in a scientifically observable manner.

Some studies have also examined the role of mindfulness training in specific executive function domains—particularly attention and impulse control,—in relation to peer conflict in preschool children. For example, Caporaso (2017) implemented a mindfulness-based intervention alongside two cognitively demanding

educational programs. The findings revealed that mindfulness training did not lead to a statistically significant increase in children's use of more appropriate responses in peer conflict situations.

The findings of this research suggest that while mindfulness training may have the potential to enhance children's executive function skills, its effectiveness can vary depending on multiple factors and may not consistently yield significant results. These findings highlight the need for further longitudinal studies with larger sample sizes to better understand the impact of mindfulness-based interventions on the executive functioning of preschool children.

Moreover, some studies examining the effects of mindfulness practices on preschool children's developmental domains have explored the relationships between self-regulation and a various related outcomes. These include prosocial behavior, empathy, emotional awareness, peer interactions, perspective taking, social skills, and academic achievement.

Findings from studies evaluating the effects of mindfulness-based intervention programs on preschool children's self-regulation skills generally indicate that such interventions can support various self-regulatory abilities, including attention, delayed gratification, impulse control, and cognitive flexibility (Razza et al., 2015; Flook et al., 2015; Jackman et al., 2019; Li et al., 2019; Türkkent, 2023).

Yıldırım (2019) investigated the effects of a mindfulness-based yoga program on preschool children's self-regulation skills. The findings revealed that the children in the intervention group demonstrated higher performance in working memory; however, no significant differences were observed between the groups in other self-regulation domains. While teacher evaluations indicated no differences between the groups, mothers reported that the children in the intervention group exhibited higher levels of positive affect.

In a study conducted by Thierry et al. (2016), a mindfulness program designed to enhance children's self-regulation was implemented over the course of one year. The results indicated that the program led to improvements in executive functioning, particularly in working memory, planning, and organizational skills, whereas children in the control group showed declines in these same areas.

Similarly, Thierry et al. (2018) developed a mindfulness program focused on enhancing students' self-regulation and self-awareness through targeted activities. By the end of the academic year, students in the intervention group demonstrated greater improvements in executive functions than their peers in the control group who followed the standard curriculum. However, no significant differences were found between the groups in terms of prosocial behavior or academic achievement.

Research indicates that children who experience difficulties in self-regulation or who come from socioeconomically disadvantaged backgrounds may benefit more significantly from mindfulness-based interventions (Poehlmann-Tynan et al., 2016; Lemberger-Truelove et al., 2018). For example, Razza et al. (2015) found that children who participated in a mindfulness-based yoga program demonstrated significant improvements in their self-regulation skills, with the greatest gains observed among those identified as high-risk.

Similarly, Lemberger-Truelove et al. (2018) reported that the combination of social and emotional learning (SEL) and mindfulness practices led to notable improvements in task-focused attention and experiential engagement among children from disadvantaged communities.

Findings from several studies suggest that mindfulness-based programs may positively influence not only children's self-regulation skills but also their prosocial behaviors. For instance, Flook et al. (2015) concluded that the Kindness Curriculum significantly improved children's cognitive flexibility, delay in gratification, and prosocial behavior.

Expanding upon the work of Flook et al., Haines et al. (2023) investigated the effects of the Mindfulness-Based Kindness Curriculum (MBKC) on preschool children's social-emotional development, executive functioning, and academic performance. Their findings indicated that children in the intervention group scored significantly higher in all three areas than their peers in the control group.

Similarly, Berti and Cigala (2022) reported that a mindfulness-based intervention led to significant improvements in inhibitory control (a subdomain of self-regulation), perspective-taking, and prosocial behaviors among children.

Viglas (2015) examined the effects of a mindfulness-based intervention on preschool children's self-regulation, prosocial behaviors, and hyperactivity. These findings suggest that implementing mindfulness programs in early childhood classrooms can enhance self-regulation, promote prosocial behaviors, and reduce hyperactive behaviors.

Daşiran (2023) evaluated the impact of a “Holistic Mindfulness Training” program on preschool children's self-regulation and social skills. The results showed that children in the intervention group scored significantly higher than those in the control group on both the Self-Regulation Skills Scale (including its subdimensions) and Social Skills Assessment Scale.

However, some studies have shown that mindfulness-based interventions do not always produce consistent or statistically significant results. For example, in a study conducted by Torres (2019) examining the effects of a mindfulness-based social skills program, no significant differences were found in children's self-regulation or prosocial behavior skills. Similarly, Stanley (2018) reported that mindfulness-based intervention did not result in notable improvements in children's self-regulation abilities. These findings suggest that the effectiveness of mindfulness interventions may vary depending on several factors, including the individual characteristics of the child, the duration of the program, and the method of implementation. Research involving older children has produced mixed outcomes regarding the efficacy of mindfulness interventions. A recent study conducted in Canada examined the impact of dispositional mindfulness (i.e., children's natural tendency or trait-level inclination toward mindfulness) on the mental health development of elementary school children, as well as whether a mindfulness-based intervention moderated this effect. It was found that higher levels of dispositional mindfulness were associated with reduced symptoms of inattention, anxiety, and depression; however, the intervention did not significantly strengthen this relationship. The findings suggest that while dispositional mindfulness is beneficial, it may need to be supported by additional emotion regulation techniques in order to achieve optimal outcomes (Malboeuf-Hurtubise et al., 2025).

Some studies of mindfulness-based interventions have included follow-up assessments to evaluate the long-term effects of these programs. For instance, Pash and Temel (2024) found that the effects of a mindfulness-based intervention persisted beyond the post-test period. Similarly, Türkkent (2023) reported that an eight-week mindfulness-based social-emotional learning program yielded statistically significant long-term improvements in children's self-regulation skills.

Yurdakul (2025) investigated the impact of an eight-week mindfulness program tailored for preschoolers aged 60 to 72 months using a single-group experimental approach. The study reported notable gains in attention and working memory among participants, although inhibitory control did not show measurable improvement. These outcomes suggest that when designed with developmental appropriateness, mindfulness-based programs in early childhood can enhance specific dimensions of self-regulation.

Various studies have examined the effects of mindfulness-based social-emotional learning programs on preschool children's psychosocial adjustment and neuropsychological development. One such program, OpenMind-Korea (OM-K), was evaluated by Kim et al. (2020), who reported improvements in children's emotion regulation, psychological resilience, and prosocial behaviors.

Similarly, Moreno-Gómez and Cejudo (2019), found that the MindKinder program supported children's psychosocial adaptation and contributed to their neuropsychological development, including improvements in motor skills, pronunciation, language comprehension, expressive language, spatial structuring, visual perception, memory, and rhythm skills. In a subsequent study implementing the same program, children demonstrated significant improvements in school adjustment, behavioral problems, and academic achievement (Moreno-Gómez, et al., 2020).

Additionally, Berger et al. (2024) investigated the effects of a mindfulness intervention and found that participants in the intervention group showed decreased impulsivity, increased sustained attention, greater attention toward the teacher, and reductions in social difficulties and aggression.

In a study conducted by Aydın and Özbey (2023), the impact of a Mindfulness Education Program on preschool children's emotional intelligence was examined. The findings revealed a statistically significant difference in favor of the intervention group compared with the control group. Similarly, Bazzano et al. (2023) reported that school-based yoga and mindfulness programs played a supportive role in enhancing young children's social-emotional competencies and psychological resilience. In another study, Erten and Güneş (2024) investigated the effects of mindfulness practice during early childhood on social behavior. Their findings showed an increase in positive social behaviors and decrease in behaviors associated with physical aggression and depressive symptoms.

The effects of mindfulness practices on emotion regulation and mental health have been widely studied not only during early childhood but also among primary school children and adults. Research involving 259 adolescents aged 8 to 12 has highlighted the potential of mindfulness and emotional regulation training as a protective mechanism against mental health challenges in early adolescence (Porter et al., 2025). A digital mindfulness training program known as ISSMT, built upon the MAT framework, was implemented in China via the “Hi Emotion” platform to target depressive symptoms in adults (Zhu et al., 2025). Participants aged 18 and older were randomly allocated to either the intervention or control group. The intervention group engaged in brief daily sessions over a two-week period, supported by automated reminders. Changes in mindfulness levels and depressive symptoms were monitored weekly, and the results suggested that the program enhanced mindfulness while reducing symptoms of depression.

Garrison (2017), designed a self-compassion and mindfulness program for preschool children and evaluated its feasibility and potential effects. The program was intended to enhance emotional resilience, social-emotional well-being, and other factors associated with school readiness through self-compassion and mindfulness practices. The findings indicated that introducing preschool children to self-compassion and mindfulness practices yielded positive outcomes and demonstrated the practical applicability of such interventions in this age group. The study further showed that the intervention was effective in reducing behavioral and emotional difficulties, with notable improvements observed in emotional reactivity, aggression, withdrawal, attention problems, and sleep disturbances. In a related study, Dorra and Jarraya (2024) investigated the effects of a short-term mindfulness intervention delivered Daily for 30 minutes over five consecutive days. Their findings suggested that such an intervention may positively influence motor skills and social behaviors, although it did not yield a statistically significant effect on psychological resilience.

Some studies have reported inconclusive or mixed findings regarding the effects of mindfulness-based programs. For example, Li-Grining et al. (2021) observed that the CaLM program, developed for children from low socio-economic backgrounds, had positive effects on children's overall well-being and self-regulation skills; however, these differences were not statistically significant. In another study, Yaari et al. (2019) found that the *Early Minds* program received positive feedback from both educators and parents in Australia. Nevertheless, they emphasized the need for further research to establish the generalizability of

the program's outcomes. Similarly, Sexton et al. (2022) evaluated the *Early Minds* program in terms of its effects on children's internalizing and externalizing behaviors, prosocial skills, and executive functions. Although this study aimed to assess program effectiveness, several limitations related to its feasibility and implementation were identified.

Mindfulness-based interventions have also been shown to positively impact children's relationships with peers, teachers, and parents. For example, Courbet et al. (2024) found that the French adaptation of the Kindness Curriculum reduced both teacher-child and peer-child conflicts, while also contributing positively to children's mental health. Similarly, in a study conducted by Crooks et al. (2020), the *MindUP* program was found to reduce children's negative behaviors, enhance their adaptive functioning, and improve executive functions. In this context, providing mindfulness training for teachers and integrating mindfulness practices into the curriculum in a sustainable manner may strengthen children's social relationships and foster a developmentally supportive environment.

In a study examining the effects of an intervention program integrating mindfulness practices with unstructured free play activities, the intervention was implemented over five consecutive days. The findings indicated that children who participated in outdoor free play combined with brief mindfulness sessions showed improvement in both play skills and emotional well-being. However, no significant differences were found between the groups in terms of physical activity levels or peer interactions. One notable result was that happiness scores significantly increased in the intervention group, whereas no change was observed in the control group (Lee, et al. 2020).

In another study, Malboeuf-Hurtubise et al. (2020) examined the effects of a combined philosophy (P4C – Philosophy for Children) and mindfulness-based intervention program for preschool children on both positive and negative indicators of mental health. The results showed that there were generally no statistically significant differences in the mental health indicators between the experimental and control groups. These findings suggest that the short-term effects of a combined mindfulness and philosophy-based intervention on children's mental health are limited.

In a study conducted by Çollak (2018), the effects of an eight-week mindfulness program for preschool children were examined in terms of various skill areas, including attention/focus, calmness, self-control, self-acceptance and self-love, as well as being caring and helpful toward others. The findings revealed significant improvements in each of these skills among participating children.

Özcan (2024) investigated the impact of a school-based mindfulness program on children's school readiness. The results indicated that the program had a positive effect on school readiness and that these effects were sustained over a four-week period based on according to follow-up assessments.

Overall, the research findings suggest that mindfulness-based intervention programs have the potential to enhance preschool children's self-regulation and social-emotional skills. However, inconsistencies have been observed across studies owing to factors such as program duration and participant characteristics. Therefore, future research should aim to include larger sample sizes, evaluate long-term retention effects, and conduct more precise and detailed analyses of program feasibility. Such efforts would contribute to obtaining more robust and generalizable results.

Several studies have explored the integration of mindfulness practices with art-based activities. For instance, Wong et al. (2024) investigated the effects of a mindfulness-based mandala intervention on children's attention and social-emotional development. The findings revealed that the children in the intervention group demonstrated improvements in five thematic areas: increased attention, emotional awareness, emotion validation, emotion regulation, and recognition of interpersonal relationships.

The reviewed studies, also investigated the effects of mindfulness-based intervention programs on eating-related issues. For example, Dial et al. (2020) evaluated whether a mindfulness-based intervention was effective in reducing food neophobia. They found that mindfulness-based eating exercises supported children in using more of their senses and identifying foods during the process of exploring new foods. However, no statistically significant difference was observed in the actual willingness to try new foods. The researchers concluded that while mindfulness-based eating exercises may facilitate food exploration, they may not be sufficient on their own to reduce food neophobia.

Similarly, Brann et al. (2024) examined the effects of mindfulness practices on executive functions and eating behaviors. The findings revealed improvements in children's executive function skills, such as attention, planning, and self-control. In addition, the children demonstrated more regulated eating behaviors and made healthier food choices. These results suggest that mindfulness practices during early childhood may be effective not only in enhancing cognitive skills but also in promoting healthy eating habits.

Conclusions and Recommendations

This systematic review reveals several important indicators regarding mindfulness-based studies conducted with preschool-aged children. An examination of studies published between 2015 and 2025 shows that international journal articles were the most frequently published type of research, with a notable increase observed in the years 2018 and 2024. In terms of country-based distribution, the United States stands out as the leading contributor to mindfulness research involving preschool children. Regarding the duration of intervention programs, the majority of studies implemented eight-week interventions. The longest program lasted one year, whereas the shortest involved a single 15-minute session. In terms of participant age distribution, the 3–5-year-old age group was the most frequently studied.

