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ADVERSITY AND BEHAVIORAL OUTCOMES IN CHILDREN: THE MODERATED MEDIATION MODEL OF PROTECTIVE FACTORS AND RESILIENCE

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Abstract

Several research studies have examined the relationship between adversity and behavioral outcomes. Nevertheless, there is a paucity of research on this link in children, and the underlying process remains unclear. The study aimed to investigate the impact of adversity on behavioral outcomes, specifically emotional awareness, and self-esteem, through the mediation of resilience and the moderation of protective factors, including well-being and hardiness. The model was estimated to have a sample of 250 children (125 Boys and 125 Girls) aged 9 to 12 years, selected from public and private schools in diverse districts of Punjab, India. The findings demonstrated that resilience mediates the connection between adversity and behavioral outcomes. Furthermore, well-being affected the association between adversity and resilience. This study provided substantial theoretical and practical insights for educators, parents, and counselors to foster resilience by incorporating protective factors in children.

Keywords: Resilience; Adversity; Protective Factors; Well-Being; Hardiness; Behavioral Outcomes.

Highlights

- Adversity negatively predicted behavioral outcomes, including emotional awareness and self-esteem, in children.
- Resilience mediated the association between adversity and behavioral outcomes.
- Protective factors, such as well-being and hardiness, moderated the correlation between adversity and resilience in children.

1. INTRODUCTION

Childhood is often regarded as a time of growth and exploration, yet for many children, adversity can significantly disrupt this phase (Pierce et al., 2023). Adversities include poverty; abuse, neglect, and familial strife pose significant hurdles, frequently impacting emotional, social, and cognitive development (Solís et al., 2015). Nonetheless, children have varying responses to hardship, some exhibit exceptional resilience, thriving and attaining favorable behavioral results despite these obstacles (Tugade et al., 2004). This resilience is not innate but is often facilitated by protective factors such as well-being, hardiness, supportive relationships, emotional regulation, and problem-solving skills. By examining the factors that predict children's resilience and their connections, this research aims to provide valuable insights into fostering resilience and developing interventions to support healthy development in children facing significant life challenges (Sisto et al., 2019).

The growing focus on positive psychology has highlighted the resilience of children and adolescents. Resilience, as articulated by Masten et al. (2018), denotes an individual's adaptive capability within a particular environment and temporal context, allowing them to confront

current and forthcoming problems via various pathways and connections. Negative experiences such as parental illness, grief, separation, or poverty frequently serve as stressors in children's lives (Roberts et al., 2018). The cumulative impact of these adversities frequently leads to challenges and dysfunction, which become progressively apparent as they hinder the mental health development of children (Denckla et al., 2020).

Despite these insights, gaps remain in understanding how protective and risk factors within personal, familial, and environmental contexts influence resilience and behavioral outcomes. This study addresses these gaps by examining the dynamic interplay between adversity, resilience, and protective factors in children.

1.1 Adversity and Behavioral Outcomes

A child's behavior tends to evolve when they can effectively use resilience to cope with adversity, leading to changes in emotions, self-esteem, and academic performance (Luthar et al., 2000). Behavioral changes driven by resilience are often facilitated by significant factors that help mitigate the negative impacts of adversity (Gartland et al., 2019). Emotional awareness is a multidimensional concept encompassing how individuals perceive, express, and understand emotions. Research (Machlin et al., 2019; Shablack et al., 2020) and theoretical models (Shablack & Lindquist, 2019; Sheridan & McLaughlin, 2014) indicate that early adversity significantly impacts the evolution of emotional functioning. Adverse childhood experiences are consistently associated with deficiencies in emotional awareness, encompassing shortcomings in self- awareness, self-regulation, social awareness, and relationship management (McLaughlin et al., 2010; Cloitre et al., 2009).

As individuals transition from childhood to adolescence, they encounter new responsibilities and unforeseen challenges. Research indicates that Adverse Childhood Experiences (ACEs) have enduring negative impacts on self-esteem, establishing a causal pathway that extends into emerging adulthood (Bhutta et al., 2023). This highlights the enduring impact of adversities on self-esteem and the importance of understanding factors that enable individuals to navigate and overcome such adversities. Among these, resilience plays a significant role in helping individuals adapt and thrive despite challenges.

