

**CAPITAL UNIVERSITY OF SCIENCE AND
TECHNOLOGY, ISLAMABAD**



**Adverse Childhood Experiences as Predictor of
Depression, Anxiety, Stress and Marital
Relationship Satisfaction among Married
Couples**

by

Hira Tariq

A thesis submitted in partial fulfillment for the
degree of Master of Science

in the

Faculty of Management & Social Sciences

Department of Psychology

2025

Copyright © 2025 by Hira Tariq

All rights reserved. No part of this thesis may be reproduced, distributed, or transmitted in any form or by any means, including photocopying, recording, or other electronic or mechanical methods, by any information storage and retrieval system without the prior written permission of the author.



CERTIFICATE OF APPROVAL

**Adverse Childhood Experiences as Predictor of Depression, Anxiety,
Stress and Marital Relationship Satisfaction among Married Couples**

by

Hira Tariq

(MSP233020)

THESIS EXAMINING COMMITTEE

S. No.	Examiner	Name	Organization
(a)	External Examiner	Dr. Sumara Masood Ul Hassan	NUST, Islamabad
(b)	Internal Examiner	Dr. Sabahat Haqqani	CUST, Islamabad

Dr. Ishrat Yousaf

Thesis Supervisor

November, 2025

Dr. Sabahat Haqqani

Head

Department of Psychology

November, 2025

Dr. Arshad Hassan

Dean

Faculty of Management & Social Sci.

November, 2025

Author's Declaration

I, **Hira Tariq** hereby state that my MS thesis titled “**Adverse Childhood Experiences as Predictor of Depression, Anxiety, Stress and Marital Relationship Satisfaction among Married Couples**” is my own work and has not been submitted previously by me for taking any degree from Capital University of Science and Technology, Islamabad or anywhere else in the country/abroad.

At any time if my statement is found to be incorrect even after my graduation, the University has the right to withdraw my MS Degree.



(Hira Tariq)

Registration No: MSP233020

Plagiarism Undertaking

I solemnly declare that research work presented **Adverse Childhood Experiences as Predictor of Depression, Anxiety, Stress and Marital Relationship Satisfaction among Married Couples**” is solely my research work with no significant contribution from any other person. Small contribution/help wherever taken has been duly acknowledged and that complete thesis has been written by me.

I understand the zero tolerance policy of the HEC and Capital University of Science and Technology towards plagiarism. Therefore, I as an author of the above titled thesis declare that no portion of my thesis has been plagiarized and any material used as reference is properly referred/cited.

I undertake that if I am found guilty of any formal plagiarism in the above titled thesis even after award of MS Degree, the University reserves the right to withdraw/revoke my MS degree and that HEC and the University have the right to publish my name on the HEC/University website on which names of students are placed who submitted plagiarized work.



(Hira Tariq)

Registration No: MSP233020

Acknowledgement

First and foremost, I am deeply grateful to **Allah** Almighty for granting me the strength, courage, and consistency to complete this thesis. Without His blessings, this journey would not have been possible.

I extend my heartfelt gratitude to my **parents** for their endless prayers, unconditional love, and unwavering support. Your guidance and sacrifices have been the foundation of all my accomplishments.

To my beloved husband, **Haider**, thank you for always believing in me and standing beside me with constant encouragement. Your patience, strength, and faith in my abilities carried me through every step of this journey.

To my precious son, **Orhan**, your love, patience, and quiet support enabled me to balance my academic commitments with motherhood. The joy you brought into my life sustained me throughout this work.

I am also grateful to my **siblings** for their constant motivation, and to my in-laws for their kindness and support, especially during challenging moments.

My sincere appreciation goes to my supervisor, **Dr. Ishrat Yousaf**, for her invaluable guidance and feedback, and to the faculty at CUST for contributing to my academic growth.

Finally, I would like to thank my dear friends **Fizza, Namra, Quratulain, & Attiya**—for their encouragement and companionship throughout this journey. To everyone who supported or prayed for me, thank you. This accomplishment is as much yours as it is mine.

(**Hira Tariq**)

Abstract

The present study aimed to examine the relationship of adverse childhood experiences (ACEs) on mental health and marital relationship satisfaction among married couples in Pakistan. ACEs, including childhood trauma such as relationship abuse, emotional abuse, exposure to intimate partner violence, neglect, parental death, parental divorce, parental mental disorder, and household dysfunction, have long-term effects on well-being; however, their impact on marital relationship satisfaction remained underexplored. The current study intended to investigate ACEs as predictors of depression, anxiety, stress, and marital relationship satisfaction among married couples. Data was collected from a sample of 84 married couples (N = 168) using convenience sampling. Participants completed the Adverse Childhood Experiences International Questionnaire (ACE-IQ), the Depression Anxiety and Stress Scale (DASS-21), and the Relationship Assessment Scale (RAS). Correlational analyses were conducted to examine associations among ACEs, depression, anxiety, stress, and marital relationship satisfaction. Additionally, regression analyses and the Actor-Partner Interdependence Model (APIM) were applied to analyze both actor and partner effects within the dyadic data. Findings highlighted significant associations between ACEs and depression, anxiety, stress as well as marital relationship satisfaction, demonstrating the interdependent impact of childhood adversity on couples' psychological and relational functioning. These results have important implications for trauma-informed couple counseling and culturally sensitive intervention planning.

Keywords: *Adverse Childhood Experiences, depression, anxiety, stress, marital satisfaction*

Contents

Author's Declaration	iii
Plagiarism Undertaking	iv
Acknowledgement	v
Abstract	vi
List of Figures	ix
List of Tables	x
1 Introduction	1
1.1 Background of the Study	1
1.2 Research Gap	8
1.3 Problem Statement	9
1.4 Research Objectives	10
1.4.1 Research Objective 1	10
1.4.2 Research Objective 2	10
1.4.3 Research Objective 3	10
1.5 Hypothesis of the Study	11
1.5.1 Hypothesis 1	11
1.5.2 Hypothesis 2	11
1.5.3 Hypothesis 3	11
2 Literature Review	12
2.1 Adverse Childhood Experiences	13
2.2 Adverse Childhood Experiences and Depression	14
2.3 Adverse Childhood Experiences and Anxiety	15
2.4 Adverse Childhood Experiences and Stress	16
2.5 Adverse Childhood Experiences and Marital Relationship Satisfaction	17
2.6 Rationale	18
2.7 Theoretical Framework	19
2.8 Conceptual Model	24

3	Research Methodology	25
3.1	Methodology	25
3.1.1	Research Design	25
3.1.1.1	Sample and Sampling Strategy	25
3.1.1.2	Study Settings and Data Collection Procedure	26
3.1.1.3	Inclusion Criteria	26
3.1.1.4	Exclusion Criteria	27
3.1.2	Measures and Instruments	27
3.1.2.1	Demographic Information Questionnaire	27
3.1.2.2	Adverse Childhood Experiences International Questionnaire	27
3.1.2.3	Depression Anxiety Stress Scale	28
3.1.2.4	Relationship Assessment Scale	28
3.1.2.5	Ethical Considerations	29
3.1.3	Data Analyses	29
4	Results	31
4.1	Actor–partner Interdependence Model	39
5	Discussion and Conclusion	44
5.1	Discussion	44
5.1.1	Discussion of Hypothesis 1	45
5.1.2	Discussion for Hypothesis 2	48
5.1.3	Discussion of Hypothesis 3	52
5.2	Conclusion	55
5.3	Limitations	57
5.4	Research Implications	59
5.5	Recommendations	61
	References	64
	Appendix A	72
	Appendix B	85

List of Figures

2.1	Conceptual Model of Adverse Childhood Experiences, Depression, Anxiety, Stress and Marital Relationship Satisfaction	24
4.1	Distribution of scores across ‘Relationship Assessment Scale’ for Wives	34
4.2	Distribution of scores across Stress Subscale for Wives	34
4.3	Distribution of scores across Anxiety Subscale for Wives	35
4.4	Distribution of scores across Depression Subscale of Wives	35
4.5	Distribution of scores across Adverse Childhood Experiences of Wives	35
4.6	Distribution of scores across Relationship Satisfaction Assessment of Husbands	36
4.7	Distribution of scores across Stress Subscale of Husbands	36
4.8	Distribution of scores across Anxiety Subscales of Husbands	36
4.9	Distribution of scores across Depression Subscale of Husbands	37
4.10	Distribution of scores across Adverse Childhood Experiences of Husbands	37
4.11	Standardized Actor-partner interdependence model of familial values predicting Depression. ACE= adverse childhood experience	40
4.12	Standardized Actor-partner interdependence model of familial values predicting Anxiety. ACE= adverse childhood experience	41
4.13	Standardized Actor-partner interdependence model of familial values predicting Stress. ACE= adverse childhood experience	42
4.14	Standardized Actor-partner interdependence model of familial values predicting Relationship Satisfaction. ACE= adverse childhood experience	43

List of Tables

4.1	Frequencies and Percentage of Categorical Variables of Husbands and Wives Combined (N=168)	31
4.2	Descriptive Statistics for Wives and Husbands	33
4.3	Reliability analyses of scales and subscales of study variables by Partner roles	37
4.4	Correlations among Husbands' Variables	38
4.5	Correlations among Husbands' Variables	39
4.6	Actor and Partner Effects	39
4.7	Standardized coefficients of the Actor–Partner Interdependence Model on anxiety (N=168)	40
4.8	Standardized coefficients of the Actor–Partner Interdependence Model on stress (N=168)	41
4.9	Standardized coefficients of the Actor–Partner Interdependence Model on relationship satisfaction (N=168)	42

Chapter 1

Introduction

1.1 Background of the Study

Adverse Childhood Experiences (ACEs) are widely recognized indicators for predicting mental health problems and relationship outcomes in adulthood (Felitti et al., 1998; Afifi et al., 2016). The notion of ACEs generally encompasses a group of stressful or traumatic events that take place before age of 18 years, during highly susceptible stages of emotional, cognitive, and social growth (Felitti et al., 1998; Anda et al., 2006). These experiences involve a variety of adverse exposures, such as emotional abuse, physical abuse, sexual abuse, neglect, exposure to domestic violence, parental loss, parental divorce, parental alcohol or drug use, and family dysfunction (Briere and Elliott, 2003; Karakurt and Silver, 2014). Each of these types represents a disruption in the healthy environment necessary for children's psychological well-being and feelings of safety (Felitti et al., 1998; Hughes et al., 2017a).

Moreover extensive empirical evidence has repeatedly correlated ACEs with long-term outcomes throughout the life cycle, most notably in the etiology of psychological conditions such as depression, anxiety, and stress (Afifi et al., 2016; Merrick et al., 2017). For instance, those with multiple ACE exposures have higher likelihoods of experiencing chronic stress response, resulting in emotional dysregulation and susceptibility to psychopathology in adulthood (Anda et al., 2006; Teicher and

[Samson, 2016a](#)). The disruptions caused by ACEs are not limited to individual well being only but also spread to relational functioning, including the capacity to engage in healthy marital relationships, where unresolved childhood trauma tends to re-emerge in the guise of challenges in trusting, communicating, and feeling emotionally intimate ([Whisman and Uebelacker, 2009](#); [Khalifian et al., 2022](#)).

A growing body of evidence shows that the psychological effects of Adverse Childhood Experiences (ACEs) persist into adulthood, contributing to depression, anxiety, stress, and relationship difficulties ([Miller-Graff et al., 2020](#); [Felitti et al., 1998](#)). Emotional dysregulation resulting from early trauma—manifested as heightened reactivity and poor conflict resolution—undermines marital stability and satisfaction ([Anda et al., 2006](#); [McLaughlin et al., 2014](#); [Whisman and Uebelacker, 2009](#)). Population studies indicate that around 62% of adults report at least one ACE, and about 15% report four or more, underscoring its widespread impact ([Merrick et al., 2018](#)). Common ACEs such as abuse, neglect, and domestic violence disrupt attachment systems and emotional regulation, while household dysfunctions like parental separation or substance use further compromise relational security ([Briere and Elliott, 2003](#); [Felitti et al., 1998](#)). Adults with high ACE exposure often report lower marital satisfaction, reduced intimacy, and communication difficulties, affecting both partners through dyadic stress processes ([Whisman and Uebelacker, 2009](#); [Randall and Bodenmann, 2017](#); [Khalifian et al., 2022](#)). Collectively, these findings demonstrate that ACEs shape both mental health and relationship satisfaction across the lifespan, highlighting the need for interventions addressing trauma histories within couples ([Miller-Graff et al., 2020](#); [Qadir et al., 2013](#); [Merrick et al., 2018](#)).

To measure the satisfaction in the marital relationships, it is vital to look at the level at which people feel their emotional attachment, quality of relationship communication, and support ([Schumm et al., 1986](#)). The construct of marital satisfaction is multidimensional and it includes emotional intimacy, compatibility in solving problems, esteem and perceived fairness in the relationship ([Fincham and Beach, 2010](#); [Proulx et al., 2007](#)). The features of high satisfaction include mutual support, conflict-free resolution, and trust, and the features of low satisfaction include withdrawal, distrust, and poor communication ([Randall and Bodenmann,](#)

2017). Finally, the satisfaction of marriage cannot be fully comprehended by referring to the observable behavior but addressing the subjective experience of intimacy and stability by the couple (Bradbury et al., 2000; Fincham and Beach, 2010).

Childhood trauma has not only communication and intimacy implications but also goes further to the premises of attachment and trust in a marriage relationship (Merrick et al., 2017; Qadir et al., 2013). Adverse Childhood Experiences (ACEs) include neglect and abuse or witnessing family dysfunction, which disrupt the process of secure attachment systems, making one more probable to have insecure attachment when growing up (McCrorry et al., 2011; Mikulincer and Shaver, 2016). Chaotic actions such as avoidance, anxiety, or ambivalence tend to cause dissatisfaction of a relationship, an escalation of conflict, and the inability to sustain closeness (Whisman et al., 2004; Mikulincer and Shaver, 2016). People having an ACE history often fear being left, distrust and have reduced emotional dependability on the partners, which destabilizes the marriage (Chae et al., 2014; Hughes et al., 2017b).

The risk factor of insecure attachment and marriage instability rises significantly in people with Adverse Childhood Experiences (ACEs), and childhood adversity encourages dysfunctional interpersonal schemas, which are maintained in adulthood (Candel and Turliuc, 2019). It is empirically confirmed that adults who had more than one ACE experience more relational distress, less marital satisfaction, and more separation (Merrick et al., 2017). Dyadic study also indicates that psychological effects of ACE are not limited to an individual but one partner suffering can affect the emotional state of the other through crossover effects of the stress (Khalifian et al., 2022; Randall and Bodenmann, 2017). Together, they designate ACEs as an important risk factor to marital satisfaction due to a lack of attachment security, emotional infidelity, and stability in relationships throughout the lifespan (Felitti et al., 1998; Hughes et al., 2017b).

Early adverse childhood experiences increased the risks of emotional dysregulation, fostering maladaptive coping strategies that ultimately contribute to lower marital relationship satisfaction (Miller-Graff et al., 2020). The impacts of negative childhood experiences known as ACEs heavily transform the way partners relate to each

other. Research indicates that 14.5% of adults experienced four or more Adverse Childhood Experiences (ACEs) while 61.7% of adults had at least one ACE. Research by [Mostoufi et al. \(2013\)](#) confirmed that emotional abuse (11.1%), physical abuse (10.3%), sexual abuse (7.2%) in addition to emotional neglect (14.8%) and physical neglect (9.7%) along with domestic violence (15.1%) and parental separation or divorce (20.1%) as well as household substance abuse (24.4%) constitutes the various types of childhood trauma within these ACEs. Research indicates that individuals with ACEs are more likely to exhibit marital relationship dissatisfaction characterized by emotional dysregulation, diminished trust, impaired communication and difficulties in intimacy ([Whisman and Uebelacker, 2009](#)).

This pattern of marital dissatisfaction among adults with ACE histories can be better understood by examining how exposure to adverse experiences in childhood increases vulnerability to interpersonal difficulties that persist into later life ([Qadir et al., 2013](#)). Children who experience negative childhood experiences (ACEs) such as neglect, emotional abuse, exposure to intimate partner violence, parental death, parental divorce, parental mental illness, household dysfunction are at the increased risk of experiencing interpersonal violence and relationship issues later in adulthood ([Briere and Elliott, 2003](#)). The psychological trauma endured during these formative years often persists into adulthood, expressing as impaired communication, diminished emotional intimacy, and reduced satisfaction within marital relationships ([Chae et al., 2014](#)). Therefore, studying marital relationship satisfaction requires a thorough consideration of how individuals perceive their emotional bonds and communication with their partners, as well as the support they receive within the relationship ([Schumm et al., 1986](#)).

Childhood trauma has long-term consequences on communication and intimacy, but it reaches its fundamental level of attachment and trust in marriage ties ([Qadir et al., 2013](#); [Merrick et al., 2017](#)). Adverse Childhood Experiences (ACEs) may result in individuals having disorders in emotion regulation, formation of attachment, and trust, which are essential aspects in healthy partnerships ([Pietromonaco and Barrett, 2002](#)). Increased emotional reactivity and low coping abilities give rise to vulnerability to conflict and withdrawal leading to diminished marital satisfaction ([Affi et al., 2016](#); [Whisman and Uebelacker, 2009](#)). Fear of loneliness

and avoidance of intimacy are developed due to insecure patterns of attachment, which can be caused by childhood abuse or neglect (Merrick et al., 2017; Hughes et al., 2017a). When early parenting entails inconsistency or aggression, trust is compromised that creates long-lasting weaknesses that increase the chances of dissatisfaction in marriage (Briere and Elliott, 2003; Pietromonaco and Barrett, 2002).

Adverse Childhood Experiences (ACEs) impact not only personal mental health, but also social life at adulthood. Being vulnerable to depression, anxiety, and weak emotion regulation, as a result of exposure to early adversity, impairs marital satisfaction (Felitti et al., 1998; Hughes et al., 2017b). Relational dissatisfaction, dysfunctional intimacy, and communication problems are typical of the long-term impact of traumas on attaching and trusting others in individuals with high ACE scores (Whisman and Uebelacker, 2009; Mikulincer and Shaver, 2016; McCrory et al., 2011). Recent researches underline that the effects of ACE are not just individual but dyadic because the history of a trauma in each partner builds upon each other to determine the quality of the relationships (Merrick et al., 2017; Qadir et al., 2013). The crossover effect of unresolved trauma in one partner to the other can also cause a stressful response in the second partner, which serves to heighten relational strain (Khalifian et al., 2022; Randall and Bodenmann, 2017).

On the other hand, common adversity can create more empathy, understanding, and solidarity, and it is possible that the effects of ACEs in couples are two-way and not unidirectional (Merrick et al., 2017). With these literature gaps, there is an urgent necessity to examine how spousal history of dual ACE influences marital outcomes in the modern settings. The present study aims to fill this gap and will examine how ACEs in both partners contribute to either relational distress or resilience due to empathy and coping (Qadir et al., 2013; Merrick et al., 2017). The dyadic method also allows the research to recognize that the concept of marital satisfaction cannot be well comprehensively explained by the personal lenses of an individual but should be examined as a collective consequence of the interaction between the developmental experiences of two partners (Kenny et al., 2006). The given approach is not only going to reinforce the theoretical knowledge of the relational effects of trauma but also offers some practical implications when

it comes to developing interventions that can assist couples struggling with the collective burden of childhood adversity (Khalifian et al., 2022; Hughes et al., 2017b).

Moreover there is significant evidence of the Adverse Childhood Experiences (ACEs) being related to long-term mental health issues (depression, anxiety, and stress). Neurobiological development and regulation of emotions are caused by early exposure to adversity, which results in lifelong vulnerabilities (Felitti et al., 1998; Teicher and Samson, 2016b). These changes especially within the hypothalamic-pituitary-adrenal axis, prefrontal cortex, and amygdala predispose individuals to hyperarousal, dysregulated affect, and insecure attachment styles that hinder communication, trust, and intimacy in adulthood (McCrary et al., 2011; Mikulincer and Shaver, 2016; Cunha et al., 2024).

(Organization, 2001, 2018) defines mental health as a state of emotional, psychological, and social well-being that influences decision-making, stress management, and interpersonal functioning. When trauma impairs these systems, difficulties in emotional regulation and conflict resolution emerge, reducing marital satisfaction (Chae et al., 2014; McCarthy and Lambert, 2022). Individuals with high ACE scores often experience recurrent depression and communication breakdowns, leading to relational instability (Chapman et al., 2004; Nanni et al., 2012; Zheng et al., 2020a).

Mental health therefore acts as a key mediator linking ACEs to marital dissatisfaction: emotional disorders amplify mistrust, conflict, and low resilience, weakening relationship quality across cultures (Randall and Bodenmann, 2017; Hughes et al., 2017b; Yoon et al., 2017). Collectively, these findings indicate that ACEs shape adult relational functioning by undermining both psychological well-being and interpersonal stability (Merrick et al., 2017; Felitti et al., 1998).