Findings related to the impact areas of mindfulness-based interventions applied during the preschool period suggest positive outcomes on children's executive functioning, self-regulation, social-emotional development, psychological resilience, and overall well-being. Specifically, significant improvements were noted in executive function components such as attention, impulse control, working memory, and cognitive flexibility. In addition, social-emotional skills such as empathy, prosocial behavior, and emotional awareness were found to be positively supported. However, the absence of statistically significant findings in some studies suggests that such effects may vary depending on contextual and individual factors such as program content, duration, and sample size.

Based on the findings presented above, several key recommendations can be outlined.

1. **Standardized Intervention Programs:** Given the challenges in comparing the effectiveness of programs with varying content, it is recommended that mindfulness interventions be structured according to shared standards (e.g., duration, content, and developmental appropriateness) and systematically evaluated for their applicability.
2. **Longitudinal and Large-Scale Studies:** To assess the long-term effectiveness and generalizability of intervention programs, future research should include longer-term studies with larger sample sizes.
3. **Neuroimaging-Supported Data:** In order to evaluate the neurocognitive impacts of mindfulness-based interventions more concretely, studies employing neuroimaging techniques such as EEG and fNIRS should be encouraged.
4. **Programs Targeting Disadvantaged Groups:** Since children from socioeconomically disadvantaged or high-risk backgrounds appear to benefit more from mindfulness interventions, greater emphasis should be placed on programs designed for these populations.

5. **Integration with Art, Play, and Nutrition:** Programs that integrate mindfulness with art, music, mandala, free play, or healthy eating habits may enhance the positive effects on children's behaviors and skills, and therefore should be promoted.

6. **Educators' Mindfulness Experiences:** Mindfulness practices can be implemented both directly and indirectly in preschool settings. Indirect implementation involves teachers' own knowledge and experience of mindfulness. To increase the success of such programs, it is recommended to expand mindfulness-based training programs for educators.

In conclusion, mindfulness-based practices have significant potential to support developmental domains in preschool-aged children. However, methodologically rigorous research is needed to establish these effects more clearly and reliably.

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Table III : Studies Included in the Study

Citation Code	Publication Type	Author	Year	Country	Age	Publication Title
A1	Article	Aydın, Ayşe and Öz-bey, Saide	2022	Türkiye	5-6 year	Investigation of the effect of mindfulness-based education programme on the executive function levels of preschool children.
A2	Article	Aydın, Ayşe and Öz-bey, Saide	2023	Türkiye	5-6 year	Investigation of the effect of mindfulness training programme on emotional intelligence levels of preschool children.
A3	Article	Bazzano, Alessandra N, Sun, Yaoyao, Zu, Yuanhao, Fleckman, Julia M, Blackson, Emma A, Patel, Tejal, Shorty-Belisle, Angie, Liederman, Keith H and Roi, Cody	2023	USA	3-5 year	Yoga And Mindfulness For Social-Emotional Development And Resilience In 3–5 Year-Old Children: Non-Randomized, Controlled Intervention
A4	Article	Berger, Rony, Benatov, Joy, Karna, Ankita, Wu, Rui, Tarrasch, Ricardo, van Schaik, Saskia DM and Brennick, Alaina	2024	Israel	5 year	Cultivating Compassion In Jewish-Israeli Kindergartners: The Effectiveness Of Mindfulness-And Empathy-Based Interventions As Facilitators Of Compassion
A40	Article	Berti, S., & Cigala, A	2022	Italy	3-6 year	Mindfulness For Preschoolers: Effects On Prosocial Behavior, Self-Regulation And Perspective Taking.
A5	Article	Brann, Lynn S, Razza, Rachel A and Smith, Caitlin S	2024	USA	3-5 year	The Feasibility And Preliminary Effectiveness Of A Mindfulness Intervention On Preschooler’S Executive Function And Eating Behaviors
A6	Article	Busch, Andrew M, Modica, Christopher A and Sheridan, Emily R	2023	USA	4-6 year	The Effect Of Yoga On Anxiety, Attention And Social-Emotional Symptoms In Preschool Children: A Pilot Quasi-Experimental Study

T11	Thesis	Caporaso, J. S	2017	USA	5 year	The Use Of Mindfulness Training To Examine The Role Of Executive Function In Pre-school Peer Conflict.
A7	Article	Courbet, Ophélie, Daviot, Q, Kalamarides, Victoire, Habib, Marianne, Castillo, MC C and Villemonteix, Thomas	2024	France	3-5 year	Promoting Psychological Well-Being In Preschool Children: Study Protocol For A Randomized Controlled Trial Of A Mindfulness-And Yoga-Based Socio-Emotional Learning Intervention
A8	Article	Crooks, Claire V, Bax, Karen, Delaney, Andrea, Kim, Haesoo and Shokoohi, Mostafa	2020	Kanada	4-6 year	Impact Of Mindup Among Young Children: Improvements In Behavioral Problems, Adaptive Skills, And Executive Functioning
T1	Thesis	Çollak, Nisa	2018	Türkiye	5-6 year	8-week mindfulness programme for preschool children and the effects of the programme on children
T2	Thesis	Daşiran, Tuba Yeşilay	2023	Türkiye	4-6 year	Examination of the effect of holistic awareness training on the self-regulation and social skills of preschool children
A9	Article	Dial, Lauren A, Emley, Elizabeth, Koerten, Hannah R, Waite, Tabitha C and Mush-er-Eizenman, Dara R	2020	USA	3- 5 year	A Mindfulness Intervention For Food Neophobia Among Pre-schoolers
A10	Article	Dorra, Jalleli and Jar- raya, Sana	2024	Tunisia	4-5 year	The Effect Of A Short-Term Mindfulness Program On Motor Skills And On Psychological And Social Behavior In Pre-school Children: A Randomized Controlled Trial.
A12	Article	Erten, Ceren and Güneş, Gökhan	2024	Türkiye	5-6 year	Social Behaviour Changes Via Mindfulness Practices In Early Childhood
A13	Article	Flook, Lisa, Gold- berg, Simon B, Pinger, Laura and Davidson, Richard J	2015	USA	4 year	Promoting Prosocial Behavior And Self-Regulatory Skills In Preschool Children Through A Mindfulness-Based Kindness Curriculum

T3	Thesis	Garrison, Jillian LeRae	2017	USA	3-5 year	A Self-Compassion And Mindfulness Program For Preschoolers
A14	Article	Haines, Beth A, Hong, Phan Y, Immel, Kathy R and Lishner, David A	2023	USA	3-5 year	The Mindfulness-Based Kindness Curriculum For Preschoolers: An Applied Multi-Site Randomized Control Trial
A15	Article	Jackman, Monica M, Nabors, Laura A, McPherson, Carrie L, Quaid, Jill D and Singh, Nirbhay N	2019	USA	3-5 year	Feasibility, Acceptability, And Preliminary Effectiveness Of The Openmind (Om) Program For Pre-School Children
A16	Article	Jansen, Petra, Siebertz, Markus and Portele, Christiane	2024	Germany	3-6 year	A Kind Mind: Enhancing Socio-Emotional Skills In German Preschool Children Through The Mindfulness-Based Kindness Curriculum
A17	Article	Kim, Eunjin, Jackman, Monica M, Jo, Seong-Hun, Oh, Jisun, Ko, Shi-Yong, McPherson, Carrie L, Hwang, Yoon-Suk and Singh, Nirbhay N	2020	Korea	3 year	Effectiveness Of The Mindfulness-Based Openmind-Korea (Om-K) Preschool Program
A18	Article	Lee, Regina Lai Tong, Lane, Shelly Jerrine, Tang, Anson Chiu Yan, Leung, Cynthia, Kwok, Stephen Wai Hang, Louie, Lobo Hung Tak, Browne, Graeme and Chan, Sally Wai Chi	2020	China	4-6 year	Effects Of An Unstructured Free Play And Mindfulness Intervention On Wellbeing In Kindergarten Students
A19	Article	Lemberger-Truelove, Matthew E, Carbonneau, Kira J, Atencio, David J, Zieher, Almut K and Palacios, Alfredo F	2018	USA	3-4 year	Self-Regulatory Growth Effects For Young Children Participating In A Combined Social And Emotional Learning And Mindfulness-Based Intervention
A20	Article	Lertladaluck, Kanda, Suppalarkbunlue, Warabud, Moriguchi, Yusuke and Chutabhakdikul, Nuanchan	2021	Thailand	4-5 year	School-Based Mindfulness Intervention Improves Executive Functions And Self-Regulation In Preschoolers At Risk

A21	Article	Li, Quan, Song, Yanan, Lian, Bin and Feng, Tingyong	2019	China	3-4 year	Mindfulness Training Can Improve 3-And 4-Year-Old Children'S Attention And Executive Function
A22	Article	Li-Grining, Christine Pajunar, Vera, Elizabeth, Janusek, Linda, Saban, Karen, Liston, Yarina, Naqi, Zahra and Troske, Mackenzie	2021	USA	4 year	Exploring The Possible Emergence Of Prosocial And Relational Leadership Capacity In A Mindfulness-Based Transitional Kindergarten Classroom: A Phenomenological And Exploratory-Based Qualitative Case Study
A23	Article	Lim, Xinyi and Qu, Li	2017	Singapore	4- 6 year	The Effect Of Single-Session Mindfulness Training On Pre-school Children'S Attentional Control
A24	Article	Malboeuf-Hurtubise, Catherine, Lefrançois, David, Mageau, Geneviève A, Taylor, Geneviève, Éthier, Marc-André, Gagnon, Mathieu and DiTomaso, Carina	2020	Kanada	4-5 year	Impact Of A Combined Philosophy And Mindfulness Intervention On Positive And Negative Indicators Of Mental Health Among Pre-Kindergarten Children: Results From A Pilot And Feasibility Study
A11	Article	Moreno-Gómez, A. J., & Cejudo, J.	2019	Spain	4-6 year	Effectiveness Of A Mindfulness-Based Social-Emotional Learning Program On Psychosocial Adjustment And Neuropsychological Maturity In Kindergarten Children.
A25	Article	Moreno-Gómez, Alfonso, Luna, Pablo and Cejudo, Javier	2020	Spain	5-6 year	Promoting School Success Through Mindfulness-Based Interventions In Early Childhood
T4	Thesis	Önoğlu Yıldırım, Eda	2019	Türkiye	3-5 year	The Effects Of Mindfulness Based Yoga Intervention On Preschoolers' Self-Regulation Ability
T7	Thesis	Özcan M,	2024	Türkiye	4-6 year	The effect of school-based mindfulness programme on school readiness of children aged 48-72 months / Impact of school-based mindfulness programme on school readiness of children aged 48-72 months.

A26	Article	Paslı, Hatice and Temel, Fulya	2024	Türkiye	5-6 year	The effect of mindfulness practices on children's self-regulation skills according to teacher evaluations.
A27	Article	Poehlmann-Tynan, Julie, Vigna, Abra B, Weymouth, Lindsay A, Gerstein, Emily D, Burnson, Cynthia, Zabransky, Matthew, Lee, Pilline and Zahn-Waxler, Carolyn	2016	USA	3-5 year	A Pilot Study Of Contemplative Practices With Economically Disadvantaged Preschoolers: Children’S Empathic And Self-Regulatory Behaviors
T5	Thesis	Rajbhandari, Biju	2023	USA	4-5 year	Mindfulness Practice Relates To Improvements İn Delaying Gratification İn Preschoolers
A28	Article	Razza, Rachel A, Bergen-Cico, Dessa and Raymond, Kimberly	2015	USA	3-5 year	Enhancing Preschoolers’ Self-Regulation Via Mindful Yoga
A29	Article	Razza, Rachel A, Linsner, Rachel Uveges, Bergen-Cico, Dessa, Carlson, Emily and Reid, Staceyann	2020	USA	3-5 year	The Feasibility And Effectiveness Of Mindful Yoga For Preschoolers Exposed To High Levels Of Trauma
A30	Article	Sexton, Ella TS, Sheehan, Jane, Van Dam, Nicholas T, Grobler, Anneke, Phillips, Lisa, Yaari, Maya and Hiscock, Harriet	2022	Australia	3-4 year	Feasibility Of The Early Minds Program By Smiling Mind: A Pilot Cluster-Randomized-Controlled Trial
A31	Article	Shlomov, Ilana, Levit-Binnun, Nava and Horowitz-Kraus, Tzipi	2023	Israel	4-6 year	Neurodevelopmental Effects Of A Mindfulness And Kindness Curriculum On Executive Functions İn Preschool Children—A Randomized, Active-Controlled Study
T6	Thesis	Stanley, Oceann C.	2018	USA	3-5 year	Mindfulness Meditation And Personality Effects On Self-Regulation İn Preschoolers

A32	Article	Thierry, Karen L, Bryant, Heather L, Nobles, Sandra Speegle and Norris, Karen S	2016	USA	4 year	Two-Year Impact Of A Mindfulness-Based Program On Preschoolers' Self-Regulation And Academic Performance
A33	Article	Thierry, Karen L, Vincent, Rhonda L, Bryant, Heather L, Kinder, Michelle B and Wise, Christina L	2018	USA	4 year	A Self-Oriented Mindfulness-Based Curriculum Improves Prekindergarten Students' Executive Functions
T8	Thesis	Torres, Remi Alyssa	2019	USA	3-5 year	The Impact Of A Preschool Mindfulness Program On Children'S Self-Regulation And Prosocial Skills
T9	Thesis	Türkent, A.	2023	Türkiye	5-6 year	The effect of mindfulness-based social emotional learning programme on preschool children's self-regulation skills
T10	Thesis	Viglas, Melanie	2015	Kanada	4-6 year	Benefits Of A Mindfulness-Based Program In Early Childhood Classrooms
A34	Article	Wong, Waisan, Zhang, Donghang, Hu, Jierong and U, Chao	2024	China	5-6 year	Improving Emotional And Social Development In Preschool Children: Exploring The Effects Of Mindfulness-Based Mandala Intervention In Social Work Practice In Macao
A35	Article	Wood, Laura, Roach, Andrew T, Kearney, Moriah A and Zabek, Faith	2018	USA	3-5 year	Enhancing Executive Function Skills In Preschoolers Through A Mindfulness-Based Intervention: A Randomized, Controlled Pilot Study
A36	Article	Xie, Sha, Gong, Chaohui, Lu, Jiahao, Li, Hui, Wu, Dandan, Chi, Xinli and Chang, Chunqi	2022	China	5-6 year	Enhancing Chinese Preschoolers' Executive Function Via Mindfulness Training: An Fnrirs Study
A37	Article	Xie, Sha, Lu, Shuqi, Lu, Jiahao, Gong, Chaohui and Chang, Chunqi	2024	China	3-6 year	Using Mindfulness-Based Intervention To Promote Executive Function In Young Children: A Multivariable And Multiscale Sample Entropy Study