1.2 The Mediating role of resilience

Recent advancements in positive psychology underscore the significance of individual qualities and abilities, fostering an optimistic perspective on the present and future (Seligman, 2002). Consequently, whereas prior research focused on factual information and negative emotions, contemporary scientists investigate positive emotions and their impact on individuals (Tugade, 2010). Resilience theory has currently gained prominence among numerous scientists in the field. The capacity of certain individuals to recuperate and effectively adjust to adversity over time is acknowledged by the scientific world. These individuals, however, demonstrate typical psychological development. The majority of research in the domain suggests that those exhibiting resilience possess improved emotional awareness. Magnano et al. (2016) established that emotional awareness is substantially affected by resilience. The authors assert that resilience is advantageous under high-stress circumstances. Individuals with heightened emotional awareness, as noted by Salovey et al. (1999, p. 161), are more adept at managing the emotional challenges of stressful circumstances due to their ability to "accurately perceive and evaluate their emotions, understand how and when to articulate their feelings, and effectively regulate their mood states." In a study involving 100 youngsters (50 boys and 50 girls), Sehrawat and Simon (2021) established a strong positive association between resilience and emotional awareness. Emotional awareness and resilience demonstrate a positive correlation

(Choudhary & Sharma, 2019). Considering that childhood adversity influences self-esteem similarly to its impact on other determinants of mental health, one could question how to assist high-risk individuals in leading improved, more satisfying lives. One way to do this is the implementation of programs that educate young individuals on coping mechanisms and facilitate the development of resilience. Fostering resilience in school-aged children may diminish anxiety and depression, leading to improved academic achievement, elevated self-esteem, and enhanced health in both the present and future (Challen, Machin, & Gillham, 2014). Choudhary et al. (2022) contend that resilience bolsters an individual's self-esteem in the face of adversity. Oshio, Nakaya, Kaneko, et al. (2002) investigated the correlation between self-esteem and resilience in teenagers who faced adversity.

1.3 The moderating effect of protective factors

Protective factors play a dual role: fostering positive outcomes while buffering against negative consequences. These factors serve as a shield, mitigating the impact of adversities and reducing the influence of risk factors. Contrary to the belief that adversities inevitably lead to harmful outcomes such as substance abuse or violence, many children demonstrate remarkable resilience, living relatively healthy lives despite their challenges (Babad et al., 2020). Protective factors work by moderating the relationship between risk exposure and outcomes, reducing the likelihood of adverse effects while encouraging adaptive behaviors (O'Leary, 1998). The protective factor model of resilience, rooted in systems theory and developmental literature, explains how risk and protective factors interact to lessen the impact of risk exposure and promote positive developmental outcomes (Bonanno, 2004; Ungar, 2004). Even under unfavorable or painful circumstances, protective factors such as well-being, and hardiness, play a crucial role in enhancing adaptability and facilitating positive behaviors (Ungar, 2004).

The concept of well-being is deeply interlinked with resilience, functioning as both a result of resilience and a reinforcing factor that supports its development. As a personality trait, well-being serves as a critical protective factor, enabling individuals to better navigate challenges and foster resilience (Nishikawa, 2006). Theories including self-actualization (Maslow, 1970) and self-determination (Deci & Ryan, 2000) establish the essential framework for comprehending well-being. Well-being is also a reliable indicator of resilience and mental health functioning (Kirmayer et al., 2009). Satici et al. (2020) discovered that Turkish persons who grappled with ambiguity faced considerable impacts on their mental health. The World Health Organization (WHO) includes well-being as a vital component of health, defining it as "not merely the absence of disease or infirmity" (Vik & Carlquist, 2018). Research by Corcoran and McNulty (2017) highlights how childhood adversity indirectly diminishes well-being in later life, such as among college students.

Well-being is inversely related to adversities but positively correlated with resilience (Harper & Brown, 2014). For example, Amato (2014) found that children of divorced parents experienced lower well- being levels. Conversely, Chen (2016) identified a direct and positive relationship between resilience and well- being. Resilient individuals are generally happier and less susceptible to psychopathology (Meng et al., 2018). Mello (2016) discovered that students in optimal health have more resilience and are less susceptible to the negative impacts of early life adversities. Hardiness, another crucial protective factor, has garnered significant research interest as an internal resource for mitigating adversity's harmful effects on mental and physical health (Florian et al., 1995). Based on existential personality theory, hardiness is characterized as a set of personality traits that enhance resistance to negative life circumstances (Florian et al., 1995). Hardy individuals tend to be more confident, utilize social support effectively, and employ adaptive coping mechanisms, which enhance their potential for positive outcomes

(Bonanno, 2004). Studies consistently report a strong association between hardiness and resilience (Bullock et al., 2019). Resilience and hardiness are also linked to greater life satisfaction, increased happiness, and lower depression levels (Salehian & Sarvari, 2021). Hardy individuals manage stress, such as academic pressures, more effectively, thereby mitigating its negative effects on health (Oktavia et al., 2019). Furthermore, Andronnikova (2021) found that higher levels of hardiness correlate with a better capacity to tolerate uncertainty among high school students, with a negative relationship between hardiness and intolerance for ambiguity. Comprehending the significance of protective factors in resilience is essential for formulating interventions that enhance mental health and adaptability in children and adolescents.

