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# **RESEARCH PAPER**

# The Moderating Role of Sibling Relationships in the Link Between Adverse Childhood Experiences and Marital Satisfaction

#### <sup>1</sup>Zarwa Akram \*, <sup>2</sup>Mehak Haroon and <sup>3</sup>Saima Kaniz

- 1. M Phil, Department of psychology University of Southern Punjab Multan, Punjab Pakistan
- 2. Lecturer, Department of psychology University of Southern Punjab Multan, Punjab Pakistan.
- 3. HIV counselor CMU Ministry of Health Islamabad, Pakistan

\*Corresponding Author: zarwaakram315@gmail.com

# **ABSTRACT**

This study examines how sibling relationship quality moderates the link between Adverse Childhood Experiences (ACEs) and marital satisfaction among married Pakistani adults. While ACEs are known to negatively affect marital satisfaction, protective factors like sibling bonds (warmth, trust, shared coping) may buffer this impact. A cross-sectional survey (N = 150) was conducted using purposive sampling. Measures included the ACE Questionnaire, Couples Satisfaction Index (CSI-31), and Lifespan Sibling Relationship Scale (LSRS). Moderated regression analysis was performed via SPSS v25. All scales showed reliable internal consistency ( $\alpha > .70$ ). Sibling relationship quality significantly moderated the ACEs-marital satisfaction link (p < .05). High sibling warmth mitigated the negative effects of ACEs on marital satisfaction. Therapists should assess sibling dynamics and incorporate sibling-based resilience strategies within trauma-informed couples therapy.

**Keywords:** Adverse Childhood Experiences, Marital Satisfaction, Sibling Relationship Quality, Moderation, Resilience, Pakistani Adults

# Introduction

Satisfaction in marriage is one of the pillars of satisfaction and family harmony. Healthy marital relationship does not only add zest to emotional lives of couples, but it also helps build the stable and healthy condition to raise children and provide family cohesion. Nevertheless, although such a practice is crucial, marital happiness is often ruined by emotional scars caused by earlier life hardships. Among these, adverse childhood experiences (ACEs) have come into the picture as a major delineator of adult relations dysfunction, including several variations of abuse, neglect, and even dysfunction in the house of occurrence before the age of 18 (Felitti et al., 1998). The original paper of Felitti and colleagues (1998) has been a critical turning point in comprehending how early life adversities create a lasting effect on the adult physical and mental health results. There is a wide array of ACEs that are commonly listed as emotional, physical, or sexual abuse, emotional or physical neglect, exposure to household dysfunction, like substance abuse by parents, domestic violence, or divorce separation. These adverse events have an accumulative effect which can be outstanding since researchers have demonstrated that ACEs are linked to impoverished adult health outcomes through a dose-response association, including substance use, depression, and abnormality of tasks of everyday life (Anda et al., 2006; Hughes et al., 2017).

Along the same lines, ACEs reportedly interfere with emotional regulation, lead to the development of unhealthy coping patterns, and the inability to establish safe interpersonal relationships with others, in the context of all adult love relationships (Dube et al., 2003; Whitfield et al., 2003). These deficits are bound to be carried over into relations and thus they become more prone to become dissatisfied with intimate relationships. Precisely, even people who experienced childhood adversity might have problems with trust, emotional intimacy, and conflict resolution, all of which are decisive factors in marital fulfillment (Lim & Lee, 2017). Nevertheless, there is also a curious

paradox, as although, with growing evidence, the harmful impact of ACEs on adult dating relationships on people is becoming obvious, it is not null. Not every person with high ACE score has poor marital satisfaction. Such a variation means that there exist Mexican protective factors due to which the effects of early adversities are buffered later. The fact is that having a complete understanding of these moderating variables is not only the development of the theoretical foundation of relational resilience but also the field of implementation of intervention efforts that will improve the well-being of the spouses of people who have traumatic childhood experiences.