A38	Article	Yaari, Maya, Sheehan, Jane, Oberklaid, Frank and Hiscock, Harriet	2019	Australia	3-4 year	Early Minds: A Pilot Randomised Controlled Trial Of A Mindfulness Program In Early Learning Centres
A39	Article	Zelazo, Philip David, Forston, Jessica L, Masten, Ann S and Carlson, Stephanie	2018	USA	4-5 year	Mindfulness Plus Reflection Training: Effects On Executive Function In Early Childhood



Workplace Resilience of Young Adults: Systematic Reviews and Research Orientations in a Developing Country

Genç Yetişkinlerin İş Yeri Dayanıklılığı: Gelişmekte Olan Bir Ülkede Sistemik İncelemeler ve Araştırma Yönelimleri

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Abstract

Workplace resilience has been a topic of a key area of study in research on occupational psychology and health worldwide for many years. There is a growing recognition of the importance of workplace resilience in maintaining a healthy work-life balance and enhancing overall job satisfaction. Despite its importance for employee well-being and productivity, workplace resilience is still a relatively new and less frequently studied topic in independent research in Vietnam compared to other established areas such as working conditions, occupational health, and work-related stress. Moreover, cultural differences and cultural factors in the workplace in Vietnam may present unique characteristics distinct from those in Western countries, where research on workplace resilience has been implemented for a longer period of time. By further exploring and integrating workplace resilience into research and practice in Vietnam, the support of well-being and performance of Vietnamese workers can be actively and specifically tailored across various industries and age groups. Through a comprehensive review and synthesis of theoretical frameworks and related research on workplace resilience globally and domestically, the author team has compiled, analyzed, and defined the term "workplace resilience" at the individual level. This article aims to introduce definitions and theoretical frameworks of workplace resilience, providing an important foundation for the author team to propose research directions and establish relevant theoretical frameworks related to workplace resilience. By clarifying the concept of workplace resilience and its implications, the study seeks to contribute to advancing understanding and practices related to workplace resilience in the Vietnamese context.

Keywords: Resilience, Systematic Review, Workplace Resilience, Young Adults

Öz

İşyeri dayanıklılığı, meslek psikolojisi ve sağlık araştırmalarında dünya çapında uzun süredir önemli bir ilgi alanı olmuştur. Sağlıklı bir iş-yaşam dengesi sürdürmek ve genel iş tatminini artırmak açısından işyeri dayanıklılığının önemi konusunda artan bir farkındalık bulunmaktadır. Her ne kadar işyeri dayanıklılığı, çalışanların iyi oluşu ve verimliliği açısından kritik bir rol oynasa da, özellikle çalışma koşulları, mesleki sağlık ve işle ilişkili stres gibi alanlarla karşılaştırıldığında, Vietnam'daki bağımsız araştırmalarda görece yeni ve daha az ele alınan bir konu olmaya devam etmektedir. Buna ek olarak, Vietnam'daki kültürel farklılıklar ve özgül kültürel faktörler, Batı ülkelerindeki uygulamalarla karşılaştırıldığında işyeri dayanıklılığına dair farklı dinamikler ortaya koyabilir. Vietnam'da işyeri dayanıklılığının daha derinlemesine keşfedilmesi ve araştırma-pratik entegrasyonunun sağlanması, çeşitli sektörler ve yaş gruplarındaki Vietnamlı çalışanların iyi oluş ve performans düzeylerinin aktif ve anlamlı biçimde desteklenmesini mümkün kılabilir. Bu makale, işyeri dayanıklılığına ilişkin tanımları ve teorik çerçeveleri tanıtarak, yazar ekibinin araştırma yönelimleri önermesi ve bu kavrama ilişkin kuramsal temeller oluşturmaları için bir başlangıç noktası sunmayı amaçlamaktadır. Küresel ve yerel düzeyde işyeri dayanıklılığına dair teorik yaklaşımlar ve ilgili araştırmaların kapsamlı bir incelemesi ve sentezi yoluyla, yazarlar "işyeri dayanıklılığı" kavramını bireysel düzeyde tanımlamış, analiz etmiş ve yapılandırmıştır. Bu çalışma, işyeri dayanıklılığı kavramını ve etkilerini açıklayarak, Vietnam bağlamında bu konuya ilişkin anlayışın ve uygulamaların geliştirilmesine katkı sunmayı hedeflemektedir.

Anahtar Kelimeler: Dayanıklılık, Sistemik İnceleme, İşyeri Dayanıklılığı, Genç Yetişkinler



Introduction

The emergence of the positive psychology wave has expanded the scope of research in the field of occupational and health psychology, specifically research on the workplace resilience (WR) of young adults entering the labour market. Research on WR has indeed laid the foundation and proposed strategies to enhance employees' work recovery levels, ultimately contributing to their personal career success. Studies by Grzeda & Prince (1997), London & Noe (1987), Walinga & Rowe (2013), and Waterman, Waterman & Collard (1994) have been instrumental in this regard. By fostering resilience in the workplace, employees can showcase their full potential and work towards a promising future for both themselves and the organization. Research by Braun et al. (2017) and Näswall et al. (2013) further supports the idea that enhancing workplace resilience can lead to improved performance and positive outcomes for individuals and the organization as a whole. In short, WR provides workers with the resources to prepare for changes in the demands and challenges of their work lives, responding to career change as it empowers workers to build the skills and mindset necessary to respond positively to career changes and continue to grow and succeed in their professional endeavors.

In Vietnam, a developing country in the Southeast Asia, research on WR is often viewed as a component of psychological capital, as highlighted in studies by Nguyen & Nguyen (2012) and Phan & Bui (2018). Additionally, WR is recognized as a key factor influencing work engagement, as indicated in research by Ha et al. (2020) and Pham (2023). However, independent studies specifically focusing on WR are relatively new in Vietnam, and the term "*workplace resilience*" has not been previously addressed in studies related to occupational psychology or mental health in the country. This presents an opportunity for further exploration and research to better understand and promote workplace resilience among Vietnamese workers, ultimately enhancing their well-being and career success.

Given the gaps in previous research on WR in Vietnam, this article aims to conduct a systematic review to introduce and define the concept of WR. By reviewing existing studies related to career development, WR, and resilience at work, the aim is to provide a comprehensive overview of the current state of research in this area. This review will serve as a valuable resource to guide and inspire future research endeavors in the field of psychology, particularly focusing on enhancing workplace resilience among Vietnamese workers. By shedding light on this important topic, we hope to contribute to the development of strategies and interventions that promote resilience and well-being in the workplace, ultimately benefiting both individuals and organizations in Vietnam.

An Overview of Research on Workplace Resilience Globally

Research on the Concept and Characteristics of Factors Influencing Workplace Resilience Globally

The term *workplace resilience* was first introduced by London (1983) as a component of career motivation, referring to an internal structure of the individual that stimulates career-related behavioral decisions (London, 1983). It is considered the most influential factor impacting career motivation (Grzeda & Prince, 1997). Understanding and cultivating one's resilience can empower individuals to feel more confident in their work, make informed decisions when setting goals, navigate challenging situations effectively, and feel emboldened to take risks (London & Noe, 1987).

Wagnild & Young (1993) initiated research on resilience, defining it as a personality trait including autonomy, self-esteem, internal locus of control, and self-efficacy, which help individuals develop adaptive capabilities in new environments and be less affected by negative impacts of stressors (Wagnild & Young, 1993). Later, Peterson (2000) suggested that optimism is also a quality related to resilience. Optimism is

understood as the belief in problem-solving abilities, with positive thinking and hope for positive outcomes (Peterson, 2000).

Considered to be related to the ability to cope with adversity in the workplace, Sutcliffe & Vogus (2003) suggest that work recovery is the ability to positively adapt to challenging circumstances and unfavorable situations that may arise in the workplace (Sutcliffe & Vogus, 2003). In line with the perspective above, Caza and Milton (2012) argue that in the professional realm, WR is demonstrated by the ability to confront work barriers, thereby developing problem-solving skills, reflecting on lessons learned from setbacks to accumulate experience, and aiming for career development (Caza and Milton, 2012). Subsequently, Malik & Garg (2018) offer a similar perspective, stating that WR is the ability of employees to confront and overcome obstacles that may arise in future work endeavors (Malik & Garg, 2018).

Some common characteristics of individuals with good WR, as listed by Davis (2014), include effective communication, emotional self-management, consistency in thoughts and actions, and perseverance in pursuing goals. These individuals tend to value the work they do, establish and maintain necessary relationships, demonstrate determination, and strive to overcome challenges. To achieve this, it is crucial for individuals to listen to their emotions and learn how to regulate them, aiming to manage stress through appropriate coping mechanisms thereby avoiding feeling overwhelmed in the pursuit of work goals (Davis, 2014).

Contrary to the perspective of Wagnild & Young (1993) discussed above, in 2018, the American Psychological Association (APA) suggested a different definition of resilience, defining it as a process and outcome of successfully adapting to difficulties or challenges in life, particularly through mental, emotional, and behavioral flexibility, as well as adjusting internal and external needs. Within this definition, several other factors contribute to an individual's level of resilience, including how individuals perceive and interact, the presence and quality of social support, as well as specific coping strategies. Additionally, the importance of enhancing and practicing resources and skills related to higher resilience is emphasized (APA, 2018).

According to Craig (2019), WR is a combination of unique individual characteristics that help employees cope effectively with workplace stress. Prominent characteristics mentioned include flexibility, resilience, bounce-back ability, and speed of returning to the initial state. Therefore, employees with good work recovery abilities can easily adapt quickly to changes in the workplace, including changes in workload as well as changes in job requirements and tasks that workers need to meet (Craig, 2019). Furthermore, Turner et al. (2021) have integrated the concept of WR into the perspective of positive psychology research trends and suggest that WR plays a key role in nurturing passion, maintaining happiness, and increasing employee performance (Turner et al., 2021).

According to Cooper et al. (2020), WR is considered as a complex and dynamic process that varies over time and context, requiring action and engagement from both individuals and organizations to sustain (Cooper et al., 2020). External factors, which are objective in nature, influence employees' recovery capabilities, including workplace conditions, organizational philosophy, managerial effectiveness, and their shared work teams (Cooper et al., 2022).

Singh et al. (2024) conducted a recent study on the impact of individual and team resilience on psychological well-being and team performance. They identified additional factors influencing individual resilience, such as perceptions and interactions, the quality of social support, and coping strategies. The study underscores the significance of cultivating and honing resources and skills associated with resilience (Singh et al., 2024).

Synthesizing studies on the concept and characteristics of WR reveals that perspectives on WR are defined in diverse, multidimensional, and complex ways, and to date, there is no universally applicable definition.

WR is viewed as a personality trait, the ability to cope with adversity, or a dynamic process integrated into work that can evolve over time through developing and training. However, these perspectives all focus on the ability to self-regulate to avoid unwanted influences and prepare for future work challenges.

Research on Assessing or Evaluating Workplace Resilience Globally

Central to this line of research is the development of scales to assess employee WR (see Table 1).

Table 1. Summary of workplace resilience scales

Scale name	Author	Description of scale and assessment method
Career motivation inventory (CMI)	London & Bray (1984)	The scale consists of 45 statements measuring three domains of career motivation: career resilience, career insight, and career identity. Within this scale, there are 21 statements specifically dedicated to measuring career resilience on a 5-point Likert scale (ranging from 1 to 5). By focusing on the individual's feelings and attitudes towards career resilience, the CMI provides valuable insights into how individuals perceive and navigate challenges in their career paths.
Career Motivation	Noe et al. (1990)	The scale consists of 26 statements, rated on a Likert scale (ranging from 1 to 5), to measure career motivation across 3 dimensions: career resilience, career insight, and career identity. Specifically, 13 of these statements are dedicated to evaluating career resilience, with a focus on behavioral measurement. This scale provides a nuanced understanding of how individuals respond to challenges and setbacks in their career paths.
The Brief Resilience Scale – BRS	Smith et al. (2008)	This scale is a concise tool designed to assess an individual's ability to recover from adversity. Offering a balanced assessment of an individual's resilience in 6 items, with 3 items worded positively and 3 items worded negatively on a 5-point Likert scale (ranging from 1 to 5). This scale provides insights into how individuals perceive and respond to challenges, setbacks, and stressors in their lives.
Employee Resilience Scale - EmpRes	Näswall et al. (2013)	The scale consists of 14 statements that are scored on a 5-point Likert scale (ranging from 1 to 5). This scale is specifically designed to identify areas that can contribute to the development of employee resilience. It serves as a valuable tool for evaluating and enhancing resilience in the workplace.
Workplace Resilience Inventory – WRI	McLarnon & Rothstein (2013)	The scale is a comprehensive tool, developed based on the theoretical model of King and Rothstein (2010) to assess resilience in the workplace using 60 statements, rated on a 7-point Likert scale in various dimensions such as adaptability, problem-solving skills, social support, and emotional regulation. This inventory is valuable for organizations seeking to enhance employee resilience and well-being.