1.4 The Present study

This study aimed to investigate the processes by which adversity influences children's behavioral outcomes, particularly emotional awareness and self-esteem. The study aimed to test three main hypotheses:

(a) whether adversity negatively affects behavioral outcomes, (b) whether resilience mediates the relationship between adversity and behavioral outcomes, and (c) whether protective factors, such as hardiness and well- being, moderate the relationship between adversity and resilience. To explore these hypotheses, we proposed a model of moderated mediation (Figure 1).

Prior research has demonstrated the detrimental impact of adversity on behavioral outcomes; however, the processes that underpin this association remain ambiguous. Previous study on this topic has predominantly concentrated on college students, with minimal focus on children. This study addresses the gap by investigating the impact of adversity on children's emotional awareness and self-esteem, using a sample of children from public and private schools across different districts of Punjab, India. Furthermore, the present study enhances the literature by examining the mediating function of resilience and the moderating influence of protective factors (well-being and hardiness) within this framework. This research emphasizes the significance of protective factors as moderators, aiming to enhance our comprehension of how resilience can be cultivated in children experiencing adversity, so providing new perspectives on potential interventions and support techniques.

Based on the above information, the current investigation generated the following predictions:

H1: Adversity would impact behavioral outcomes negatively. H1a: Adversity would impact self-esteem negatively.

H1b: Adversity would impact emotional awareness negatively.

H2: Resilience would mediate the relationship between adversity and behavioral outcomes in children H2a: Resilience would mediate the relationship between adversity and self-esteem in children.

H2b: Resilience would mediate the relationship between adversity and emotional awareness in children.

H3: Well-being might moderate the relationship between adversity and resilience in children.

H4: Hardiness might moderate the relationship between adversity and resilience in children.

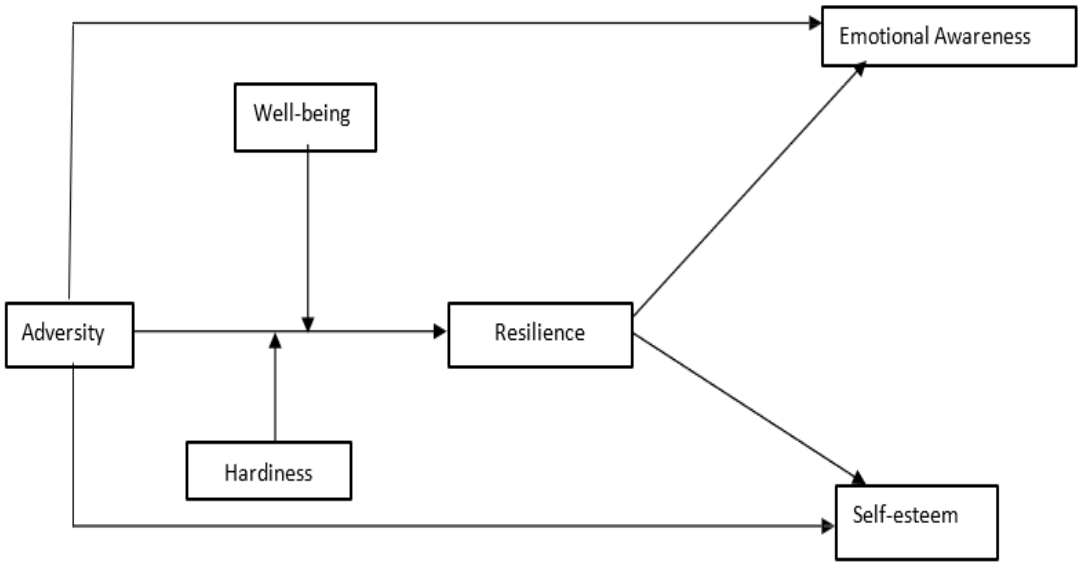

Figure 1: The proposed moderated mediation model

2. METHOD

2.1 Participants and Procedure

This study employed a descriptive research design. Adversity constitutes the exogenous variable. Protective factors (well-being and hardiness) serve as moderating variables, resilience functions as the mediating variable, and behavioral outcomes such as self-esteem and emotional awareness are classified as endogenous variables. The researcher utilized multistage probability sampling to select 250 students (n = 125 males; 125 girls) aged 9 to 12 years (M = 10.62, SD = 1.04) in grades 5th to 7th from five districts in Punjab,

India: Jalandhar, Patiala, Sangrur, Moga, and Ludhiana. The districts were randomly chosen from the 23 districts of Punjab; of the 453 schools in each of the five districts (Jalandhar: 23, 23%; Patiala: 15, 15%; Sangrur: 10, 10%; Moga: 35, 35%; Ludhiana: 17, 17%), only 100 schools agreed to participate in the data gathering. Five schools were thereafter chosen randomly from the five districts.

