

Effect of Perceived Discrimination on Psychological Well-Being: Mediated by Resilience and Moderated By Mindfulness

Sana Munawar¹, Shanza Aman Khan², Palwasha Nasir Abbasi^{3*} & Iffat Nishat⁴

¹National Institute of Psychology, Quaid-e-Azam University Islamabad, Pakistan, Email: Sanaktk7902@gmail.com

²National Institute of Psychology, Quaid-e-Azam University Islamabad, Pakistan, Email: aslishkhan005@gmail.com

³National Institute of Psychology, Quaid-e-Azam University Islamabad, Pakistan, Email: nasirpalwasha1@gmail.com

⁴National Institute of Psychology, Quaid-e-Azam University Islamabad, Pakistan, Email: iffatktk99@gmail.com

ARTICLE INFO

Article History:

Received: December 29, 2024
Revised: January 22, 2025
Accepted: January 26, 2025
Available Online: January 27, 2025

Keywords:

Perceived discrimination, adults, resilience, psychological well-being

Corresponding Author:

Palwasha Nasir Abbasi

Email:

nasirpalwasha1@gmail.com

ABSTRACT

This study delves into the impact of perceived discrimination on psychological well-being, with resilience as a mediator and mindfulness as a moderator, among university students. A sample of 300 students aged 18–30 was enrolled, with data compiled making use of the Brief Resilience Scale, Mindfulness Attention Awareness Scale, Psychological Well-Being Scale, and Perceived Discrimination Scale. The discoveries unveiled considerable negative association between perceived discrimination and psychological well-being. Resilience partially mediated this relationship pointing out its contribution in alleviating the detrimental consequences of discrimination by refining emotional well-being and resilience tactics. As well, mindfulness moderates the relationship by mitigating the negative ramification of perceived discrimination on well-being illustrating its defensive capability. These discoveries underscore the central role of resilience-building and mindfulness-based interventions in advancing psychological well-being in young adults confronted with discrimination.



Introduction

Perceived discrimination is a significant source of stress that profoundly impacts individuals' mental health and overall well-being. It refers to the subjective experience of feeling treated unfairly or differently based on social characteristics such as race, gender, or ethnicity. These experiences can evoke intense emotions like sadness, fear, humiliation, and even disgust, which take a toll on psychological health (Lee, 2022; Essed, 2014; Williams, 2020). This phenomenon is not merely a personal issue but also a broader societal challenge, particularly for socially marginalized groups, as it affects collective well-being (Williams, 1996; Krieger, 2020).

Moreover, perceived discrimination is linked to reduced self-esteem and lower life satisfaction (Schmitt et al., 2014; Pascoe & Smart Richman, 2009).

The psychological effects of perceived discrimination are extensive and deeply concerning. Research has found strong associations between such experiences and elevated levels of anxiety, depression, and psychological distress (Schmitt et al., 2014; Lee, 2022; Pascoe & Smart Richman, 2009). The negative impact is particularly pronounced in children and individuals from disadvantaged communities, who are more vulnerable to these effects (Schmitt et al., 2014; Pascoe & Smart Richman, 2009; Krieger, 2020). The chronic nature of these experiences further intensifies their impact, contributing to long-term stress and worsening mental health outcomes (Essed, 2014; Sanders Thompson, 2006; Williams, 2020). Beyond personal well-being, perceived discrimination also undermines social connections and weakens community bonds (Ruggiero & Taylor, 1997; Sanders Thompson, 2006).

Perceived discrimination often triggers changes in behavior as individuals attempt to navigate or avoid discriminatory environments. These behavioral adjustments can include efforts such as cultural assimilation, heightened vigilance, or avoidance of specific situations (Lee, 2022; Pascoe & Smart Richman, 2009). While some people may find positive ways to adapt, others may face adverse outcomes like engaging in substance use or withdrawing from social activities (Pascoe & Smart Richman, 2009; Lee, 2022; Krieger, 2020). Recognizing these responses is essential for designing effective interventions to reduce the impact of discrimination. Furthermore, perceived discrimination can influence long-term decisions, such as career paths and educational achievements, by creating obstacles that limit opportunities for success (Essed, 2014; Williams, 2020).

To cope with perceived discrimination, individuals often turn to various strategies, such as ignoring the discriminatory behavior, seeking emotional support, or engaging in activities that promote personal growth and learning (Lee, 2022; Pascoe & Smart Richman, 2009). While these strategies can alleviate some of the psychological strain, their effectiveness depends on individual circumstances and external factors (Pascoe & Smart Richman, 2009; Sanders Thompson, 2006). For example, having a supportive network of family and friends can significantly bolster resilience and ease the mental health challenges associated with discrimination (Krieger, 2020; Williams, 2020). Additionally, a strong sense of cultural identity and active participation in one's community can serve as powerful protective factors, helping to shield individuals from the harmful effects of perceived discrimination (Ruggiero & Taylor, 1997; Sanders Thompson, 2006).