Additionally, these studies strengthen the understanding that ACEs contribute to enduring psychological and interpersonal impairments that negatively impact marital relationship satisfaction and mental well-being (Chae et al., 2014). The findings of these studies align with the current study highlighting that early life

adversities have long-term impacts on relationships and mental well-being, specifically ACEs having a significant positive relationship with mental illness and a negative relationship with marital relationship satisfaction (Hughes et al., 2017a). However, previous research has not fully explored how the dyadic context plays out when both partners have experienced Adverse Childhood Experiences (ACEs). This gap is crucial to address in current study, which examines whether a relationship between two individuals with ACEs leads to increased distress or promotes mutual empathy, based on dual-partner assessment. (Merrick et al., 2017).

Adverse Childhood Experiences (ACEs) are strongly linked to mental health problems such as depression, anxiety, and stress, which can disrupt brain development and stress-response systems, leading to lifelong emotional vulnerability (Teicher and Samson, 2016a; McLaughlin et al., 2014). These neurobiological changes foster insecure attachment styles that hinder trust and communication in marriage. Mental health—defined by the (Organization, 2001) as a state of emotional, psychological, and social well-being—shapes decision-making, stress management, and interpersonal functioning. Research shows that individuals with ACE histories are more likely to experience persistent mental illness, emotional dysregulation, and relational distress (Merrick et al., 2017; Hughes et al., 2017a; McCarthy and Lambert, 2022). Poor mental health impairs communication, conflict resolution, and emotional regulation, resulting in lower marital satisfaction (Zheng et al., 2020a; Yoon et al., 2017). Collectively, evidence suggests that depression, anxiety, and emotion dysregulation mediate the relationship between ACEs and marital dissatisfaction, amplifying relational conflict and instability (Karakurt and Silver, 2014; Zheng et al., 2020a; Merrick et al., 2017).

In addition, Adverse Childhood Experiences (ACEs) have a predictive role in depression, anxiety, stress, and marital satisfaction, and it is essential to consider this aspect in the culture of Pakistan, where psychological well-being is determined by stigma and strict family structures (Qadir et al., 2013). Insecure and anxious attachment styles have a strong connection with childhood trauma and decrease trust and emotional closeness in relationships (Merrick et al., 2017; Khalifian et al., 2022). Such psychological consequences, as depression, stress, and emotional instability are long-term and impair communication and intimacy by

reducing the quality of relationships (LeMasters et al., 2021). Consequently, the culturally responsive intervention that is related to unresolved childhood trauma and at the same time considers the Pakistani social norms and gender roles should be provided to enhance both marital adjustment and mental health (Qadir et al., 2013; LeMasters et al., 2021).

1.2 Research Gap

Although there is extensive research on adverse childhood experiences (ACEs) and mental health but its relationship to marital relationship satisfaction specifically in cultural context of Pakistan remained under explored (McCarthy and Lambert, 2022). Research shows that ACEs clearly identify mental health conditions which include stress and depression along with anxiety and these conditions affect relationship quality (McCarthy and Lambert, 2022). This literature gap exists regarding the lasting influence of mental health problems from childhood adversity on the happiness of marital relationships especially in married couples (Affi et al., 2016).

The assessment of multiple childhood adversities and their combined influence on marital relationship unhappiness remains under examined in current studies that focus on individual ACE investigations (Miller-Graff et al., 2020). Men and women follow unique pathways regarding ACEs which leads to varied mental health consequences alongside variations in their marital relationship structure according to (Karatekin, 2018). Investigation of this relationship remains absent in Pakistan's culture which establishes specific gender standards that might shape the impact of ACEs on emotions during social interactions. Relevant studies suggest mental health acts as a connection between adverse childhood experiences and marital relationship. This research gap underscores the need for culturally sensitive studies to examine how these gender norms influence emotional regulation and relationship dynamics in marital contexts.

Moreover, Pakistan's population since cultural and social factors potentially modify this effect (Saeed and Mahmood, 2023). In Pakistan, robust family structures

and gender norms influence emotional communication and couple coping skills in the context of marriage, and such factors may accelerate the consequences of childhood experiences on relationships as adults (Saeed and Mahmood, 2023; Qadir et al., 2013). The research identifies stigma in mental health in Pakistan that tends to induce emotional suppression, further complicating marital relationship satisfaction for those with ACEs (Qadir et al., 2013). The culturally sensitive nature of the study will add practical input applicable to the Pakistani couples, as a part of specific therapeutic interventions and trauma-informed couple counselling. It aids in filling the gap left by Western centered studies by focusing on Pakistani family dynamics and cultural factors, ultimately benefiting mental health practitioners and policymakers aiming to improve marital relationship quality in Pakistan (Qadir et al., 2013).

1.3 Problem Statement

The predicting role of Adverse Childhood Experiences in marital relationship satisfaction remains underexplored especially in Pakistani environments (McCarthy and Lambert, 2022).

Research indicates that individuals facing childhood difficulties tend to develop mental health conditions including stress and depression together with anxiety. The problems originates from past experiences and have negative consequences on maintaining stable marriages. (Affi et al., 2016). Zheng et al. (2020b) demonstrate that mental health problems appear through emotional detachment, dysfunctional communication and increased relational conflicts resulting in less marital relationship satisfaction. The relationship between ACEs and marital relationship satisfaction remains inadequately studied with quantitative analysis chiefly due to sociocultural circumstances in Pakistan which may complicate these connections according to Zheng et al. (2020b).

Furthermore, most researches about long-lasting ACE effects emerged from Western research contexts. Young children facing trauma develop emotional instability and insecure bonds while their relationships become less stable (Miller-Graff et al., 2020).

However, it is unknown to what degree mental health conditions impacted in the association between ACEs and marriage relationship satisfaction in collectivistic societies like Pakistan, where gender norms and familial obligations affect expectations for marital relationships (Karatekin, 2018). Furthermore, although research indicates that ACEs impact adult relationships through a critical mechanism of poor mental health, this pathway has not been statistically examined in the Pakistani community (Yoon et al., 2017). Considering the increased interest in mental health and the effects of unhappy marital relationships in the region, correlational studies are highly necessary of determining the impact of ACEs on psychological wellbeing and subsequent influence on the outcomes of marital relationships (Qadir et al., 2013). In order to create culturally sensitive interventions that will improve the mental health and relationship quality of married people with a history of childhood adversity, it will be crucial for mental health professionals, legislators, and marriage counselors to close this gap. Addressing this requires collaborative efforts to integrate culturally relevant frameworks into therapeutic practices. Such initiatives can foster resilience and enhance emotional well-being in marital relationships affected by adverse childhood experiences.

1.4 Research Objectives

1.4.1 Research Objective 1

To examine the significant association between an individual's Adverse Childhood Experiences (ACEs), presence of anxiety, depression, and stress, and their marital relationship satisfaction.

1.4.2 Research Objective 2

To explore the correlations between one partners's Adverse Childhood Experiences (ACEs) and the other partner's levels of depression, anxiety, stress, and marital relationship satisfaction.

1.4.3 Research Objective 3

To examine the interdependent relationship between partners' adverse childhood experiences (ACEs), anxiety, depression, and stress in relation to both their own

and each other's levels of anxiety, depression, stress, and marital relationship satisfaction.

1.5 Hypothesis of the Study

1.5.1 Hypothesis 1

There will be a significant association between an individual's Adverse Childhood Experiences (ACEs), presence of anxiety, depression, and stress, and marital relationship satisfaction.

1.5.2 Hypothesis 2

There will be significant relationships between one partner's Adverse Childhood Experiences (ACEs) and the other partner's levels of depression, anxiety, stress, and marital relationship satisfaction.

1.5.3 Hypothesis 3

There will be significant interdependent relationships between partners' Adverse Childhood Experiences (ACEs), anxiety, depression, and stress, in relation to both their own and each other's levels of anxiety, depression, stress, and marital relationship satisfaction.

Chapter 2

Literature Review

Early-life traumatic experiences known as ACEs (Adverse Childhood Experiences) cover different forms of abuse such as relationship abuse, emotional abuse, exposure to intimate partner violence, neglect, parental death, parental divorce, parental mental disorder and household dysfunction (Felitti et al., 1998). Studies repeatedly confirm that exposure to several types of Adverse Childhood Experiences (ACEs) is substantially associated with the risk of developing mental illness later in adult life (Felitti et al., 1998). Results show that people reporting four or more ACEs are approximately five times more likely to develop depression than those who report none, highlighting childhood adversity's compounding and cumulative effects on mental health (Hughes et al., 2017a). This trend shows significance for a dose-response relationship, in which the likelihood of negative psychological consequences increases as the count of ACEs increases (Merrick et al., 2017).

Additional validation for this findings is further provided by large epidemiological studies carried out by the Centers for Disease Control and Prevention, which found ACEs are highly linked with emotional distress, increased susceptibility to substance abuse, and increased risks of suicidal behaviors and thoughts throughout the life cycle (Anda et al., 2006). These findings highlight the deep and lasting public health cost generated by early-life adversities, far beyond the child years and into adult mental and interpersonal functioning (Felitti et al., 1998).

2.1 Adverse Childhood Experiences

Adverse Childhood Experiences (ACEs) refers to a rather extensive category of childhood related adversities, which considerably undermine developmental, psychological, and relational outcomes throughout the life span (Felitti et al., 1998; Hughes et al., 2017a). The ACE study, which became the landmark study, established the following experiences (exposure to abuse, neglect, and family dysfunction) as childhood risk factors (Felitti et al., 1998). In particular, the ACEs include physical abuse, emotional abuse, sexual abuse, emotional neglect, physical neglect, exposure to intimate partner violence, parental separation or divorce, parental death, parental substance use, parental mental illness, and household dysfunction at large (Felitti et al., 1998; Anda et al., 2006). Moreover researches have several times proved that the exposure to one or several ACEs is not a unique case and the prevalence rates differ depending on culture and society (Merrick et al., 2017; Hughes et al., 2017a). Epidemiological surveys are going on globally and indicates that ACEs are not uncommon experiences but common developmental issues that impact a significant percentage of the population (Merrick et al., 2018). An example is that 61.7 percent of adults had experienced at least one ACE and 14.5 per cent had experienced four or more, so the burden of adversities is widespread and leads to cumulative risks of poor health and relationship outcomes (Merrick et al., 2018). The Centers of Disease Control and Prevention (CDC) also came to a conclusion that risks of mental illness, substance use, suicidal thoughts, and interpersonal problems were closely linked with ACEs throughout adulthood (Anda et al., 2006; Merrick et al., 2017). These results underline the importance of a dose response effect whereby the risk of negative effects is greater to the extent that more ACEs are endorsed (Felitti et al., 1998; Hughes et al., 2017a). ACE prevalence seems to be even higher in the case of the South Asian region because of the current social, economic, and cultural threats (?) (Rashid and Zehra, 2017). (Organization, 2021) has estimated that one ACE has been experienced by at least 30% of the world population, and in developing nations like Pakistan the number is more than 40% (Organization, 2021). In Pakistan, local research indicates that physical abuse, family conflict, and neglect are the most commonly reported types

of childhood adversity, which reveals the sociocultural particularities of the ACE exposure (Saeed and Mahmood, 2023) (Rashid and Zehra, 2017). The studies also show that survivors of these adversities are likely to have psychological distress and relationship problems throughout the entire adulthood, which implies that the impact spans intergenerational (Qadir et al., 2013; Hughes et al., 2017a). Collectively, these results demonstrate that ACEs are major predictors of not only mental illnesses but the existence of relational troubles as well and require further studies on how it contributes to the development of adult well-being and marital satisfaction (Felitti et al., 1998; Merrick et al., 2017).

2.2 Adverse Childhood Experiences and Depression

Depression is one of the most reported psychological consequences of Adverse Childhood Experiences (ACEs), where studies have demonstrated that exposure to various types of early adversity is a significant predictor and contributor to depressive symptoms in adulthood (Felitti et al., 1998; Merrick et al., 2017). The epidemiological surveys in a variety of population in the world prove that people with high ACE scores are much more inclined to fulfill the diagnostic criteria of major depressive disorder, as the effects of adversity in childhood are quite extensive and long-term (Chapman et al., 2004; Hughes et al., 2017a). Longitudinal results also show that there is a dose-response, so that each increased type of adversity increases the chance of developing depressive symptoms proportionally thus a cumulative risk effect (Felitti et al., 1998; Hughes et al., 2017a). This connection can be explained with the help of biological research, where early adversity changes the operation of the hypothalamic-pituitary-adrenal (HPA) axis, which leads to the increase and the length of stress responsiveness that subsequently leads to the inability of the body to effectively regulate its emotions (Anda et al., 2006; Danese and McEwen, 2012). The persistent disturbance of those systems at sensitive developmental stages makes people more vulnerable to mood deviation, which exposes them to depressive episodes later in life (Heim and Binder, 2012; Miller et al., 2011). Besides physiological changes, cognitive models show that children raised in threatening or neglectful conditions tend to form negative self-schemas

and mal-adaptive attributional styles, which support hopelessness and predisposes them to depression in adulthood (Beck and Haigh, 2014; Shapero et al., 2014). In addition, there is clinical evidence that individuals who have suffered more than one ACE do not only exhibit greater rates of depression but demonstrate more severe, recurrent and treatment-resistant episodes of depression than individuals with no such histories (Chapman et al., 2004; ?) (Chapman et al., 2004; Nanni et al., 2012). This implies that ACE-related depression is more common and chronic and hard to treat, as it is an extreme manifestation of childhood adversity on mental health trajectories (Danese and McEwen, 2012; Merrick et al., 2017). Collectively, these combined pieces of evidence highlight the fact that depression is a key dependent measure of ACEs, as one of the most obvious ways in which childhood stress is expressed during adulthood (Felitti et al., 1998; Hughes et al., 2017a).

2.3 Adverse Childhood Experiences and Anxiety

One of the most common consequences of Adverse Childhood Experiences (ACEs) is anxiety disorders, according to research, multiple types of adversities (including abuse, neglect, and dysfunction in the household) are associated with a high chance of developing clinical anxiety as an adult (Affi et al., 2008; Teicher and Samson, 2016a). The findings of extensive epidemiological studies prove that the increased ACE scores are always linked to increased risks of generalized anxiety disorder, panic symptoms, and post-traumatic stress-related anxiety (Green et al., 2010; Hughes et al., 2017a). These results point to the fact that the psychological health effects of ACEs are not only profound in childhood but also long-lived impacts on adult psychological health (Affi et al., 2008; Hughes et al., 2017a). Neurodevelopmentally, neural pathways engaged in processing fear are sensitized by early exposure to adversity especially the amygdala resulting in hyper-reactivity to perceived threats across a lifetime (McCrorry et al., 2011; Teicher and Samson, 2016a). This neural sensitisation leads to sustained hypervigilance, physiological arousal and hyper-startle responses, which are typical of anxiety disorders

(McLaughlin et al., 2010; Teicher and Samson, 2016a). In the long run, this hyperactivity develops, and it makes people respond emotionally in a manner that sustains anxiety on a chronic basis (Heim and Binder, 2012; McCrory et al., 2011). Besides neurobiological alterations, dysadaptive coping was also developed in the conditions of unsafe childhood environments and is perpetuated into adulthood (McLaughlin et al., 2010; ?) (McLaughlin et al., 2010; Kessler et al., 2010). Indicatively, children raised in erratic or aggressive families often imitate to foresee danger and the trend continues in their adult life in the interpersonal and work situations (Affi et al., 2008; Green et al., 2010). In turn, anxiety is among the most significant dependent variables that the long-term effect of childhood adversity on mental health can be explained with (Teicher and Samson, 2016a; Hughes et al., 2017a).

2.4 Adverse Childhood Experiences and Stress

Although ACEs produce effects on hypervigilance and fear reactions, there is another pathway of chronic stress which is central to the long-term effects of ACEs (Anda et al., 2006; Shonkoff and Garner, 2012). The subsequent stress dysregulation in the aftermath of early adversity is not merely mental but also extensively physical, where both styles of coping and biological systems of stress-response are modified (Miller et al., 2011; Danese and McEwen, 2012). It has been empirically shown that adults who have higher scores in ACE report more exposure to daily stressors, lack of perceived control, and experience more problems in effectively coping with stressful experiences (Hughes et al., 2017a). Additional information is found in biological studies, which have revealed that adverse stress in the early stages results in the long-term alterations of stress-regulation mechanisms, including the hypothalamic–pituitary–adrenal (HPA) axis and the cortisol secretion rhythms (Miller et al., 2011; Danese and McEwen, 2012). These imbalances result in long-term physiological activation during stress and the effect is that the body is overreacting and takes longer to come back to the normal after stressful situations (Shonkoff and Garner, 2012; Heim and Binder, 2012). This chronic stimulation leads to the so-called allostatic load, which is a phenomenon that explains the overall physiological wear and tear due to repeated exposure to the

stressor throughout our life (Danese and McEwen, 2012). In the long-term, an irritable stress sensitivity has been shown to worsen mental and physical health, putting one at risk of developing depression, cardiovascular disease and immune system disorders (Anda et al., 2006; Miller et al., 2011). Collectively, the literature evidence makes dysregulation a strong dependent measure of ACEs and supports the perspective that a lifetime trajectory of increased stress and maladaptation is initiated by poor childhood circumstances (Shonkoff and Garner, 2012; Hughes et al., 2017a).

2.5 Adverse Childhood Experiences and Marital Relationship Satisfaction

Continuing on the personal consequences of anxiety and stress, it was further demonstrated that ACEs produce the huge impact in the relationship sphere, especially in terms of conjugal contentment (Candel and Turliuc, 2019; Merrick et al., 2017). The results of research continuously indicate that people who experience higher levels of ACE report less about marital satisfaction, which indicates that childhood adversity has effects in intimate adult relationships (Candel and Turliuc, 2019; Hughes et al., 2017a). These associations are also confirmed by longitudinal analyses, and dose response effects reveal that the more ACE categories experienced, the higher the chances of marital dissatisfaction (Felitti et al., 1998; Merrick et al., 2017). The processes that support this relationship are challenges in trust, intimacy, and emotion regulation, typical after-effects of childhood adversity and devastating to relational closeness (Whisman, 2007; Candel and Turliuc, 2019). Since marital satisfaction is a dyadic phenomenon, the ACE-induced vulnerabilities of one of the partners tend to impact the relational well-being of the other person in the couple, which leads to the crossover effect amplifying the dissatisfaction of the couple unit (Khalifian et al., 2022; Larson and Almeida, 1999). As an example, the negative affect, when one partner starts it, is likely to be reproduced and reinforced by everyday interactions, forming conflict or disengagement cycles (Randall and Bodenmann, 2017; Larson and Almeida, 1999). Notably, the moderating role in these processes belongs to cultural contexts. The context of

extended families, gender roles, and the stigma of mental health are deeply ingrained in expressing ACE-related vulnerabilities in the context of marriage in South Asian countries like Pakistan (Qadir et al., 2013). These aspects can be buffering or escalating, to the relational impact of ACEs, based on family and societal patterns. Thus, marital satisfaction may be viewed as a relational endpoint that is sensitive and reflects both the personal backgrounds of distress and the cultural backgrounds where couples have to manage stress and intimacy (Candel and Turliuc, 2019; Khalifian et al., 2022).

2.6 Rationale

Couples' mental health and general well-being are known to be significantly impacted over time by Adverse Childhood Experiences (ACEs), which include physical and emotional abuse, neglect, and dysfunctional households (Felitti et al., 1998), recent studies also confirmed these findings that collective exposure to ACEs significantly increases the probability of having anxiety, depression, dysregulated emotions and negative social functioning in adulthood (Anda et al., 2006). Moreover, Bellis et al. (2018) showed that higher ACE scores are significantly linked to lower quality of life and mental health with low self-esteem and poor self-regulation as a part of poor mental health acting as mediators.

Studies show that traumatic events in childhood are significantly linked to the development of a wide many years into adulthood, such as increased stress, chronic anxiety, and clinical depression, thus validating the long-term psychological toll of adverse childhood experiences (ACEs) (Anda et al., 2006). These long-term outcomes illustrate how early adversity interferes with emotional regulation, elevates susceptibility to psychopathology, and impairs relational functioning over the life course (Merrick et al., 2017).

Researchers also identified that ACEs have a direct effect on satisfaction in marital relationships because people who bring unresolved trauma into adulthood tend to have difficulty with intimacy, trust, and communication, which results in increased levels of marital dissatisfaction (Whisman and Uebelacker, 2009). Nonetheless, the

precise relationship between ACEs and marital relationship satisfaction in married couples is not well known, especially in South Asian societies whose cultural and familial patterns diverge from Western populations that predominate most empirical studies (Karatekin, 2018; Sullivan et al., 2010).