The researcher directly contacted the Principals of the chosen schools to obtain their consent for data collection on the school premises. The Principal received a concise overview of the study's objective and an assurance that the data collection will not disrupt the academic schedules of the participating instructors or students. Upon securing their approval, the researcher provided the consent form, the Adverse Childhood Experiences Questionnaire (ACE-Q), and a demographic sheet to the parents of children via the school administration. The consent form indicates that all data will be handled with the highest level of confidentiality and utilized solely for research purposes. Each participant was individually provided with a questionnaire by the researcher. The data collection session for each student lasted around sixty minutes. At the end of the session, each participant was awarded a reward. The researcher conducted a debriefing with the students and their families after the data collection.

The final sample consisted of 50 students from each school, with 25 girls and 25 boys. A cohort of 250 parents (M = 37.85 years, SD = 3.39) administered the adverse childhood experiences questionnaire (80% mothers and 20% fathers) for their children. All parents had attained at least a 12th-grade education or possessed a higher level of knowledge. The parents were

categorized into three distinct socioeconomic groups: lower (30%), middle (45%), and upper (25%) income brackets. Figure 2 illustrates a graphical depiction of the sampling procedure and the study's ultimate sample.

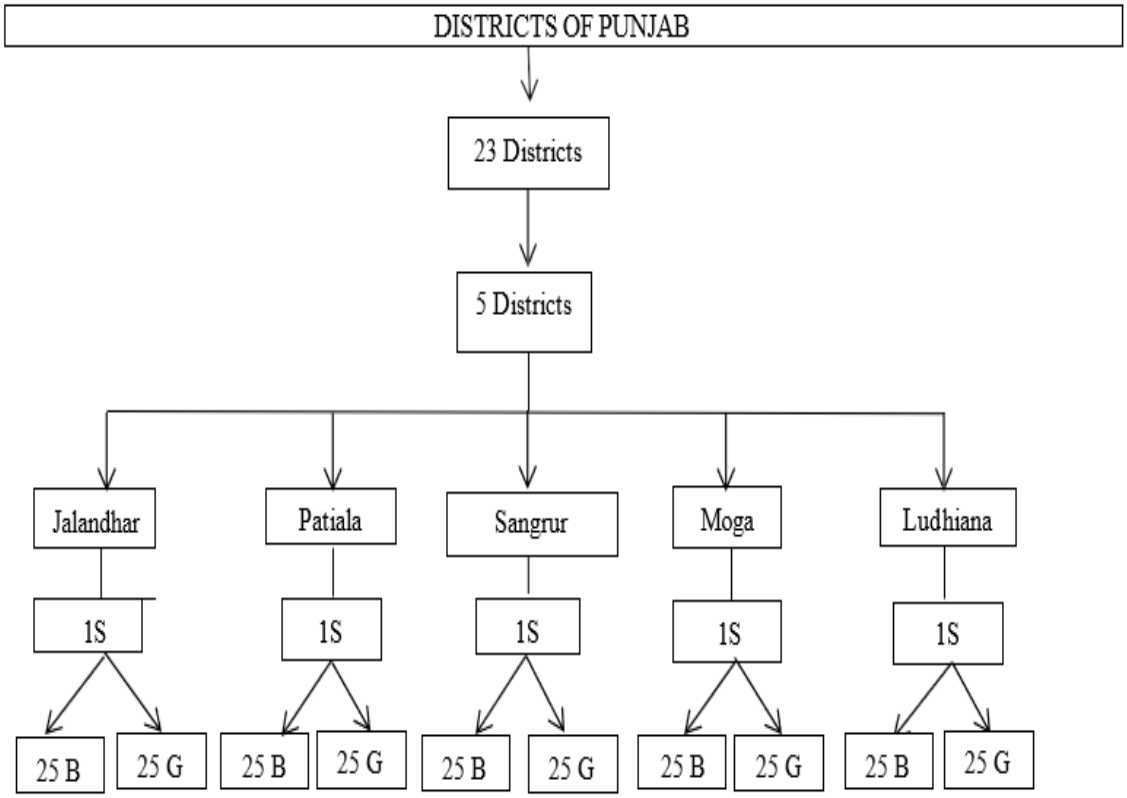

Figure 2: Sampling framework of students from districts in Punjab, India

2.2 Measures

2.2.1 Adverse Childhood Experiences Questionnaire (ACE-Q) (Felitti et al., 1998)

The 10-item Adverse Childhood Experiences Questionnaire (ACE-Q) assesses whether children are presently encountering or have previously endured adversity (e.g., "Were your parents ever separated or divorced?").