Resilience at Work – RAW	Winwood et al. (2013)	The final version of the RAW scale consists of 25 statements, rated on a 7-point Likert scale (ranging from 0 to 6). This scale measures across 7 dimensions to understand strengths related to employee resilience, such as living authentically, finding your callings, maintaining perspective, managing stress, interacting cooperatively, staying healthy, and building networks. It serves as a valuable tool for assessing and enhancing resilience in the workplace.
Workplace Resilience Instrument – WRI	Mallak & Yildiz (2016)	The scale is consists of 20 statements, measuring and evaluating on 4 major dimensions, including: Positive problem solving, Team effectiveness, Creating a sense of confidence and Bricolage (self-improvement). This scale is a valuable resource for organizations aiming to boost employee resilience and overall well-being in the workplace. It provides insights into key areas that can be targeted for improvement to create a more resilient and thriving work environment.
Occupational Resilience Assets Questionnaire (ORA - Q)	Magrin et al. (2016)	This ORA-Q scale is constructed with 45 self-reported questions on a Likert scale from 1 to 7, It features a three-level structure (organizational, professional, individual) to facilitate monitoring, benchmarking, and evaluation of interventions aimed at enhancing resilience in the workplace. It is a valuable tool for individuals and organizations seeking to improve resilience in the occupational setting.
Pilot Resilience Scale	Barcenilla (2018)	This is a comprehensive tool with 62 items that measure resilience across three key dimensions: individual, leadership, and team. This scale offers valuable insights into how individuals, leaders, and teams can enhance their ability to bounce back from challenges and thrive in the workplace.
Work Resilience Scale (ReWoS-24)	Sweetman et al. (2022)	The Work Resilience Scale (ReWoS-24) has 24 items, measuring four main aspects: general well-being, workplace well-being, job performance satisfaction, and team resilience. This scale is designed to assess the extent to which an employee experiences characteristics of resilience at work.

Research on developing and evaluating measurement scales for WR or employees' resiliency shows that researchers often use quantitative measurement methods based on Likert scale assessments. They design questions or questionnaires to evaluate the reliability and validity of the scale, and to summarize the research model and measurement. Additionally, analyzing the results of WR levels helps organizations better understand the current state of employee recovery within their organization and how to optimize it to enhance work performance and employee satisfaction. Furthermore, building measurement scales for WR also helps evaluate and monitor the effectiveness of strategies and interventions supporting WR.

The results from these research projects also demonstrate the process of refinement, validation, and thorough testing on target groups (such as financial employees, healthcare workers, students, etc.) to ensure the reliability and validity of the measurement scales. Several scales have become popular and widely used in studies related to WR in many places. Among them, we can mention the EmpRes - Employee Resilience Scale (Näswall et al., 2013), WRI - Workplace Resilience Inventory (McLarnon & Rothstein, 2013), ReWoS-24 - Work Resilience Scale (Sweetman et al., 2022). Particularly, the RAW - Resilience at Work scale by the research group Winwood, Colon, & McEwen (2013) is considered a universal scale due to its diversity in measurement aspects, high reliability, and has been used in studies in Brazil (Malik & Garg, 2018), India (Greco et al., 2022), and Zimbabwe (Sanhokwe & Takawira, 2023; Mazani et al., 2023).

Research for Promoting Resilience at Work Globally

Researchers are not only focused on building conceptual frameworks, listing relevant characteristics, or constructing measurement scales to assess employees' recovery levels; they also emphasize identifying factors that influence work recovery, such as support from colleagues, recognition from superiors or the organization, job satisfaction, and individual flexibility.

The challenges associated with change at work can contribute to improved work performance (Kotter, 1996) and provide an opportunity for individuals to develop and learn new skills (Dweck, 2012). However, difficulties may arise in integrating and adapting if the loss or change occurs too rapidly and suddenly (Bridges & Bridges, 2017). Extensive work experience is also a factor that can make it challenging for individuals to respond to change (Niessen, Swarowsky, & Leiz, 2010).

Studies on college student samples indicate that WR tends to increase when they receive positive support from nearby resources such as teachers, parents and friends (Fisher & Stafford, 2000). Positive feedback also promotes resilience and perseverance, enhances self-esteem, and encourages creativity and effort in the process (Grzeda and Prince, 1997; London & Noe, 1987).

Research on factors influencing WR has shown that WR serves as a guide for individuals to overcome challenges, difficulties, and stress in their careers (London & Noe, 1987), it helps employees find satisfaction and fulfillment in their jobs (Hannon, 2012; Janu et al., 2019), has an impact on work performance (Lee & Chen, 2008; Ramawati, 2013), affects employee commitment and satisfaction (Rahmawati, 2013), plays a crucial role in career development (Caza & Milton, 2012), contributes to career success (Hannon, 2012; Wei & Taormina, 2014), helps predict career success (Wei & Taormina, 2014) and has a positive impact on career adaptation (Buyukgoze-Kavas, 2016).

In addition, WR has been found to have a significant association with work engagement (Ojio, Fawehinmi, & Yusliza, 2021; Sanhokwe & Chinyamurindi, 2023). This is a reciprocal relationship, which supports the view that occupational resilience is influenced by various factors and in a certain work context. Among them, Ojio et al. (2021) showed that Malaysian industrial workers with higher job resilience demonstrated also showed greater commitment to their work. Additionally, work engagement helps predict the level of job resilience, influenced by factors such as self-confidence, favorable conditions and support from family and friends (Ojio et al., 2021). Sanhokwe & Chinyamurindi (2023) also found similar findings, that the quality of WR depends on job engagement with political skill being considered as a moderating, facilitating factor that promotes the process of increasing WR (Sanhokwe & Chinyamurindi, 2023).

Employees who are given opportunities to demonstrate competence have higher scores indicating WR (London, 1993; Noe et al., 1990; Waterman et al., 1994). Personal characteristics associated with WR are expressed in the desire for recognition from others (London, 1993), with self-efficacy (Pulley, 1995), with personal self-esteem and negatively correlated with negative appraisals (Gowan, 2000). Building on previous research achievements, Walinga & Rowe (2013) focused on understanding how to transform stress into positive motivations for workers to strive and develop their potential. Appropriate coping methods are expressed through active listening, emotional feedback, and responsiveness can contribute to their WR and professional success opportunities (Davis, 2014). Furthermore, combining flexibility and adaptability, autonomy in self-development, continuous learning and maintaining an optimistic, realistic mindset (Luthans, Youssef-Morgan, & Avolio, 2015) and enhancing psychological flexibility (Archer et al., 2024) can contribute to regulating an individual's WR.

Organizations and management teams are encouraged to prioritize employee care and create conditions that offer opportunities for learning, self-evaluation, and the development of their potential. This includes both current employees and those transitioning out of the organization (Waterman et al., 1994). Also, Craig

(2019) mentioned the importance of building social support networks or taking advantage of external support resources when facing changes in work (Craig, 2019). Padmashree & Avudaiammal (2023) also proposed that organizations can cultivate suitable goals and strategies to improve employee well-being, foster an adaptive workplace culture, and cultivate a workforce that embodies resilience and engagement (Padmashree & Avudaiammal, 2023).

Mitchell & Russo (2024) emphasize the importance of organizations in fostering employee resilience through initiatives such as mentoring programs, peer support groups, systematic educational-training courses, and welfare initiatives. Key factors in the coaching process to develop psychological resilience include setting clear goals, creating recovery resources for participants, fostering strong relationships between coaches and coachees, and the important role of the coach in helping coachees navigate the self-regulation process (Häfner & Dehning, 2024). Understanding personality traits is also beneficial in enhancing communication and interpersonal relationships (Mitchell & Russo, 2024). The effectiveness of organizational coaching is demonstrated through improvements in stress coping abilities, increased work productivity, and the creation of a positive work environment (Häfner & Dehning, 2024; Mitchell & Russo, 2024). Notably, employees' continued application of the coaching content between sessions is essential for maintaining and developing long-term resilience (Häfner & Dehning, 2024).

Resilience at work can be enhanced through self-esteem, learning, and practicing skills (such as soft skills, coping strategies), and appropriate support networks. Thus, creating a highly resilient workforce requires attention to the relationship between employers and employees and the sharing of work responsibilities between these two groups. Identifying factors influencing WR can help organizations and workplaces build additional databases to improve policies and work processes, train employees on stress coping skills, create a positive work environment and support system for employees to stay stable and committed to their jobs in the long term.

Based on the global research mentioned above, it is evident that key research directions in WR exist, including conceptual and characteristic studies, assessment studies, and practical research to identify influencing factors and strategies to enhance and promote WR. These are important research directions with significant implications, as they provide theoretical foundations and appropriate measurement scales to quantify and measure WR at the individual level. This research contributes to the understanding of WR and offer valuable insights for improving well-being and productivity in the workplace. Furthermore, analyzing the factors influencing WR provides organizations with additional insights and resources to develop strategies for labor utilization policies. This, in turn, helps create conditions that enable employees to quickly regain balance and stability after stressful events in the workplace. As a result, individuals can mature and further develop their capabilities at work, contributing to their overall resiliency. By understanding and addressing these factors, organizations can foster a supportive work environment that promotes employee well-being and productivity.

Overview of Research on Workplace Resilience in Vietnam

Research on the Concept and Characteristics of Factors Influencing Workplace Resilience in Vietnam

Most of the studies related to employee resilience in Vietnam are derived from Luthans' perspective on the overall role of psychological capital, emphasizing positive organization and positive organizational behavior. In this view, recovery in psychological capital goes beyond returning to the original normal state after adversity, but also involves the ability to transform those challenges into motivation for growth (Luthans et al., 2015).

Research results on the components of psychological capital in Vietnam show that employees' psychological capital has a positive relationship with their work performance (Nguyen & Nguyen, 2012; Nguyen et al., 2014), has a slight impact on employee commitment and work performance (Phan & Bui, 2018), has a negative relationship with employee burnout (Nguyen & Ngo, 2020) and influence on the individual quality of work-life in Vietnamese enterprises (Nguyen & Vu, 2021). Among the components of psychological capital, the ability to recover quickly from stress has contributed significantly to self-confidence in one's ability to meet job requirements, along with an optimistic spirit in finding ways to solve problems that arise during work.

Pham (2023), conducted a study on work engagement among 426 young workers in Ho Chi Minh City, found that resiliency has a positive causal relationship with all three aspects of work engagement (dedication, vigor, absorption). Additionally, resiliency explains variations in work engagement more effectively than individual personality traits (Pham, 2023).

Another study on work engagement among 378 hotel employees in Ho Chi Minh City conducted by Ha et al. (2020) also showed similar results. It revealed that resiliency positively impacts work engagement and employee performance (Ha et al., 2020).

The studies on work engagement mentioned above demonstrate similarities with global research findings by Ojio et al., (2021) and Sanhokwe & Chinyamurindi (2023) regarding resiliency and work engagement among labor groups. It is fascinating to observe how these studies align and contribute to our understanding of the importance of recovery in fostering work engagement. From these findings, it can be observed that in the context of research in Vietnam, WR is closely related to work engagement in all three aspects, including enthusiasm for work, dedication to work, and vigor at work. This discovery also reflects similarities with global research results related to resiliency and work engagement among labor groups. It's exciting to see how these studies align and contribute to our understanding of the relationship between recovery and work engagement in the Vietnamese context.

Recent independent studies on workers' resiliency during COVID-19 pandemic have shown that individuals with high resilience at work are characterized by core beliefs (Luu, 2021b), tend to achieve success easier in their careers (Vy, 2022), and experience lower levels of stress and burnout (Nguyen et al., 2024).

A case study on the Post-Pandemic Era by Minh & Long (2023) showed that transformational leadership has a significant direct impact on adaptive resilience, psychological resilience, and employee resilience in organizations in Vietnam. The research results also indicate that employee resilience plays a crucial role in enhancing adaptive resilience. This highlights the importance of transformational leadership in promoting resilience at various levels within an organization (Minh & Long, 2023).

Moreover, demographic factors such as gender, age, work experience and education level have been identified as significantly related to resilience (Tran et al., 2024). Therefore, WR plays an important role in helping workers cope with negative emotions, take on new challenges and quickly adapt to changes in the working environment. In essence, individuals who approach work pressure with positive emotions and employ suitable strategies tend to exhibit higher resilience and recover to a stable state more rapidly compared to those who perceive the situation negatively.

Research on Assessing or Evaluating Workplace Resilience in Vietnam

Considered one of the four components of psychological capital, the resilience aspect was developed by Nguyen, Nguyen, & Tran (2014) based on Block & Kremen's theory (1996), which includes three propositions. The forward and reverse translation processes were carefully followed to ensure accuracy throughout the study.

To develop a suitable scale measuring on psychological capital for the future research in Vietnam, two researchers Nguyen & Ngo (2018) conducted a synthesis of international studies and carried out qualitative research by gathering expert opinions. Finally, the resilience aspect of the psychological capital scale proposed consists of 8 propositions (Nguyen & Ngo (2018). After removing 3 inappropriate sentences, the refined scale was used to measure a group of 901 employees in the business sector in Vietnam. The analysis results showed that the positive impact of resilience on job satisfaction is statistically significant at the level of 0.133, considered to be relatively weak (Nguyen & Ngo, 2018).

The direct study on measuring WR in Vietnam was conducted by authors Tran & Huynh (2022) on healthcare workers at a hospital in district 8, in Ho Chi Minh City. In their research article, the authors used a combination of three scales: (1) Workplace Stress Scale (WSS), (2) Brief Resilient Coping Scale (BRCS), and (3) Brief Resilience Scale (BRS) to identify issues related to work stress, psychological recovery after stress, and adaptive coping strategies of the healthcare workers participating in the survey. The research results indicate that the reliability of these scales is high ($\alpha > 0.84$), providing sufficient reliability to measure and assess the correlation between stress and overall recovery during occupational activities (Tran & Huynh, 2022).