Studies from Pakistan indicates that the occurrence of early traumatic stressors is especially great, since most people are exposed to family instability, financial strain, and neighborhood violence when they are young, which heightens the risk for negative consequences in adulthood (Qadir et al., 2013). Locally conducted research supports the prevalent rate of ACEs in Pakistan, which indicates that a significant portion of the population is subjected to neglect, abuse, and dysfunctional household functioning, highlighting the need for investigating how these adversities influence psychological well-being and marital satisfaction in this cultural context (Qadir et al., 2013).

The relationship between ACEs and marital satisfaction in Pakistani cultural environments remains poorly investigated by research. This research establishes an essential knowledge gap by studying the relationship between ACEs and mental health conditions together with marriage satisfaction in married couples of Pakistan.

2.7 Theoretical Framework

The present research is based on Emotion Transmission Theory, developed by (Larson and Almeida, 1999), which provides an ecological perspective for understanding how emotional experiences are shared, shaped, and perpetuated within family systems and close relationships. According to this theory, emotions especially those arising from stress or trauma do not remain confined within individuals. Rather, they are dynamically transferred through daily interactions, setting off chain reactions that shape the emotional climate of couples and families (Larson and Richards, 1994; Whisman, 2007).

Within the context of romantic relationships, this theory suggests that negative emotions such as sadness, anger, or distress can be transmitted from one partner

to the other. This process of transmission has deep implications since it not only impacts the psychological well-being of both partners but also their relationship satisfaction, as it illustrates how negative emotional patterns are ingrained in the marital system (Khalifian et al., 2022; Randall and Bodenmann, 2017).

Emotional contagion is particularly significant for those with a past history of Adverse Childhood Experiences (ACEs), where unresolved trauma can lead to heightened stress vulnerability, lower levels of emotional reactivity, and compromise the ability to regulate negative affect in adult relationships (Merrick et al., 2017; Hughes et al., 2017a).

ACEs include a wide variety of adversities, such as direct abuse (physical, sexual, or emotional), witnessing intimate partner violence, neglect, parental death or divorce, parental history of mental illness, household substance abuse, and more general patterns of family dysfunction that undermine stability during development (Felitti et al., 1998; Anda et al., 2006).

These experiences not only affect immediate emotional and behavioral regulation but also have long-term implications for physical health and relational functioning. The cumulative impact of multiple ACEs has been shown to increase the risk of chronic stress, maladaptive coping, and intergenerational transmission of trauma.

Evidence indicates that these cumulative stressors not only forecast increased risks for depression, anxiety, and emotional dysregulation but also enhance the risk of insecure attachment, decreased trust, and decreased marital satisfaction during adulthood (Whisman and Uebelacker, 2009; Candell and Turliuc, 2019).

Studies repeatedly show that early adverse life experiences establish long-term vulnerabilities that express as chronic mental health challenges, such as depression, anxiety, and stress (Merrick et al., 2017; Hughes et al., 2017a). These long-lasting outcomes express the ways in which ACEs interfere with neurobiological and psychological development, rendering individuals more susceptible to chronic reactivity to stress and challenges in modulating emotional response (Teicher and Samson, 2016b).

Emotion Transmission Theory also elucidates that such emotional ramifications of ACEs are not only limited to the person but are transmitted in interpersonal settings, especially within intimate relationships like marriage (Larson and Almeida, 1999). This theoretical stance suggests that unresolved emotional loads can be contagious for couples, as partners subconsciously take on, reflect, and echo each other's emotional status, bringing about cycles of aversive affect influencing relationship quality (Sprecher et al., 1994). For instance, a person who has experienced childhood trauma might bring symptoms of depression, anxiety or stress into the marriage, and these challenges can break down trust, intimacy, and communication with his/her partner (Whisman and Uebelacker, 2009). The danger is amplified when both couples indicate a history of adversity since shared unresolved trauma enhances the possibility of conflict escalation and weakens the couple's ability to perform helpful actions that cushion stress (Khalifian et al., 2022; Candell and Turliuc, 2019).

Decades of studies confirm the assertions that emotional lives including that involving early adversity has a direct effect specifically, not just on the self but also on their close relations through common emotional climates.

The example of this is the study by Merrick et al. (2017) who points to the fact that carriers of adverse childhood experiences are characterized by greater degree of psychological distress, which then transfers to the partner, causing them to experience more stress and reduced quality of the relationship. The empirical evidence also demonstrates that childhood trauma that remains unresolved may exacerbate emotional dysregulation, which can result in numerous negative emotional interactions between spouses and eventually the overall decline in the marital relationship satisfaction (Khalifian et al., 2022; Graham-Bermann et al., 2006).

This reciprocal process can create a cycle of negative emotional states within the couple, leading to miscommunication, conflict, emotional exhaustion, and ultimately, diminished marital satisfaction (Graham-Bermann et al., 2006). Emotional state transfer between couples mainly happens by way of the everyday

interpersonal communication, where the conveyance of emotion is through communication pattern, non verbal cues, and common patterns (Larson and Almeida, 1999; Sprecher et al., 1994). In the Emotion Transmission Theory, such interactions are the avenues through which emotions, such as distress, insecurity, or anger resulting as part of ACEs, can transfer to a partner.

Emotional contagion or empathetic sharing of another person, even some minor displays of distress (disengagement, anger, mood changes, etc.) are swiftly identified and reflected in the spouse producing a feed-forward process that might intensify psychological symptoms in the couple (Graham-Bermann et al., 2006; Candel and Turliuc, 2019) Prolonged and intense emotions resulting from ACEs are particularly challenging to regulate and are more likely to spill over into the partner's experience, undermining both partners' psychological health and the quality of their relationship (Thompson and Bolger, 1999; Domingue and Mollen, 2009). Empirical evidence further confirms that psychological distress is inversely related to marital adjustment, and individuals with a history of trauma or mental health disorders frequently report greater difficulties in their relationships (South et al., 2008; Sayers et al., 2009).

Within this conceptual model, mental health issues are viewed as critical pathways linking ACEs to marital satisfaction. Exposure to ACEs undermines mental health, and through the mechanism of emotional transmission, this distress is shared with the spouse, reducing marital satisfaction for both partners (Zheng et al., 2020b). The ongoing transmission of adverse emotional states shapes the emotional climate of the marriage, often resulting in a persistently negative and dissatisfying relational dynamic, as well as increased psychological distress for both individuals (Candel and Turliuc, 2019).

The Emotion Transmission Theory explains the ACEs impact on the interruption of adults in terms of propagating negative emotions in intimate relationships. It has been argued that negative experiences during early life undermine the emergence of self-regulation and emotional stability, generating vulnerabilities that raise the risk of anxiety, depression, and insecure attachment styles in adulthood (Merrick et al., 2017; Thompson and Bolger, 1999). These early disturbances in emotional regulation and attachment security have been consistently found to

compromise interpersonal competence, making individuals more stressful-reactive and less able to sustain close stable relationships (Teicher and Samson, 2016a; Candel and Turliuc, 2019).

When these psychological vulnerabilities are brought to marriage, the impact of adversity is no longer isolated within the individual but is passed on to the marital dyad, as unresolved trauma and maladaptive coping over spill over into everyday interactions with the partner (Khalifian et al., 2022; Merrick et al., 2017). With time, such passing on of distress leads to greater emotional burden in both partners, intensifying the burden of depression and anxiety throughout the relationship and decreasing the overall quality of married life (Larson and Almeida, 1999; Hughes et al., 2017a). This perpetual reciprocal process forms a cycle whereby unresolved trauma creates repeated miscommunication, conflict intensification, and decreased intimacy, slowly destroying both partners' psychological health and marital satisfaction (Graham-Bermann et al., 2006; Randall and Bodenmann, 2017). Thus, Emotion Transmission Theory presents an advanced model for understanding the interpersonal mechanisms by which childhood adversity operates as a foundational problem that emerges in adult psychopathology and maladaptive relational patterns (Larson and Almeida, 1999; Khalifian et al., 2022).

In summary, Emotion Transmission Theory provides a systemic and dynamic model for explaining how Adverse Childhood Experiences (ACEs) affect adult depression, anxiety, stress and marital relationship satisfaction by emphasizing the interpersonal transmission of emotional states (Larson and Almeida, 1999). The theory suggests that emotions that are molded early in life, for example, anxiety, sadness, or anger, are not limited to the individual but are rather expressed and communicated within intimate relationships, including marriages, where partners continuously influence each other's emotional climates (Merrick et al., 2017). This emotional interplay can exacerbate relational conflicts if unaddressed, particularly in couples where one or both partners have experienced ACEs. Culturally sensitive interventions could help mitigate these effects by fostering healthier emotional communication patterns.

This frame of reference highlights the importance of assessing not only personal trajectories of distress but also dyadic processes, given that unresolved trauma

in one partner can compound stress and psychological symptoms in the other, hence negatively affecting overall relationship satisfaction (Khalifian et al., 2022). Through the identification of how negative feelings are passed on and repeated in couples, Emotion Transmission Theory highlights that marital discontent can't be explained on an individual basis alone but needs to be examined as a relational state influenced by constant emotional interdependence (Larson and Almeida, 1999). Together, this work shows that ACEs, mental health issues, and relationship outcomes are best understood in a dyadic framework that captures the interactive and accumulative dynamics of emotional exchanges within intimate relationships (Merrick et al., 2017; Khalifian et al., 2022). Interventions targeting these dyadic emotional exchanges could help break cycles of distress and improve marital resilience.

2.8 Conceptual Model

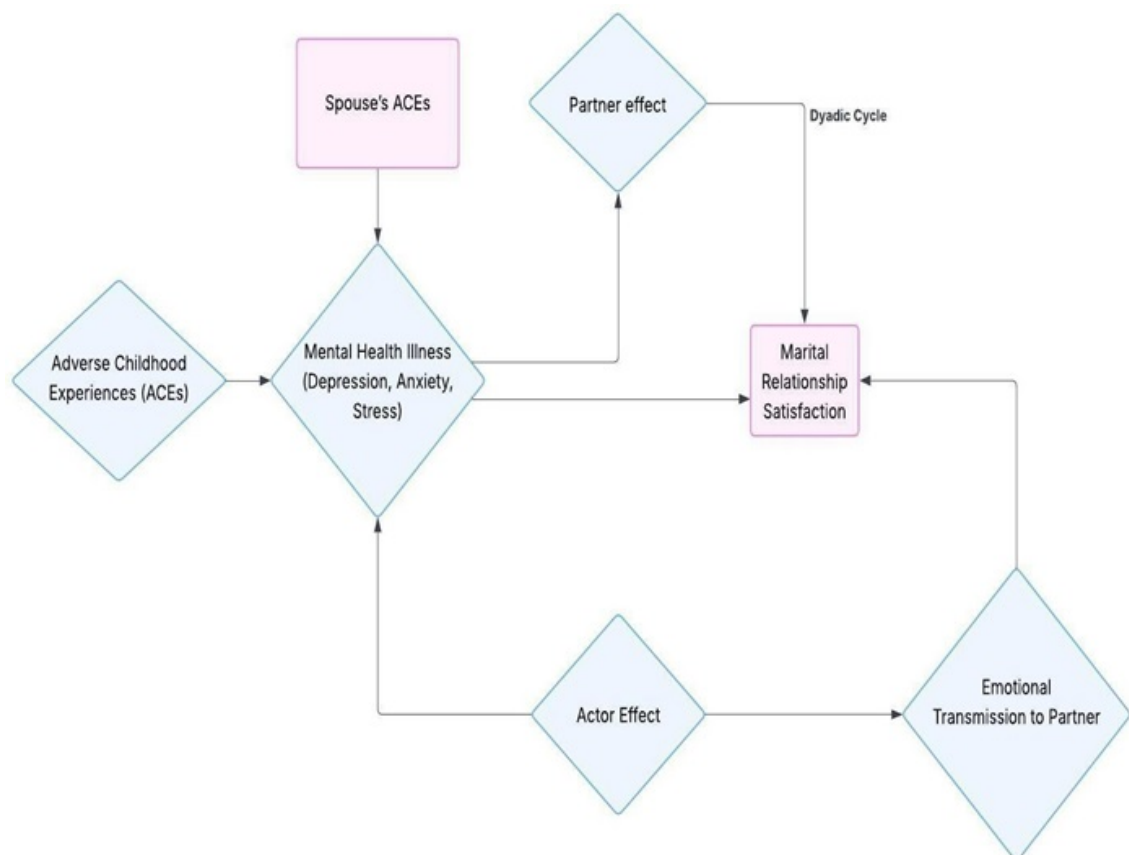


FIGURE 2.1: Conceptual Model of Adverse Childhood Experiences, Depression, Anxiety, Stress and Marital Relationship Satisfaction

Chapter 3

Research Methodology

3.1 Methodology

3.1.1 Research Design

The current research utilized a quantitative, cross-sectional dyadic design (APIM) to test the predictive influence of adverse childhood experiences (ACEs) on depression, anxiety, stress, and marital relationship satisfaction in married couples in Pakistan.

3.1.1.1 Sample and Sampling Strategy

Participants were recruited through convenience sampling strategy. A total of 84 married couples (168 individuals) were included in this study. The sample size was determined based on power analysis for correlational research, which indicated that a minimum of 84 pairs is required to detect a medium effect size ($r = 0.30$) with a significance level of (0.05) and a statistical power of (0.80). Medium effect size was grounded in prior empirical evidence and theoretical rationale. As research on ACEs and adult mental health consistently reports moderate associations (Cohen's $r \approx .30$) (Hughes et al., 2017a; Merrick et al., 2017). In dyadic frameworks such as the Actor–Partner Interdependence Model (APIM), actor and partner paths similarly tend to fall within the medium range due to shared variance (Kenny et al., 2006; Ledermann et al., 2011). Accordingly, a medium effect size ($r \approx .30$;

$f^2 = 0.15$) (Cohen, 1988) was adopted to achieve adequate statistical power while avoiding overestimation of effect magnitude.

3.1.1.2 Study Settings and Data Collection Procedure

Both partners within each married couple were recruited to participate, enabling a dyadic and comprehensive examination of how Adverse Childhood Experiences (ACEs) relate to individual and partner levels of depression, anxiety, stress, and marital relationship satisfaction. Participants were briefed about the study's purpose, confidentiality assurances, and voluntary nature of participation prior to data collection. Informed consent was obtained from both spouses separately to ensure independent and unbiased responses. Each partner completed the same set of standardized self-report questionnaires, including measures of ACEs, depression, anxiety, stress, and marital satisfaction. Data were collected concurrently but analyzed dyadically to capture both actor effects (the impact of one's own ACEs on personal outcomes) and partner effects (the influence of one partner's ACEs on the other's psychological and relational outcomes) using the Actor–Partner Interdependence Model (APIM). This design allowed for a more nuanced understanding of how early adverse experiences shape individual and shared emotional functioning within marital relationships. Such a comprehensive approach strengthens the ability to identify interventions that can benefit both individuals and couples. It also adds depth to the understanding of how shared experiences and histories influence long-term relational dynamics.

3.1.1.3 Inclusion Criteria

- i. Couples were legally married at the time of participation.
- ii. Both partners voluntarily consented to participate and completed the study measures independently.
- iii. Participants were proficient in English language.
- iv. Willingness to disclose personal history related to adverse childhood experiences, mental health, and marital satisfaction was required.

3.1.1.4 Exclusion Criteria

- i. Participants who experienced severe psychiatric conditions (e.g., psychosis, mania, or active suicidal ideation, major depressive disorder etc) that impair comprehension or response accuracy were excluded.

3.1.2 Measures and Instruments

3.1.2.1 Demographic Information Questionnaire

Demographic data also influences study variables therefore; demographic information sheet was also designed to explore the participant personal information required for this present research. The demographic includes age, gender, marriage duration, employment Status, family system and socio-economic status.

3.1.2.2 Adverse Childhood Experiences International Questionnaire

Adverse Childhood Experiences International Questionnaire (ACE-IQ) represents a WHO developed standardized tool that evaluates multiple forms of childhood adversity which occurred before an individual turns 18 years old. This assessment tool monitors abusive experiences about physical mistreatment and emotional maltreatment and sexual abuses with neglect and various household stressors encompassing parental fighting along with divorce and parental substance abuse and domestic violence and mental health problems in the family residence. The 43-item questionnaire assesses 13 categories of childhood adversity using a Likert-type response scale to quantify the frequency and intensity of exposure to adverse experiences during childhood. Across diverse cultural settings the ACE-IQ shows good internal consistency and reliability according to Cronbach's alpha between 0.76 to 0.89 [Organization \(2011\)](#). Its broad scope allows for comprehensive profiling of both direct and indirect traumatic events that may impact developmental and psychological outcomes. This makes ACE-IQ a crucial resource for public health practitioners and researchers in identifying at-risk populations and tailoring targeted interventions.

3.1.2.3 Depression Anxiety Stress Scale

The Depression Anxiety Stress Scale (DASS-21) provides a self-report tool to measure patients' depression feelings alongside their levels of anxiety and stress severity. Each subscale in the 21-item DASS contains seven items that condensed an original 42-item assessment. The respondents use a 4-point Likert rating system to show how severely emotional distress affected them during the previous week. The DASS-21 achieved substantial validation results in different groups of participants since [Lovibond and Lovibond \(1995\)](#) reported Cronbach's alpha coefficients at 0.91 for Depression and 0.84 for Anxiety and 0.90 for Stress. The DASS-21 proved to be a dependable measure of mental health symptoms in Pakistani populations following its validation efforts among this demographic ([Aslam et al., 2020](#)).

3.1.2.4 Relationship Assessment Scale

The Relationship Assessment Scale (RAS) is a widely used measure for assessing overall marital relationship satisfaction. The scale contains 7 items rated on a 5-point Likert scale, designed to capture individuals' global perceptions of their marital relationship quality. Its conciseness and focus make it a practical tool for evaluating satisfaction in marital relationship. The RAS has demonstrated excellent reliability, with Cronbach's alpha coefficients typically ranging from 0.85 to 0.94 across diverse samples ([Hendrick, 1988](#)). Furthermore, the scale shows strong construct and convergent validity, correlating well with other established relationship satisfaction measures. It has been validated in multiple cultural contexts, including South Asian populations, confirming its appropriateness for assessing marital relationship satisfaction within Pakistan's socio-cultural setting (e.g., [Aslam et al. \(2020\)](#)). Given its robust psychometric properties, the RAS remains a preferred choice for relational research. Additionally, its ease of administration enhances its utility in both clinical and research environments. The scale's sensitivity to subtle variations in relationship dynamics makes it especially valuable for tracking changes over time.

3.1.2.5 Ethical Considerations

Ethical approval was obtained from the Research Ethics Committee of Review and Support which is a part of Faculty of Management Social Sciences at CUST (Capital University of Science and Technology) prior to data collection. All participants were informed and gave their consent after they had been fully aware of the nature and purpose of the study. Participation was not compulsory, and participants had the right to withdraw at any point without any adverse effect.

Confidentiality and anonymity were ensured throughout the research. Due to the sensitive nature of adverse childhood experiences (ACEs), participants were told ahead of time about the nature of the questions and were provided with an opportunity to withdraw at any time.

The findings were only used for academic purposes, and participants were made aware they could request access to the study results upon completion.

3.1.3 Data Analyses

Analyses were conducted using SPSS (Version 21) and The Actor-Partner Interdependence Model (APIM) was used to test the interdependent effects of dyadic data. The APIM SEM application approximates APIMs by using structural equation modeling (SEM) web application (Stas et al., 2018), which is automatic to model estimation with the lavaan package of structural equation modeling (Rosseel, 2012). The application works on an R-based platform, but it does not need any software download, since lavaan is preprogrammed and made internally and within the platform. Analyses were done through the online platform ([http://lavaan.org/APIM SEM/](http://lavaan.org/APIM_SEM/)). In accordance with the methodological steps, as suggested by Stas et al. (2018). Such an SEM-based method can simultaneously estimate various interdependent paths, compare actor and partner effects among members of a dyad as well as formally test distinguishability. The APIM SEM process was chosen due to its transparency, reproducibility and consistency with the current best practices in pairing data analysis (Kenny and Ledermann, 2010; Ledermann et al., 2011).

The dataset consisted of 84 married couples ($N = 168$ individuals) and was treated as a dyadic design with distinguishable partners (husbands and wives). Descriptive statistics were computed to summarize demographic variables using frequencies and percentages. Study variables, including adverse childhood experiences (ACEs), depression, anxiety, stress, and marital relationship satisfaction, were described using means, standard deviations, skewness, kurtosis and Kolmogorov-Smirnov. To assess the normality of data distribution, descriptive indices and graphical methods were employed. The internal consistency of the multi-item scales were evaluated using Cronbach's alpha.

