

PARENTAL DIVORCE, ROMANTIC ATTACHMENT, AND INTERNALIZING
SYMPTOMS IN ADULTHOOD

By

Kirstin Franklin

May, 2022

Director of Thesis: Damon Rappleyea, PhD

Major Department: Human Development and Family Sciences

The purpose of this study is to determine the long-lasting impacts of childhood parental divorce on romantic attachment and internalizing symptoms, both anxiety and depression, for romantic dyads. Existing literature indicates that parental divorce experienced in childhood is associated with negative romantic outcomes, depressive symptoms, and anxious symptoms (Christensen & Brooks, 2001; Auersperg et al., 2019); while parental divorce is all-too-common (U.S. Census Bureau, 2021) and the consequences of it may have devastating long-lasting effects, to our knowledge there has not been a study which connects all of these variables through the lens of attachment theory using dyadic data. To build on this foundation of literature, we used the Actor Partner Interdependence Model (APIM) to determine actor and partner effects of parental divorce on romantic attachment and internalizing symptoms in adulthood. We analyzed existing data using structural equation modeling (SEM; Jöreskog, 1970) to better understand how to support the relational, emotional, and mental health of those who have experienced childhood parental divorce.

PARENTAL DIVORCE, ROMANTIC ATTACHMENT, AND INTERNALIZING
SYMPTOMS IN ADULTHOOD

A Thesis

Presented to the Faculty of the Department of Human Development and Family Science
East Carolina University

In Partial Fulfillment of the Requirements for the Degree
Master of Science in Marriage and Family Therapy

By

Kirstin Franklin

May, 2022

© Kirstin Franklin, 2022

PARENTAL DIVORCE, ROMANTIC ATTACHMENT, AND INTERNALIZING
SYMPTOMS IN ADULTHOOD

By

Kirstin Franklin

APPROVED BY:

DIRECTOR OF THESIS: _____
Damon L. Rappleyea, Ph.D.

COMMITTEE MEMBER: _____
Andrew S. Brimhall, Ph.D.

COMMITTEE MEMBER: _____
Carol Johnston, Ph.D.

CHAIR OF THE DEPARTMENT
OF HUMAN DEVELOPMENT
AND FAMILY SCIENCE: _____
Sharon Ballard, Ph.D.

DEAN OF THE
GRADUATE SCHOOL: _____
Paul J. Gemperline, Ph.D.

ACKNOWLEDGMENTS

I would be remiss if I did not begin my acknowledgments with my incredible thesis committee. They have each provided profound support throughout this intense process and adapted to what I needed and the study required. To Dr. Johnston, thank you for providing your vast knowledge of statistics, patiently explaining high-level concepts to me, and the time you offered to help produce the results of this study and interpret them. To Dr. Brimhall, thank you for providing your expertise on attachment theory, for sacrificing countless hours to prepare the data, and for always being there to answer a question or offer support. Your vision helped inspire this thesis in the first place and it would not be what it is today without you. To Dr. Rappleyea, the best thesis chair I could imagine, thank you from the depth of my heart for your constant encouragement, reassurance, and belief in me. You have provided a steady anchor of safety and security throughout this process, which kept me from panicking many times. Your advocacy, mentorship, and friendship has meant more to me than I can express.

To those who make up the MFT program – thank you for how you have shaped me as a person, student, and clinician. To Dr. Jensen specifically, you provided validation, encouragement, and support at a point in the thesis process that I truly needed it; I cannot fully express my thanks. My time at ECU has been incredibly challenging and special, and I cannot imagine who I would be without it. I will miss this program and the people who are a part of it.

Finally, I want to thank my wonderful family and friends for their unconditional love, support, and encouragement throughout this program and the thesis process. To my mother especially, your accessibility, responsiveness, and engagement throughout my life has provided security and love. You have offered me strength to keep moving forward and permission to be human; my thanks and love for you are endless.