In 2022, the Brief Resilience Scale (BRS) developed by Smith et al. (2008) was further utilized by authors Le & Nguyen (2022) in a study involving a group of 400 adolescents aged 16-25. The research results also show that this BRS initially ensures a reliability of $\alpha = 0.752$ in studies involving adolescent groups in Vietnam when measuring recovery capabilities (Le & Nguyen, 2022).

In 2022, Vietnam's labor resilience index was assessed and ranked 52nd by the organization '*Global Strategy and Public Policy Consulting - Whiteshield Partners*', with a clear upward trend compared to 2020 (58th), and higher than 2017 (56th). This index outperforms several countries in the Southeast Asian region such as Indonesia (56th), the Philippines (62nd), Laos (114th), Cambodia (108th) and Myanmar (109th), while lagging behind Singapore (5th), Malaysia (36th) and Thailand (38th) (Excerpt from Whiteshield Partners' report, 2022).

Recently, a research team led by Tran et al. (2024) assessed the level of recovery among nurses caring for COVID-19 patients in four hospitals in Binh Dinh, Vietnam. The study utilized a self-assessment questionnaire on a 5-point Likert scale to measure the recovery levels. The results revealed that the recovery levels of this group of healthcare workers was relatively low, with an average score of 72.89 out of 100 (Tran et al., 2024).

Research for Promoting Resilience at Work in Vietnam

Research on promoting WR has been gradually conducted, but often in isolation, lacking a systematic approach. These studies are primarily found as recommendations within specific research projects related to work and occupations. Therefore, the practicality and applicability of these findings have not been widely disseminated.

In the report by the Vietnam Institute for Health Strategy and Policy (2021), the author team led by Tran, Nguyen, & Khuong (2021) provided recommendations to strengthen the WR capabilities of healthcare workers in the medical field. These recommendations include improving welfare benefits and the work environment for healthcare staff, particularly those at the grassroots level. Additionally, it is essential to ensure adequate training for epidemiology teams, microbiologists, and skilled laboratory experts to prepare for potential crisis situations in the future (Tran et al., 2021). These measures are designed to support the WR of healthcare workers and enhance their resilience in challenging circumstances.

In a study conducted by Luu (2021a) on activating WR capabilities in sales staff during the COVID-19 crisis, the results revealed a positive relationship between communication during events and the resilience of sales staff. This highlights the importance of effective communication in supporting the WR of sales employees during challenging times. Based on these findings, the author suggests that manufacturing companies should enhance activities that foster connections with their employees to better understand their circumstances. Additionally, providing accurate and timely information to counter any damaging rumors that could affect the company's reputation is crucial, as it helps prevent misinformation that may cause anxiety among workers (Luu, 2021a). Furthermore, effective communication and transparency are essential for supporting the WR of employees during challenging times.

In the online seminar related to *Resilience for Business*, the leadership team is considered crucial and has a significant impact on building resilience for employees. Accordingly, leaders and managers need to inspire and motivate employees, help employees feel safe and thereby become more open and ready to learn and change the way they work (ManpowerGroup Việt Nam & AmCham Việt Nam, 2021).

Recent research on the current state of human resource management in businesses shows that these organizations have made deliberate efforts to build resilience for employees, demonstrated by consistent perseverance with a people-first, purpose-oriented mindset, and a willingness to set aside the volatile challenges left by the COVID-19 pandemic (Ha, 2022).

From domestic research and survey data, it is evident that WR has garnered attention from some Vietnamese authors who have dedicated time to studying it. Research topics examining the status of WR have been conducted alongside other factors such as stress, job engagement, career success, etc. However, there is a need for deeper exploration of WR measurement at the individual level in a more detailed and specific manner. By focusing on detailed and specific measurements of WR, researchers can provide valuable insights into how individuals recover from work-related challenges and contribute to a more comprehensive understanding of WR dynamics. Furthermore, most research on WR has been conducted in the form of cross-sectional studies, which may not fully capture the long-term WR levels of young adults.

When comparing existing research on WR globally with research in Vietnam, it is evident that the current studies in Vietnam do not fully address the need for utilizing measurement scales as tools to assess the level of WR among Vietnamese individuals in various occupational groups. Therefore, the proposed strategies to support WR for specific age groups and job types in the workforce have not been adequately emphasized and may not accurately reflect the reality of the situation. There is a clear need for more tailored research and interventions that address the unique WR challenges faced by Vietnamese workers across different industries and age groups. By focusing on developing culturally relevant measurement tools and targeted support programs, researchers and organizations can better understand and enhance WR outcomes for Vietnamese employees.

Conclusion and Recommendations

In conclusion, an overview of both domestic and international research on workplace resilience (WR) reveals three key points:

Firstly, the current status of WR has been studied from various perspectives. In terms of concept and characteristics, WR is seen as an individual's ability and personality trait when facing adversity, which can be nurtured and developed over time. However, this ability can also be influenced by other factors such as professional maturity, personal capabilities, professional beliefs, and feedback from colleagues. Some measurement tools for WR have been developed in various research contexts, among which the Resilience at Work scale within 25 items by Winwood et al. (2013) is a widely used measurement tool in recent times. It has demonstrated high reliability when measuring across different sample groups in various countries.

The current research landscape globally and domestically also indicates differences in WR levels across demographic aspects such as gender, culture, work experience, and job position. Employees' resiliency is further examined in relation to job engagement and stress coping strategies, which significantly impact the variations in WR levels.

Secondly, research on WR is built upon the legacy of previous scholars' perspectives. The initial research model was pioneered by Lonndon (1983), and later on, the model developed by the research team led by Winwood et al. (2013) is considered a suitable framework for analyzing and explaining the current status of WR in today's context. Therefore, subsequent researchers have also adopted the perspective of Winwood et al. (2013) to understand and analyze the current level of WR among workers in relation to job engagement, along with other variables. This includes examining WR levels based on certain demographic characteristics. Given the common characteristics of resilience and its wide cultural applicability, the RAW - Resilience at Work scale (Winwood et al., 2013) can be effectively applied in Vietnam. Through the process of adjustment and adaptation to align with cultural and social factors, this scale will ensure its reliability and validity within the Vietnamese context where there is still a lack of appropriate measurement tools to assess its effectiveness accurately.

Thirdly, research on WR globally and domestically is approached from various perspectives, including psychology, education, healthcare, and public health. In the context of domestic research, studies on WR are not yet diverse, with limited research explicitly outlining suitable approaches when studying WR among young adults. In Vietnam, work-related research WR remains a relatively new and less explored subject in independent studies, especially when compared to other well-established fields such as working conditions, occupational health, and work-related stress. Looking at another aspect, studies focusing on analyzing the current status of WR in relation to job engagement and stress coping strategies are even rarer in Vietnam, not fully meeting the demand for quality research and analysis. This is a gap, opening new directions for future research, especially when considering WR within the framework of positive psychology development in developing countries, including Vietnam.

Limitations and Future Comparative Perspectives

While this review has provided a comprehensive synthesis of research on WR at both the global and national levels, it is worth noting that a direct, structured comparison between international findings and Vietnamese data remains limited in the current manuscript. A deeper juxtaposition of cross-cultural insights may further enrich the discussion, especially considering the socio-cultural and economic differences that shape the expression and development of WR in different contexts.

For instance, while studies in developed countries have often associated WR with organizational resources, structured coaching programs, and proactive leadership support (Mitchell & Russo, 2024; Häfner & Dehning, 2024), Vietnamese research has primarily focused on psychological capital and informal social support systems (Nguyen & Ngo, 2020; Pham, 2023). These differences suggest the importance of exploring how WR is constructed within the unique cultural fabric of Vietnamese society, where collectivist values and hierarchical organizational structures play a central role (Luu, 2021b).

Moreover, global studies have emphasized the dynamic and process-oriented nature of WR, which highlighting adaptability, psychological flexibility, and bounce-back ability in response to organizational changes (Craig, 2019; Archer et al., 2024). In contrast, many Vietnamese studies still conceptualize WR as a subcomponent of psychological capital, without fully acknowledging its dynamic and multidimensional nature. This conceptual gap limits the transferability of global findings and calls for more culturally grounded theoretical frameworks.

Bridging these gaps through comparative analysis would provide a more nuanced understanding of how WR operates under different structural and cultural conditions. It would also enhance the article's contribution to the literature on positive organizational behavior in non-Western contexts, a field that remains underrepresented despite growing interest in globalizing psychological research (Cooper et al., 2020).

Future studies should therefore consider employing comparative designs, such as cross-national surveys or case studies, to investigate how factors like leadership style, social support, work values, and individual traits interact to influence WR across cultures. These efforts can help clarify which aspects of WR are culturally universal and which are context-dependent. Additionally, integrating qualitative data from focus groups or interviews with young employees in Vietnam could provide richer, more context-sensitive insights that complement quantitative findings.

In conclusion, although not strictly necessary, embedding a more robust comparative framework would strengthen both the theoretical depth and practical significance of future research on WR, especially in developing countries like Vietnam. Such efforts would not only align with international research standards but also contribute to shaping culturally responsive interventions and policies aimed at enhancing WR among diverse workforce populations.

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Promoting Second Language Learners' Well-Being: A Positive Psychology Review of Factors, Practices, and Directions

İkinci Dil Öğrencilerinin İyi Oluş Halini Desteklemek: Etkenler, Uygulamalar ve Yönelimler Üzerine Pozitif Psikoloji Temelli Bir İnceleme

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Abstract

In today's globalized society, learning a second language (L2) has transcended its instrumental role to become a transformative competency crucial for both societal participation and personal development. While traditional second language acquisition (SLA) research has long operated within a pathology-focused paradigm—prioritizing learners' errors, cognitive limitations, and affective barriers—this approach has overlooked the constructive interplay between psychological agency and learning outcomes. The emergence of positive psychology (PP) has catalyzed a paradigm shift toward a strengths-based approach in SLA, emphasizing learners' psychological resources as catalysts for well-being and proficiency. This conceptual review systematically examines five key individual promoters of L2 learners' well-being: positive emotions (i.e., enjoyment, pride), emotion regulation, resilience, mindfulness, and flow experience. The analysis further proposes pedagogical strategies for fostering these promoters in L2 classrooms. Finally, this review critically assesses limitations in the current literature and outlines future research directions. By bringing PP with SLA, this synthesis promotes the integration of linguistic competence with holistic learner well-being.

Keywords: Second Language Acquisition, Positive Psychology, Well-being, Individual Factors

Öz

Bugünün küreselleşmiş toplumunda, ikinci dil (L2) öğrenimi, toplumsal katılım ve kişisel gelişim için hayati öneme sahip, dönüştürücü bir yetkinlik haline gelmiştir. Geleneksel ikinci dil edinimi (SLA) araştırmaları uzun süre, öğrencilerin hataları, bilişsel sınırlamaları ve duygusal engelleri ön plana çıkararak patolojik bir paradigmada faaliyet göstermiştir; ancak bu yaklaşım, psikolojik ajans ile öğrenme sonuçları arasındaki yapıcı etkileşimi göz ardı etmiştir. Pozitif psikolojinin (PP) ortaya çıkışı, SLA'da güçlü yönlere dayalı bir yaklaşıma yönelik bir paradigma değişimini tetiklemiş ve öğrencilerin psikolojik kaynaklarını, iyi oluş ve yeterlilik için katalizörler olarak vurgulamıştır. Bu kavramsal inceleme, L2 öğrencilerinin iyi oluşunu destekleyen beş ana bireysel faktörü sistematik bir şekilde incelemektedir: olumlu duygular (örneğin, keyif, gurur), duygu düzenlemesi, direnç, farkındalık ve akış deneyimi. Analiz ayrıca, bu faktörleri L2 sınıflarında geliştirmeye yönelik pedagojik stratejiler önermektedir. Son olarak, bu kavramsal inceleme, mevcut literatürdeki kritik sınırlamaları tanımlamakta ve gelecekteki araştırma yönelimlerini özetlemektedir. Pozitif Psikoloji ile İkinci Dil Edinimi (SLA) alanını birleştirerek bu sentez, dilsel yeterliğin bütüncül öğrenci iyi oluşuyla bütünleştirilmesini teşvik etmektedir.

Anahtar Kelimeler: İkinci Dil Edinimi, Pozitif Psikoloji, İyi Oluş, Bireysel Faktörler

Introduction

In today's globalized world, learning a second language (L2) is essential, particularly against the backdrop of post-pandemic educational transformations and the accelerating digital learning shifts that have reshaped global pedagogical landscapes (Wu & Pan, 2025). It enhances career opportunities, providing a competitive edge in multinational corporations, foreign trade, and international organizations, while also boosting employability and career advancement. Additionally, it improves international travel experiences, removes language barriers, fosters cross-cultural understanding, and enriches life (Akther, 2022). However, traditional second language acquisition (SLA) research, which has historically been grounded in a “deficit-oriented paradigm”, has often focused too narrowly on the challenges and obstacles faced by learners (Horwitz, 1986). This approach tended to emphasize linguistic errors, anxiety, and cognitive limitations, while largely neglecting the complex, multifaceted relationship between psychological agency, learner motivation, and well-being.

This paradigm underwent a fundamental transformation with the emergence of PP—a discipline pioneered by Seligman and Csikszentmihalyi (2000) that shifted focus from pathological remediation to exploration of human strengths, thereby laying the theoretical foundation for paradigm innovation in SLA (MacIntyre & Mercer, 2014). Since its formal establishment in 1998, the field has progressively reconfigured educational praxis through a transformative lens of “from pathology repair to strength-based cultivation” (Wang et al., 2021). Initial investigations centered on affective dimensions (Dewaele & Macintyre, 2014), demonstrating how positive emotions amplify learning engagement and linguistic productivity. Subsequent in-depth research further revealed that learner well-being constitutes a complex emergent system dynamically shaped by multiple interacting psychological resources (Pan et al., 2023a; Wang & Wu, 2025).