To test the study hypotheses, Spearman correlation analyses were conducted to examine the association between an individual's ACEs, anxiety, depression, stress, as well as marital relationship satisfaction. The Actor Partner Interdependence Model (APIM) was applied to study the interdependence between partners' ACEs, anxiety, depression, stress, and marital relationship satisfaction, exploring how these variables jointly affect both partners.

Chapter 4

Results

This chapter presents the results of the current study that examined the associations between adverse childhood experiences (ACEs), mental health illnesses including anxiety, depression, and stress, and marital relationship satisfaction among married couples in Pakistan. The study employed a cross-sectional correlational design. Data were collected from a total of 84 couples (168 individuals) through convenience sampling. The following sections summarize the demographic characteristics of the participants and report on the statistical analyses conducted to test the study hypotheses.

TABLE 4.1: Frequencies and Percentage of Categorical Variables of Husbands and Wives Combined (N=168)

Variable	Category	f	(%)
Partner Role	Husband/Partner A	84	50.0
	Wife/Partner B	84	50.0
Age (years)	18–25	7	4.2
	26–35	84	50.0
	36–45	55	32.7
	46–55	20	11.9
	56+	2	1.2
Gender	Male	84	50.0
	Female	84	50.0

Table 4.1 continued from previous page

Variable	Category	f	(%)
Marital Status	First marriage	160	95.2
	Second marriage	8	4.8
Type of Marriage	Arranged	125	74.4
	Love	43	25.6
Parental Status	Yes	103	61.3
	No	65	38.7
Family Structure	Nuclear	57	33.9
	Joint	105	62.5
	Extended	4	2.4
	Other*	2	1.2
Childhood Family Structure	Both biological parents	149	88.7
	One parent	19	11.3
SES	Low	1	0.6
	Middle	165	98.2
	High	2	1.2
Education	No formal education	3	1.8
	Primary	4	2.4
	Secondary/High school	17	10.1
	Bachelor's degree	71	42.3
	Master's degree	73	43.5
Duration of Marriage	Less than 1 year	12	7.1
	1–5 years	36	21.4
	6–10 years	60	35.7
	11–20 years	40	23.8
	More than 20 years	20	11.9
No. of Children	None	65	38.7
	1–2	69	41.1
	3–4	32	19.0
	More than 4	2	1.2

Note. f= frequency, %= percentage, SES= Socioeconomic Status to rounding.

Table 4.1 shows demographic characteristics of the dyadic sample ($N = 168$). The sample consisted of equal numbers of husbands (50%) and wives (50%). Half of the respondents were between 26–35 years of age (50%), followed by 36–45 years (32.7%), 46–55 years (11.9%), 18–25 years (4.2%), and 56 years or older (1.2%). Most participants were in their first marriage (95.2%), with the majority in arranged marriages (74.4%). A total of 61.3% had children, and family structures were mainly joint (62.5%) or nuclear (33.9%). The majority lived with both biological parents in childhood (88.7%) and reported middle socioeconomic status (98.2%). Educational attainment was highest at the master’s (43.5%) and bachelor’s (42.3%) levels. Regarding marriage duration, 35.7% had been married for 6–10 years, while 41.1% reported having one to two children.

TABLE 4.2: Descriptive Statistics for Wives and Husbands

Variable	M	SD	Sk	Kurt	Min	Max	K-S	P
RAS – Wives	19.96	4.04	0.43	2.57	10	34	.13	.001
Stress – Wives	11.75	2.12	-0.45	0.27	7	17	.19	.000
Anxiety – Wives	9.93	3.06	-0.20	-0.35	4	17	.11	.010
Depression – Wives	12.19	2.86	-0.75	0.75	4	19	.21	.000
ACE – Wives	47.25	5.77	-0.93	0.90	30	58	.15	.000
RAS – Husbands	20.49	3.93	0.77	2.13	12	34	.09	.049
Stress – Husbands	11.02	2.57	0.54	0.31	5	18	.11	.006
Anxiety – Husbands	7.96	2.70	-0.13	-0.23	2	14	.12	.002
Depression – Husbands	10.70	3.21	0.09	0.27	3	19	.09	.043
ACE – Husbands	49.19	6.33	-0.10	0.12	36	64	.10	.025

Note. : M=mean, SD= Standard Deviations, Sk=Skewness, Kurt=Kurtosis, Min= Minimum, Max= Maximum, K-S=Kolmogorov-Smirnov

Table 4.2 presents Descriptive statistics and normality results for all study variables are presented in Table 4.2. Among wives, the mean scores reflected moderate levels of relationship satisfaction ($M = 19.96$, $SD = 4.04$), stress ($M = 11.75$, $SD = 2.12$), anxiety ($M = 9.93$, $SD = 3.06$), and depression ($M = 12.19$, $SD = 2.86$). The mean ACE score ($M = 47.25$, $SD = 5.77$) indicated relatively high exposure to childhood adversity. For husbands, comparable trends were observed across variables, with slightly higher relationship satisfaction ($M = 20.49$, $SD = 3.93$) and ACE scores ($M = 49.19$, $SD = 6.33$).

Results of the Kolmogorov–Smirnov normality tests for all study variables. The K–S values were significant ($p < .05$) for nearly all variables among both wives and husbands, indicating that the data deviated from a normal distribution.

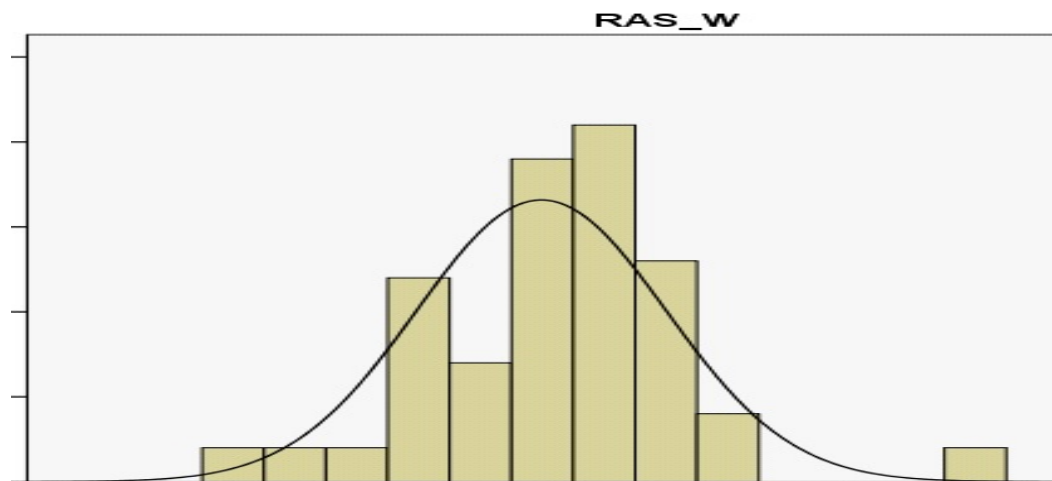


FIGURE 4.1: Distribution of scores across 'Relationship Assessment Scale' for Wives

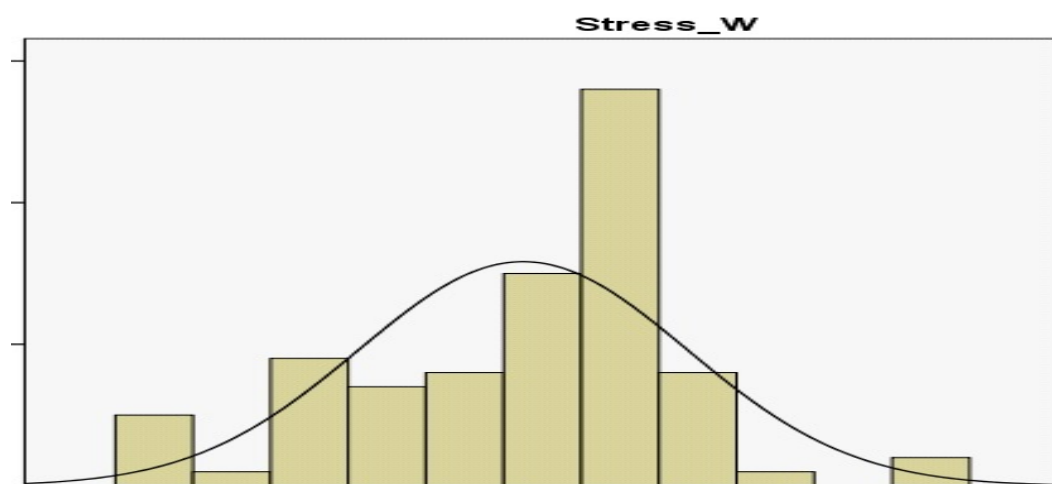


FIGURE 4.2: Distribution of scores across Stress Subscale for Wives

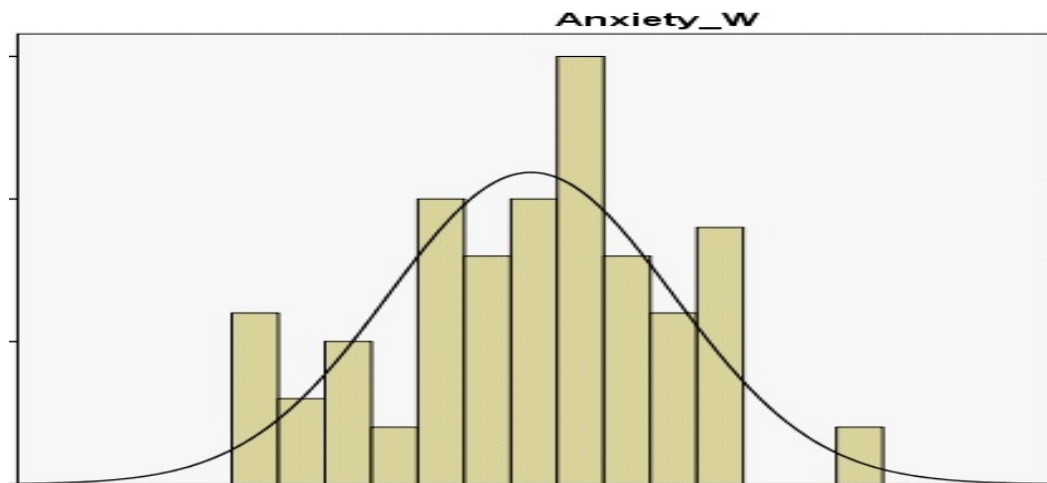


FIGURE 4.3: Distribution of scores across Anxiety Subscale for Wives

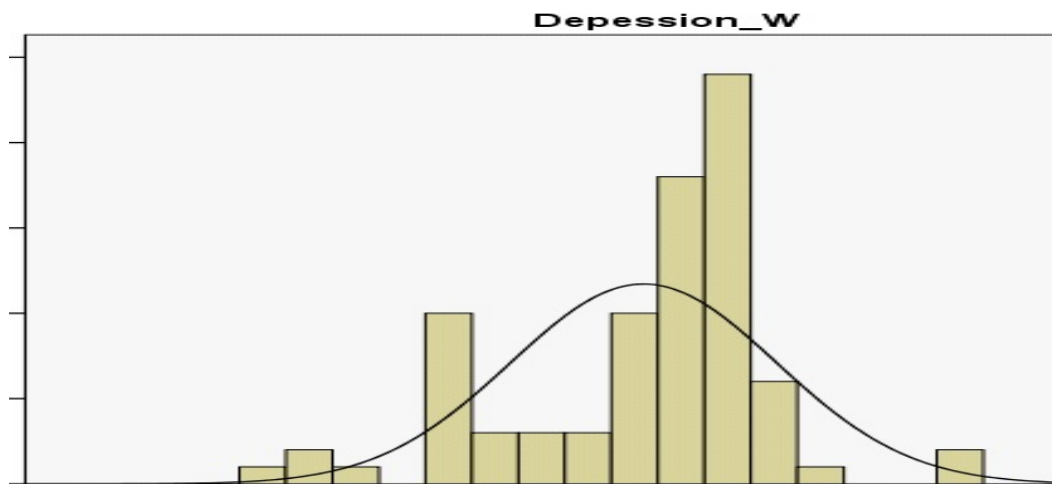


FIGURE 4.4: Distribution of scores across Depression Subscale of Wives

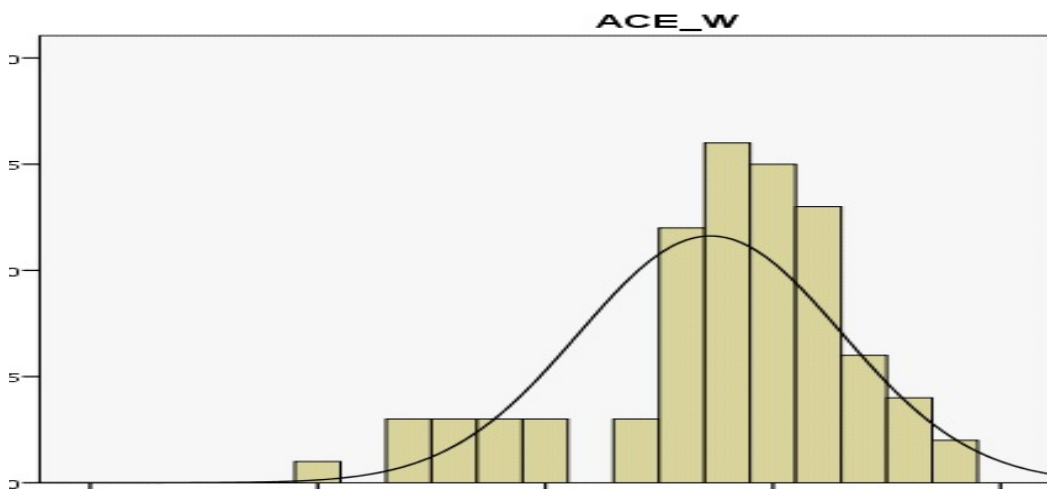


FIGURE 4.5: Distribution of scores across Adverse Childhood Experiences of Wives

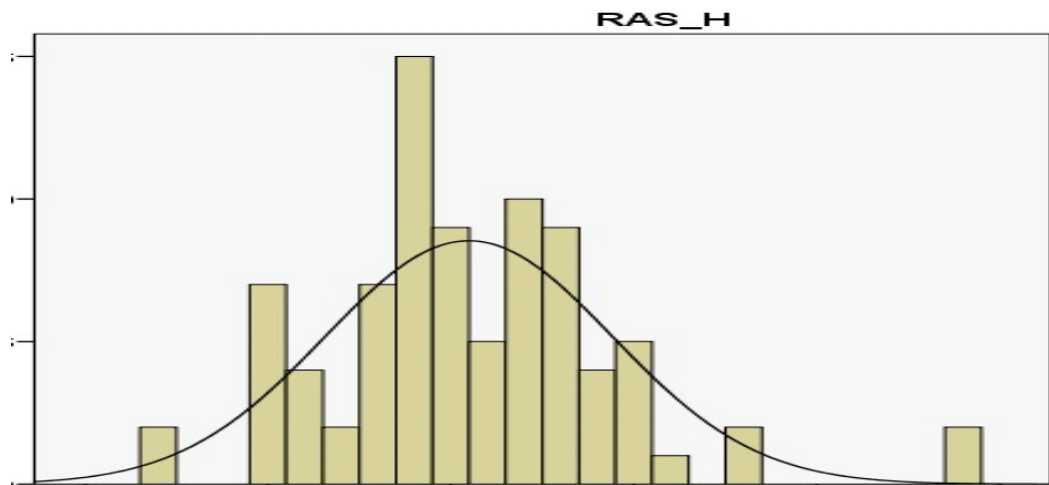


FIGURE 4.6: Distribution of scores across Relationship Satisfaction Assessment of Husbands

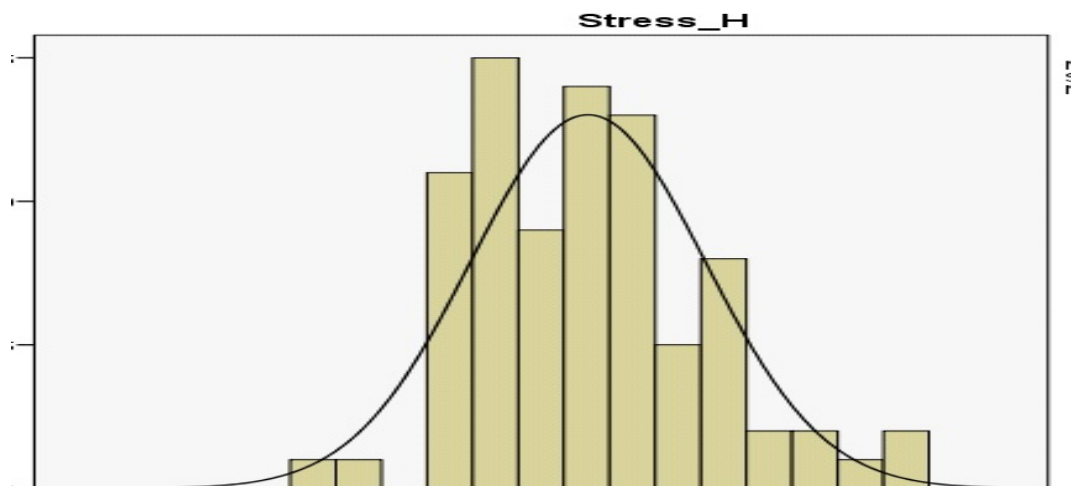


FIGURE 4.7: Distribution of scores across Stress Subscale of Husbands

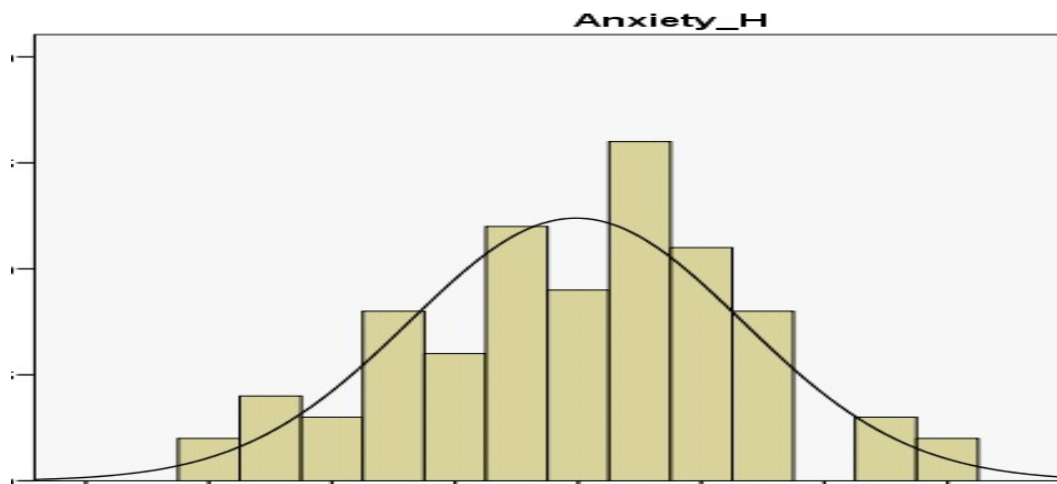


FIGURE 4.8: Distribution of scores across Anxiety Subscales of Husbands

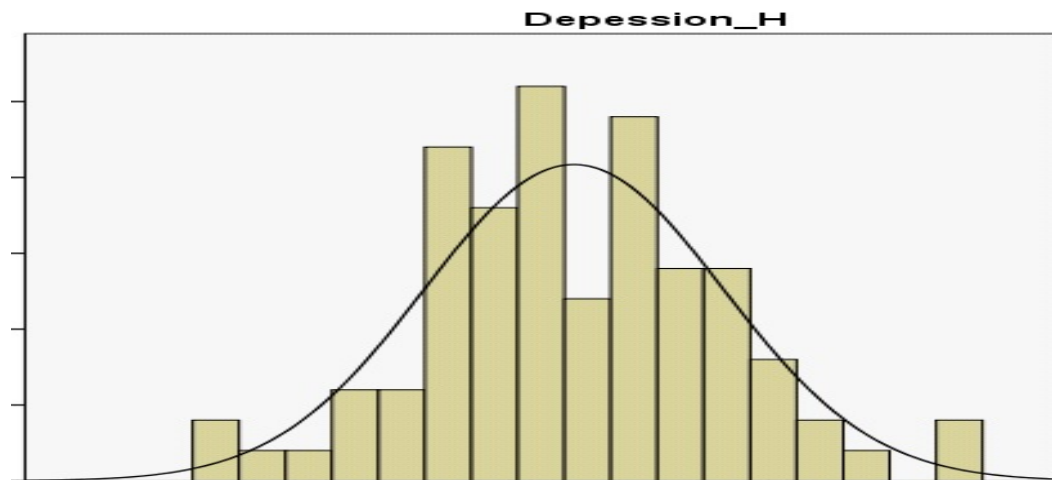


FIGURE 4.9: Distribution of scores across Depression Subscale of Husbands

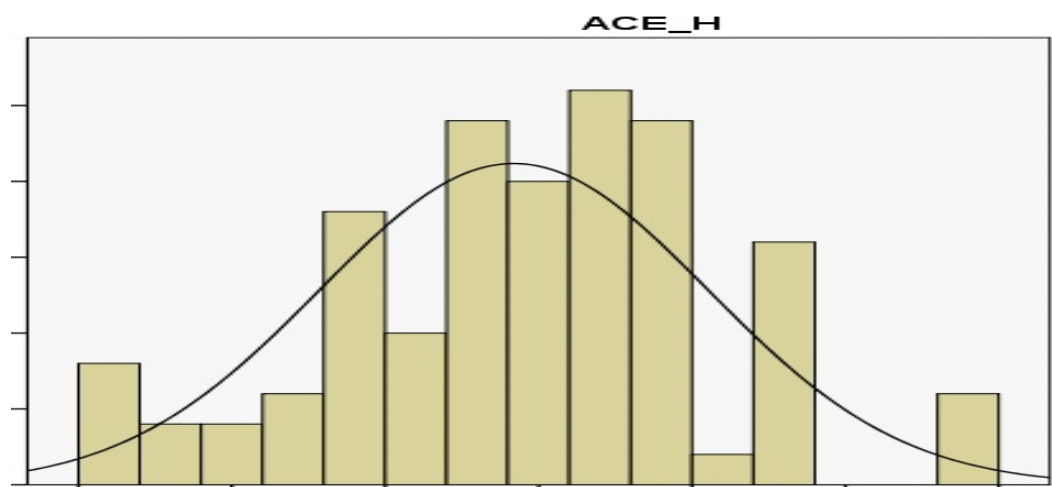


FIGURE 4.10: Distribution of scores across Adverse Childhood Experiences of Husbands

TABLE 4.3: Reliability analyses of scales and subscales of study variables by Partner roles

Scale / Subscale	n (items)	Husbands α	Wives α
ACEs	30	.65	.62
DAS – Depression	7	.74	.76
DAS – Anxiety	7	.60	.67
DAS – Stress	7	.65	.50
RAS	7	.85	.86

Note. α = Cronbach's alpha; ACEs = Adverse Childhood Experiences; DAS = Depression, Anxiety, and Stress Scale; RAS = Relationship Assessment Scale. Husbands (n = 84), Wives (n = 84).