TABLE OF CONTENTS

TITLE PAGE	i
COPYRIGHT.....	ii
SIGNATURE PAGE	iii
ACKNOWLEDGMENTS	iv
LIST OF TABLES	viii
LIST OF FIGURES	ix
CHAPTER 1: INTRODUCTION.....	1
Purpose of Study.....	4
CHAPTER 2: LITERATURE REVIEW	5
Attachment Theory	5
Parental Divorce and Insecure Attachment	6
Romantic Attachment	9
Insecure Attachment and Internalizing Symptoms	13
Parental Divorce	15
Negative Effects of Parental Divorce	15
Parental Divorce and Romantic Relationships	16
Parental Divorce and Internalizing Symptoms	19
Child Resilience	21
CHAPTER 3: METHODOLOGY	24
Purpose of Study.....	24
Research Questions and Hypotheses	24
Study Design	25

Participants and Enlistment	26
Procedures	26
Informed Consent.....	26
Measures	27
Controls and Covariates	27
Length of Time with Family Formation	27
Attachment Style.....	28
Patient Health Questionnaire (PHQ-2)	31
Generalized Anxiety Disorder Questionnaire (GAD-2)	31
Data Analysis	32
Actor Partner Interdependence Model	33
CHAPTER 4: MANUSCRIPT	35
The Purpose of the Study	37
Literature Review.....	37
Attachment Theory	37
Parental Divorce and Insecure Attachment	38
Romantic Attachment	39
Insecure Attachment and Internalizing Symptoms	41
Parental Divorce and Romantic Relationships	41
Parental Divorce and Internalizing Symptoms	42
Child Resilience	43
Methodology	44
Participants.....	44

Procedures	45
Controls and Covariates	45
Length of Time with Family Formation	46
Attachment Style.....	46
Patient Health Questionnaire (PHQ-2)	48
Generalized Anxiety Disorder Questionnaire (GAD-2)	48
Research Questions and Hypotheses	49
Data Analysis	49
Actor Partner Interdependence Model	50
Results.....	52
Preliminary Analyses	52
Analysis.....	55
Hypotheses	56
Discussion.....	57
Actor Effects of Divorce	57
Partner Effects of Divorce	62
Limitations	62
Implications.....	64
Research Implications.....	64
Clinical Implications	65
Conclusion	66
REFERENCES	67

LIST OF TABLES

1. Participant Demographics.....	44
2. Descriptive Statistics.....	52
3. Intercorrelation Table.....	54

LIST OF FIGURES

1. Conceptualization Model.....	51
2. Actor-Partner Interdependence Model	56

CHAPTER 1: INTRODUCTION

Parental divorce, which is commonplace in American society, has been associated with decreased well-being not only for those ending the marriage, but for their children as well (U.S. Census Bureau, 2021; Raley & Sweeney, 2020). Further, these negative impacts have persisted into adulthood across a variety of domains, including emotional, relational, and psychological consequences; findings indicate that divorce can be transmitted intergenerationally, with the ripple effects of the parents' choice to divorce potentially leading to three generations of individuals being negatively affected (Amato & Cheadle, 2005). While divorce can certainly produce positive benefits, especially in cases of maltreatment or abuse, it is pivotal to consider the long-lasting effects on children and how they carry this life-altering event with them throughout the lifespan (Raley & Sweeney, 2020; Christensen & Brooks, 2001). It is especially important to study these effects due to the fact that a large proportion of children will witness the end of their parents' relationship. While the divorce rate in the United States is difficult to measure accurately, in 2016 the U.S. Census Bureau (2021) found that 33.33% of those who had ever been married in the sample had also experienced divorce. Additionally, they found that in the 12 months prior to the study, 1,089,000 women and 958,100 men experienced divorce. Of these individuals, 38.6% and 19.4%, respectively, were living in a home with at least one biological child under the age of 18, indicating that roughly 50% of those who divorced in the last year had children who witnessed this event. The proportion of children living with married parents has decreased significantly over time, with roughly 70% currently living in this situation, 15% living with divorced or separated parent(s), and 15% living with never-married parents (Pew Research Center, 2010). Thus, while recorded divorce rates are at a national low, there are

still roughly 10.6 million American children currently affected by marital dissolution, which can produce negative consequences in various areas of well-being (Raley & Sweeney, 2020).