The parents or caregivers filled out this questionnaire. The respondent must tick either 1 (adversity faced) or 0 (adversity not faced) for each item. The questionnaire is measured by adding together all of the item scores. This study showed that the scale exhibited strong reliability of (Cronbach α) 0.85.

2.2.2 Stirling Children's Well-Being Scale (SCWBS) (Liddle & Carter, 2015)

The 12-item (SCWBS) questionnaire enables participants to evaluate their responses using a five- point Likert scale, where 1 signifies never and 5 signify often. It was filled by the student itself. The two subcomponents of the scale comprise six items each, reflecting a positive emotional state and an optimistic perspective.

It serves as a rapid screening instrument for mental health concerns and as a measure of psychological well-being. The mean scores across the items serve as a measure of well-being. This study showed that the scale exhibited strong reliability of (Cronbach α) of 0.93.

2.2.3 Dispositional Hardiness Scale (Bartone, & Paul, 2007)

The Dispositional Hardiness Scale is a 15-item self-reporting questionnaire requiring responses four- point Likert scale varying from 0 to 3 (0: Not at all true; 3: Completely true). The student filled this questionnaire. The items include control, challenge, and commitment. Each subscale consists of five items and covers the general hardiness construct. Average scores over the items provide a measure of hardiness. This study showed that the scale exhibited strong reliability of (Cronbach α) of 0.95.

2.2.4 Child and Youth Resilience Measure (CYRM) (Ungar, 2009)

A three-point Likert scale, ranging from 1 to 3, captures responses to the 26 self-reporting inquiries in the CYRM (1: No; 2: Sometimes; 3: Yes). Resilient monkey emojis were utilized with it. The questionnaire was filled by the student. The items evaluate three subscales: context, individual, and relationship with the primary caregiver. The average scores of the items provide a CYRM assessment. This study showed that the scale exhibited strong reliability of (Cronbach α) of 0.91.

2.2.5 Emotion Awareness Questionnaire (EAQ 30) (Rieffe et al., 2007)

The EAQ is a thirty-item self-assessment questionnaire featuring three Likert scale options: 1 for not true, 2 for sometimes true, and 3 for often true. The questionnaire was filled by the student. The items are measured: Somatic Awareness of Emotions, Articulation of Emotions and Distinction of Emotions, Responding to others' emotions, evaluating emotions, and expressing emotions. The mean scores of the items serve as an indicator of EAQ. This study showed that the scale exhibited strong reliability of (Cronbach α) of 0.91.

2.2.6 Hare Self-esteem Scale (Hare, 1975)

The Hare Self-esteem measure is a 30-item self-report survey enabling respondents to evaluate their agreement or disagreement on a four-point Likert scale, where 1 signifies strongly disagreed and 4 indicates highly agreed. Every subscale comprises ten items. The questionnaire was filled by the student. The items are categorized into three domains: self-esteem in school, self-esteem among peers, and self-esteem at home. The

average of the three subscales establishes the comprehensive self-esteem score. This study showed that the scale exhibited strong reliability of (Cronbach α) of 0.91.

2.3 Data Analysis

The researcher utilized SPSS 26.0 and Amos 24.0 to conduct data analysis. Descriptive statistics and correlational analyses were performed to examine the relationships among the study variables. Structural equation modeling (SEM) was then employed to test the proposed moderated mediation model and evaluate the hypothesized pathways within the data.

3. RESULTS

Based on data, around 80% of students (40% of boys and 40% of girls) reported experiencing adversity, as evidenced by the surveys completed by their parents. Before conducting the analysis, Harman's single factor test using principal axis factoring was conducted to test the data whether the common method variance exists (Podsakoff et al., 2003). The variance extracted by the first factor was less than 50 percent (25 percent), which indicated the absence of common method variance in the data. The descriptive data for the other variables are compiled in Table 1. It shows that the majority of the connections were strong ($r \geq .5$) or moderately strong ($r \geq .3$) and statistically significant ($p \leq .01$).