Table 4.3 presents the internal consistency estimates for all study scales and subscales. The ACEs scale demonstrated modest reliability for both husbands ($\alpha = .65$) and wives ($\alpha = .62$). The DAS–Depression subscale showed acceptable reliability ($\alpha = .74$ for husbands; $\alpha = .76$ for wives), whereas the DAS–Anxiety subscale yielded lower but marginally acceptable values ($\alpha = .60$ and $\alpha = .67$, respectively). The DAS–Stress subscale demonstrated an acceptable coefficient for husbands ($\alpha = .65$) but a lower value for wives ($\alpha = .50$), suggesting limited internal consistency in the latter group. In contrast, the RAS showed high reliability for both husbands ($\alpha = .85$) and wives ($\alpha = .86$). Overall, most measures demonstrated adequate reliability, with the exception of the DAS–Stress subscale for wives, which should be interpreted with caution.

TABLE 4.4: Correlations among Husbands’ Variables

	RAS_H	Stress_H	Anxiety_H	Depression_H	ACE_H
RAS_H	–				
Stress_H	-0.477**	–			
Anxiety_H	-0.120	0.577**	–		
Depression_H	-0.367**	0.657**	0.520**	–	
ACE_H	-0.132	0.123	0.140	-0.002	–

Note. RAS = Relationship Assessment, ACE = Adverse Childhood Experiences. Coefficients are Spearman’s rho (ρ). $p < .01$ (two-tailed).

Table 4.4 displays Spearman’s rank-order correlation associations among relationship satisfaction (RAS_H), stress, anxiety, depression, and adverse childhood experiences (ACE_H) in husbands ($N = 84$). Relationship satisfaction significantly negatively correlated with stress ($\rho = -.477$, $p < .01$) and depression ($\rho = -.367$, $p < .01$), but showed nonsignificant associations with anxiety ($\rho = -.120$, $p = .277$) and ACE ($\rho = -.132$, $p = .230$). Stress was significantly positively correlated with anxiety ($\rho = .577$, $p < .01$) and depression ($\rho = .657$, $p < .01$). Anxiety correlated positively with depression ($\rho = .520$, $p < .01$). Correlations involving ACE_H with the other variables were small and nonsignificant ($\rho = -.002$ to $.140$, $p \geq .205$).

TABLE 4.5: Correlations among Husbands' Variables

	RAS_W	Stress_W	Anxiety_W	Depression_W	ACE_W
RAS_W	–				
Stress_W	-0.387**	–			
Anxiety_W	0.098	0.384**	–		
Depression_W	-0.145	0.559**	0.271*	–	
ACE_W	-0.198	0.245	0.321**	0.209	–

Note. RAS = Relationship Assessment, ACE = Adverse Childhood Experiences. Coefficients are Spearman's rho (ρ). $p < .01$ (two-tailed).

Table 4.5 presents Spearman's rank-order correlation examined associations among relationship satisfaction (RAS_W), stress, anxiety, depression, and adverse childhood experiences (ACE_W) in wives ($N = 84$). Relationship satisfaction was significantly negatively correlated with stress, $rho = -.387$, $p < .01$, indicating that higher stress was related to lower marital satisfaction. The correlations of relationship satisfaction with anxiety ($rho = .098$, $p = .376$), depression ($rho = -.145$, $p = .187$), and ACE ($rho = -.198$, $p = .071$) were nonsignificant. Stress was positively associated with anxiety ($rho = .384$, $p < .01$), depression ($rho = .559$, $p < .01$), and ACE ($rho = .245$, $p < .05$). Anxiety correlated positively with depression ($rho = .271$, $p < .05$) and ACE ($rho = .321$, $p < .01$). Depression showed a small, nonsignificant association with ACE ($rho = .209$, $p = .056$).

4.1 Actor–partner Interdependence Model

TABLE 4.6: Actor and Partner Effects

Effect	β	p	95% CI
Actor Effect			
Husband ACEs \rightarrow Husband Depression	.05	.39	[-0.05, 0.15]
Wife ACEs \rightarrow Wife Depression	.15	.00	[0.05, 0.29]
Partner Effect			
Husband ACEs \rightarrow Wife Depression	.05	.26	[-0.04, 0.15]
Wife ACEs \rightarrow Husband Depression	.15	.00	[0.04, 0.27]

Note. ACE = Adverse Childhood Experiences. Actor effects = impact of an individual's ACE score on their own depression. Partner effects = impact of one partner's ACE score on the other partner's depression.

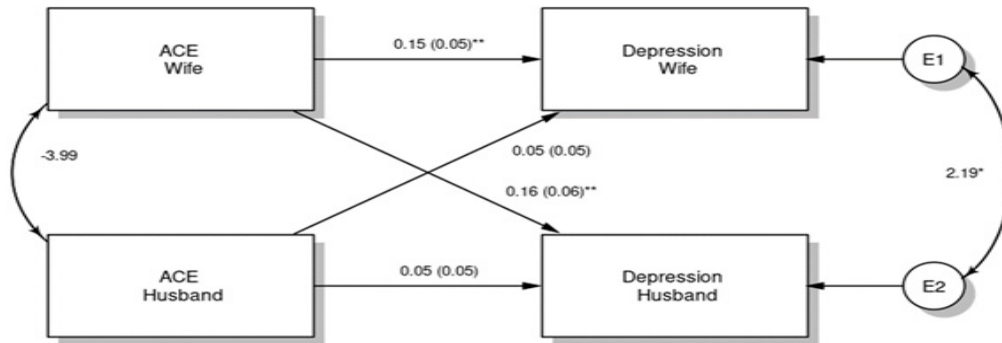


FIGURE 4.11: Standardized Actor-partner interdependence model of familial values predicting Depression. ACE= adverse childhood experience

* $p < .05$, ** $p < .01$, *** $p < .000$

Findings as shown in **Table 4.14** and **Figure 4.1** indicate, wives' adverse childhood experiences have significant actor effect on their respective depression ($\beta[a_w]=0.15$, $p=.000$). Similarly, wives' adverse childhood experiences have significant partner effect on their husbands' depression ($\beta[p_h]=0.15$, $p=.000$), whereas no significant actor effect of husbands' adverse childhood experience was found on their depression; nor the partner effect of husbands' adverse childhood experiences were found on their wives' depression ($p > .05$).

TABLE 4.7: Standardized coefficients of the Actor-Partner Interdependence Model on anxiety (N=168)

Effect	β	p	95% CI
Actor Effect			
Husband ACEs \rightarrow Husband Anxiety	.21	.00	[0.03, 0.21]
Wife ACEs \rightarrow Wife Anxiety	.12	.00	[0.11, 0.32]
Partner Effect			
Husband ACEs \rightarrow Wife Anxiety	.08	.17	[-0.02, 0.20]
Wife ACEs \rightarrow Husband Anxiety	.07	.10	[-0.02, 0.17]

Note. ACE = Adverse Childhood Experiences. Actor effects = influence of one's own ACE score on their own anxiety. Partner effects = influence of one partner's ACE score on the other partner's anxiety.

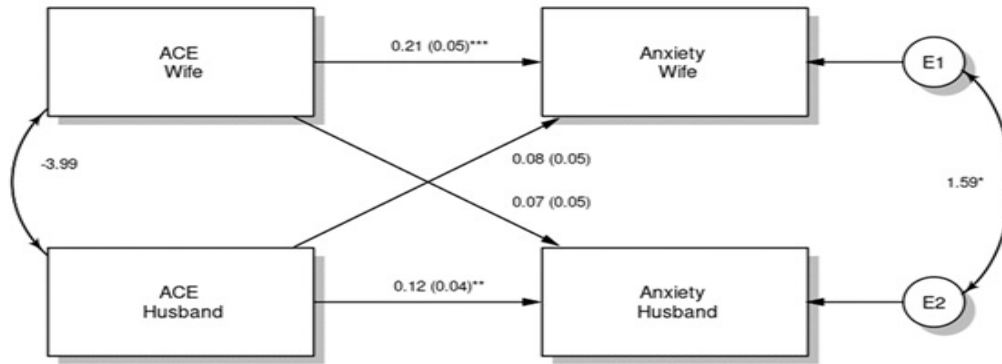


FIGURE 4.12: Standardized Actor-partner interdependence model of familial values predicting Anxiety. ACE= adverse childhood experience

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

Table 4.15 and Fig 4.2 presents the Actor-partner interdependence model (APIM) of the association between adverse childhood experiences (ACEs) and anxiety among husbands and wives. Significant actor effects were found, with both wives' ACEs ($\beta = 0.21$, $SE = 0.05$, $p < .001$) and husbands' ACEs ($\beta = 0.12$, $SE = 0.04$, $p < .01$) predicting their own anxiety. Partner effects were non-significant, although residuals of husbands' and wives' anxiety were positively correlated ($r = 1.59$, $p < .05$)

TABLE 4.8: Standardized coefficients of the Actor-Partner Interdependence Model on stress (N=168)

Effect	β	p	95% CI
Actor Effect			
Husband ACEs \rightarrow Husband Stress	.07	.09	[-0.01, 0.15]
Wife ACEs \rightarrow Wife Stress	.21	.00	[0.10, 0.32]
Partner Effect			
Husband ACEs \rightarrow Wife Stress	.13	.00	[0.04, 0.22]
Wife ACEs \rightarrow Husband Stress	.08	.10	[-0.01, 0.17]

Note. ACE = Adverse Childhood Experiences. Actor effects = impact of one's own ACE score on their own stress. Partner effects = impact of one partner's ACE score on the other partner's stress.

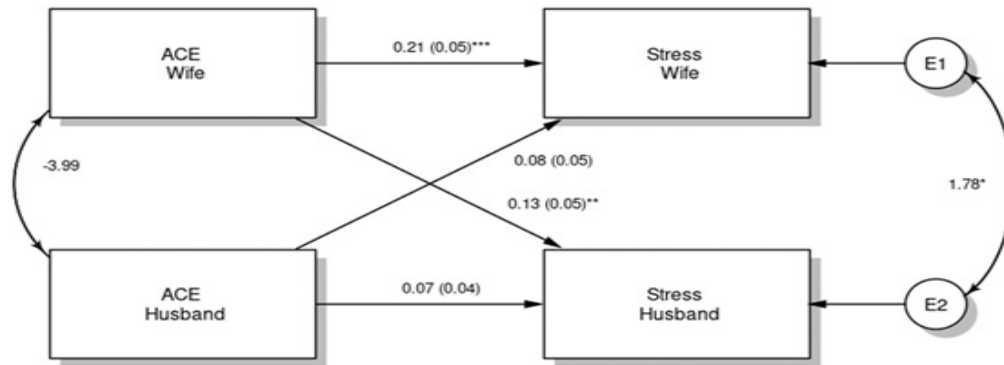


FIGURE 4.13: Standardized Actor-partner interdependence model of familial values predicting Stress. ACE= adverse childhood experience

* $p < .05$, ** $p < .01$, *** $p < .000$

Table 4.16 and Figure 4.3 presents the Actor-partner interdependence model (APIM) of the association between ACEs and stress among husbands and wives. Wives' ACEs significantly predicted their own stress ($\beta = 0.21$, $SE = 0.05$, $p < .001$), while husbands' ACEs significantly predicted wives' stress ($\beta = 0.13$, $SE = 0.05$, $p < .01$). Partner effects from wives' ACEs to husbands' stress were non-significant, though residuals of husbands' and wives' stress were positively correlated ($r = 1.78$, $p < .05$).

TABLE 4.9: Standardized coefficients of the Actor-Partner Interdependence Model on relationship satisfaction (N=168)

Effect	β	p	95% CI
Actor Effect			
Husband ACEs \rightarrow Husband Relationship Satisfaction	-0.18	.00	[-0.31, -0.05]
Wife ACEs \rightarrow Wife Relationship Satisfaction	-0.28	.00	[-0.41, -0.14]
Partner Effect			
Husband ACEs \rightarrow Wife Relationship Satisfaction	-0.19	.00	[-0.32, -0.05]
Wife ACEs \rightarrow Husband Relationship Satisfaction	-0.17	.00	[-0.28, -0.04]

Note. ACE = Adverse Childhood Experiences; RS = Relationship Satisfaction. Actor effects = effect of one's own ACE score on their own relationship satisfaction. Partner effects = effect of one partner's ACE score on the other partner's relationship satisfaction.

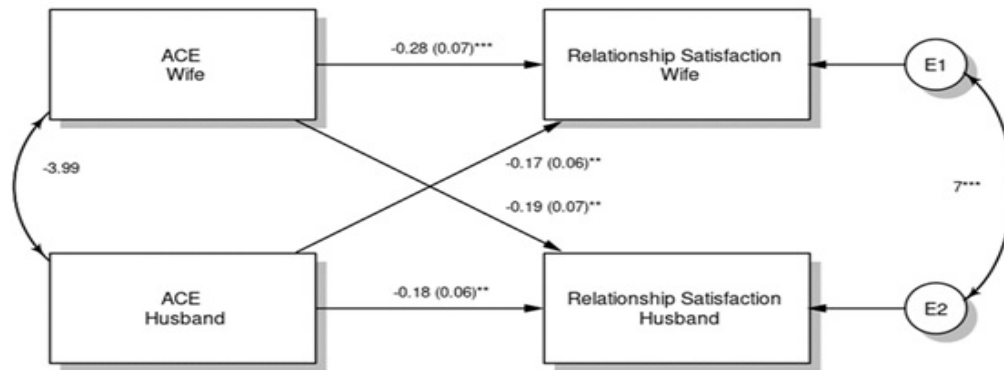


FIGURE 4.14: Standardized Actor-partner interdependence model of familial values predicting Relationship Satisfaction. ACE= adverse childhood experience

* $p < .05$, ** $p < .01$, *** $p < .000$

Table 4.17 and Figure 4.4 This table shows that APIM demonstrated both significant actor and partner effects of adverse childhood experiences (ACEs) on marital relationship satisfaction. For actor effects, husbands' ACEs significantly predicted lower relationship satisfaction for themselves ($\beta = -.18$, $p < .001$, 95% CI $[-.31, -.05]$), and wives' ACEs also significantly predicted lower relationship satisfaction for themselves ($\beta = -.28$, $p < .001$, 95% CI $[-.41, -.14]$). For partner effects, husbands' ACEs significantly predicted lower relationship satisfaction for wives ($\beta = -.19$, $p < .001$, 95% CI $[-.32, -.05]$), and wives' ACEs significantly predicted lower relationship satisfaction for husbands ($\beta = -.17$, $p < .001$, 95% CI $[-.28, -.04]$). These findings indicate that both one's own and one's partner's ACEs negatively contribute to marital relationship satisfaction.

Chapter 5

Discussion and Conclusion

5.1 Discussion

The current study presents a comprehensive analysis of how Adverse Childhood Experiences (ACEs) can predict depression, anxiety, and stress and marital relationship satisfaction in Pakistani married couples. Informed by a cross-sectional dyadic model, the Actor Partner Interdependence Model (APIM) was used to examine both actor effects, indicating how individuals' own ACEs predicted their outcomes, and partner effects, which indicated the extent to which one partner's ACEs predicted the other partner's mental health and marital satisfaction ([Cook and Kenny, 2005](#); [Kenny et al., 2020](#)).

The sample consisted of 84 legally married couples (N = 168 participants), who were mostly in the age bracket 26–45 years, and the majority of participants were in arranged marriages (74.4%) and joint family setups (62.5%), which are common practices in Pakistan. Data were gathered through validated tools, such as the World Health Organization's ACE International Questionnaire ([Organization, 2011](#)), Depression Anxiety Stress Scale-21 ([Lovibond and Lovibond, 1995](#)), and Relationship Assessment Scale ([Hendrick, 1988](#)).

Reliability testing of the measures revealed good internal consistency (Cronbach's $\alpha = .60-.86$), although the subscale for wives' stress revealed comparatively low reliability ($\alpha = .50$) and thus requires careful interpretation.

The data were screened and validated prior to inferential testing to ensure that they satisfied normality assumptions, enabling the application of parametric statistical analyses. Descriptive statistics were calculated for all the study variables, giving a sense of central tendency and distributional characteristics. Correlation analyses were subsequently performed to investigate the bivariate relationships among ACEs, psychological distress, and marital satisfaction. Regression analyses were used to test partner effects, showing predictive associations between the ACEs of one partner and outcomes for the other partner. Finally, the APIM was used to determine actor and partner influences together, within an Emotion Transmission Theory-informed framework explaining how unresolved burdens of emotion stemming from childhood adversity are transmitted and magnified within close relationship partnerships and thus influence individual and relational functioning (Larson and Almeida, 1999).

Reliability tests yielded acceptable degrees of internal consistency for the scales (Cronbach's $\alpha = .60$ to $.86$), with the stress subscale for the wives being lower ($\alpha = .50$), recommending careful interpretation. Screening of the data revealed that normality assumptions were met, allowing for use of parametric statistical tests. To test the study hypotheses, correlational analyses were initially used to probe associations between ACEs and outcome variables, regression analyses were employed to explore predictive partner effects, and APIM was utilized to model simultaneously actor and partner influences in a dyadic framework. The use of APIM was informed by Emotion Transmission Theory, which suggests that those emotions molded by early adversity are not contained within the individual but are transmitted and magnified in close relationships to shape both psychological and relational outcomes (Larson and Almeida, 1999). This analytic approach provides a deeper understanding of how trauma impacts couples dynamically.

5.1.1 Discussion of Hypothesis 1

The current study's findings partially supported the first hypothesis—that an individual's ACEs would significantly associate with depression, anxiety, stress, and marital relationship satisfaction—only to a certain degree but meaningfully. The

correlational analyses presented in Tables 4.4 and 4.5 revealed different yet converging patterns for husbands and wives, offering nuanced insight into how early adversity shapes psychological and relational functioning within marital dynamics. For husbands, as reported in Table 4.4, marital relationship satisfaction showed significant negative correlations with both stress, $\rho = -.477$, $p < .01$, and depression, $\rho = -.367$, $p < .01$, indicating that increased psychological distress is associated with decreased satisfaction within the marital relationship. Although anxiety and ACE scores were nonsignificantly associated with relationship satisfaction, $\rho = -.120$ and $\rho = -.132$, respectively, their direction remained negative, suggesting that with an increased history of adverse experiences and emotional dysregulation, perceived satisfaction decreases. The statistically nonsignificant associations between ACEs and mental health indicators among husbands reflect norms of gendered emotional expression in Pakistani culture, where men generally learn to suppress vulnerability and emotional distress, thereby underreporting symptoms of early trauma.