The mental health effects of perceived discrimination can differ significantly depending on factors like age, gender, and a person's sense of control. Research suggests that younger adults and women often experience more severe negative effects compared to older adults and men (Pascoe & Smart Richman, 2009; Ruggiero & Taylor, 1997). A strong sense of control, however, can play a protective role, helping to reduce the impact of discrimination on psychological well-being (Ruggiero & Taylor, 1997; Krieger, 2020). Recognizing these differences is vital for creating interventions that cater to the unique needs of various groups. Additionally, socioeconomic status can shape how perceived discrimination influences mental health, with individuals from lower socioeconomic backgrounds often facing greater challenges (Williams, 2020; Krieger, 2020).

Perceived discrimination is closely associated with a range of mental health issues, including heightened levels of depression, anxiety, and substance use (Schmitt et al., 2014; Lee, 2022; Krieger, 2020). Chronic exposure to discrimination adds to psychological stress, potentially leading to long-lasting emotional distress (Essed, 2014; Sanders Thompson, 2006; Williams,

2020). Tackling perceived discrimination is essential for improving mental health outcomes, particularly for marginalized communities. Moreover, addressing systemic inequalities and promoting fairness and justice at societal levels can reduce the prevalence of discrimination and its harmful effects on mental health (Krieger, 2020; Williams, 2020).

In summary, perceived discrimination has significant psychological effects, deeply influencing mental health and overall well-being through multiple pathways. Gaining a deeper understanding of these processes is crucial for creating interventions that can effectively reduce its negative impacts. Future research should prioritize uncovering the specific mechanisms through which perceived discrimination affects mental health and identifying coping strategies and protective factors that can help individuals manage these experiences. By addressing these challenges, we can take meaningful steps toward minimizing the harmful effects of discrimination and promoting better mental health for all.

Psychological Well-being

Psychological well-being is a broad and multifaceted concept that reflects various aspects of mental health and overall quality of life. It includes experiencing happiness, satisfaction with life, meaningful social relationships, and a sense of purpose or meaning in life (Ryan & Deci, 2001; Ryff, 1989). Unlike simply being free of mental illness, psychological well-being focuses on the presence of positive mental states and optimal functioning (Boehm & Kubzansky, 2012; Steptoe, 2019). Recent research emphasizes its critical role in supporting physical health and increasing longevity (Boehm & Kubzansky, 2012; Steptoe, 2019).

Psychological well-being is typically divided into two primary types: hedonic and eudaimonic. Hedonic well-being centers on pleasurable life experiences and is often associated with positive emotions and overall satisfaction with life (Ryan & Deci, 2001; Diener et al., 1985). In contrast, eudaimonic well-being emphasizes personal growth, life purpose, and fulfilling one's potential (Ryff, 1989; Deci & Ryan, 2008). Optimism, or maintaining a positive outlook about the future, is also an integral component of psychological health (Scheier et al., 1994). While these dimensions are interconnected, they have distinct predictors and unique impacts on health and well-being (Keyes et al., 2002).

There is a strong connection between psychological well-being and physical health. People who experience higher levels of well-being are more likely to engage in healthy lifestyle choices, such as exercising regularly and maintaining good sleep habits, which in turn contribute to lower mortality rates (Boehm & Kubzansky, 2012; Steptoe, 2019). Furthermore, psychological well-being is linked to better cardiovascular, metabolic, and immune system functioning, all of which help prevent chronic illnesses (Boylan et al., 2020; Boylan & Ryff, 2015). By buffering against the harmful effects of stress, psychological well-being also reduces the risk of developing stress-related diseases (Krueger & Chang, 2008).

Studies consistently show that higher psychological well-being is associated with lower mortality risks. This connection is partly explained by the greater likelihood of engaging in health-promoting behaviors and having a stronger sense of self-efficacy (Rush et al., 2019; Folkman, 2008). Both hedonic and eudaimonic well-being have been found to independently predict lower mortality rates, with social support and optimism further enhancing these benefits (Holt-Lunstad et al., 2010; Cohen et al., 2016). Understanding these relationships is vital for developing interventions that aim to improve health and longevity.

Psychological well-being is particularly significant for groups such as college students and teachers. For college students, high levels of well-being are associated with better mental and physical health (Muñoz-Campos et al., 2018). Teachers' well-being, on the other hand, is influenced by factors like burnout and job satisfaction, which affect their overall quality of life and effectiveness in the classroom (Sánchez-Vidal, 2017; Lucas-Mangas, 2020). Enhancing well-being in these populations can lead to greater resilience and productivity.

Despite its importance, promoting and measuring psychological well-being remains challenging. The field lacks consistency in defining and operationalizing well-being, and more evidence is needed to fully understand its benefits (Boehm & Kubzansky, 2012). Future research should prioritize developing standardized tools to measure well-being and exploring how different dimensions of well-being uniquely contribute to health. Additionally, targeted interventions to enhance psychological well-being could play a critical role in reducing mortality and improving overall health outcomes.

In conclusion, psychological well-being is a key factor in mental health and quality of life, with far-reaching effects on physical health, longevity, and overall resilience. Understanding its dimensions and their impact is essential for creating effective strategies to promote well-being and its associated health benefits. By addressing these areas, we can make meaningful progress toward improving individual and societal health outcomes.