Table 1: Descriptive Statistics, Correlation, Skewness, and Reliability of study variables

	1	2	3	4	5	6
1. AD	-					
2. WB	-.45**	-				
3. HD	-.37**	.35**	-			
4. RE	-.38**	.50**	.48**	-		
5. EA	-.27**	.48**	.39**	.65**	-	
6. SE	-.28**	.29**	.70**	.46**	.53**	-
N	250	250	250	250	250	250
M	2.61	33.01	21.27	51.77	59.61	22.08
SD	1.84	9.84	8.04	9.40	12.39	7.45
Skewness	.03	.37	.61	.10	-.55	.22
Scale α	0.85	0.93	0.95	0.91	0.91	0.91

Note. $N = 250$

***p*<.01 AD: Adversity, WB: Well-Being, HD: Hardiness, RE: Resilience, EI: Emotional Awareness, SE: Self-Esteem

It is clear from Table 1 that the computed reliability coefficient of all the scales used in this study was found to be greater than .70 (Cronbach's Alpha) which was adequate and found within the acceptable range (Bonett & Wright, 2015).

3.1 Path Analysis

3.1.1 Testing for mediation effect

Adversity and behavioral outcomes were thought to be mediated by resilience, according to hypothesis 2 of this study. Using Amos 24, this hypothesis was examined. Adversity and resilience had a negative correlation ($\beta = -.07$, $p < .001$), as Table 2 demonstrated. Additionally, resilience was positively associated with behavioral outcomes, such as self-esteem and emotional awareness ($\beta = .41, .64$, $p < .001$) respectively. Additionally, bootstrap testing supported the findings that resilience may mediate the link between adversity and behavioral outcomes (95% CI [0.123, 0.016] self-esteem) and (95% CI [0.104, 0.002] emotional awareness). Consequently, Hypothesis 2 was supported.

3.1.2 Testing for moderated mediation

Table 2 indicates the effect of adversity on resilience was moderated by well-being and hardiness ($\beta = -.077$, $p < .001$). Furthermore, the bootstrap analysis revealed that the indirect effect of adversity on resilience was moderated by well-being ($\beta = -.16$, $p < .001$, 95% CI [0.024, 0.138]) and not by hardiness ($\beta = -.07$, $p > .001$, 95% CI [0.000, 0.000]). The results of the moderated mediation test of adversity on resilience well-being are shown in Figure 3, where the model fit was good ($\chi 2$ / df = 2.19, GFI =.98 CFI =.98, NFI =.97, RMSEA=.069).

The relationship between adversity and resilience was illustrated for descriptive purposes at both increased and decreased well-being levels (1 standard deviation above and 1 standard deviation below the mean; Figure 4).

Children with lower well-being ($\beta = 2.49$, $p < .001$) had a stronger ($p < .001$) effect of adversity on resilience than children with higher well-being ($\beta = 3.642$, $p < .01$), according to simple slope analysis. This suggests that resilience and adversity are strengthened by well-being. Thus, Hypothesis 3 was validated.

Table 2: Path Estimates

			Estimate	S.E.	C.R.	P
Adversity	-□	Self-esteem	-.12	.06	-2.00	.001
Adversity	-□	Emotional Awareness	-.03	.05	-.60	.001
Adversity	-□	Resilience	-.07	.06	-1.30	.001
Resilience	-□	Self-esteem	.41	.06	6.88	.001
Resilience	-□	Emotional Awareness	.64	.05	12.26	.001
Well-being	-□	Resilience	.43	.06	6.69	.001
Hardiness	-□	Resilience	.29	.05	5.30	.001
Adversity*Well-being	-□	Resilience	-.16	.05	2.82	.001
Adversity*Hardiness	-□	Resilience	-.07	.05	-1.22	.001

Note: N = 250.

*p< .05; **p< .01; ***p< .001

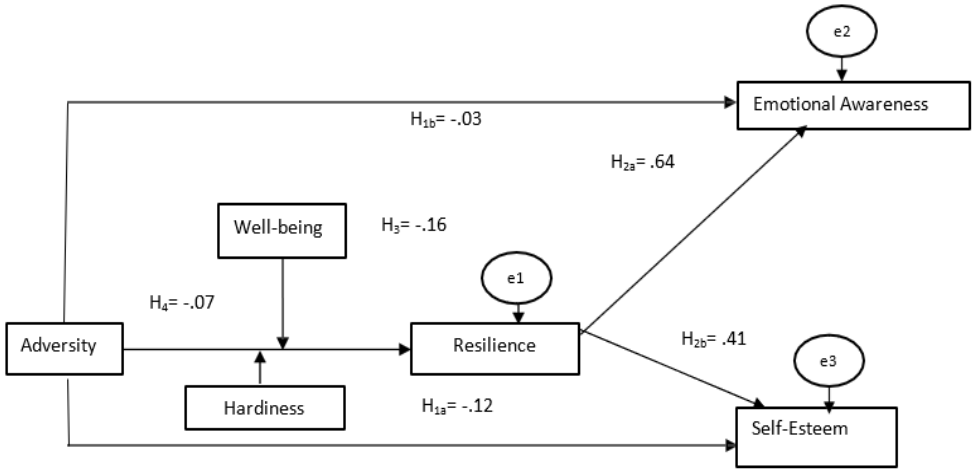

Figure 3: The moderated mediation model of well-being and hardiness on adversity and resilience