A conceptual review is a type of literature review that synthesizes existing theoretical knowledge on a specific topic to generate new insights, clarify concepts, and identify gaps in the current research (Reese, 2023). It differs from traditional systematic reviews, which often focus on empirical evidence, by delving deep into theoretical frameworks, conceptual models, and scholarly discourses (Ayala, 2018). In this study, the conceptual review methodology involves systematically examining five key individual promoters of L2 learners' well-being: positive emotions (i.e., enjoyment, pride), emotion regulation, resilience, mindfulness, and flow experience. Adopting a PP lens, it aims to systematically deconstruct core individual determinants of L2 learners' well-being through theoretical synthesis, while proposing interdisciplinary pathways for scholarly advancement. The study situates itself within the evolving landscape of language education, where globalization-driven diversification and post-pandemic pedagogical adaptations have highlighted the need for holistic approaches that address both cognitive and affective learner needs (Wu & Liu, 2025).

The study holds dual significance: Theoretically, it enriches SLA frameworks by constructing a “strength-centered” model that complements existing explanatory paradigms. By foregrounding psychological capital—including constructs like emotion regulation and resilience—it bridges the gap between traditional deficit models and contemporary well-being research. Practically, it advocates pedagogical strategies grounded in psychological capital development, catalyzing the transformation of language classrooms from knowledge-transmission arenas to cognitive-affective synergy spaces. Against the backdrop of increasing demands for lifelong learning and intercultural competence in a digitized world, investigating how positive psychological constructs can concurrently enhance L2 learners' linguistic competence and subjective well-being carries profound implications for cultivating globally competent citizens equipped with lifelong learning capacities.

Positive Psychology in Second Language Acquisition

PP emerged as a transformative force in psychology towards the end of the 20th century, fundamentally shifting the discipline's focus from a predominant concern with pathology towards understanding human strengths, virtues, and flourishing (Seligman & Csikszentmihalyi, 2000; Seligman, 2002). This paradigmatic shift, championed notably by Seligman during his APA presidency (1998), established three core pillars (see Figure 1): cultivating positive subjective experiences, fostering positive individual traits, and building positive institutions, all aimed at enhancing well-being (Seligman, 2018). More than just a chronological progression, the integration of PP into SLA represents a profound reconceptualization of key learner dimensions. Crucially, each pillar of PP offers distinct pathways for enhancing SLA:

Positive experiences (Pillar 1): This pillar focuses on cultivating positive emotions (e.g., enjoyment, curiosity, flow), engagement, and meaning. In SLA, this translates to pedagogical practices designed to foster enjoyment and intrinsic motivation in the language classroom. Activities that are personally relevant, challenging yet achievable, playful, and culturally engaging promote positive experiences. These experiences, as demonstrated by research, are not merely pleasant but are catalysts for learning: they broaden learners' cognitive and attentional resources (Fredrickson, 2003), enhance willingness to communicate, increase persistence in the face of difficulties, and ultimately lead to deeper processing and better long-term retention of linguistic material (Dewaele & MacIntyre, 2016; MacIntyre & Mercer, 2014).

Positive individual traits (Pillar 2): This pillar emphasizes identifying and nurturing enduring character strengths and virtues, such as resilience, optimism, self-efficacy, hope, and gratitude – collectively referred to as psychological capital. In the SLA context, this means helping learners develop a growth mindset about language ability, build confidence (self-efficacy) in their capacity to learn and use the L2, cultivate optimism to view challenges as temporary and surmountable, and foster resilience to bounce back from setbacks (Li, 2025). Strengths-based interventions, reflective practices focusing on successes and effort, and explicit teaching of learning strategies all contribute to building these traits. Learners with higher levels of these positive traits (psychological capital) demonstrate greater agency, are more proactive learners, take more risks in communication, show greater perseverance, and report higher subjective well-being throughout their language learning journey (MacIntyre, 2021).

Positive institutions (Pillar 3): This pillar concerns creating environments and systems that nurture the development of positive experiences and traits. For SLA, this means designing classrooms and learning communities characterized by psychological safety, trust, mutual respect, collaboration, and belonging (Shao et al., 2020). Key elements include supportive teacher-student relationships (e.g., showing care, providing constructive feedback), positive peer interactions (e.g., collaborative tasks, peer support), inclusive classroom climates that value diversity and minimize anxiety, and school-wide policies that promote learner well-being. Such positive institutional environments act as facilitators: they protect learners from excessive stress and anxiety, create the safe space necessary for risk-taking and authentic communication, foster positive social connections that motivate learning, and provide the scaffolding needed for individual strengths to flourish. Research confirms that supportive environments significantly buffer against language anxiety and co-construct learner well-being and engagement (Pan et al., 2023b; Wang & Derakhshan, 2023).

Prior to PP's influence, much SLA research operated within a deficit-oriented framework, heavily focused on learner challenges, errors, and corrective strategies (Williams, 1991). This perspective often cast learners as passive recipients of instruction grappling with inherent difficulties. The advent of PP challenged this view, prompting a critical re-examination of fundamental SLA concepts:

Agency: PP redefines learner agency not just as the ability to act, but as the proactive use of psychological resources (e.g., hope, optimism, self-efficacy) to navigate challenges and pursue goals (Mercer, 2011). This perspective shifts the focus from simply overcoming obstacles to actively leveraging learners' internal strengths and building resilience throughout the learning process (MacIntyre, 2021). In this way, agency becomes closely tied to psychological capital (Pillar 2).

Emotion: While traditional SLA acknowledged anxiety, PP broadened the affective landscape to emphasize the catalytic role of positive emotions (e.g., enjoyment, curiosity, pride) (Dewaele & Macintyre, 2016; Fredrickson, 2003). Research demonstrated that these emotions are not peripheral but central: they broaden cognition, build enduring personal resources (the Broaden-and-Build theory), enhance engagement, facilitate deeper processing of input, encourage risk-taking in output, and ultimately foster greater linguistic productivity and perseverance (MacIntyre & Mercer, 2014; Saito et al., 2018). Affect is thus repositioned as a dynamic driver of learning, not just a byproduct or hindrance. (Central to Pillar 1).

Learner identity: PP fosters a strength-based view of identity development in the L2 context. It moves beyond seeing identity conflicts or deficits and explores how language learning can contribute to the construction of positive possible selves (e.g., the confident speaker, the intercultural mediator). By focusing on strengths, growth mindset, and self-concordant goals, PP supports learners in integrating their L2 learning experiences into a coherent and empowered sense of self, mitigating threats to identity and fostering a more resilient and adaptable learner identity (Wang et al., 2021). (Fostered by Pillars 1 & 2, enabled by Pillar 3).

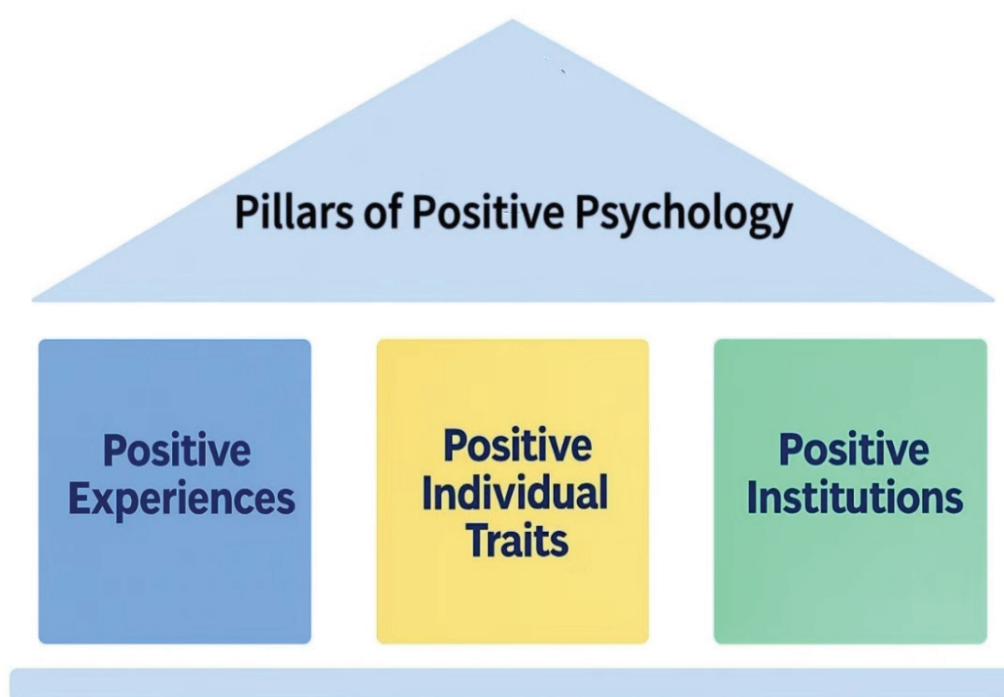


Figure 1. Three pillars of positive psychology.

The integration of PP into SLA gained significant momentum around 2014, with initial research focusing on the mechanisms linking these redefined concepts (positive emotions, motivation, self-efficacy) to language acquisition processes (MacIntyre & Mercer, 2014). Since approximately 2020, PP-informed SLA research has deepened and diversified (MacIntyre, 2021). Building on the reconceptualization of individual agency

and affect, scholars increasingly investigate how environmental factors—such as supportive teacher-student relationships, collaborative peer dynamics, and classroom climates fostering psychological safety and belonging—interact with individual strengths to co-construct well-being and facilitate learning (Pan et al., 2023b; Shao et al., 2020; Wang & Derakhshan, 2023). This holistic view acknowledges that positive institutions (Pillar 3) are crucial for nurturing the redefined learner agency (Pillar 2), emotion (Pillar 1), and identity.

Individual Promoters for Second Language Learners’ Well-Being

According to the existing literature, this study identifies five distinct yet potentially interconnected psychological factors that significantly promote the well-being of L2 learners: positive emotions (Li et al., 2024; Yu et al., 2022), emotion regulation (Wu et al., 2023), resilience (Wu et al., 2024a), mindfulness (Namaziandost & Rezai, 2024), and flow experience (Jia et al., 2024). While these factors can interact, each one contributes uniquely to learners’ psychological state, learning experience, and adaptive capacities (see Figure 2). Positive emotions, such as enjoyment and pride, generate intrinsic rewards and motivational energy, fostering satisfaction and approach behaviors. Emotion regulation enables learners to consciously manage their affective states, maintaining equilibrium and focus. Resilience provides the adaptive capacity to recover from and grow through setbacks. Mindfulness cultivates present-moment awareness and metacognitive clarity, which helps reduce reactivity. Finally, flow experience facilitates deep, intrinsically rewarding absorption in the learning activity itself.

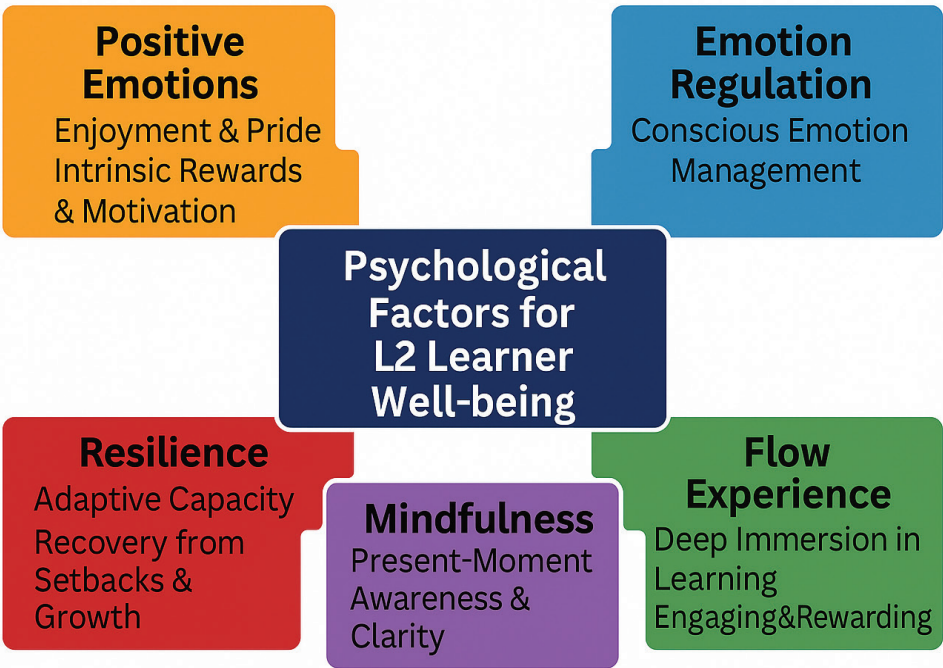


Figure 2. Potential key factors contributing to L2 learners’ well-being.

Positive Emotions

Positive emotions, a core pillar of PP, are affective states characterized by pleasure, interest, or contentment (Fredrickson, 2003). In SLA, they function primarily as motivational catalysts and intrinsic rewards, directly enhancing learners' interest, satisfaction, and desire to engage (Dewaele & Macintyre, 2016; Yu et al., 2022). Distinct from emotion regulation (which manages emotion) or flow (which is a state of absorption), positive emotions like enjoyment and pride energize learning behaviors and signal progress.

Enjoyment, defined as the pleasurable emotion learners derive from both the language learning process and their achievements, is strongly associated with SLA outcomes such as increased motivation, willingness to communicate, and academic engagement (Jiang & Dewaele, 2019). Studies show a clear correlation between higher enjoyment levels and improved performance such as writing skills (Li et al., 2023). The experience of enjoyment in SLA is shaped by learner-specific (e.g., proficiency, multilingualism, attitudes) and environmental factors (e.g., teacher practices, classroom dynamics) (Zhang et al., 2024).

Recent scholarship has expanded to examine pride as another impactful positive emotion in SLA. Defined as the satisfaction from task success or linguistic progress, pride manifests in two forms: authentic pride (rooted in effort-based achievements) and hubristic pride (stemming from perceived innate talent), as per Tracy and Robins (2007). Khajavy and Lüftenegger (2024) further categorize SLA-related pride into four dimensions: self-based (personal skill development), social comparison-based (outperforming peers), praise-based (external validation), and help-based (assisting others). These manifestations emerge in contexts ranging from answering challenging questions to receiving teacher commendation.