Resilience

Resilience refers to the mental and emotional ability to cope with crises or challenging situations, allowing individuals to recover quickly and even emerge stronger. This concept has been extensively studied since the 1970s, particularly through the work of Emmy Werner, who conducted a landmark longitudinal study on children from low socioeconomic backgrounds. Resilience is shaped by both internal factors, such as self-esteem and a positive outlook, and external factors, including strong social support systems and access to resources.

Psychological theories of resilience emphasize the importance of cognitive processes, emotional regulation, and personal beliefs in navigating adversity. Key elements include self-efficacy, a sense of control over life's circumstances, and a strong sense of self (Bandura, 1977; Rotter, 1966). A positive mindset and adaptive coping strategies also significantly contribute to building resilience (Masten, 2001). Martin Seligman's PERMA model highlights five essential components of resilience and well-being: positive emotions, engagement, relationships, meaning, and accomplishment (Seligman, 2011).

Several factors influence an individual's level of resilience. Internally, traits like self-regulation, self-esteem, and a positive outlook play a critical role. Externally, social support networks, access to resources, and available opportunities act as significant contributors. Effective strategies for enhancing resilience include cognitive-behavioral techniques, mindfulness practices, and cultivating positive emotions. Research also shows that resilience correlates positively with openness and positive emotionality, while being negatively linked to neuroticism and negative emotionality.

Building resilience involves developing specific skills and characteristics. These include the ability to make realistic plans, confidence in one's strengths, effective communication, problem-solving skills, impulse management, and self-esteem (Fletcher & Sarkar, 2013). Cognitive-behavioral therapy (CBT) is widely used to foster resilience by altering negative thought patterns and promoting constructive behaviors. For older adults, additional factors such as social connections,

grit, independence, self-care, and maintaining a positive perspective are essential for resilience (Kamalpour et al., 2020).

Resilience is not just about overcoming adversity; it also involves personal growth and maintaining a sense of purpose in the face of challenges. Perseverance, self-awareness, and a forward-looking attitude help individuals adapt positively to stressors. This capacity to recover and thrive under pressure is central to the concept of resilience and is vital for mental health and overall well-being.

In conclusion, resilience is a multidimensional construct that empowers individuals to adapt and thrive amidst adversity. It is influenced by a combination of internal strengths and external supports and can be enhanced through intentional strategies like cognitive-behavioral techniques and mindfulness. Understanding and fostering resilience is essential for improving mental health and promoting well-being, particularly during difficult life experiences.

Mindfulness

Mindfulness is the practice of being fully present and engaged in the moment, while observing one's thoughts and emotions without judgment. It has gained widespread recognition for its ability to enhance mental health and overall well-being. Research shows that mindfulness can alleviate the effects of stress and trauma, significantly reducing symptoms of anxiety and depression (Montano & Villani, 2018; Querstret et al., 2020). Mindfulness-based interventions (MBIs) have proven to be highly effective in treating anxiety and depression, often yielding results comparable to other established therapeutic approaches (Hofmann et al., 2010; Goldberg et al., 2021).

One of mindfulness's key benefits lies in its ability to improve emotion regulation, a crucial skill for maintaining mental health. It encourages the use of adaptive strategies, such as cognitive reappraisal, which involves reinterpreting negative experiences to lessen their emotional impact (Martin & Dahlen, 2005). By fostering a non-judgmental awareness, mindfulness helps individuals identify and manage negative thoughts and emotions more constructively (Desrosiers et al., 2013). At the same time, it reduces reliance on maladaptive strategies like rumination, which is closely associated with heightened anxiety and depression (Aldao et al., 2010; Greeson et al., 2018).

Another significant benefit of mindfulness is its positive impact on sleep quality. Poor sleep is often a contributor to mental health challenges, and mindfulness-based practices have been shown to alleviate insomnia by reducing stress and rumination (Wang et al., 2020; Carlson & Garland, 2005). Improved sleep not only supports better emotional regulation but also lowers overall psychological distress, further reinforcing mindfulness as a valuable tool for enhancing well-being (Greeson et al., 2018).

In clinical contexts, mindfulness-based programs have been effectively used to address a wide range of mental health challenges, including anxiety, depression, and post-traumatic stress disorder (PTSD). These programs are often as effective as traditional treatments in reducing symptoms of depression and PTSD (NCCIH, 2024). Mindfulness-based cognitive therapy (MBCT) is particularly notable for its success in preventing relapse in individuals with a history of depression (Segal et al., 2002).