By contrast, the results for wives shown in Table 4.5 yielded a clearer pattern of significant correlations. ACEs were positively correlated with anxiety ($\rho = .321$, $p < .01$) and stress ($\rho = .245$, $p < .05$) and negatively, though modestly, associated with marital relationship satisfaction ($\rho = -.198$). These results reflect that wives who reported higher levels of adverse childhood experiences have higher anxiety and stress levels, which, in turn, reduce their perceived marital satisfaction. The direction and strength of this association support the hypothesized model: unresolved traumatic experiences of childhood may resurface in adulthood as emotional dysregulation, hypervigilance, and difficulties in maintaining emotional closeness within intimate relationships. Although the correlation between ACEs and depression for wives did not reach the threshold of statistical significance ($\rho = .209$), the direction of the correlation provides positive support to the literature that links cumulative early adversity to depressive tendencies (Hughes et al., 2017a; Merrick et al., 2017).

Overall, the patterns of correlations for both partners confirm that psychological distress, in the form of depression, anxiety, and stress, is a significant correlate of marital dissatisfaction. In addition, the findings indicate that ACEs contribute to

this association, although the contribution may vary between gender due to sociocultural and emotional expression norms in Pakistan. The higher magnitude of wives' correlations suggests that females are more likely to internalize and express the emotional impact of early adversity within marriage, whereas males might experience or exhibit such an effect more subtly through behavioral withdrawal or emotional disengagement.

These empirical findings chime with the Emotion Transmission Theory underpinning this research. According to this theory, the emotional states, in particular those buried in unresolved trauma, will not be confined to the individual but are transmitted and exchanged between partners within close relationships (Larson and Almeida, 1999). In this framework, a partner's personal psychological distress-anxiety, stress, depression-might become internalized by the other through empathic resonance or emotional contagion, eventually molding the shared emotional climate of the marriage. For example, strong negative correlations between stress, depression, and relationship satisfaction for husbands illustrate the extent to which their emotional burdens likely create a negative affective atmosphere that erodes marital contentment. Similarly, the positive correlation found between wives' ACEs and anxiety suggests that past trauma encourages hyperarousal and worry, which may be expressed as irritability or emotional withdrawal, thus generating reciprocal tension from the spouse. Such findings epitomize dyadic emotional exchanges, as described by Emotion Transmission Theory: the internal emotional state of one partner dynamically impacts the well-being of the other and the quality of the marital bond overall.

These relationships are further conceptualized within the study's model, with ACEs representing a distal predictor that predicts mental health outcomes (depression, anxiety, stress), which in turn impact marital relationship satisfaction. Empirical support for this model was realized through correlation patterns both in Tables 4.4 and 4.5; specifically, it appears that the pathway from ACEs to marital dissatisfaction operates primarily via a route of increased emotional distress. The model suggests that adverse childhood experiences undermine emotional regulation and stress-response systems, increasing the vulnerability of adults to depression

and anxiety, and subsequently impair communication, empathy, and emotional intimacy in marriage. Evidence of this sequence is provided by the current findings, showing that higher ACE scores reflected greater psychological symptomatology and lower relational satisfaction. Furthermore, the differences in findings between husbands and wives are in accordance with the conceptual model's dyadic emphasis, indicating that the psychological effects of ACEs are interdependent rather than purely intrapersonal. The more robust associations of ACEs with emotional distress in wives may indicate that their unresolved trauma exerts a stronger actor effect on their own marital perceptions, while the husbands' stress and depression seem to act as mediators that inform their satisfaction and, possibly, their partners' well-being. This further asserts the theoretical position whereby both partners' early experiences jointly construct the emotional ecology of the marriage, in line with the dyadic and systemic assumptions underlying the conceptual framework.

5.1.2 Discussion for Hypothesis 2

The second hypothesis stated that one partner's adverse childhood experiences would be significantly related to the other partner's depression, anxiety, stress, and marital relationship satisfaction. This hypothesis was tested through the APIM, which enables an analysis of both intrapersonal (actor) and interpersonal (partner) influences between dyadic members. The results reported in Tables 4.14 through 4.17 give substantial empirical support to this hypothesis since the adverse childhood experiences not only affect the person's own psychological and relational outcomes but also extend their influence on the partner's emotional and marital functioning. This highlights the deep interconnectedness of trauma within intimate relationships.

As revealed by Table 4.14, ACEs significantly predicted depression within and across partners. Specifically, wives' ACEs were positively associated with their own depression levels ($\beta = .15, p = .000$), which reflects a significant actor effect. In addition, wives' ACEs also predicted their husbands' depression at the same strength ($\beta = .15, p = .000$), representing a significant partner effect. This result reflects that wives who experienced greater childhood adversity tend to have

husbands who also report higher depressive symptoms and may suggest that unresolved trauma in one partner elevates emotional distress in the other partner through either emotional contagion or relational stress. Interestingly, the absence of a reciprocal finding (that is, husband ACEs predict wives' depression) would seem to suggest that wives' early adverse experiences may exert a stronger influence on the dyadic emotional environment than those of their husbands. Such a pattern could be due to gendered differences in emotional communication and responsiveness in that wives in collectivistic societies have traditionally played a more expressive and emotionally regulatory role within marital relationships.

As shown in Table 4.15, both husband and wife ACEs significantly predicted their own anxiety levels—husbands' ACEs on husbands' anxiety ($\beta = .21, p = .000$) and wives' ACEs on wives' anxiety ($\beta = .12, p = .000$) reflecting strong actor effects. Yet there were no statistically significant partner effects in the anxiety model, which is to say that while ACEs contribute to one's own anxiety symptoms, the interpersonal transmission of anxiety may not occur as directly as that of depression or stress. This may be because anxiety, particularly when internalized, is less overtly communicated than depressive affect, reducing its potential for emotional contagion within the dyadic system. Thus, the impact of ACEs on anxiety appears to be more individually contained than relationally transmitted.

The findings for stress, presented in Table 4.16, further supported the interpersonal nature of ACEs. Wives' ACEs had a significant actor effect on their own stress ($\beta = .21, p = .000$), while husbands' ACEs showed a significant partner effect on their wives' level of stress ($\beta = .13, p = .000$). The latter finding suggests that husbands' early adverse experiences contribute to increased stress in their wives, perhaps via poor communication, decreased emotional support, or erratic coping strategies learned through trauma. The asymmetry in this finding—that is, the husband's ACE predicted the wife's stress but not vice versa—suggests that the husband's unresolved adversity may impact the relational climate more behaviorally than emotionally. In patriarchal cultural contexts such as Pakistan, men's emotional regulation difficulties are more likely to be manifested behaviorally—for example, through irritability and/or withdrawal—which may increase the wife's experience of stress in the marriage.

The most complete test of this hypothesis can be found in Table 4.17, which examined the effects of ACEs on marital relationship satisfaction for both actor and partner pathways. Results indicated that husbands' and wives' ACEs significantly and negatively predicted their own relationship satisfaction—husband ACEs on husband satisfaction ($\beta = -.18, p = .000$) and wife ACEs on wife satisfaction ($\beta = -.28, p = .000$) showing strong actor effects. More important to the hypothesis, both spouses' ACEs also predicted the other partner's lower satisfaction, showing strong partner effects: husband ACEs on wife satisfaction ($\beta = -.19, p = .000$) and wife ACEs on husband satisfaction ($\beta = -.17, p = .000$). These results are clear evidence of a bidirectional emotional transmission process whereby one partner's unresolved childhood trauma leads to relational dissatisfaction for the other member of the couple. The magnitude of these coefficients suggests that wives' ACEs have a somewhat stronger overall impact on marital satisfaction, both in themselves and their husbands, reflecting the centrality of women in the emotional regulation and relational tone of marriage in collectivist family systems.

Taken together, results across Tables 4.14–4.17 provide strong empirical confirmation for the second hypothesis. The statistical partner effects for depression, stress, and marital satisfaction in a unified manner reinforce the view that ACEs are a dyadic risk factor—that is, one extending beyond the individual to shape emotional experience and relational outcome for both partners. Such findings reflect the interdependency of psychological functioning within intimate relationships and affirm that early adversity carries forward into adulthood through the emotional and behavioral exchanges occurring between the partners.

These findings are deeply consistent with the Emotion Transmission Theory (Larson and Almeida, 1999), which underpins this study's theoretical framework. The theory asserts that discrete emotional states are not independent events, but are transmitted within close relationships via daily interactions, empathic processes, and behavioral cues. The significant partner effects seen here—especially wives' ACEs predicting husbands' depression and husbands' ACEs predicting wives' stress—reflect the emotional contagion mechanisms outlined in the theory. Individuals with unresolved trauma may exhibit heightened irritability, emotional withdrawal, or distress that their partners internalize over time, leading to shared

emotional dysregulation and reduced relational satisfaction. The symmetric nature of partner effects on marital satisfaction further reflects how couples co-construct their emotional climate such that trauma in one member undermines the relational well-being of both.

The results also align well with the conceptual model in the study, in which ACEs were postulated to exert their influence as distal predictors on both individual actor and relational partner outcomes through emotionally and psychologically mediated pathways. In the conceptual framework, both direct and cross-partner pathways are envisioned to exist between ACEs and the outcomes, as implemented in this analysis with an APIM design. The empirical findings confirm these hypothesized pathways and thus show that ACEs do not impact intrapersonal outcomes like depression or anxiety alone but interpersonally extend to affect the partner's emotional state and relationship satisfaction. Specifically, negative cross-partner effects on marital satisfaction reflect the model's assumption that marital functioning represents a shared psychological system; one partner's emotional history becomes part of the relational context affecting both. This reinforces the value of dyadic approaches in understanding trauma's broader relational consequences.

These findings assume particular significance in the Pakistani cultural milieu, in which emotional interdependence is greater because of collectivist orientation and gendered expectations within marriage. Women's emotional experiences-especially those shaped by early trauma-strongly influence family harmony and the relational atmosphere. Unhealed emotional injuries among men have a tendency to be manifest in control, withdrawal, or irritability, thereby increasing stress in their wives and reducing general marital quality. Thus, this research offers culturally grounded evidence that adverse childhood experiences perpetuate emotional and relational difficulties not only at the individual level but also within the interdependent system of marriage. In all, the second hypothesis was strongly supported. These results depict that ACEs have both actor and partner effects on psychological distress and marital satisfaction, reinforcing the idea of trauma's legacy as inherently dyadic in intimate relationships. Integrating these findings with Emotion Transmission Theory and the conceptual model, this study affirms that childhood adversity is a common emotional burden inside marriage, transmitted, amplified,

and sustained within the reciprocal emotional exchanges that define intimate partnership.

5.1.3 Discussion of Hypothesis 3

The third hypothesis was that depression, anxiety, and stress would have significant actor and partner effects on marital relationship satisfaction for married couples. Testing this hypothesis involved conducting a series of Actor-Partner Interdependence Model analyses to examine the effect of each of the psychological distress variables on both the individual's and the partner's marital satisfaction. The results presented in Tables 4.18, 4.19, and 4.20 strongly supported this hypothesis and established quite clearly the notion that emotional states such as depression, anxiety, and stress do not occur in isolation but are part of a reciprocal and interdependent process that is inherent in the marital dyad.

As can be seen in Table 4.18, depression was a strong actor and partner predictor of marital satisfaction for both husbands and wives. Thus, it was found that the husbands' depression significantly predicted their own and their wives' lower marital satisfaction, with $\beta = -.43$ ($p = .000$) and $\beta = -.17$ ($p = .000$), respectively. Similarly, wives' depression also predicted reduced satisfaction for themselves and their husbands, with $\beta = -.33$ ($p = .000$) and $\beta = -.13$ ($p = .000$), respectively. These findings show that depressive symptoms compromise not only one's emotional connection and satisfaction but also spill over to negatively influence the partner's relational well-being. The stronger actor effects relative to partner effects suggest that while depression primarily impacts one's own perception of marital quality, the partner's satisfaction is also affected through emotional transmission and decreased relational responsiveness. Noticeably, the slightly stronger coefficients for husbands' depressive symptoms suggest that their emotional withdrawal or irritability may have a somewhat greater impact on the marital atmosphere than wives' depression, consistent with prior research highlighting men's emotional regulation patterns as key predictors of relationship climate in collectivistic marriages.

The pattern for anxiety, presented in Table 4.19, mirrored that of depression, though with comparatively smaller coefficients. Husbands' anxiety significantly

predicted their own marital satisfaction ($\beta = -.36$, $p = .000$) and their wives' satisfaction ($\beta = -.14$, $p = .000$), while wives' anxiety predicted both their own ($\beta = -.26$, $p = .000$) and their husbands' satisfaction ($\beta = -.11$, $p = .000$). These results affirm that anxious tendencies—such as hypervigilance, rumination, or fear of rejection—undermine marital satisfaction at both the individual and relational levels. The relatively weaker partner effects compared to depression suggest that anxiety's impact on the partner is more subtle and may operate through indirect mechanisms, such as heightened tension or reduced emotional availability, rather than overt mood contagion. The consistent negative direction of all paths underscores that chronic worry and emotional instability disrupt the dyadic harmony essential for marital satisfaction.

The analysis of stress in Table 4.20 further supported the dyadic transmission of emotional distress within marriages. Specifically, husbands' stress significantly predicted lower marital satisfaction both for themselves ($\beta = -.41$, $p = .000$) and their wives ($\beta = -.18$, $p = .000$), whereas wives' stress predicted decreased satisfaction for themselves ($\beta = -.29$, $p = .000$) and their husbands ($\beta = -.15$, $p = .000$). Among the three psychological variables evaluated, stress evinced the strongest partner effects in predicting marital satisfaction. These results illustrate that stress—as an externally visible and behaviorally manifested form of distress—readily transmits into relational quality through daily interactions, communication breakdowns, and mutual emotional reactivity. Within marital systems—particularly within collectivist contexts like Pakistan—stress becomes shared and magnified due to a high interdependence of partners and limited boundaries between the emotional worlds of husbands and wives.

Taking these findings across Tables 4.18 to 4.20 together, there is strong evidence that depression, anxiety, and stress serve as both intrapersonal and interpersonal predictors of marital satisfaction. The significant partner effects in each of the three models provide consistent support for the hypothesized dyadic interdependence: one partner's emotional distress reliably diminishes the other's feelings of relationship fulfillment. The differential magnitudes across variables—relatively strong for depression and stress, moderate for anxiety—reflect the differential visibility and communicative manifestation of these affective states. Depression and

stress, which are often characterized by behavioral withdrawal, irritability, and loss of empathy, have more pronounced relational consequences than anxiety, which may be internalized and thus less overtly disruptive.

These empirical patterns are very consistent with the Emotion Transmission Theory, forming the theoretical underpinning for this study. According to [Larson and Almeida \(1999\)](#), the theory posits that emotional states within close relationships are reciprocally exchanged and thus become shared emotional climates. The significant partner effects in the present study provide direct support for this mechanism. A partner's depression or stress not only diminishes his or her own capacity for positive engagement and emotional intimacy but also evokes parallel feelings of frustration, helplessness, or sadness in the other partner. This contagion effect operates through empathic attunement and behavioral feedback loops; when one partner withdraws or shows irritability, the other internalizes that distress, thus keeping the negative emotional cycle going. Stronger dyadic effects for stress than for depression are consistent with the theory's proposition that externally manifested affect is more easily transmitted than internalized affect, insofar as partners are constantly exposed to each other's behavioral cues and emotional tone. This highlights the importance of addressing stress dynamics within couples to mitigate negative emotional cycles.

The findings also strongly support the logic of the conceptual model used in this study, positioning psychological distress variables such as depression, anxiety, and stress as proximal mediators between Adverse Childhood Experiences and marital satisfaction. The model postulates that early trauma's emotional residues manifest as chronic distress that influences both self and partner perceptions of relationship quality through actor and partner effects. In fact, the empirical findings have justified this structure: each distress variable significantly predicted lower marital satisfaction within and across partners. Thus, it has been confirmed that psychological dysregulation works as the main mechanism linking early adversity to lowered relational well-being. The negative partner effects throughout all three models-especially those concerning the depression and stress pathways-are indicative of the bidirectional emotional influence the conceptual model has in mind, underscoring the interconnected nature of partner experiences.

These findings have particularly rich interpretive depth within the sociocultural context of Pakistan, where marital relationships are nested in collectivistic, interdependent family systems. Emotional interdependence is typically higher in such cultural backgrounds, since partners commonly share stressors associated with meeting the expectations of extended family members, fulfilling gender roles, and fulfilling societal obligations. Thus, when one partner shows distress, the other does not merely witness it but often participates in that emotional moment. The partner effects observed reflect not only individual-level emotional contagion but also a cultural construct of shared emotional burden.

Taken together, the third hypothesis was strongly supported. Of the three, depression, anxiety, and stress exerted significant actor and partner effects on marital satisfaction; depression and stress emerged as the most powerful predictors. These findings support the idea that the emotional distress of one partner compromises the relational satisfaction of the other and point to the dyadic and systemic nature of emotional functioning in marriage. Confirming both the Emotion Transmission Theory and the conceptual model, these findings support the notion that psychological distress functions as a shared emotional process-one linking individual affective experiences with collective relational outcomes in the marital bond.

5.2 Conclusion

The current study explored the contribution of Adverse Childhood Experiences (ACEs) to prediction of depression, anxiety, stress, and marital relationship satisfaction in Pakistani married couples using the dyadic Actor-Partner Interdependence Model (APIM). The results indicated both actor and partner effects, strong evidence that the legacy of childhood adversity continues to flow into adulthood, influencing not just individual psychological experiences but also the relational patterns of marriage (Merrick et al., 2017; Zheng et al., 2020b). This is consistent with the emerging consensus in the literature that ACEs are not one-time childhood experiences; instead, they have long-lasting impacts which continually affect mental health and intimate relationships throughout the life course (Afifi et al., 2016; Hughes et al., 2017a).

A key contribution of this research is its validation that ACEs are predictive of high levels of depression, anxiety, and stress while also reducing marital satisfaction. These results echo previous findings that unresolved early trauma interferes with trust, communication, and intimacy, which are essential elements of relationship quality (Whisman and Uebelacker, 2009; Karakurt and Silver, 2014). What is significant here is that partner effects show that these outcomes are relational rather than individual: one partner's childhood adversities can carry over into the other partner's psychological and relational sequelae. This empirical support exists for Emotion Transmission Theory, which suggests that emotions—especially negative ones based on early trauma—are transmitted and intensified in close relationships and generate tension, withdrawal, and dissatisfaction cycles (Larson and Almeida, 1999; Khalifian et al., 2022).

The research also builds on knowledge of how cultural context influences the effect of ACEs. In Pakistan, marriage is frequently integrated into extended family arrangements and governed by strict gender norms, possibly amplifying the load of unprocessed trauma. Women especially can bear a disproportionate burden of emotional responsibility that might account for why wives' ACEs had more significant cross-over effects on their husbands' marital satisfaction and stress than vice versa (Saeed and Mahmood, 2023). Such results are in line with earlier South Asian studies that have shown that stigma around mental health and cultural norms of marital roles can further enhance the relational effect of psychological distress (Qadir et al., 2013).

Even though the research was constrained by its use of self-report measures, convenience sampling, and targeting urban samples, the findings still concur with global literature reporting the long-term psychosocial effects of ACEs (Anda et al., 2006; Merrick et al., 2017). These constraints serve to indicate that further research employing longitudinal study designs, diverse samples, and multimethod measures should be used to enhance generalizability and elucidate causal mechanisms (Candel and Turliuc, 2019; Randall and Bodenmann, 2017).

In summary, this research underscores the serious ways that adverse childhood experiences echo into adulthood, affecting psychological function and marital relationship satisfaction. By incorporating a dyadic perspective and placing analysis

within a collectivist cultural context, this study adds to theory by demonstrating how ACEs function not just intrapersonally but also interpersonally. In practice, it highlights the need to create trauma-informed, culturally competent couple interventions that consider both partners' histories, enhance emotional regulation, and de-stigmatize the help-seeking process (Falconier et al., 2015; Miller-Graff et al., 2020). Policy-wise, the results make a stronger argument for prevention-oriented approaches that minimize exposure to ACEs and encourage resilience through family support, education, and community-based programs (Hughes et al., 2017a; Anda et al., 2006). Finally, this research contributes to the body of literature demonstrating that childhood adversity is not just a psychological but a relational load as well, supporting the need for unified prevention and intervention approaches to foster healthier marriages and more psychological well-being in ACE-affected populations.

5.3 Limitations

Even though the current study is an important contribution to the research inquiry concerning how Adverse Childhood Experiences (ACEs) is a predictor of depression, anxiety, stress, and marital relationship satisfaction among Pakistani married couples, a few limitations are necessary to acknowledge the study findings. To begin with, the cross-sectional type of design limits the possibility to make causal inferences concerning the directional implications between ACEs, mental health outcomes, and marital satisfaction. Although Actor- Partner Interdependence Model (APIM) was good to separate interdependent emotional effects in couples, it is not able to establish temporal or causal reasoning. Longitudinal or mixed method designs in the future would be more helpful in understanding whether the psychological distress associated with ACE is the cause of marital dissatisfaction or whether the strain of relationships strengthens mental health symptoms as time goes by.