Pride uniquely reinforces self-concept and perceived competence within the SLA context. Its motivational influence is associated with self-efficacy and learning interest, where confident, invested learners report stronger pride experiences. While distinct from anxiety, pride interacts reciprocally with enjoyment (Yu et al., 2022). Behaviorally, pride correlates with greater satisfaction with language achievements and increased willingness to communicate, suggesting a self-reinforcing cycle of engagement and proficiency development (Karimi & Nasouri, 2024).

Positive emotions like enjoyment and pride uniquely contribute to L2 well-being by acting as intrinsic motivators (Self-Determination Theory; Deci & Ryan, 1985) and reinforcing learners' sense of competence and value (Control-Value Theory; Pekrun, 2006). They provide immediate affective rewards that energize engagement and signal progress, distinct from managing emotions or achieving flow.

Emotion Regulation

Emotion regulation in SLA refers specifically to learners' conscious, strategic efforts to monitor, evaluate, and modify their emotional reactions to optimize learning (McRae & Gross, 2020). Unlike positive emotions which are affective states, or resilience which is a broader adaptive capacity, emotion regulation is the deliberate process of managing those states, particularly negative or disruptive ones (e.g., anxiety, frustration, boredom).

This process enables learners to navigate the socio-cultural demands of SLA by adapting to new linguistic environments (Wu et al., 2023). For instance, students might isolate themselves in quiet study spaces (situation selection) to minimize distractions or reinterpret challenging tasks as growth opportunities (cognitive reappraisal) to sustain motivation. Such regulation is a set of learned strategies (while it is distinct

from the inherent capacity for resilience or the state of mindfulness, it can utilize mindful awareness).

Crucially, successful emotion regulation shows bidirectional relationships with self-efficacy beliefs (Bandura, 1977) and intrinsic motivation (Deci & Ryan, 1985). Learners who successfully mitigate anxiety during complex grammar studies, for example, often report reinforced confidence and deepened investment in learning, suggesting a virtuous cycle. This self-regulatory dynamic extends to collaborative settings, where learners co-create supportive atmospheres through shared strategies like peer encouragement and experience exchange, thereby reducing collective anxiety and fostering knowledge co-construction (Su & Guo, 2024).

Emotion regulation uniquely contributes to L2 well-being by enabling learners to strategically manage disruptive affective states (like anxiety), thereby preserving psychological resources needed for engagement (Effort Regulation; Zimmerman, 2002) and facilitating intrinsic motivation (Self-Determination Theory; Deci & Ryan, 1985). It is the active process of maintaining focus and equilibrium amidst challenges, distinct from inherent capacities like resilience or states like flow.

Resilience

In SLA, resilience is defined as the learner's capacity to adapt positively, recover effectively, and potentially grow following exposure to significant adversity, stressors, or setbacks inherent in the language learning process (Wu et al., 2024a). While distinct from emotion regulation (which manages specific affective states) or mindfulness (which focuses on present awareness), resilience encompasses the broader ability to withstand and bounce back from challenges. It manifests in three key aspects (Chen et al., 2025; Wang et al., 2024):

First, as a capacity, which refers to the inherent or developed potential to overcome significant linguistic and psychological hurdles, such as mastering complex grammar, dealing with persistent communication failures, or managing acculturative stress, through adaptive learning methods and psychological fortitude; second, as a process, involving a dynamic sequence where learners encounter adversity, appraise the challenge, mobilize internal and external resources like problem-solving skills and social support, implement coping strategies, and adapt based on the outcomes; and third, as an outcome, which is the demonstrated ability to maintain or regain positive functioning, such as sustained motivation, continued engagement, and the achievement of learning goals, despite facing difficulties.

Research underscores resilience's unique impact on navigating adversity in SLA. Highly resilient learners demonstrate greater persistence in maintaining motivation and engaging actively in learning activities despite significant stressors (Chen et al., 2025). This persistence is associated with improved long-term L2 outcomes (Chu et al., 2024). When confronted with major difficulties, they proactively seek support, experiment with diverse strategies, and sustain effort—behaviors linked to overcoming obstacles and achieving proficiency.

Resilience uniquely contributes to L2 well-being by providing the adaptive capacity to withstand, recover from, and grow through significant setbacks. It enables sustained motivation and engagement (Self-Determination Theory; Deci & Ryan, 1985) despite adversity by facilitating effective resource mobilization and positive reappraisal (Control-Value Theory; Pekrun, 2006), acting as a fundamental buffer distinct from momentary emotion regulation or mindfulness practices.

Mindfulness

Mindfulness in SLA is defined as the cultivated capacity for purposeful, non-judgmental attention to and awareness of present-moment experiences, including bodily sensations, thoughts, emotions, and the surrounding environment, during language learning activities (Kabat-Zinn, 1994; Ryad Chems-Maarif et al., 2025). Its core function is metacognitive awareness and reduced cognitive/emotional reactivity, distinct from the affective states of positive emotions, the strategic management of emotion regulation, or the deep absorption of flow.

In SLA, this capacity proves vital as learners often grapple with distracting anxiety, rumination about past difficulties, or excessive worry about future outcomes (Zeilhofer & Sasao, 2022). Mindfulness counteracts these tendencies by anchoring attention in the "here and now" of the learning task.

Mindfulness also interacts uniquely with other psychological factors. It strengthens metacognitive self-regulation, empowering learners to observe their learning states dispassionately and make timely strategy adjustments (Fan & Cui, 2024). Simultaneously, the non-reactive awareness fostered by mindfulness can reduce the intensity of negative emotions like anxiety, creating a calmer cognitive space for learning, which indirectly supports emotion regulation. Furthermore, this clarity and reduced self-criticism is linked to enhanced self-efficacy over time.

Mindfulness uniquely contributes to L2 well-being by fostering metacognitive awareness and reducing cognitive/emotional reactivity. This cultivates a calmer, clearer mental space conducive to focused learning and adaptive self-regulation (Metacognition; Flavell, 1979), distinct from experiencing positive affect, actively regulating emotions, or entering flow states. It supports well-being by mitigating distraction and enhancing present-moment engagement.

Flow Experience

Flow experience, or “optimal experience”, is characterized by a state of intense, effortless concentration, complete absorption, and deep enjoyment in an activity, often accompanied by a loss of self-consciousness and distorted sense of time (Csikszentmihalyi, 1990). In SLA, flow represents a unique state of deep cognitive and affective engagement with the language task itself, distinct from general positive emotions (which can occur outside flow) or mindfulness (which involves detached observation rather than absorption).

Learners are more likely to enter a flow state when encountering challenging yet skill-matched tasks. For example, during English writing exercises, learners may fluidly articulate ideas, apply grammar and vocabulary with ease, and become fully absorbed in the writing process, losing awareness of their surroundings. This state arises from specific antecedent conditions such as a perceived balance between challenge and skill, clear goals, and immediate feedback, and encompasses dimensions like deep concentration, sense of control, and intrinsic enjoyment (Wu & Wang, 2025).

Flow experience uniquely optimizes the learning process through deep engagement. Research indicates that learners in a flow state exhibit heightened focus, invest more effort effortlessly, and tend to achieve improved task-specific outcomes (Karimi & Nasouri, 2024). The intrinsic enjoyment derived from flow reinforces motivation, while the successful immersion fosters learners’ self-confidence and sense of accomplishment (Jia et al., 2024).

Flow experience uniquely contributes to L2 well-being by facilitating a state of deep, intrinsically rewarding absorption in the learning activity itself. This optimal state, arising from balanced challenge-skill perception (Flow Theory; Csikszentmihalyi, 1990), enhances immediate enjoyment, effort, and focus, leading to a powerful sense of accomplishment and competence (Self-Determination Theory; Deci & Ryan, 1985). It is distinct from general positive emotions or the regulatory processes of mindfulness and emotion regulation.

Pedagogical Implications: Creating a Psychological Ecosystem for L2 Well-Being

The integration of PP and SLA research represents a significant paradigm shift—from a “deficit perspective”, which focuses on learners’ mistakes and difficulties, to an “asset perspective” that highlights human potential, well-being, and optimal psychological functioning. This review systematically identifies and synthesizes five key individual factors that contribute to enhancing L2 learners’ well-being: positive emotions (i.e., enjoyment and pride), emotion regulation, resilience, mindfulness, and flow experiences. Critically, these factors operate synergistically within the L2 classroom as a psychological ecosystem, where each element interacts to sustain learner engagement and growth. To translate this ecosystem into practice, I organize pedagogical strategies supported by empirical evidence and framed by the ecosystem metaphor (visualized in Figure 3).

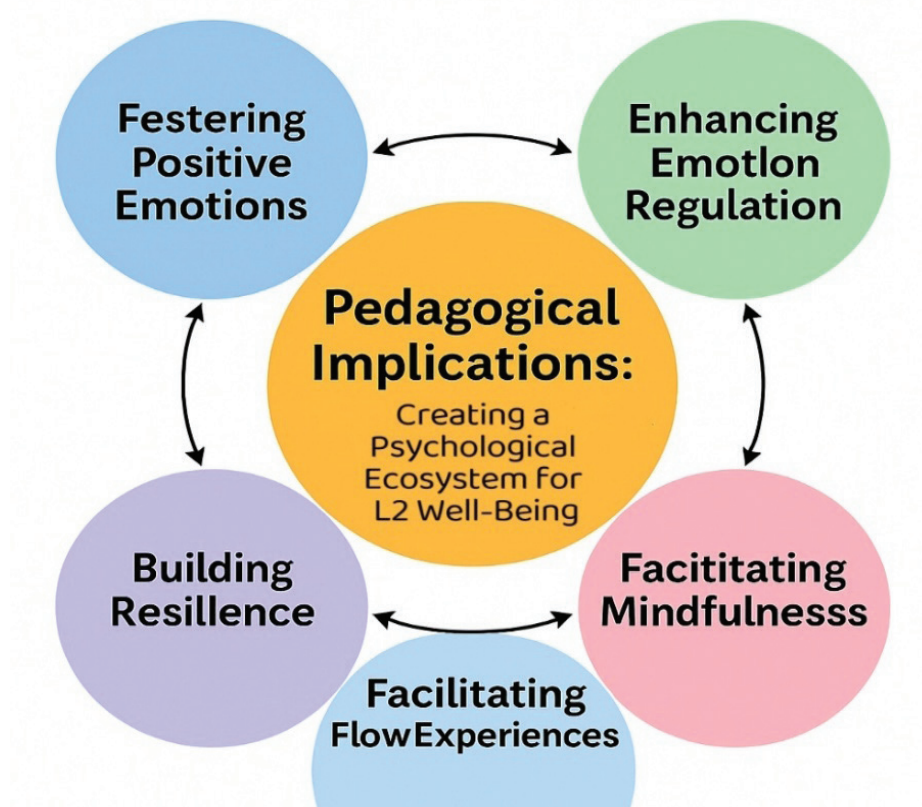


Figure 3. Visualization of a psychological ecosystem for L2 well-being.

Fostering Positive Emotions

To foster students' enjoyment and pride in SLA, a comprehensive approach to teaching design and practice remains essential. This approach should consider teaching content, methods, and the classroom atmosphere. When selecting teaching content, students' interests and real-life needs should be prioritized. Incorporating popular culture, current events, and familiar life scenarios—such as analyzing English movie dialogues, discussing trending global topics, or simulating tourist interactions—makes learning more engaging and relatable, a practice empirically shown to heighten emotional investment (Zhang et al., 2024). Innovative teaching methods are also crucial for cultivating these emotions. Approaches such as group cooperative learning, gamified teaching, and project-based learning are particularly effective. In group tasks, students collaborate on activities like presentations or scriptwriting, which not only improve language skills but also foster social bonds, creating a sense of shared achievement (Tamimy et al., 2023). Gamified teaching methods—such as word chain games, role-playing, and language competitions—blend learning with fun, stimulating student enthusiasm (Zhang & Hasim, 2023). Project-based learning (Abderrazak & Salaberri Ramiro, 2022), where students research specific topics and present their findings, can also generate a deep sense of pride as they see their efforts culminate in tangible results.

A positive classroom atmosphere is vital for nurturing students' emotional states (Shao et al., 2019). Teachers should approach each student with enthusiasm and friendliness, respecting their individuality and viewpoints, while encouraging open expression. Regardless of the quality of students' responses, they should always receive timely affirmation and constructive feedback (Liu et al., 2024), reinforcing their sense of value within the learning ecosystem. Additionally, fostering a culture of mutual support among peers—such as through collaborative peer evaluations and praise—can create a supportive and uplifting learning environment, where students feel encouraged and proud of one another's progress (Khajavy & Lüftenegger, 2024). Regular feedback and recognition are also important. Teachers should be attentive to students' incremental achievements—whether it is an impressive speech, a well-written composition, or a positive shift in learning attitude—and offer sincere praise. Along with verbal recognition, rewards like certificates or progress awards can reinforce positive behavior. Encouraging self-assessment and reflection, helping students recognize their growth and further boost their sense of enjoyment and pride.

Enhancing Emotion Regulation

To support emotional regulation, teachers could help students enhance emotional awareness by devoting class time to discussing different emotional states—such as anxiety, nervousness, excitement, and confidence—and their impact on SLA. Through case studies and group discussions, students can identify their own emotions and better understand their underlying causes (Bielak & Mystkowska-Wiertelak, 2024). For instance, if a student feels nervous during speaking activities, teachers can guide the class to analyze whether the cause is unfamiliarity with the topic, fear of mistakes, or other factors, helping students understand their emotions, which forms the basis for effective regulation. Teachers should also teach specific emotional regulation strategies. Techniques like deep breathing and relaxation exercises can be practiced regularly to help students manage stress and anxiety (Karami & Karimi, 2025). Additionally, guiding students to shift their focus away from negative triggers—such as taking a short break to engage in enjoyable language-learning activities (e.g., listening to English songs or watching movie clips)—can help them regain emotional balance and return to problem-solving with a clearer mindset (Braunstein et al., 2017).