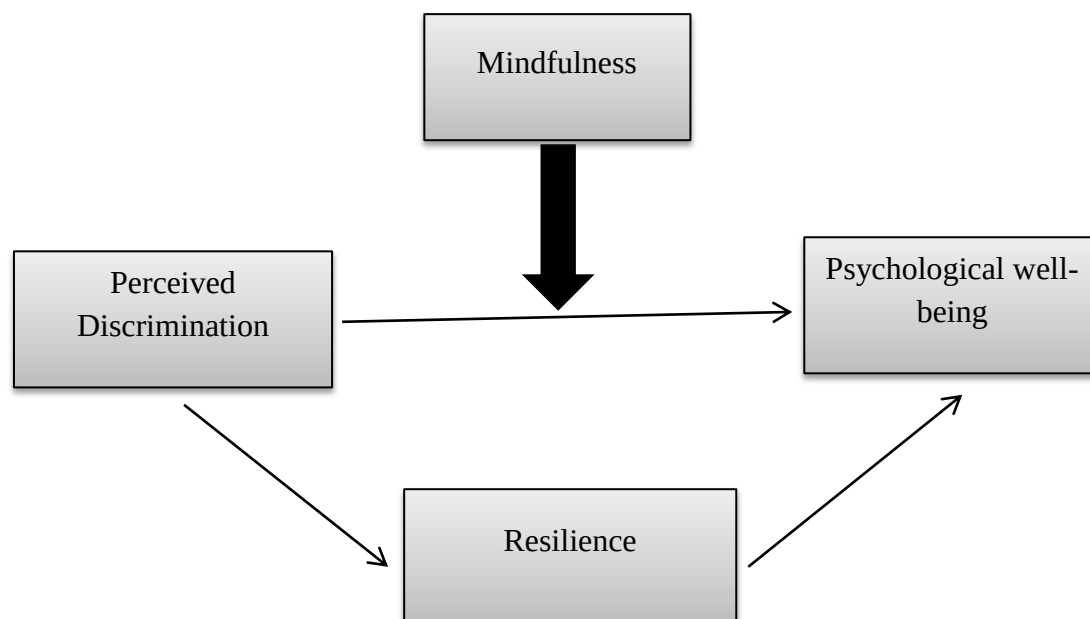
Beyond clinical applications, mindfulness has demonstrated benefits in educational settings, especially for students. Studies suggest that mindfulness can improve cognitive functions such as attention and reasoning while fostering better time management and psychological flexibility (Caldiroli et al., 2020; Milaré et al., 2021). These improvements not only boost academic

performance but also contribute to students' emotional well-being, making mindfulness a valuable addition to education programs.

In summary, mindfulness is a powerful practice that promotes mental health and resilience by enhancing emotion regulation, improving sleep quality, and supporting academic success. By encouraging adaptive coping strategies and reducing stress, mindfulness offers an effective way to mitigate the impacts of anxiety and depression. As research continues to uncover its benefits, integrating mindfulness into clinical and educational settings has the potential to significantly improve mental health and overall well-being.

Conceptual Model

The model comprises of an independent variable (Perceived Discrimination) and dependent variable (Psychological well-being) along with a mediator (Resilience) and moderator (Mindfulness).



Objectives

1. To investigate the association of perceived discrimination and psychological well-being among adults.
2. To examine the impact of perceived discrimination and psychological well-being among adults.
3. To investigate the mediating role of perceived discrimination and psychological well-being among adults.
4. To investigate the moderating role of mindfulness between perceived discrimination and psychological well-being.

Hypotheses

1. Perceived discrimination is negatively associated to psychological well-being among adults.
2. Perceived discrimination has a significant impact on psychological well-being.

3. Resilience mediates the relationship between perceived discrimination and psychological well-being.
4. Mindfulness moderates the relationship between perceived discrimination and psychological well-being.

Instruments

Brief Resilience Scale

The Brief Resilience Scale (BRS), developed by Bruce et al. (2008), is a 6-item tool designed to measure an individual's ability to recover from stress. It uses a 5-point Likert scale, where respondents rate statements from "Strongly Disagree" to "Strongly Agree." The scale includes both positively and negatively worded items to minimize response bias. Research on the BRS has shown it to be highly reliable, with Cronbach's alpha values ranging from 0.80 to 0.91, depending on the sample (Smith et al., 2008; Smith & Dalen, 2008). Additionally, the scale demonstrates strong construct and convergent validity, showing significant correlations with other measures of resilience, well-being, and stress (Smith et al., 2008). Due to its brevity and focus on the dynamic aspects of resilience, the BRS is widely used in both research and clinical settings.

Perceived Discrimination Scale

The Perceived Discrimination Scale (PDS), developed by Williams et al. (1997), is a tool designed to measure perceived unfair treatment. It consists of two subscales: the Lifetime Discrimination Scale, which includes 11 items assessing lifetime experiences of discrimination, and the Daily Discrimination Scale, which contains 9 items evaluating day-to-day instances of unfair treatment. The Daily Discrimination Scale uses a 4-point Likert scale (1 = Often, 4 = Never), with reverse coding for scoring. The composite score is created by combining the scores from both subscales, capturing both chronic and recent experiences of discrimination. The scale has shown high reliability, with Cronbach's alpha exceeding 0.80 for the Daily Discrimination Scale, and strong construct and criterion validity. It correlates with mental health outcomes such as depression and anxiety and is a reliable predictor of health disparities (Williams et al., 1997; Lewis et al., 2015; Paradies et al., 2015). The PDS is widely used in health and social psychology, helping researchers examine the psychological and physical effects of discrimination.