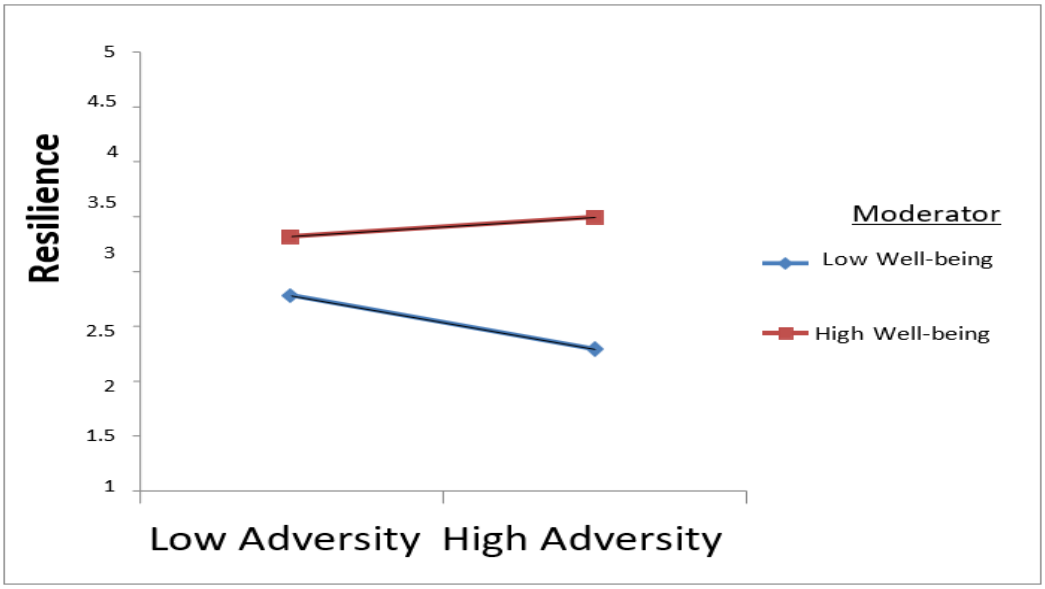

Figure 4: Well-being moderates the relationship between adversity and resilience

4. DISCUSSION

The relationship between adversity and behavioral outcomes has been observed in specific cases; nevertheless, the mediating and regulating processes that explain this correlation, especially in children, remain largely unexplored. We proposed a moderated mediation model to address these gaps and found that resilience mediated the relationship between adversity and behavioral outcomes, while adversity significantly predicted behavioral outcomes negatively. The relationship between adversity and resilience was determined to be influenced by well-being rather than hardiness.

4.1 Adversity and Behavioral Outcomes

The study revealed that adversity negatively correlated with both self-esteem and emotional awareness, hence confirming H1a and H1b, respectively. The results align with those of McLaughlin et al. (2010) and Bhutta et al. (2023), indicating that adversity negatively impacts self-esteem over the long term, with a causal trajectory extending into the pivotal years of emerging adulthood. Furthermore, negative childhood experiences are associated with problems in various domains of emotional awareness, including self-awareness, self-control, social awareness, and relationship management.

4.2 The Mediating role of resilience

This study was the first to determine that resilience may function as a mediator in the relationship between children's behavioral outcomes and adversity. This aligns with resilience theory, which posits that individuals can recover and adapt to new situations over time. Salovey et al. (1999, p. 161) discovered that resilience is favorable in high-stress situations. The current study indicates that adversity negatively correlates with resilience. This may be due to children who are suffering being unable to develop resilience. Families with mental diseases are more susceptible to psychosocial issues such as conflict, inadequate family cohesion, housing instability, and poverty (Denckla et al., 2020). As a result, youngsters exposed to hazards lack resilience.

This study supported prior research and concluded that emotional awareness under adversity may be affected by resilience (Magnano et al., 2016). Individuals with heightened emotional awareness are more adept at navigating the emotional challenges posed by stressful events, as they can accurately recognize and evaluate their emotions, discern the appropriate times and methods for expressing their sentiments, and effectively regulate their mood states. The findings align with prior research on work-related self-esteem. Resilient students transform unpleasant situations into inspiring conditions by maintaining high aspirations and goal orientation, exhibiting robust self-esteem, demonstrating exceptional problem-solving skills, and displaying social competence (Choudhary & Sharma, 2019). Choudhary et al. (2022) found that resilience affects self- esteem throughout adversity.