Building Resilience

For developing resilience, learning tasks should be appropriately challenging—slightly more difficult than students' current abilities, so that they feel motivated to improve and experience a sense of accomplishment (Raslan, 2024). For example, in speaking practice, teachers can set up real-world dialogue scenarios—such as ordering food at a restaurant or checking into a hotel—allowing students to practice language use in context, overcome communication barriers, and build resilience through problem-solving. Additionally, students should be encouraged to adopt positive coping strategies when facing learning setbacks. Teachers can help students analyze problems and develop solutions, encouraging them to use effective study methods—such as creating study plans and seeking diverse learning resources—and to cultivate emotional regulation skills, which help them face challenges with calmness and determination (Tanja & Susanne, 2025). Finally, introducing role models—such as successful L2 learners—may inspire students and encourage them to maintain a positive attitude in the face of obstacles, sustaining their perseverance in pursuing language learning goals. This multifaceted approach builds the classroom ecosystem's capacity to absorb shocks.

Cultivating Mindfulness

To support mindfulness training, teachers' communication should be straightforward, steering clear of long-winded or complex explanations, so students can focus on the core points. Teachers can also teach specific techniques for enhancing concentration. For example, guiding students to highlight key words or summarize the main ideas of a passage while reading L2 texts can improve focus and comprehension (Kang, 2024). Additionally, teachers can encourage students to create study plans and allocate their time effectively, gradually strengthening their ability to concentrate for longer periods. Incorporating mindfulness practices into language instruction can further enhance focus (Meiklejohn et al., 2012). For example, setting aside a few minutes at the beginning or end of class for meditation, where students close their eyes, focus on their breath, and relax, can help improve concentration (Eberth & Sedlmeier, 2012). During lessons, teachers can guide students in mindfulness exercises, such as paying attention to the feel of the pen on paper while writing or focusing on pronunciation and intonation during speaking activities, which help them stay anchored in the present moment within the ecosystem.

Facilitating Flow Experiences

To facilitate the flow experience, teachers can systematically create conditions that trigger flow by designing progressive tasks that align students' skills with appropriate challenges (Hwang et al., 2025). This can be achieved by providing video dubbing materials of varying difficulty levels, allowing students to select autonomously based on their abilities. Additionally, breaking down goals into manageable phases—such as separating dubbing into subtasks like pronunciation imitation and emotional integration, with visible progress tracking—can enhance focus and achievement. Establishing a multi-dimensional feedback system, including peer evaluations, real-time teacher guidance, and opportunities for self-assessment through comparison with original clips, further supports students' development. Additionally, creating an immersive learning environment, with soundproof spaces and role-playing elements, promotes engagement. Finally, fostering intrinsic motivation by offering autonomy in content selection and linking tasks to real-world applications can sustain students' interest. Together, these strategies ensure that students remain deeply engaged, with clear objectives, timely feedback, and appropriately challenging tasks, which not only enhance their language skills but also positively impact their psychological experience.

Limitations and Directions for Future Research

Although considerable strides have been made in integrating PP and SLA research, several conceptual and methodological limitations require focused attention to advance the field. These limitations can be categorized into five key thematic areas (see Figure 4): cultural generalizability, learner heterogeneity, digital ecosystems, classroom environments, and the need for integrated theoretical frameworks.

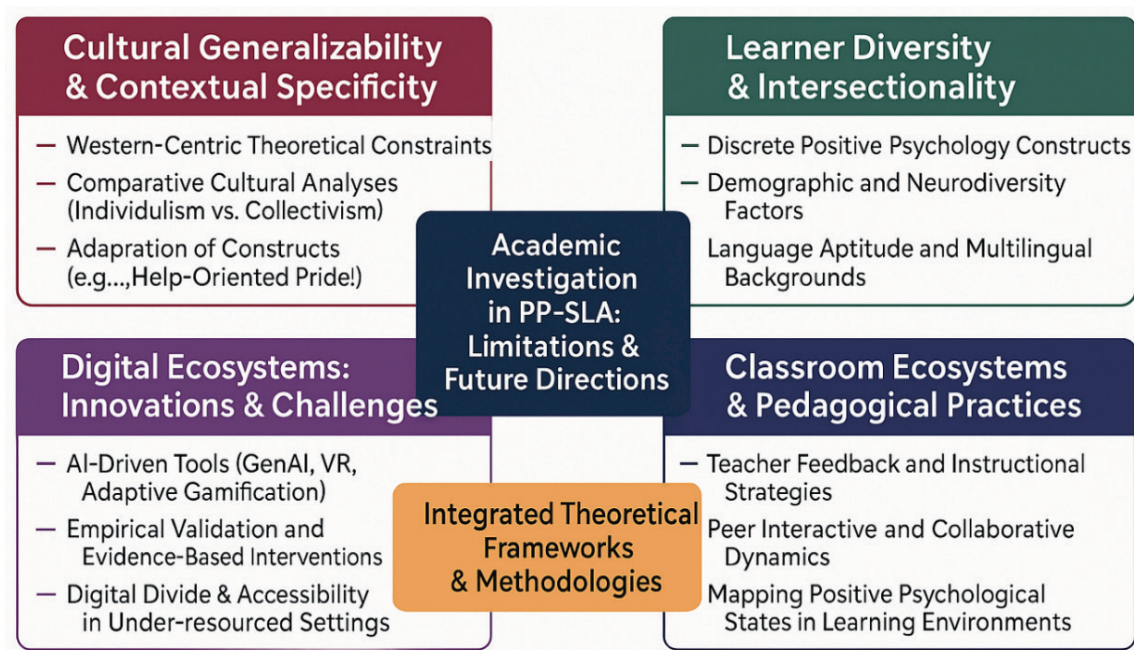


Figure 4. Limitations and directions for future PP-SLA research.

Cultural generalizability and contextual specificity: A primary constraint lies in the predominantly Western cultural grounding of existing PP constructs within SLA. Concepts such as the distinction between “genuine pride” and “hubristic pride” (Tracy & Robins, 2007), or the manifestation and impact of positive emotions and resilience strategies (e.g., help-seeking, mindfulness), have been largely explored within Anglo-American or European contexts. The influence of collectivist values, as emphasized in cultures like China, on emotional expression (e.g., pride constrained by social norms for group harmony, Ge et al., 2021) and regulation strategies remains inadequately understood. This Western-centric framework limits the applicability and validity of findings across diverse cultural settings, potentially imposing inappropriate psychological models on learners in multicultural environments. Future research must prioritize comparative studies examining how fundamental cultural dimensions (e.g., individualism-collectivism, power distance) moderate the effects of PP factors. For instance, exploring whether constructs like “help-oriented pride” (Khajavy & Lüftenegger, 2024) are more salient in collectivist contexts, or how culturally specific educational philosophies (e.g., Confucian influences, Wang, 2023) necessitate adaptations in mindfulness practices, is crucial for developing globally relevant SLA theories.

Learner heterogeneity and intersectionality: Existing research often treats PP factors (e.g., resilience, mindfulness, flow) as discrete constructs, overlooking their complex interplay with critical learner characteristics (Kang, 2024; Wu & Wang, 2025; Wu et al., 2024a). There is a significant gap in understanding

how age (e.g., differential impacts of mindfulness on adolescent vs. adult anxiety), neurodiversity (e.g., how learners with ADHD engage with mindfulness or achieve flow states), language aptitude, multilingual backgrounds (e.g., how prior language learning experiences influence flow potential or how multilinguals leverage cross-linguistic strategies for resilience), and motivation types shape the experience and efficacy of PP interventions. Neglecting these intersections risks “one-size-fits-all” approaches that fail to address the unique psychological needs and pathways of diverse learner groups. Future investigations should explicitly examine these interactions. How does neurodiversity affect the neural correlates of flow during language tasks? Can multilingual learners utilize metalinguistic awareness as a specific resilience resource? Adopting frameworks like Ecological Systems Theory (Bronfenbrenner, 2000) will be essential to model the dynamic interplay between individual learner variables (microsystem), social interactions (mesosystem), and broader cultural/educational contexts (macrosystem/exosystem), thereby informing the design of truly customized interventions.

Digital ecosystems: Potential and challenges: While digital tools (e.g., GenAI, VR, adaptive gamification) hold significant promise for fostering positive psychological states in SLA (Lan, 2020; Wu & Dong, 2025), their empirical validation and effective integration present substantial challenges. Research on the impact of digital environments on PP in SLA is still nascent, with insufficient evidence regarding their effectiveness in promoting sustained flow, emotion regulation, or authentic social connection (e.g., peer support in virtual spaces). Key questions demanding empirical attention include: How can GenAI be leveraged to dynamically scaffold language tasks within learners’ “flow channels”, adjusting difficulty in real-time based on affective and cognitive signals? Can VR environments be designed to effectively simulate safe spaces for practicing emotion regulation strategies during high-anxiety language scenarios (e.g., public speaking simulation)? How do we balance linguistic accuracy demands with engagement in gamified designs powered by AI, ensuring pedagogical goals are met? Furthermore, the digital divide and accessibility issues in under-resourced settings pose significant barriers to equitable implementation. Future research should employ rigorous randomized controlled trials to evaluate the impact of specific digital interventions (e.g., AI-driven adaptive gamification for flow, VR for exposure therapy in anxiety reduction). Collaboration with stakeholders in under-resourced areas is vital to co-design inclusive, locally adaptable technologies (e.g., offline mindfulness modules, low-bandwidth AI tutors) and explore how technology can foster social-emotional learning in online/blended settings (e.g., AI chatbots for just-in-time emotional regulation support).

Classroom ecosystems and teacher practices: Although the interaction between individual PP resources and the classroom environment is recognized (Shao et al., 2019; Wang et al., 2021), the operational definition and mechanisms of a “positive classroom ecosystem” remain vague. There is a lack of detailed empirical evidence on how specific teacher behaviors (e.g., process-oriented vs. outcome-oriented feedback styles) interact with cultural norms to influence students’ experiences of pride or self-efficacy. Similarly, the impact of peer interactions and collaborative task design on the spread of positive emotions and co-regulation within heterogeneous groups is under-researched. How do classroom discourse norms (e.g., encouraging risk-taking vs. error correction focus) impact students’ emotional regulation capacities? How do collaborative learning structures facilitate or hinder the development of collective resilience? Future research needs to develop granular models of positive classroom environments. Controlled pedagogical interventions of classroom practices (e.g., feedback types, task structures) combined with social network analysis to map emotional contagion and support networks can illuminate the micro-dynamics of PP within learning communities. This will bridge theory and practice, providing educators with concrete, actionable frameworks for cultivating supportive learning climates.

Expanding scope and theoretical integration: Finally, the focus of PP-SLA research should broaden beyond immediate academic outcomes to encompass broader indicators of well-being and lifelong learning, such as self-determination, intercultural competence, and post-educational resilience. Future studies should explore how PP in SLA contributes to learners' abilities to navigate rapid linguistic and technological changes (Wu, 2025; Wu et al., 2024b). Longitudinal designs are paramount to track the developmental trajectories of PP factors (e.g., resilience, sustained positive emotion) and their delayed effects on both proficiency and well-being over extended periods (Derakhshan et al., 2023). Crucially, advancing the field requires a concerted move towards integrated theoretical modeling and mixed-method approaches. Combining longitudinal tracking with mixed methods (quantitative surveys, qualitative interviews, experience sampling) and neuro-cognitive techniques (e.g., exploring whether sustained positive emotions reduce amygdala activation during language processing, thereby enhancing working memory capacity) will reveal the complex, dynamic mechanisms through which PP influences SLA. Frameworks like Dynamic Systems Theory could be particularly fruitful for modeling the non-linear, reciprocal interactions between psychological states, cognitive processes, social contexts, and learning outcomes over time (Ellis, 2007). By embracing these holistic perspectives and methodological diversity, future research can generate robust evidence to inform the development of effective, culturally sensitive, and learner-centered PP interventions that foster not only language proficiency but also holistic learner flourishing.

Conclusion

This review synthesizes critical advances at the intersection of PP and SLA, demonstrating how learner well-being transcends peripheral status to function as a foundational catalyst for cognitive engagement and sustained linguistic development. By systematically examining five core psychological resources—positive emotions, emotion regulation, resilience, mindfulness, and flow experience—the analysis establishes PP not merely as an additive element but as a transformative theoretical lens that redefines success metrics beyond proficiency to encompass holistic human flourishing. The pedagogical implications derived herein call for paradigm shifts in instructional design, urging movement from deficit-remediation models toward ecosystems that actively cultivate psychological resources through culturally responsive feedback, scaffolded challenge-skill balance, and metacognitive strategy co-construction.

While acknowledging the conceptual and methodological limitations—particularly the cultural biases inherent in PP constructs, the underspecified nature of digital interventions, and the insufficient focus on neurodiverse learners—this review highlights these gaps as opportunities for the evolution of the discipline. Future research should prioritize adopting ecological and dynamic systems frameworks to better understand the nonlinear interactions between psychological states, sociocultural contexts, and learning trajectories. Importantly, the integration of PP principles holds significant potential to transform language education.

To achieve this, teacher development programs should prepare educators to recognize and cultivate psychological resources that serve as academic enablers. Curriculum policy reforms must incorporate well-being indicators alongside traditional linguistic benchmarks, while the design of digital tools should prioritize evidence-based architectures that effectively integrate both affective and cognitive learning dimensions.

Looking beyond immediate academic outcomes, the ultimate impact lies in fostering learners' capacities for intercultural resilience, self-determined multilingual identities, and adaptive learning strategies that endure amidst accelerating linguistic and technological change. This synthesis aims to consolidate theoretical foundations while catalyzing empirically rigorous, contextually grounded innovations that reposition well-being as the nucleus of human-centric language education.

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