Ryff's Psychological Well-being Scale

Ryff's Psychological Well-Being Scale, developed by Carol Ryff in 1989, is a well-known tool designed to assess psychological well-being. The scale includes 18 items that measure six key dimensions of well-being: autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, and self-acceptance. It utilizes a 6-point Likert-type response format, with options ranging from 1 (Strongly Disagree) to 6 (Strongly Agree). The purpose of the scale is to assess positive psychological functioning, focusing on areas such as self-realization, personal development, and having a meaningful life. The scale has shown strong reliability, with Cronbach's alpha values typically ranging from 0.80 to 0.90, indicating high internal consistency. It has also demonstrated good construct validity, with strong correlations to other measures of psychological well-being and related concepts like life satisfaction and mental health (Ryff, 1989). This scale is commonly used in both clinical and research settings to assess overall well-being and predict long-term mental health outcomes.

Mindfulness Attention Awareness Scale

The Mindfulness Attention Awareness Scale (MAAS), created by Brown et al. (2003), is a tool that consists of 15 items aimed at evaluating how mindful a person is in their daily life. The scale employs a 6-point Likert-type response system, where participants choose from options ranging from 1 (almost always) to 6 (almost never). Its primary purpose is to assess how attentive and aware an individual is to the present moment, without any judgment. The MAAS has demonstrated solid reliability, with Cronbach's alpha values falling between 0.80 and 0.90, which suggests it is a dependable measure. Additionally, the scale has been validated through its strong connections with related concepts like emotional regulation, self-compassion, and overall psychological well-being. Due to its proven validity, the MAAS is widely used in both research and clinical settings to gauge mindfulness across various populations.

Table 1: Descriptive characteristics of the sample (N=300)

Sample Data		Frequency	Percentage
Age			
	18-24	266	88.7
	25-30	34	11.3
Gender			
	Male	94	31.3
	Female	206	68.7
Education			
	Graduate	107	35.7
	Under-graduate	193	64.3
Family system			
	Joint	144	46.6
	Nuclear	156	53.4
Residency			
	Urban	138	44.5
	Rural	162	55.5
Any mental illness			
	Yes	64	21.4
	No	236	78.6
Socioeconomic status			
	Lower class	22	7.3
	Middle class	257	85.7
	Elite class	21	7.0

b The demographic data presented in the table reflect the characteristics of the study participants.

The sample was composed of 300 respondents (both male and female), primarily aged 18-24 and 25-30 years. The education level of participants was categorized as undergraduates and graduates. About mental health, 21.4% of informants claimed to have a mental illness, whereas 78.6% did not. Financial status is allocated as the middle, lower, and elite classes. Data on family structures (joint or nuclear) and residency (urban or rural) is demonstrated in the data file.

Table 2: Descriptive statistics of all the scales (N=300)

Scales	k	α	M	SD	Range		Skew	Kurt
					Actual	Potential		
PD	20	.90	47.30	15.16	20-80	20-80	.56	.84
PWB	18	.90	62.49	17.55	18-102	18-126	.46	.13
BRS	6	.64	15.33	4.42	7-29	6-30	.46	.35
MAAS	15	.86	36.07	11.60	15-69	15-125	.45	.48

Note: PD= Perceived discrimination; PWB= Psychological well-being; BRS= Brief resilience scale; MAAS= Mindfulness attention awareness scale

Table 3 exhibits the descriptive statistics and alpha reliability coefficients of all the tools used in this study. All measures illustrate a valid range of alpha reliability coefficients. The alpha coefficients range from .64 to .90 for the scales. Additionally, criteria of normality have been quantified. Skewness and kurtosis values for all scales extend from -3 and +3, which is within the expected range (George & Mallery, 2010), acknowledging the normal distribution of the data. The potential range portrays the minimum and maximum scores outlined by the scale, while the actual range depicts the scores attained.

Table 3: Correlation matrix between PD, PWB, BRS, MAAS

	Variables	1	2	3	4
1.	PD	-			
2.	PWB	-.47**	-		
3.	BRS	-.70**	.30**	-	
4.	MAAS	-.97**	.45**	.66**	-

Note: PD= Perceived Discrimination; PWB= Psychological Well-Being; BRS= Brief Resilience scale; MAAS= Mindful Attention Awareness Scale

The table outlines the Pearson correlation coefficients across four variables. Perceived discrimination is substantially inversely interrelated with PWB ($r = -.47^{**}$), BRS ($r = -.70^{**}$), and MAAS ($r = -.97^{**}$), denoting that intensified distress is affiliated with lower well-being, resilience, and mindfulness. PWB is positively associated with BRS ($r = .30^{**}$) and MAAS ($r = .45^{**}$), recommending that elevated psychological well-being is tied to enhanced resilience and mindfulness. To conclude, BRS reflects a robust positive connection with MAAS ($r = .66^{**}$), accentuating that enhanced resilience is linked with amplified mindfulness. All relationships are significant at the $p < 0.01$ level.