Second, the self-report measures, such as the ACE-IQ, the DASS-21, and the RAS, could have been subject to the bias related to recall and social desirability. The retrospective remembrances of childhood misfortune in participants might be affected

by present mood or relational contentment particularly in collectivistic cultures where by family faithfulness and social esteem tends to detract the disclosure of parental ineptitude or abuse. This then means that ACE scores might be slightly miscalculated in this culture. The validity in future work would be improved by including qualitative interviews or collateral reports by family members.

Third, the composition of the sample is limited in a way. Only urban and educated married couples with middle-socioeconomic status in Islamabad and Rawalpindi were constrained to form the sample. The limitation of this demographic is that the findings cannot be generalized to rural or lower-income demographics in which ACEs exposure might be of different type and degree. Further, marriage, gender role, and disclosure of mental health in Pakistan have cultural pressures that can differ significantly depending on location. Therefore, the psychosocial trends seen in this case might not be applicable to the less liberal and less prosperous societies.

Fourth, the research has used a convenience sampling method which is restrictive to representativeness and also it is prone to the selection bias. Individuals who have chosen to participate in a study, voluntarily, about the childhood trauma and marital satisfaction might already be more psychologically aware or willing to talk about emotional problems-characteristics that are not evenly distributed by the general population. It would be better that external validity be enhanced through randomized or stratified sampling in future studies.

Fifth, the study used a dyadic design during the Actor-Partner Interdependence Model (APIM) but the statistical power could have been limited by moderate sample size (84 couples). This can have decreased sensitivity to smaller effects between actor and partners or gender-based moderations, although it is adequate with medium effect sizes. Also, potential mediators (e.g., attachment style, emotion regulation, or communication patterns) were absent in the model, which can explain the mechanisms between ACEs and marital satisfaction. The future APIM analyses should include such mediators to enhance explanatory depth.

Sixth, there are cultural peculiarities of the Pakistani population that could have affected the reporting and disclosure of the distress associated with psychological distress in a subtle way. Gender roles tend to make men restrain their emotions

and women portray them, which may bias the depression or stress levels among spouses. On the same note, the collectivist focus on family harmony could have also resulted in the underreporting of dissatisfaction with relationship. Thus, the results should be construed within these culturally-based constructs.

Lastly, the use of quantitative data prevented the possibility of investigating the lived experience and coping stories of ACE-affected couples. The qualitative or mixed-method extensions would help identify the manifestations of trauma histories in everyday marital interactions, empathy, and resilience, the knowledge that is not accessible to statistical models. Regardless of these shortcomings, the research offers a conceptual background of the way childhood adversity persistently affects psychological and relational adult functioning within the South Asian culture.

5.4 Research Implications

The research findings have important implications for research, practice, and policy concerning depression, anxiety, stress, and marriage relationship satisfaction in couples with a history of Adverse Childhood Experiences (ACEs). In confirming strong actor effects and selective partner effects connecting ACE histories to relationship quality and psychological symptoms, the findings support the position that childhood adversity is a long-term predictor of adult dyadic functioning and mental health (Merrick et al., 2017). Within Emotion Transmission Theory, the associations observed underscore that emotions conditioned by early adversity are not localized to the individual but find expression and transmission in close relationships, increasing distress and undermining satisfaction across time (Larson and Almeida, 1999; Khalifian et al., 2022).

The clinical practice implications are apparent. The cumulative, long-term relationships between ACEs and individuals' depression, anxiety, and stress, and the cross-over effects on spouses, imply that trauma-informed assessment of both partners should be incorporated in couple therapy evaluations (Affi et al., 2016). Integrating a dyadic approach at intake may uncover relational patterns where a partner's unresolved adversity fuels conflict cycles, withdrawal, or distrust and decreases marital satisfaction (Whisman and Uebelacker, 2009). Actor-partner

distinction-guided case formulation, as summarized by the Actor–Partner Interdependence Model, equips clinicians with a template for the identification of self-directed and cross-over pathways and adapting interventions to treat them (Cook and Kenny, 2005; Kenny et al., 2020).

Treatment strategies must also emphasize emotion regulation, empathy, and dyadic coping so that partners become aware and cushion the ways that unresolved trauma affects both mental health and marital adjustment. Trauma-informed couple therapy that integrates psychoeducation on ACEs with communication coaching, emotion-regulation skills, and formally structured support-building exercises can diminish stress escalation and withdrawal cycles associated with childhood adversity (Miller-Graff et al., 2020; Falconier et al., 2015). This focus is especially pertinent considering the more powerful partner effects found between wives' ACEs and husbands' outcomes, which indicates that the establishment of equitable emotional labor and mutual responsiveness is particularly important in the context of Pakistani culture (Saeed and Mahmood, 2023).

The research also highlights the significance of culturally responsive delivery. In Pakistan, where couple-centric joint family systems and arranged marriages are prevalent, and where shame surrounding psychological challenges is still strong, intervention needs to normalize trauma responses, counteract shame, and modify strategies toward family forms larger than the couple (Qadir et al., 2013; Saeed and Mahmood, 2023). Cultural and gender norms can be challenged in therapy to increase acceptability and efficacy and recognize the relational demands of collectivist expectations.

Beyond clinical practice, the findings highlight the importance of preventive strategies aimed at reducing exposure to ACEs and mitigating their consequences through early interventions. Public health programs that foster secure and supportive settings for children, social–emotional learning in schools, and parent support programs can reduce the dose–response build-up of adversity over the life course and thereby decrease adult depression, anxiety, stress, and marital distress (Anda et al., 2006; Hughes et al., 2017a). These findings can inform policymakers and stakeholders in mental health to advocate for resources that support trauma-informed

services and enhance awareness of the long-term consequences of childhood adversity, hence saving the long-term public health cost (Merrick et al., 2017).

The findings also lay a groundwork for future studies. Longitudinal dyadic research is necessary to determine temporal pathways, whereas experimental research may illuminate mechanisms by which ACEs affect marital satisfaction and psychological distress. Future research should also investigate mediators (e.g., attachment insecurity, emotion regulation, coping responses) and moderators (e.g., social support, cultural norms) to further clarify resilience and vulnerability (Zheng et al., 2020b; Candel and Turliuc, 2019). Psychometric calibration of the WHO ACE International Questionnaire, the DASS-21, and the RAS in Pakistani samples would enhance reliability and validity, especially across family types and gender (Organization, 2011; Lovibond and Lovibond, 1995; Hendrick, 1988). Randomized and hybrid efficacy trials can also evaluate trauma-informed couples' interventions that combine dyadic coping and regulation modules, with follow-up over psychological distress and marital satisfaction (Falconier et al., 2015; Randall and Bodenmann, 2017).

Lastly, the results highlight the necessity for more systemic change. Educating mental health professionals in trauma-informed, dyadic conceptualization can guarantee that clinicians providing care within primary care and community settings are more likely to screen for ACEs and refer individuals to relevant services (Affi et al., 2016). Interagency coordination among health, education, and social services can also minimize exposure to ACEs, enhance access to trauma-informed care, and support marital and family health throughout the life course (Anda et al., 2006; Merrick et al., 2017).

5.5 Recommendations

Based on the findings and shortcomings of the current study, it is possible to designate a number of recommendations on the future researches, clinical practice, and social policy.

- i. Prospective studies need to use longitudinal and multi-method approaches to understand the time-based developmental patterns ACEs follow in the

development of depression, anxiety, stress, and marital satisfaction. Following couples over several years would be useful in showing how the early trauma influences the emotional regulation, communication, and trajectories of marital stability, which would contribute to causal inference more than correlations.

- ii. The futuristic research ought to incorporate qualitative interviews, narrative procedures, or culturally sensitive assessments of trauma to generate more culturally sensitive accounts of childhood trauma because childhood adversity is a cultural phenomenon that is sensitive to reporting in Pakistan. The contextual accuracy and validity could be improved by incorporating culturally specific indicators, including emotional neglect, intergenerational conflict, or being exposed to gender-based discrimination.
- iii. The study can be extended in a future study with the extension of the demographic scope. The sample should be recruited in rural settings, low socioeconomic status, or the extended families to offer a bigger picture of the role of sociocultural and economic contexts in the interactions between ACEs, mental health, and marital satisfaction. The comparative research between provinces or urban-rural boundaries would assist in determining the circumstances-specific risk and resilience factors.
- iv. Future research should focus on including psychological mediators and moderators into the models. As discussed, these include: attachment style, coping strategies, emotion regulation, communication quality, and social support. Investigating which of these factors mediate or protect against the ACE-partner effect may add significant theoretical clarity and facilitate more focused interventions. For example, a study might examine whether secure attachment mitigates the negative partner effects of ACEs.
- v. Highlighting clinical applications of such findings is important. The findings have important implications for trauma-informed couple counseling and premarital interventions in Pakistan. Assessing ACE history in both partners by therapists'/marriage counselors should be a routine to identify the latent

sources of emotional dysregulation or mistrust underlying marital distress. Integrating trauma processing with marital therapy can foster empathy, emotional attunement, and healthier communication patterns.

- vi. The interconnectedness, as seen in the APIM, suggests that interventions for couples should be based not on individual-level treatments but rather on shared emotional regulation. Interventions using EFT or CBCT can be adapted to help partners engage in co-regulation of distress and change negative emotional cycles of interaction at the base of traumatic experiences.
- vii. Future research may investigate resilience and protective factors among couples with high ACE exposure who continue to report marital satisfaction. The identification of adaptive mechanisms, such as forgiveness, religiosity, emotional intelligence, or family cohesion, would provide a culturally congruent framework for interventions that is in tune with Pakistani values.
- viii. Academic-clinical collaboration should strive to develop cultural intervention manuals for trauma-affected couples in Pakistan that are informed by the findings of this and future dyadic research. The manuals can integrate findings from this and future dyadic studies to provide structured psychoeducation, emotional regulation exercises, and communication skills training that are sensitive to the specific emotional and relational impact of ACEs in South Asian marriages.

References

- Affi, T. O., Enns, M. W., Cox, B. J., Asmundson, G. J. G., Stein, M. B., and Sareen, J. (2008). “Population attributable fractions of psychiatric disorders and suicide ideation and attempts associated with adverse childhood experiences”. *American Journal of Public Health*, 98(5):946–952.
- Affi, T. O., MacMillan, H. L., Boyle, M., Taillieu, T., Cheung, K., and Sareen, J. (2016). “Child abuse and physical health in adulthood”. *Health Reports*, 27(3):10–18.
- Anda, R. F., Felitti, V. J., Bremner, J. D., Walker, J. D., Whitfield, C., Perry, B. D., Dube, S. R., and Giles, W. H. (2006). “The enduring effects of abuse and related adverse experiences in childhood”. *European Archives of Psychiatry and Clinical Neuroscience*, 256(3):174–186.
- Aslam, N., Kamal, A., and Kamal, A. (2020). “Validation of the Depression Anxiety Stress Scales (DASS-21) in Pakistani university students”. *Pakistan Journal of Psychological Research*, 35(2):317–335.
- Bellis, M. A., Hardcastle, K., Ford, K., Hughes, K., Ashton, K., Quigg, Z., and Butler, N. (2018). “Does continuous trusted adult support in childhood impart life-course resilience against adverse childhood experiences?”. *BMC Psychiatry*, 17:110.
- Bradbury, T. N., Fincham, F. D., and Beach, S. R. H. (2000). “Research on the nature and determinants of marital satisfaction: A decade in review”. *Journal of Marriage and Family*, 62(4):964–980.

- Briere, J. and Elliott, D. M. (2003). "Prevalence and psychological sequelae of self-reported childhood physical and sexual abuse in a general population sample of men and women". *Child Abuse & Neglect*, 27(10):1205–1222.
- Candel, O. S. and Turluc, M. N. (2019). "Insecure attachment and relationship satisfaction: A meta-analysis of actor and partner effects". *Personal Relationships*, 26(1):1–22.
- Chae, D. H., Nuru-Jeter, A. M., Lincoln, K. D., and Jacob Arriola, K. R. (2014). "Racial discrimination, mood disorders, and cardiovascular disease among Black Americans". *Annals of Epidemiology*, 24(5):330–335.
- Chapman, D. P., Whitfield, C. L., Felitti, V. J., Dube, S. R., Edwards, V. J., and Anda, R. F. (2004). "Adverse childhood experiences and the risk of depressive disorders in adulthood". *Journal of Affective Disorders*, 82(2):217–225.
- Cook, W. L. and Kenny, D. A. (2005). "The actor–partner interdependence model: A model of bidirectional effects in developmental studies". *International Journal of Behavioral Development*, 29(2):101–109.
- Cunha, O., Sousa, M., Pereira, B., Pinheiro, M., Machado, A. B., Caridade, S., and Almeida, T. C. (2024). "Positive childhood experiences and adult outcomes: A systematic review". *Trauma, Violence, & Abuse*. Advance online publication.
- Danese, A. and McEwen, B. S. (2012). "Adverse childhood experiences, allostasis, allostatic load, and age-related disease". *Physiology & Behavior*, 106(1):29–39.
- Domingue, R. and Mollen, D. (2009). "Attachment and Conflict Communication in Adult Romantic Relationships". *Journal of Social and Personal Relationships*, 26(5):678–696.
- Falconier, M. K., Jackson, J. B., Hilpert, P., and Bodenmann, G. (2015). "Dyadic coping and relationship satisfaction: A meta-analysis". *Clinical Psychology Review*, 42:28–46.
- Felitti, V. J., Anda, R. F., Nordenberg, D., Williamson, D. F., Spitz, A. M., Edwards, V., Koss, M. P., and Marks, J. S. (1998). "Relationship of childhood

- abuse and household dysfunction to many of the leading causes of death in adults: The Adverse Childhood Experiences (ACE) Study”. *American Journal of Preventive Medicine*, 14(4):245–258.
- Fincham, F. D. and Beach, S. R. H. (2010). “Marriage in the new millennium: A decade in review”. *Journal of Marriage and Family*, 72(3):630–649.
- Graham-Bermann, S. A., DeVoe, E. R., Mattis, J. S., Lynch, S., and Thomas, S. A. (2006). “Ecological predictors of traumatic stress symptoms in Caucasian and ethnic minority children exposed to intimate partner violence”. *Violence Against Women*, 12(7):662–692.
- Green, J. G., McLaughlin, K. A., Berglund, P. A., Gruber, M. J., Sampson, N. A., Zaslavsky, A. M., and Kessler, R. C. (2010). “Childhood adversities and adult psychiatric disorders in the National Comorbidity Survey Replication I: Associations with first onset of DSM-IV disorders”. *Archives of General Psychiatry*, 67(2):113–123.
- Heim, C. and Binder, E. B. (2012). “Current research trends in early life stress and depression: Review of human studies on sensitive periods, gene-environment interactions, and epigenetics”. *Experimental Neurology*, 233(1):102–111.
- Hendrick, S. S. (1988). “A generic measure of relationship satisfaction”. *Journal of Marriage and the Family*, 50(1):93–98.
- Hughes, K., Bellis, M. A., Hardcastle, K. A., Sethi, D., Butchart, A., Mikton, C., Jones, L., and Dunne, M. P. (2017a). “The effect of multiple adverse childhood experiences on health: A systematic review and meta-analysis”. *The Lancet Public Health*, 2(8):e356–e366.
- Hughes, K., Bellis, M. A., Hardcastle, K. A., Sethi, D., Butchart, A., Mikton, C., Jones, L., and Dunne, M. P. (2017b). “The effect of multiple adverse childhood experiences on health: A systematic review and meta-analysis”. *The Lancet Public Health*, 2(8):e356–e366.
- Karakurt, G. and Silver, K. E. (2014). “Emotional abuse in intimate relationships: The role of gender and age”. *Violence and Victims*, 29(5):653–670.

- Karatekin, C. (2018). “Adverse Childhood Experiences (ACEs), Stress and Mental Health in College Students”. *Stress & Health*, 34(1):36–45.
- Kenny, D. A., Kashy, D. A., and Cook, W. L. (2006). *“Dyadic Data Analysis”*. Guilford Press, New York, NY.
- Kenny, D. A., Kashy, D. A., and Cook, W. L. (2020). *“Dyadic data analysis”*. Guilford Press, 2nd edition.
- Kenny, D. A. and Ledermann, T. (2010). “Detecting, Measuring, and Testing Dyadic Patterns in the Actor–Partner Interdependence Model”. *Journal of Family Psychology*, 24(3):359–366.
- Khalifian, C. E., Barry, R. A., and Levendosky, A. A. (2022). “Intimate partner violence, adverse childhood experiences, and dyadic functioning: A review of the intergenerational transmission of risk”. *Trauma, Violence, & Abuse*, 23(2):508–522.
- Larson, R. and Richards, M. H. (1994). *“Divergent Realities: The Emotional Lives of Mothers, Fathers, and Adolescents”*. Basic Books, New York. ISBN 9780465016624, ISBN 9780465016631.
- Larson, R. W. and Almeida, D. M. (1999). “Emotional transmission in the daily lives of families: A new paradigm for studying family process”. *Journal of Marriage and Family*, 61(1):5–20.
- Ledermann, T., Macho, S., and Kenny, D. A. (2011). “Assessing Mediation in Dyadic Data Using the Actor–Partner Interdependence Model”. *Structural Equation Modeling: A Multidisciplinary Journal*, 18(4):595–612.
- LeMasters, K., Bates, L. M., Chung, E. O., Gallis, J. A., Hagaman, A. K., Scherer, E., Maselko, J., and Kohrt, B. A. (2021). “Adverse childhood experiences and depression among women in rural Pakistan”. *BMC Public Health*, 21:1225.
- Lovibond, S. H. and Lovibond, P. F. (1995). *“Manual for the Depression Anxiety Stress Scales”*. Psychology Foundation, 2nd edition.

- McCarthy, K. S. and Lambert, H. K. (2022). “Childhood adversity and adult mental health: Mechanisms of risk and resilience”. *Current Opinion in Psychology*, 44:149–155.
- McCrorry, E., De Brito, S. A., and Viding, E. (2011). “The neuroscience of early adversity: Insights into the neurobiological effects of childhood maltreatment”. *Nature Reviews Neuroscience*, 12(9):503–514.
- McLaughlin, K. A., Green, J. G., Gruber, M. J., Sampson, N. A., Zaslavsky, A. M., and Kessler, R. C. (2010). “Childhood adversities and adult psychiatric disorders in the National Comorbidity Survey Replication II: Associations with persistence of DSM-IV disorders”. *Archives of General Psychiatry*, 67(2):124–132.
- McLaughlin, K. A., Sheridan, M. A., and Lambert, H. K. (2014). “Childhood adversity and neural development: Deprivation and threat as distinct dimensions of early experience”. *Neuroscience & Biobehavioral Reviews*, 47:578–591.
- Merrick, M. T., Ford, D. C., Ports, K. A., and Guinn, A. S. (2018). “Prevalence of adverse childhood experiences from the 2011–2014 Behavioral Risk Factor Surveillance System in 23 states”. *JAMA Pediatrics*, 172(11):1038–1044.
- Merrick, M. T., Ports, K. A., Ford, D. C., Afifi, T. O., Gershoff, E. T., and Grogan-Kaylor, A. (2017). “Unpacking the impact of adverse childhood experiences on adult mental health”. *Child Abuse & Neglect*, 69:10–19.
- Mikulincer, M. and Shaver, P. R. (2016). *Attachment in Adulthood: Structure, Dynamics, and Change*. Guilford Press, New York, NY.
- Miller, E., Tancredi, D. J., Levenson, R. R., McCauley, H. L., Decker, M. R., Waldman, J., Jones, R., and Silverman, J. G. (2011). “Adverse childhood experiences and risk of physical violence in adolescent dating relationships”. *Journal of Epidemiology & Community Health*, 65(11):1006–1013.
- Miller-Graff, C. J., Cater, Å. K., Howell, K. H., and Graham-Bermann, S. A. (2020). “Nothing that has happened has changed me in any way: Patterns

- of resilience and vulnerability among children exposed to intimate partner violence”. *Child Abuse & Neglect*, 107:104616.
- Mostoufi, S. M., Afari, N., Buchwald, D., Goldberg, J., and Miles, T. R. (2013). “Adverse childhood experiences, health perception, and the role of shared familial factors in adult twins”. *Child Abuse & Neglect*, 37(11):910–916.
- Nanni, V., Uher, R., and Danese, A. (2012). “Childhood maltreatment predicts unfavorable course of illness and treatment outcome in depression: A meta-analysis”. *American Journal of Psychiatry*, 169(2):141–151.
- Organization, W. H. (2001). “The World Health Report 2001: Mental health – New understanding, new hope”. Technical report, World Health Organization.
- Organization, W. H. (2011). “Adverse Childhood Experiences International Questionnaire (ACE-IQ): Guidance for collecting data”. Technical report, World Health Organization.
- Organization, W. H. (2018). “World health statistics 2018: Monitoring health for the SDGs, Sustainable Development Goals”. World Health Organization, Geneva.
- Organization, W. H. (2021). “Adverse childhood experiences international questionnaire (ACE-IQ): Guidance and questionnaire”. World Health Organization, Geneva.
- Pietromonaco, P. R. and Barrett, L. F. (2002). “The internal working models concept: What do we really know about the self in relation to others?”. *Review of General Psychology*, 6(2):155–176.
- Proulx, C. M., Helms, H. M., and Buehler, C. (2007). “Marital quality and personal well-being: A meta-analysis”. *Journal of Marriage and Family*, 69(3):576–593.
- Qadir, F., De Silva, P., Prince, M., and Khan, M. (2013). “Marital satisfaction in Pakistan: A pilot investigation”. *Sexual and Relationship Therapy*, 28(2):182–194.