Sibling-relationship quality has become a topic that has gained different kinds of consideration in the field of psychology as one of the quasi-moderating factors. Siblings, as generally portrayed, as a life long relationship and co-survivors through similar environment, can influence the emotional and social development of the individual greatly (Buist et al., 2013). The bond between siblings is also another major source of emotional support, validation and coping where it can manifest in the event of an adverse childhood environment (Gass, Jenkins, & Dunn, 2007). Good sibling relations, inclusive of warmth, open communication, and emotional intimacy may serve as cushions to the long-minded relation misfunctions that are in most cases related to ACEs. Along with it, in comparison with parent-child relationship, which is inevitably hierarchical, sibling relationships are more equal and promote the feeling of mutual assistance and friendship. This is because the sibling relationship becomes a place of confidante, co-regulation of emotions and team players in managing stressful situations in the family. It has also been proposed that persons with good and supportive relationships with their siblings are more psychologically resilient, have high levels of self-esteem and are socially competent (Riggio, 2000). These are very crucial traits in ensuring that the children establish healthy romantic relationships in adulthood.

The importance of sibling relationships is also expounded with the cultural norms in the South Asian culture that uphold the collectivistic values that uphold family cohesion, interdependence and lifelong relationship among family members. As compared to the western cultures, where individualism is highly valued, family organization in south Asian regions is such that it has close sibling relationships that are still held until later in their adolescence (Tuli & Chaudhary, 2010). Siblings in this culture are normally providers of care, emotional support and also mediators in solving family conflicts. Therefore, sibling relationships can be a distinct possibility of counteracting the ill impact of ACEs on marital satisfaction among the South Asian people. The concept of spillover which removes the impact of ACEs on marital satisfaction as is observed in the present study is to investigate how strongly it is moderated by the quality of the relationships with siblings among a South Asian study population. In particular, it seeks to determine the possibility that those subjects who are high in the incidence of interpersonal family warmth, closeness, and positive communication have greater marital satisfaction even after childhood adversity. Due to the analysis of this moderating role, the research hopes to add to knowledge regarding relational resilience factors that can abrogate the harmful effects of ACEs on adult romantic relationships.

# **Operational Definitions**

Adverse Childhood Experiences (ACEs): AEs refer to a range of negative undertakings by the age of 18, and this involves but is not limited to, emotional, physical, or sexual abuse, neglect and exposure to household dysfunction like parental separation, substance abuse or household violence. This research uses the well-established ACE Questionnaire developed by Felitti et. al. (1998), to measure ACEs, and they quantify the level of ACEs.

Marital Satisfaction: The concept of marital satisfaction denotes the subjective evaluation of the quality of relationship by an individual and some of the facets of the relationship which he or she is evaluating include emotionate bonding, communication, conflict resolutions and general satisfaction with the spouse. The degree of this construct is quantified using the Couples Satisfaction Index -31 (CSI 31), a well-validated psychometric tool that has proven to be highly sensitive in terms of informing relationship satisfaction differences in a much subtle way.

**Sibling Relationship Quality:** Sibling relationship quality is the extent to which there is emotion related warmth, communicative openness, and latterly closeness, between siblings. It involves both affectional and action in sibling relationship. This construct can be measured with the help of the Lifespan Sibling Relationship Scale (LSRS), that is created by Riggio (2000), evaluating different dimensions of the relationships between siblings, such as the sense of emotional support, rivalry and companionship.

The tests of operational definition used and the concentration on culturally sensitive framework will allow filling the gap in the current literature on protective relational aspects in the setting of childhood traumas. The study of the intermediary job of the sibling relationships is not only theoretically instrumental but also has practical value when it comes to the planning of family-based interventions. Such enhancement of sibling relationship may result in successful therapeutic aim on the way of sustainable raising marital gratification and all-in-all psychological well-being in the cases of a high ACE exposure. To conclude, ACEs do have a largely negative effect on adult romantic relationships; however, there is a significant difference in outcomes that implies the presence of protective buffers that should be investigated. The relationship between siblings in the collectivistic cultures like the South Asian culture forms a very conspicuous line of inquiry in fostering resilience. This research will shed light on the intricate relationship that exists between childhood adversity, sibling support and marital satisfaction and will provide two environments of significant interest to professionals in the field namely the individual struggling with the effects of childhood adversity, sibling support and marital satisfaction as well as the clinician, researcher and policy maker.