Table 4: Regression Coefficients of Independent Variables on Dependent Variable (Psychological Well-being)

Variables	B	SE	t	p	95%CL
Constant	89.04	2.98	29.83	.000	83.16-94.91
PD	-.55	.06	-9.23	.000	-.67- -.43
MAAS	-.69	.08	-8.62	.000	-.85- -.53
BRS	-.81	.12	-6.64	.000	-1.05- -.57

Note: N=300; *** $p < .05$; PD= Perceived Discrimination; BRS= Brief Resilience scale; MAAS= Mindful Attention Awareness Scale

The table depicts the output of a regression analysis assessing the predictors of the outcome measure. The constant is statistically significant ($B = 89.04$) Perceived Distress remarkably predicts the outcome ($B = -0.55$). Mindful Attention Awareness Scale also has a substantial adverse impact ($B = -0.69$). At last, the Brief Resilience Scale depicts a notable detrimental link ($B = -0.81$) with amplified resilience anticipating lower scores on the outcome variable. All predictors are significant at the $p < 0.001$ level, with 95% confidence intervals.

Table 5: Mediating role of resilience between perceived discrimination and psychological well-being

Variables	R^2	β	SE	t	95%CI	
					LL	UL
Total effect	.22	-.55	.06	-9.23	-.67	-.53
Direct effect						
PD-BRS		.26***	.02	10.36	.21	.31
PWB-BRS		-.37***	.13	-2.76	-.64	-.10
PD-PWB		-.45***	.06	-6.54	-.59	-.31
Indirect effect						
PD-BRS-PWB	.24	-.10			-.17	-.02

Note: PD= Perceived Discrimination; PWB= Psychological Well-Being; BRS= Brief Resilience scale

Table 5 exposes the insights of a mediation study that probes the indirect influence of perceived discrimination on psychological well-being. The inquiry is dedicated to mediating the role of a brief resilience scale. The outputs imply that the brief resilience scale notably alters the interaction between perceived discrimination on psychological well-being. The direct effect coefficient ($\beta = -.45$, $p < .000$) is markedly lesser than the aggregate effect coefficient ($\beta = -.55$, $p < .000$), and also an upper and lower boundary of indirect effect are in the identical path which implies that there is partial mediation exist between perceived discrimination and psychological well-being

Table 6: Moderating role of mindfulness between perceived discrimination and psychological well-being

Variables	$Beta$	95%CI	
		LL	UL
Constant	112.40	99.26	125.53
PD	-1.70	-2.37	-1.02
MAAS	.16	-.67	.97
PD*MAAS	.01	.00	.01
R^2	.27		
ΔR^2	.03		

Note: N=300; PD= Perceived Discrimination; MAAS= Mindful Attention Awareness Scale

Table 6 shows that Mindfulness moderates the link between perceived discrimination and psychological well-being. While mindfulness alone does not have a significant direct effect on well-being, it plays a protective role by buffering the negative effects of perceived discrimination. The model explains 27% of the variance in psychological well-being, with the interaction contributing an additional 3%, highlighting mindfulness as a protective factor against the adverse effects of discrimination.

Discussion

Perceived discrimination profoundly influences psychological well-being, operating as a considerable stressor that could cause diverse psychological issues. Studies highlight a notable negative link between perceived discrimination and psychological outcomes such as self-esteem, depression, and anxiety. A meta-analysis spanning over over 144,000 individuals unveiled a mean effect size of ($r=-0.23$), pointing to that exposure to discrimination is deleterious to well-being, exclusively among underprivileged communities and early-stage adults (Schmitt et al., 2014)

The dynamics between perceived discrimination and resilience can be comprehended through mediation models. Psychological resilience not only straightforwardly determines psychological effects but also mediates the rapport between perceived discrimination and subjective well-being. In empirical research prioritizing college students with disabilities, findings indicated that psychological resilience and positive coping styles operate as chain mediators in this context, revealing that boosted resilience could cause more efficient coping strategies which afterward boost well-being. This implies a route where lessening perceived discrimination might enrich resilience, bettering mental health outcomes (Zhou & Chen, 2024).

Perceived discrimination is frequently tied to adverse psychological outcomes, featuring reduced subjective well-being and amplified depressive symptoms. Evidence points out that individual who report greater discrimination endure sharp reductions in psychological resilience, which then shapes their overall mental health. In particular, one study uncovered a noteworthy negative relationship between discrimination perceptions and psychological resilience, hinting that as perceived discrimination rises, resilience generally diminishes (Zhou & Chen, 2024)

Mindfulness, described as the objective awareness and acknowledgment of the moment at hand, has been detected as a probable mitigator against the detrimental outcomes of perceived discrimination. Findings imply that superior levels of trait mindfulness can lessen the consequence of discrimination on mental health outcomes. Such as, individuals with more significant mindfulness frequently mention less severe depressive symptoms when faced to severe discrimination (Shallcross & Spruill, 2018).

Conclusion

The study accentuates the pronounced negative repercussion of perceived discrimination on psychological well-being. Resilience partially mediates this interaction alluding to that fortifying resilience can soften the undesirable effects of discrimination. Beyond that, mindfulness moderates the repercussion, functioning as a shielding element that cushions the detrimental effects of discrimination. These insights underscore the relevance of resilience-building and mindfulness-based interventions in aiding psychological well-being. Notably for individuals who encountered discrimination. Subsequent studies should probe longitudinal designs and heterogeneous groups to strengthen and build upon these findings.