- Randall, A. K. and Bodenmann, G. (2017). “Stress and its associations with relationship satisfaction”. *Current Opinion in Psychology*, 13:96–106.
- Rosseel, Y. (2012). “lavaan: An R Package for Structural Equation Modeling”. *Journal of Statistical Software*, 48(2):1–36.
- Saeed, K. and Mahmood, Z. (2023). “Childhood adversity and adult psychopathology in South Asia: A review”. *Asian Journal of Psychiatry*, 85:103541.
- Sayers, S. L., Raper, J. L., Monin, J. K., and Glynn, S. M. (2009). “Marital functioning and mental health outcomes in male and female returning Iraq War veterans”. *Journal of Traumatic Stress*, 22(3):209–213.
- Schumm, W. R., Nichols, C. W., Schectman, K. L., and Grigsby, C. C. (1986). “Characteristics of responses to the Kansas Marital Satisfaction Scale by a sample of 84 married mothers”. *Psychological Reports*, 58(2):975–980.
- Shonkoff, J. P. and Garner, A. S. (2012). “The lifelong effects of early childhood adversity and toxic stress”. *Pediatrics*, 129(1):e232–e246.
- South, S. C., Krueger, R. F., and Iacono, W. G. (2008). “Understanding general and specific connections between psychopathology and marital distress: A model based on traits and symptoms”. *Journal of Abnormal Psychology*, 117(4):813–827.
- Sprecher, S., Sullivan, Q., and Hatfield, E. (1994). “Mate selection preferences: Gender differences examined in a national sample”. *Journal of Personality and Social Psychology*, 66(6):1074–1080.
- Stas, L., Kenny, D. A., Mayer, A., and Loeys, T. (2018). “Giving Dyadic Data Analysis Away: A User-Friendly App for Actor–Partner Interdependence Models”. *Personal Relationships*, 25(1):103–119.
- Sullivan, T. P., Fehon, D. C., Andres-Hyman, R. C., Lipschitz, D. S., and Grilo, C. M. (2010). “Differential relationships of childhood abuse and neglect subtypes to PTSD symptom clusters among adolescent inpatients”. *Journal of Traumatic Stress*, 23(3):399–406.

- Teicher, M. H. and Samson, J. A. (2016a). “Annual research review: Enduring neurobiological effects of childhood abuse and neglect”. *Journal of Child Psychology and Psychiatry*, 57(3):241–266.
- Teicher, M. H. and Samson, J. A. (2016b). “Annual research review: Enduring neurobiological effects of childhood abuse and neglect”. *Journal of Child Psychology and Psychiatry*, 57(3):241–266.
- Thompson, A. and Bolger, N. (1999). “Emotional Transmission in Couples Under Stress”. *Journal of Marriage and Family*, 61(1):38–48.
- Whisman, M. A. (2007). “Marital distress and DSM-IV psychiatric disorders in a population-based national survey”. *Journal of Abnormal Psychology*, 116(3):638–643.
- Whisman, M. A. and Uebelacker, L. A. (2009). “Prospective associations between marital discord and depressive symptoms in middle-aged and older adults”. *Psychology and Aging*, 24(1):184–189.
- Whisman, M. A., Uebelacker, L. A., and Weinstock, L. M. (2004). “Psychopathology and marital satisfaction: The importance of evaluating both partners”. *Journal of Consulting and Clinical Psychology*, 72(5):830–838.
- Yoon, S., Steigerwald, S., Holmes, M. R., and Perzynski, A. T. (2017). “Children’s exposure to violence: The underlying role of ACEs on behavioral problems”. *Journal of Interpersonal Violence*, 32(20):2897–2923.
- Zheng, Y., Zhang, W., and Chen, J. (2020a). “Adverse childhood experiences and marital satisfaction: The mediating role of emotion regulation”. *Journal of Family Psychology*, 34(2):190–201.
- Zheng, Y., Zhang, W., and Chen, J. (2020b). “Adverse childhood experiences and marital satisfaction: The mediating role of emotion regulation”. *Journal of Family Psychology*, 34(2):190–201.

Appendix A

Consent Form

My name is Hira Tariq, a student of MS Psychology at Capital University of Science and Technology. I am conducting this research study exploring mental health and marital relationship satisfaction among married couples for completion of my MS degree.

For this purpose you are required to fill the provided questionnaires which will take approximately 20 to 30 minutes. All information you provide will be kept strictly confidential, and your identity will remain anonymous. The data will be used only for research purposes and stored securely.

Some questions may cause emotional discomfort as they relate to past experiences. If you have any concerns, you may contact me or my supervisor for support. By agreeing to participate, you acknowledge that you have read and understood this information and consent to take part in the study. The decision to participate is entirely up to you and you can withdraw at any time.

I agree to participate.

Participant name (Optional): _____ Date: _____

Signature: _____

Bachelor's degree

Master's degree

Doctorate/PhD

10. Childhood living environment:

Lived with both biological parents

Lived with one parent

Lived with relatives/foster care/orphanage

11. Perceived Socioeconomic Status During Childhood:

Low Middle High

Section 2: This section will assess participants' exposure to various types of adverse childhood experiences before the age of 18.

Marriage						
1.1	At what age were you first married?	Age:				
1.2	At the time of your first marriage did you yourself choose your husband/wife?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Don't Know/Not sure	<input type="checkbox"/> Refused	
1.3	At the time of your first marriage if you did not choose your husband/wife yourself, did you give your consent to the choice?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Refused		
1.4	If you are a mother or father what was your age when your first child was born?	Age:	<input type="checkbox"/> Not applicable	<input type="checkbox"/> Refused		
1. Relationship with Parents and Guardians						
When you were growing up, during the first 18 years of your life . . .						
2.1	Did your parents/guardians understand your problems and worries?	<input type="checkbox"/> Many times	<input type="checkbox"/> A few times	<input type="checkbox"/> Once	<input type="checkbox"/> Never	<input type="checkbox"/> Refused
2.2	Did your parents/guardians really know what you were doing with your free time when you were not at school or work?	<input type="checkbox"/> Many times	<input type="checkbox"/> A few times	<input type="checkbox"/> Once	<input type="checkbox"/> Never	<input type="checkbox"/> Refused

2.3	How often did your parents/guardians not give you enough food even when they could easily have done so?	<input type="checkbox"/> Many times	<input type="checkbox"/> A few times	<input type="checkbox"/> Once	<input type="checkbox"/> Never	<input type="checkbox"/> Refused
2.4	Were your parents/guardians too drunk or intoxicated by drugs to take care of you?	<input type="checkbox"/> Many times	<input type="checkbox"/> A few times	<input type="checkbox"/> Once	<input type="checkbox"/> Never	<input type="checkbox"/> Refused
2.5	How often did your parents/guardians not send you to school even when it was available?	<input type="checkbox"/> Many times	<input type="checkbox"/> A few times	<input type="checkbox"/> Once	<input type="checkbox"/> Never	<input type="checkbox"/> Refused
2. Family Environment						
When you were growing up, during the first 18 years of your life . . .						
3.1	Did you live with a household member who was a problem drinker or alcoholic, or misused street or prescription drugs?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Refused		
3.2	Did you live with a household member who was depressed, mentally ill or suicidal?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Refused		
3.3	Did you live with a household member who was ever sent to jail or prison?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Refused		
3.4	Were your parents ever separated or divorced?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Not applicable	<input type="checkbox"/> Refused	
3.5	Did your mother, father or guardian die?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Not applicable	<input type="checkbox"/> Refused	

These next questions are about certain things you may actually have heard or seen IN YOUR HOME. These are things that may have been done to another household member but not necessarily to you.						
When you were growing up, during the first 18 years of your life . . .						
3.6	Did you see or hear a parent or household member in your home being yelled at, screamed at, and sworn at, insulted or humiliated?	<input type="checkbox"/> Many times	<input type="checkbox"/> A few times	<input type="checkbox"/> Once	<input type="checkbox"/> Never	<input type="checkbox"/> Refused
3.7	Did you see or hear a parent or household member in your home being slapped, kicked, punched or beaten up?	<input type="checkbox"/> Many times	<input type="checkbox"/> A few times	<input type="checkbox"/> Once	<input type="checkbox"/> Never	<input type="checkbox"/> Refused
3.8	Did you see or hear a parent or household member in your home being hit or cut with an object, such as a stick (or cane), bottle, club, knife, whip etc.?	<input type="checkbox"/> Many times	<input type="checkbox"/> A few times	<input type="checkbox"/> Once	<input type="checkbox"/> Never	<input type="checkbox"/> Refused
3. These next questions are about certain things YOU may have experienced. When you were growing up, during the first 18 years of your life . . .						
4.1	Did a parent, guardian or other household member yell, scream or swear at you, insult or humiliate you?	<input type="checkbox"/> Many times	<input type="checkbox"/> A few times	<input type="checkbox"/> Once	<input type="checkbox"/> Never	<input type="checkbox"/> Refused
4.2	Did a parent, guardian or other household member threaten to, or	<input type="checkbox"/> Many times	<input type="checkbox"/> A few times	<input type="checkbox"/> Once	<input type="checkbox"/> Never	<input type="checkbox"/> Refused

	actually, abandon you or throw you out of the house?					
4.3	Did a parent, guardian or other household member spank, slap, kick, punch or beat you up?	<input type="checkbox"/> Many times	<input type="checkbox"/> A few times	<input type="checkbox"/> Once	<input type="checkbox"/> Never	<input type="checkbox"/> Refused
4.4	Did a parent, guardian or other household member hit or cut you with an object, such as a stick (or cane), bottle, club, knife, whip etc?	<input type="checkbox"/> Many times	<input type="checkbox"/> A few times	<input type="checkbox"/> Once	<input type="checkbox"/> Never	<input type="checkbox"/> Refused
4.5	Did someone touch or fondle you in a sexual way when you did not want them to?	<input type="checkbox"/> Many times	<input type="checkbox"/> A few times	<input type="checkbox"/> Once	<input type="checkbox"/> Never	<input type="checkbox"/> Refused
4.6	Did someone make you touch their body in a sexual way when you did not want them to?	<input type="checkbox"/> Many times	<input type="checkbox"/> A few times	<input type="checkbox"/> Once	<input type="checkbox"/> Never	<input type="checkbox"/> Refused
4.7	Did someone attempt oral, anal, or vaginal intercourse with you when you did not want them to?	<input type="checkbox"/> Many times	<input type="checkbox"/> A few times	<input type="checkbox"/> Once	<input type="checkbox"/> Never	<input type="checkbox"/> Refused
4.8	Did someone actually have oral, anal, or vaginal intercourse with you when you did not want them to?	<input type="checkbox"/> Many times	<input type="checkbox"/> A few times	<input type="checkbox"/> Once	<input type="checkbox"/> Never	<input type="checkbox"/> Refused
4.	Peer Violence					

<p>These next questions are about BEING BULLIED when you were growing up. Bullying is when a young person or group of young people say or do bad and unpleasant things to another young person. It is also bullying when a young person is teased a lot in an unpleasant way or when a young person is left out of things on purpose. It is not bullying when two young people of about the same strength or power argue or fight or when teasing is done in a friendly and fun way.</p> <p>When you were growing up, during the first 18 years of your life . . .</p>						
5.1	How often were you bullied?	<input type="checkbox"/> Many times	<input type="checkbox"/> A few times	<input type="checkbox"/> Once	<input type="checkbox"/> Never	<input type="checkbox"/> Refused
5.2	How were you bullied most often?	<input type="checkbox"/> I was hit, kicked, pushed, shoved around, or locked indoors <input type="checkbox"/> I was made fun of because of my race, nationality or color <input type="checkbox"/> I was made fun of because of my religion <input type="checkbox"/> I was made fun of with sexual jokes, comments, or gestures <input type="checkbox"/> I was left out of activities on purpose or completely ignored <input type="checkbox"/> I was made fun of because of how my body or face looked <input type="checkbox"/> I was bullied in some other way <input type="checkbox"/> Refused				
<p>This next question is about PHYSICAL FIGHTS. A physical fight occurs when two young people of about the same strength or power choose to fight each other.</p>						

When you were growing up, during the first 18 years of your life . . .						
5.4	How often were you in a physical fight?	<input type="checkbox"/> Many times	<input type="checkbox"/> A few times	<input type="checkbox"/> Once	<input type="checkbox"/> Never	<input type="checkbox"/> Refused
5. Witnessing community violence						
<p>These next questions are about how often, when you were a child, YOU may have seen or heard certain things in your NEIGHBOURHOOD OR COMMUNITY (not in your home or on TV, movies, or the radio).</p> <p>When you were growing up, during the first 18 years of your life . . .</p>						
6.1	Did you see or hear someone being beaten up in real life?	<input type="checkbox"/> Many times	<input type="checkbox"/> A few times	<input type="checkbox"/> Once	<input type="checkbox"/> Never	<input type="checkbox"/> Refused
6.2	Did you see or hear someone being stabbed or shot in real life?	<input type="checkbox"/> Many times	<input type="checkbox"/> A few times	<input type="checkbox"/> Once	<input type="checkbox"/> Never	<input type="checkbox"/> Refused
6.3	Did you see or hear someone being threatened with a knife or gun in real life?	<input type="checkbox"/> Many times	<input type="checkbox"/> A few times	<input type="checkbox"/> Once	<input type="checkbox"/> Never	<input type="checkbox"/> Refused
6. Exposure to war/collective violence						
<p>These questions are about whether YOU did or did not experience any of the following events when you were a child. The events are all to do with collective violence, including wars, terrorism, political or ethnic conflicts, genocide, repression, disappearances, torture and organized violent crime such as banditry and gang warfare.</p> <p>When you were growing up, during the first 18 years of your life . . .</p>						

7.1	Were you forced to go and live in another place due to any of these events?	<input type="checkbox"/> Many times	<input type="checkbox"/> A few times	<input type="checkbox"/> Once	<input type="checkbox"/> Never	<input type="checkbox"/> Refused
7.2	Did you experience the deliberate destruction of your home due to any of these events?	<input type="checkbox"/> Many times	<input type="checkbox"/> A few times	<input type="checkbox"/> Once	<input type="checkbox"/> Never	<input type="checkbox"/> Refused
7.3	Were you beaten up by soldiers, police, militia, or gangs?	<input type="checkbox"/> Many times	<input type="checkbox"/> A few times	<input type="checkbox"/> Once	<input type="checkbox"/> Never	<input type="checkbox"/> Refused
7.4	Was a family member or friend killed or beaten up by soldiers, police, militia, or gangs?	<input type="checkbox"/> Many times	<input type="checkbox"/> A few times	<input type="checkbox"/> Once	<input type="checkbox"/> Never	<input type="checkbox"/> Refused

Section 3: This section will evaluate current levels of depression, anxiety, and stress symptoms experienced by participants.

	Never	Sometimes	Often	Almost Always
1. I found it hard to wind down	0	1	2	3
2. I was aware of dryness of my mouth	0	1	2	3
3. I couldn't seem to experience any positive feeling at all	0	1	2	3

4. I experienced breathing difficulty (eg, excessively rapid breathing, breathlessness in the absence of physical exertion)	0	1	2	3
5. I found it difficult to work up the initiative to do things	0	1	2	3
6. I tended to over-react to situations	0	1	2	3
7. I experienced trembling (eg, in the hands)	0	1	2	3
8. I felt that I was using a lot of nervous energy	0	1	2	3
9. I was worried about situations in which I might panic and make a fool of myself	0	1	2	3
10. I felt that I had nothing to look forward to	0	1	2	3
11. I found myself going agitated	0	1	2	3
12. I found it difficult to relax	0	1	2	3
13. I felt down-hearted and blue	0	1	2	3
14. I was intolerant of anything that kept me from going on with what I was doing	0	1	2	3
15. I felt I was close to panic	0	1	2	3
16. I was unable to become enthusiastic about anything	0	1	2	3
17. I felt I wasn't worth much as a person	0	1	2	3

18. I felt that I was rather touchy	0	1	2	3
19. I was aware of the action of my heart in the absence of physical exertion (eg, sense of heart rate increase, heart missing a beat)	0	1	2	3
20. I felt scared without any good reason	0	1	2	3
21. I felt that life was meaningless	0	1	2	3

Section 4: This section will measure participants' overall satisfaction with their marital relationship.

	Low				High
1. How well does your partner meet your needs?	1	2	3	4	5
2. In general, how satisfied are you with your relationship?	1	2	3	4	5
3. How good is your relationship compared to most?	1	2	3	4	5
4. How often do you wish you hadn't gotten into this relationship?	1	2	3	4	5
5. To what extent has your relationship met your original expectations?	1	2	3	4	5

6. How much do you love your partner?	1	2	3	4	5
7. How many problems are there in your relationship?	1	2	3	4	5

Appendix B



Capital University of Science & Technology
Your Journey Awaits

Islamabad Expressway,
Kahuta Road Zone V,
Islamabad Pakistan.

T +92 (51) 111 555 666
+92 (51) 448 6700
F +92 (51) 448 6705
E info@cust.edu.pk
W www.cust.edu.pk

Ref. CUST/IBD/PSY/Thesis-1664
August 19, 2025

SUBJECT: REQUEST FOR DATA COLLECTION

Capital University of Science and Technology (CUST) is a federally chartered university. The university is authorized by the Federal Government to award degrees at Bachelor's, Master's and Doctorate level for a wide variety of programs.

Ms. Hira Tariq registration number MSP233020 is a bona fide student in MS Psychology program at this University from Fall-2023 till date. In partial fulfillment of the degree, she is conducting research on "Adverse Childhood Experiences as Predictors Of Depression, Anxiety, Stress and Marital Relationship Satisfaction among Married Couple". In this continuation, the student is required to collect data from your institute.

Considering the forgoing, kindly allow the student to collect the requisite data from your institute. Your cooperation in this regard will be highly appreciated.

Please feel free to contact undersigned if you have any query in this regard.

Best Wishes,

Dr. Sabahat Haqqani
Head, Department of Psychology
Ph No. 111-555-666 Ext: 178
sabahat.haqqani@cust.edu.pk



Capital University of Science & Technology
Your Journey Awaits

Islamabad Expressway,
Kahuta Road Zone V,
Islamabad Pakistan.

T +92 (51) 111 555 666
+92 (51) 448 6700
F +92 (51) 448 6705
E info@cust.edu.pk
W www.cust.edu.pk

Ref: CUST/FMSS/REC/2025-58

August 19, 2025

RESEARCH ETHICS COMMITTEE CERTIFICATE OF REVIEW AND SUPPORT

This is to certify that Project titled: "*Adverse Childhood Experiences as Predictors of Depression, Anxiety, Stress and Marital Relationship Satisfaction among Married Couples.*" submitted by Scholar: Hira Tariq MSP233020 and supervised by: Dr. Ishrat Yousaf reviewed by the Research Ethics Committee of Faculty of Management and Social Science, meets the requirements of the American Psychological Association's Ethical guidelines for Human Research and is **REVIEWED** and **APPROVED** by Research Ethics Committee of Faculty of Management and Social Sciences.

It is the Scholar's responsibility to ensure that all researchers associated with this project are aware of the conditions of approval and which documents have been approved.

The Scholar is required to notify the Research Ethics Committee in case of any amendment in the project, specifically:

- Any significant change to the project and the reason for that change, including an indication of ethical implications (if any)
- Serious adverse effects on participants and the actions taken to address those effects
- Any other unforeseen events or unexpected developments that merit notification
- The inability of the Principal Investigator to continue in that role, or any other change in research personnel involved in the project
- A delay of more than 12 months in the commencement of the project; and,
- Termination or closure of the project.

Dr. Sabahat Haqqani

Convener, Research Ethics Committee
Faculty of Management and Social Sciences
Capital University of Science and Technology
Islamabad