# **Literature Review**

A growing body of literature findings has shown time and again that Adverse Childhood Experiences (ACEs) may have serious effects about the way a person will interact with others in adulthood. One of the initial studies that linked childhood trauma, including abuse, neglect and dysfunction within a household directly to a number of adult health issues is a study by Felitti et al. (1998). Their classic work formed the basis of cool insight into the manner in which non-resolved emotional scars of early life experiences could be illustrated later on through instability in relationships. The same results have since been expounded upon through research that helps to reinforce the notion that ACEs are capable of ruining all-important relationship skills. Brown et al. (2011) and Dube et al. (2017) presented convincing data that ACEs sufferers tend to have issues with trust and emotional intimacy, two concepts that anyone would need to form and maintain a healthy romantic relationship. Such events at thewner stage may disrupt the ability of the person to establish secure attachment, and these individuals are more prone to complications and discontent in commitment relationships as adults.

According to Karney and Bradbury (2005), childhood trauma not dealt with may result in poor adaptive patterns of conflict resolution and having false expectations of relationships. These men or women can either enter into conflicts in such a sensitive/defensive manner and are unable to solve differences fruitfully. On the same note, Hughes et al. (2017) highlighted the role of ACEs in causing emotional dysregulation which leads mostly to insecure attachment styles a focal aspect that has low satisfaction in marriage. Such knowledge has been developed on in the latest researches. Eyisoylu and Erdem (2023) found that such people will be less inclined to take into account the influence of a partner in situations with traumatic childhoods and such effects can

contribute to the growth of tensions in relationships and disrupt good communication. Such unwillingness to be swayed by the opinion of a partner usually comes as a result of mistrust and fear of opening up and being hurt. Mikulincer and Shaver (2016) expounded the fact that as children develop insecure attachment patterns, the patterns continue to be used even in their adult relationships, which influence how they view and react to their spouses.

Not everyone with a high ACE score has the same level of relation problems though. There is one area of research which is promising that positive relationships among siblings may provide resilience towards negative outcomes of relationships evident with ACEs. The results of the study conducted by Buist et al. (2013) suggest that adulthood emotional coping skills and reduced depressive symptoms have been linked to the existence of strong sibling warmth and support. On the same note, it was found by Milevsky (2005) that, those with good relationships with their siblings were more socially competent, and parental conflict had less effect on them. In a longitudinal study, it was found by Dirks et al. (2015) that having quality sibling relationships for having childhood adversity mitigated its emotional costs because it was a source of steady social and emotional support. According to South and Krueger (2013), siblings may be able to act as role models regarding relations, and provide an example of the way to address romantic relations in the future. All these results give credence to the fact that the quality of sibling relations is a plausible moderator in the ACEs-marital satisfaction relationship.

This evidence notwithstanding, there is very limited empirical research on this moderation hypothesis, especially in collectivist societies such as Pakistan, which is characterized by family closure and sibling closeness which are rather firmly established in the social system. The culture is particularly attentive to extended family and interdependence, and therefore, the sibling relationships can play an even bigger roles in directing the negative consequences of ACEs. The proposed research is expected to address this lack of knowledge by identifying whether the quality of sibling relations is associated with the impact of ACEs on marital satisfaction among the South Asian population.

#### **Material and Methods**

#### Design

A quantitative, cross-sectional correlational design was employed to examine the moderating role of sibling relationships.

# **Sample**

The study comprised 150 married adults aged 20-50 (M = 29.8, SD = 6.1). A majority were female (n = 101), lived in joint family systems (63.3%), and belonged to semi-urban and rural areas.