Limitation and Suggestions

This study has its constraints that should be acknowledged. Its cross-sectional design blocks causal reasoning and the sample's orientation on younger adults (ages 18–30) restraints transferability to other populations. What's more, aspects like social support, coping styles, and cultural diversity

were overlooked, and the outcomes are focused on a particular demographic context, narrowing applicability to broad groups. Prospective research should utilize longitudinal designs, and a broader variety of samples, integrate quantitative measures to diminish partiality, and delve into other mediators or moderators like social support and cultural identity. Experimental studies on mindfulness and resilience interventions and the role of cultural values in shaping discrimination perceptions are also advocated.

References

1. Aldao, A., Nolen-Hoeksema, S., & Schweizer, S. (2010). Emotion-regulation strategies across psychopathology: A meta-analytic review. *Clinical Psychology Review*, 30(2), 217-237. <https://doi.org/10.1016/j.cpr.2009.11.00>
2. Bandura, A. (1977). *Self-efficacy: The exercise of control*. W.H. Freeman.
3. Boehm, J. K., & Kubzansky, L. D. (2012). The heart's content: The association between positive psychological well-being and cardiovascular health. *Psychological Bulletin*, 138(4), 655-691. <https://doi.org/10.1037/a0027448>
4. Boylan, J. M., & Ryff, C. D. (2015). Psychological well-being and physical health. In M. H. H. W. J. Gross (Ed.), *Handbook of health psychology* (pp. 21-39). Springer.
5. Boylan, J. M., Shankland, R. L., & Ryff, C. D. (2020). Psychological well-being and health outcomes: Insights from the longitudinal studies. *Psychological Science*, 31(5), 438-449. <https://doi.org/10.1177/0956797620908982>
6. Brown, K. W., & Ryan, R. M. (2003). The benefits of being present: Mindfulness and its role in psychological well-being. *Journal of Personality and Social Psychology*, 84(4), 822-848. <https://doi.org/10.1037/0022-3514.84.4.822>
7. Brown-Iannuzzi, J. L., Adair, K. C., Payne, B. K., Richman, L. S., & Fredrickson, B. L. (2014). Discrimination hurts, but mindfulness may help: Trait mindfulness moderates the relationship between perceived discrimination and depressive symptoms. *Personality and Individual Differences*, 56, 10-1016. <https://doi.org/10.1016/j.paid.2013.09.015>
8. Caldiroli, A., Milaré, J. E., & Mendo, M. (2020). The effectiveness of mindfulness in educational settings: A meta-analysis. *Educational Psychology Review*, 32(4), 959-983. <https://doi.org/10.1007/s10648-020-09557-2>
9. Carlson, L. E., & Garland, S. N. (2005). Impact of mindfulness-based stress reduction on sleep quality and well-being in women with breast cancer. *Journal of Psychosomatic Research*, 58(4), 495-501. <https://doi.org/10.1016/j.jpsychores.2004.10.012>
10. Cohen, S., Janicki-Deverts, D., & Miller, G. E. (2016). Psychological stress and disease. *JAMA*, 298(14), 1685-1687. <https://doi.org/10.1001/jama.298.14.1685>
11. Desrosiers, A., Vine, V., & Amsel, R. (2013). Mindfulness-based interventions and emotion regulation: A meta-analysis. *Journal of Clinical Psychology*, 69(4), 313-327. <https://doi.org/10.1002/jclp.21939>
12. Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment*, 49(1), 71-75. https://doi.org/10.1207/s15327752jpa4901_13
13. Essed, P. (2014). *Essays on race, racism and everyday life*. Rowman & Littlefield.
14. Fletcher, D., & Sarkar, M. (2013). Psychological resilience: A review and critique of definitions, concepts, and theory. *European Psychologist*, 18(1), 12-23. <https://doi.org/10.1027/1016-9040/a000124>
15. Folkman, S. (2008). The case for a role of positive emotions in the stress process. *Psychological Inquiry*, 19(2), 148-156. <https://doi.org/10.1080/10478400802250206>