4.3 The moderating role of protective factors

The current study revealed that protective factors modulate the association between adversity and resilience. Hardiness and well-being had a negative correlation with adversity. These findings align with prior research by Amato (2014), which revealed that children of divorced parents often exhibit diminished levels of well-being. Consequently, these children exhibit diminished self-esteem and pronounced signs of psychological distress. Andronnikova (2021) established a negative correlation between students' hardiness levels and their intolerance of ambiguity.

Moreover, the present study identified a positive association between resilience and both hardiness and well-being. These findings correspond with prior studies on resilience, toughness, and well-being. Chen (2016) identified a direct and positive association between well-being and resilience. Research demonstrates that pupils' well-being enhances their resilience and protects them from the effects of traumatic childhood events (Mello 2016). Prior studies have established a correlation between resilience and increased levels of hardiness (Bullock et al., 2019). Psychological hardiness and resilience are positively correlated due to their conceptual similarities (Salehian & Sarvari, 2021).

The most compelling finding of the current study is the moderating effect of protective factors. The connection between adversity and resilience is moderated by well-being, as the model demonstrates. Self- actualization (Maslow, 1970) and self-determination (Deci & Ryan, 2000), the cornerstones of well-being, may offer a persuasive explanation. Self-determination theory, focusing on growth experiences and post-traumatic injuries from a developmental viewpoint, links resilience and well-being. Babad et al. (2020) assert that early trauma adversely affects well-being across the lifespan. Children with elevated well-being are more resilient in the face of bad situations. This finding also corroborated the idea that well-being may enhance the favorable impact of resilience on behavioral outcomes (Nishikawa, 2006). Consequently, for youngsters exhibiting elevated well-being, the adverse impact of hardship on resilience would be mitigated.

Our data support this model, suggesting that children who lack protective factors are more affected by the occurrence of traumatic events. However, these same children feel more resilient if inherently laden with protective factors (well-being and hardiness).

4.4 Practical Implications

This knowledge would undoubtedly interest different stakeholders, such as policymakers, educators, parents, psychologists, and researchers responsible for developing resilience and behavioral outcomes. Further research in this area will be useful in improving children's resilience. First, policymakers and educational institutions can collaborate to design interventions that strengthen protective factors like positive peer relationships, supportive adult figures, and structured environments. Schools could integrate these elements into their curricula through peer-support groups, stress management workshops, and resilience training activities. These efforts ensure resilience-building becomes a natural part of children's learning experiences while aligning with broader policy objectives.

Second, parents and therapists can benefit from training programs based on the study's findings. Workshops for parents can focus on fostering resilience through emotional regulation, autonomy-supportive practices, and nurturing relationships. Therapists and school counselors can adopt evidence-based methods to enhance interventions targeting problem-solving abilities, emotional regulation, and self-efficacy; ensuring children develop stronger coping mechanisms.

Finally, schools, mental health institutions, and researchers can conduct longitudinal assessments to monitor the lasting impacts of resilience-focused initiatives. Such evaluations provide valuable feedback, enabling continuous improvement of programs and supporting sustainable, data-driven approaches to resilience-building.

By collaboratively addressing these areas, stakeholders can establish a complete system to improve children's resilience and behavioral outcomes in adversity.

4.5 Limitations and Future Directions

There are limitations to the current investigation. The research used self-reported measures. Each question may have a varied meaning to different respondents, and each respondent will answer according to how they understand the question. Moreover, social-desirability bias may influence their responses. Considering that the sample size was small, a larger sample with additional variables might provide effective results. Future study may explore the impact of the daily environment, including the classroom (Torsheim & Wold, 2001), with additional personal characteristics, such as temperament (Sudbrack et al., 2015) and coping strategies (Fradkin et al., 2016). Throughout the future, the researcher may additionally consider adverse behavioral effects such as aggression, anxiety, and others.

5. CONCLUSION

The present study adds significant value to the existing literature by exploring a moderated mediation model that highlights the intricate interplay between adversity, and behavioral outcomes in children. The findings underscore that adversity serves as a critical negative environmental factor, with increased exposure to adverse situations leading to diminished resilience. Mediation analysis further revealed that resilience acts as a key mechanism explaining the negative relationship between adversity and behavioral outcomes. Moreover, the moderated mediation analysis provided compelling evidence that protective factors play a vital role in mitigating the impact of adversity on resilience, thereby emphasizing their importance in buffering children against adverse effects and promoting positive behavioral outcomes.

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