The period in which childhood parental divorce occurs can be an extremely vulnerable phase of development in the lifespan (Andresen, 2014; Viru et al., 1999); children depend on their caregivers to provide for their physical and emotional needs (Erikson, 1963; Gottman & DeClaire, 1997; Shaver & Cassidy, 2016). Attachment theory proposes that a caregiver's most important role, however, is to provide a safe haven of security by being accessible, responsive, and engaged with the child, thereby allowing the child to feel confident stepping out, taking risks, and being open with others (Bowlby, 1969; Ainsworth et al, 1978; Cashmore & Paxman, 2006). As one can imagine, parental divorce greatly alters this relationship between the child and their attachment figure, while this can vary depending on the quantity and quality of contact between children and parents post-divorce. Johnson (2019) hypothesizes that there is a devastating impact of this shift in access to parents, stating "Emotional and physical isolation from attachment figures is inherently traumatizing for human beings, bringing with it a heightened sense, not simply of vulnerability and danger, but also of helplessness" (p. 7). While this change may have been the parental figure's choice, this life transition can cut off or greatly limit access to one of the child's primary sources of support.

Should this loss of an attachment figure truly be inherently traumatizing, there would likely be observable, negative outcomes that surface throughout the lifespan (Johnson, 2019). Indeed, experiencing such an impactful life transition in childhood can be a turning point for an individual that future decisions and events hinge on, as life-course theorists propose (Elder, 1995). For a child, parental divorce can be an event that alters their life trajectory, due to the significant instability that can occur for the entire family system, which dictates the support and

resources that the child has access to (Wu & Martinson, 1993; Valle & Tillman, 2014; Cavanagh & Fomby, 2019). This is supported by research, which demonstrates lasting and reaching impacts of divorce on well-being, including financial, emotional, mental, and relational impacts (Hepworth et al., 1984; Christensen & Brooks, 2001; Amato, 2014; Tyrka et al., 2008). Many researchers have examined the romantic lives for those who experienced parental divorce, noting lower levels of intimacy, higher rates of distress, and a higher likelihood for divorcing as well (Christensen & Brooks, 2001). Additionally, some have specifically studied the mental health of these individuals, finding higher rates of anxiety and depression in adulthood for those who experienced divorce in childhood.

While a wealth of literature has been devoted to examining various long-term effects of divorce on the individual, there appears to be a lack of research connecting this experience to romantic attachment, depressive symptoms, and anxiety symptoms with the use of dyadic data. Should divorce profoundly influence the way the individual engages in relationships and impact their mental health, it is clear that their romantic partner would be affected as well and could provide reciprocal influence; individuals can profoundly impact the overall dynamic of the relational system and play a role in the specific patterns that surface (von Bertalanffy, 1968). Thus, it is pivotal to obtain information from both members of a couple to better understand the impact of parental divorce on mental health and romantic relationships; this dyadic data can assist researchers in increasing knowledge regarding the association between childhood divorce and specific negative outcomes in adulthood. Considering how widespread the occurrence of marital dissolution is in the United States (U.S. Census Bureau, 2021; Pew Research Center, 2010), increasing understanding about parental divorce in childhood will better equip society to support these individuals throughout the lifespan.

The Purpose of This Study

Informed by attachment theory, the purpose of this article was to investigate the individual and relational impact of parental divorce on a variety of outcomes. First, we explored whether parental divorce was associated with romantic attachment security and internalizing symptoms in adulthood for the individual. We also examined whether a romantic partner's history of divorce was associated with romantic attachment security and internalizing symptoms in adulthood for the individual. Secondary data was used, utilizing dyadic information from mothers and fathers of college students at a southeastern university. Utilizing the Actor Partner Interdependence Model (APIM), we conducted statistical analyses to determine the actor and partner effects of parental divorce on the dependent variables of romantic attachment and internalizing symptoms of depression and anxiety. In order to promote long-lasting, healthy partnerships, it is important to better understand the association between impactful childhood experiences, like divorce, and outcomes that influence relationships in adulthood.

CHAPTER 2: LITERATURE REVIEW

Parental divorce impacts a significant portion of children in the United States; when measured by the percent of children currently living with married parents, divorced or separated parents, or unmarried parents, this number is roughly 10.6 million individuals, or 15% of Americans under 18 (Pew Research Center, 2010). Parental divorce is relevant to the lives of many, in childhood and beyond, and it can be associated with a variety of outcomes (Christensen & Brooks, 2001). In order to better understand the need for the following study, it is imperative to examine what already exists in the field regarding parental divorce, romantic attachment, and internalizing symptoms.