16. Goldberg, S. B., Bader, M., & Dweck, C. S. (2021). Mindfulness-based interventions for mood disorders: A meta-analysis and a meta-cognitive view. *Journal of Psychotherapy Integration*, 31(2), 195-213. <https://doi.org/10.1037/pst0000273>
17. Greeson, J. M., Garland, E. L., & Beitel, M. (2018). Mindfulness and emotional regulation: A meta-analysis of interventions. *Journal of Cognitive Enhancement*, 2(2), 1-17. <https://doi.org/10.1007/s41465-017-0030-0>
18. Hofmann, S. G., Sawyer, A. T., & Witt, A. A. (2010). The effect of mindfulness-based therapy on anxiety and depression: A meta-analytic review. *Journal of Consulting and Clinical Psychology*, 78(2), 169-183. <https://doi.org/10.1037/a0018555>
19. Holt-Lunstad, J., Smith, T. B., & Layton, J. B. (2010). Social relationships and mortality risk: A meta-analytic review. *PLOS Medicine*, 7(7), e1000316. <https://doi.org/10.1371/journal.pmed.1000316>
20. Kamalpour, M., Hossaini, S., & Ghaffari, N. (2020). Building resilience in older adults: The role of social connections and mental health. *International Journal of Geriatric Psychiatry*, 35(10), 1136-1143. <https://doi.org/10.1002/gps.5360>
21. Krieger, N. (2020). Discrimination and health inequities: Pathways and interventions. *Social Science & Medicine*, 250, 112-136. <https://doi.org/10.1016/j.socscimed.2020.112-136>
22. Lee, S. (2022). The psychological impact of perceived discrimination and its effects on mental health. *Journal of Social and Clinical Psychology*, 41(4), 283-297. <https://doi.org/10.1521/jscp.2022.41.4.283>
23. Lewis, T. T., Williams, D. R., & Tamene, M. (2015). The social determinants of health: Implications for urban health. *Health Affairs*, 34(3), 497-506. <https://doi.org/10.1377/hlthaff.2014.1299>
24. Martin, R. C., & Dahlen, E. R. (2005). Cognitive reappraisal and emotion regulation in depression. *Psychology and Psychotherapy*, 78(4), 395-409. <https://doi.org/10.1348/147608305X45818>
25. Masten, A. S. (2001). Ordinary magic: Resilience processes in development. *American Psychologist*, 56(3), 227-238. <https://doi.org/10.1037/0003-066X.56.3.227>
26. Montano, D., & Villani, L. (2018). Mindfulness as a therapeutic intervention for depression and anxiety: A systematic review. *Psychological Reports*, 121(3), 528-547. <https://doi.org/10.1177/0033294118757243>
27. Muñoz-Campos, S., Romero, A., & García, A. (2018). Mental health and well-being among university students: A cross-sectional study. *Journal of College Student Psychotherapy*, 32(4), 354-367. <https://doi.org/10.1080/87568225.2018.1463071>
28. Pascoe, E. A., & Smart Richman, L. (2009). Perceived discrimination and health: A meta-analytic review. *Psychological Bulletin*, 135(4), 531-554. <https://doi.org/10.1037/a0016059>
29. Querstret, D., Flett, G. L., & Gould, K. (2020). Mindfulness interventions in clinical and non-clinical populations: A systematic review and meta-analysis. *Journal of Clinical Psychology*, 76(5), 998-1016. <https://doi.org/10.1002/jclp.22967>
30. Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology*, 57(6), 1069-1081. <https://doi.org/10.1037/0022-3514.57.6.1069>
31. Sánchez-Vidal, M. E. (2017). Teachers' well-being and burnout: A literature review. *Teaching and Teacher Education*, 66, 259-268. <https://doi.org/10.1016/j.tate.2017.04.008>
32. Scheier, M. F., Carver, C. S., & Bridges, M. W. (1994). Distinguishing optimism from neuroticism (and Trait Anxiety, Self-Mastery, and Self-Esteem): A reevaluation of the life orientation test. *Journal of Personality and Social Psychology*, 67(6), 1063-1078. <https://doi.org/10.1037/0022-3514.67.6.1063>

33. Schmitt, M. T., Branscombe, N. R., Postmes, T., & Garcia, A. (2014). The consequences of perceived discrimination for the mental health and well-being of minorities. *Personality and Social Psychology Bulletin*, 40(3), 247-270. <https://doi.org/10.1177/0146167213520412>
34. Seligman, M. E. (2011). *Flourish: A visionary new understanding of happiness and well-being*. Free Press.
35. Shallcross, A. J., & Spruill, T. M. (2018). The protective role of mindfulness in the relationship between perceived discrimination and depression. *Mindfulness*, 9(4), 1100-1109. <https://doi.org/10.1007/s12671-017-0845-4>
36. Smith, B. W., & Dalen, J. (2008). The Brief Resilience Scale: Assessing the ability to bounce back. *International Journal of Behavioral Medicine*, 15(3), 235-243. <https://doi.org/10.1080/10705500802222972>
37. Wang, M. T., Lee, M. K., & Choi, J. S. (2020). The effects of mindfulness meditation on sleep and stress. *Sleep Medicine Reviews*, 48, 101226. <https://doi.org/10.1016/j.smr.2019.101226>
38. Williams, D. R. (1996). Race and health: Basic principles, and a comprehensive model. *International Journal of Health Services*, 26(3), 493-503. <https://doi.org/10.2190/6H4N-2H36-DK3X-XA65>
39. Williams, D. R., Yu, Y., & Jackson, J. S. (1997). Racial differences in physical and mental health: Socioeconomic status, stress, and discrimination. *Journal of Health Psychology*, 2(3), 335-351. <https://doi.org/10.1177/135910539700200305>
40. Zhou, N., & Chen, Z. (2024). The chain mediation effects of psychological resilience and active coping style between discrimination perceptions and subjective well-being among college students with disability. *Scientific Reports*, 14, 29790. <https://doi.org/10.1038/s41598-024-81702-6>