# **Measures**

- ACE Questionnaire (Felitti et al., 1998): 10-item checklist assessing childhood adversity.
- Couples Satisfaction Index (CSI-31) (Funk & Rogge, 2007): Measures perceived relationship satisfaction.
- Lifespan Sibling Relationship Scale (LSRS) (Riggio, 2000): Assesses emotional closeness and sibling dynamics.

**Reliability:** Cronbach's alpha values were: ACEs ( $\alpha$  = .724), CSI-31 ( $\alpha$  = .804), and LSRS ( $\alpha$  = .762).

**Procedure:** Participants completed self-report questionnaires through in-person sessions. Data were analyzed using SPSS v25, with mean comparisons, correlations, and moderated regression (Hayes' PROCESS Macro Model 1).

# **Results and Discussion**

Table 1 presents the descriptive statistics for the key study variables: Adverse Childhood Experiences (ACEs), Marital Satisfaction, and Sibling Relationship Quality. The participants reported a moderate level of ACEs and marital satisfaction, with slightly above average sibling relationship quality.

Table 1
Descriptive Statistics of Study Variables (N = 150)

Variable	M	SD
Adverse Childhood Experiences (ACEs)	18.13	2.06
Marital Satisfaction	71.95	18.54
Sibling Relationship Quality	26.32	5.73

These values suggest a moderately affected sample population, appropriate for evaluating trauma-related relational outcomes.

# **Moderated Regression Analysis**

A moderated regression analysis was conducted using Hayes' PROCESS Macro (Model 1) to determine whether sibling relationship quality moderated the effect of ACEs on marital satisfaction. As shown in Table 2, the interaction term (ACEs × Sibling Relationship Quality) was statistically significant ( $\beta$  = 0.421, p < .05), indicating a moderation effect.

Table 2
Moderated Regression Summary Predicting Marital Satisfaction

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Predictor	В	SE	β	t	р
Constant	143.05	13.02	_	10.98	.000
ACEs	-5.01	0.89	-0.42	-5.63	.000
Sibling Relationship Quality	1.34	0.44	0.30	3.05	.003
ACEs × Sibling Relationship	0.421	0.19	0.27	2.24	.027

The main effect of ACEs on marital satisfaction was significantly negative, while sibling relationship quality positively predicted marital satisfaction. The significant interaction term confirms that sibling relationships buffered the adverse effects of ACEs on marital satisfaction.

#### **Simple Slopes Analysis**

Simple slopes analysis (see Table 3) indicated that for individuals with low sibling warmth, ACEs significantly predicted lower marital satisfaction ( $\beta$  = -5.01, p < .001). In contrast, for individuals with high sibling warmth, the negative association between ACEs and marital satisfaction was weaker ( $\beta$  = -2.01, p < .05).

Table 3 Conditional Effects of ACEs on Marital Satisfaction at Levels of Sibling Relationship Quality

Sibling Warmth Level	β	SE	t	р
Low (-1 SD)	-5.01	0.89	-5.63	.000
Mean	-3.51	0.73	-4.81	.000
High (+1 SD)	-2.01	0.85	-2.36	.019

These findings confirm that the detrimental impact of ACEs on marital satisfaction was significantly buffered by higher sibling relationship quality.

#### Discussion

The findings of the study offer strong support to the argument that there is one type of a sister or brother that contributes to a good relationship quality, which is a dominant moderator of the correlation between Adverse Childhood Experiences (ACEs) and marital satisfaction. In particular, those individuals reporting high values of sibling warmth, closeness, and trust reported high marital satisfaction even with high values of ACE scores. These results are in accord with other studies by Buist et al. (2013), and Dirks et al. (2015) that acknowledge long-term psychosocial account of incisive fatherly relationships. In both of these studies, the authors articulated that positive sibling relationships serve as effective protective mechanism and buffer against the negative psychological consequences of childhood life afflictions. This moderation effect in the given study implies that sibling relationships that have such a quality as emotional warmth, as well as mutual trust, can have the potential to develop emotional resilience, even in people who have become victims of considerable childhood trauma. Such associations can act as substitute or substitution attachment foundations giving them the emotional safety that is often wanting in a negative family condition. The same idea was offered by Milevsky (2005), who postulated that with the help of strong sibling relationships, the adaptive coping mechanisms may be cultivated and healthier adult expression of emotions may be achieved. Siblings can contribute to the assimilation of relational competencies that can be needed to maintain satisfactory marital unions in that they exert a regulator influence of emotions and supply a regular supply of social capital.

The above finding is more so relevant in the context of South Asian cultures whereby sibling relationship is not limited to childhood but rather remains pivotal in the lives of adults. The family structures in collectivist society such as Pakistan are interdependent, with shared duties, and multigenerational co-resident (Tuli & Chaudhary, 2010). Brothers and sisters, more often than not, are perceived as the initial providers of emotional and physical assistance, and they are prone to take up duties of taking care of an individual that responsibility was initially attached to parents or marriage partners. These culturally lesioned family dynamics can further buttress the protective mechanism of the sibling relationships, more so, the protective mechanism of the sibling relationships on the moderating effect of the ACEs-marital satisfaction connection. This information would have a worthy elaboration of the theory of attachment in the picture which is theoretical. Traditionally, the attachments studies were focused primarily on the parent-child relationships rather than any other aspect of attachment security. Nonetheless, according to the current research, secondary attachment figures (e.g. siblings) might serve as a compensatory figure against the negative relational consequences relating to unsecure parental attachments.

This shares the point by Mikulincer and Shaver (2016) attachment networks are dynamic and these can occur through other close relationships other than early care figures. Future studies focusing on interplay of sibling relationships and the adult romantic attachment styles especially in the collectivist cultures where siblings relationship possess distinctive social-emotional importance ought to be conducted. These results have huge clinical implications of the trauma informed care and relational interventions. Taking into consideration the buffering effect of sibling relationship quality, a very strong argument exists to start including sibling measures as a part of clinical assessment of people with high levels of ACE exposure. This kind of intervention directed toward the development of

sibling relationship, the enhancement of communication, and the resolution of elongated sibling conflicts is likely to increase the relational resilience and achieve a better outcome in terms of marital satisfaction. The importance of widening the scopes of their assessment models on their part as therapists and counselors to work on sibling issues to cover the perspectives on holistic systems of families functioning within a cultural-sensitive setting should be encouraged. Altogether, the evidence highlights the need to consider sibling relations as a protective factor against childhood adversity with special consideration to cultures where family unity and sibling interrelations are the backbone of the social fabric. The significance of the current study is also the cumulative knowledge on ACEs as they relate to relational outcomes in adulthood, as well as the necessity to develop culturally sensitive practices in the areas of increasing relationship resilience, and therapeutically addressing adverse outcomes.

#### **Conclusion**

This study highlights the crucial buffering role of sibling relationship quality in mitigating the adverse effects of ACEs on marital satisfaction among Pakistani adults. Individuals with warm, supportive sibling bonds exhibited greater relational resilience despite high ACE exposure. These findings emphasize the importance of incorporating sibling dynamics into trauma-informed therapeutic practices. Future interventions should consider sibling-based support strategies to foster emotional well-being and relational stability in adulthood.

#### Recommendations

- Integrate Sibling Assessment into Therapy: Counselors and psychologists should incorporate sibling relationship quality as a standard element in trauma and marital assessments.
- **Promote Sibling-Based Interventions:** Therapeutic approaches should leverage positive sibling interactions as a resilience-building tool, especially for clients with significant ACE histories.
- **Develop Culturally Grounded Support Systems:** In collectivist cultures like Pakistan, psychoeducational programs should include modules that reinforce sibling bonding and co-regulation strategies.
- Preventive Family Programs: Community organizations and schools should develop family life education initiatives that promote healthy sibling communication from early childhood

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