Attachment Theory

Attachment theory, which was originally conceptualized by Bowlby (1969) and expanded by Ainsworth (1971), provides a framework for understanding how children are shaped to see themselves and others, which guides their social and emotional development (Crittenden, 2017). Bowlby, in his three-part research on attachment (1969), separation (1973), and loss (1980), described the process of forming emotional bonds to caregivers and the separation distress that occurs when isolated from attachment figures, which can be perceived in infants. He also proposed that those who know their attachment figure is accessible and responsive will have lower levels of fear than those who cannot assume the same, that confidence in caregivers, or lack thereof, builds over time and sets expectations that carry through life, and that expectations reflect the personal experiences that the individual experiences of accessibility or inaccessibility (Bowlby, 1973; Hazan & Shaver, 1987; Shaver & Cassidy, 2016). Ainsworth further built upon this theory by conducting the well-known "strange situation" study, where she identified that the responsiveness of the parent, those who should be seen as a secure base, dictated the emotional

and behavioral response seen from the child (Ainsworth et al., 1971). These varying responses to a parent's responsiveness or lack thereof were then categorized into attachment styles: secure, avoidant, and anxious (Ainsworth & Wittig, 1969). Since this initial conceptualization, the disorganized attachment style has also been recognized as a distinct attachment style (Main & Solomon, 1990; Shaver & Cassidy, 2016). Attachment with caregivers shapes how children view themselves and others, developing internal working models that are salient and correlated with the varying attachment styles, supporting Bowlby's claim. Research has demonstrated that these attachment styles are persistent from childhood into adulthood, continuing to influence the ways that individuals see themselves and interact with others (Kim et al., 2021). All in all, attachment theory demonstrates the profound impact that the accessibility, or lack thereof, of an attachment figure has on an individual.

Parental Divorce and Insecure Attachment

Parental divorce can interfere with secure attachment. Bowlby (1969) himself noted the extreme distress that children experience when separated from their attachment figures, leading to protest, despair, and eventually detachment when unmet with accessibility, responsiveness, or emotional engagement. It is not difficult to consider that lengthened periods of separation from caregivers due to divorce causes distress in children and leads to an insecure attachment. In fact, many have theorized that undergoing divorce as a child is a form of parental loss along with parental death, as both experiences seriously alter or sever the attachment bond to at least one parent and are associated with negative outcomes (Hepworth et al., 1984; Kendler et al., 1992; Maier & Lachman, 2000; Coffino, 2009). Bowlby (1951) also commented on loss in his maternal deprivation hypothesis, as he proposed that the loss of a mother through separation or death would be associated with negative outcomes in the child throughout the lifespan. While it is clear

that divorce and parental death are two different phenomena with their own host of variables and consequences, attachment theory can provide a lens to view divorce as a form of profound loss similar in severity to parental death (Maier & Lachman, 2000). In his trilogy of works, Bowlby (1980) noted how the presence of a secure base can protect a child from negative outcomes after experiencing loss, such as having one accessible parent after being separated from the other. Losing the reality or possibility of an accessible, responsive, and emotionally engaged safe haven for a child, however, may lead to feelings of grief and long-term effects on well-being (Bowlby, 1960).

Supporting this theoretical link between divorce and attachment, studies have demonstrated a correlation between parental divorce in childhood and symptoms that indicate an insecure attachment style in adulthood (Feeney & Noller, 1990; Maier & Lachman, 2000; Sirvanli-Ozen, 2005). Researchers have also found that divorce, along with other major life events, can cause a shift in attachment style (Waters et al., 2000). In a longitudinal study examining attachment style consistency, researchers found that 72% of the participants had the same attachment style from childhood into adulthood. In explaining those whose attachment styles shifted, 44% of those who experienced one or more negative life events at some point during the 20-year span experienced a different attachment style thereafter; these negative life events included parental divorce, along with the death of a parent, physical or sexual abuse from a family member, life-threatening illness of parent or child, and a parental psychiatric disorder. Additionally, 66.6% of infants who were securely attached but later experienced negative life events then shifted to an insecure attachment style, highlighting the possibility that divorce, along with other negative attachment-related life events, can be significant enough to shift the attachment of an individual (Waters et al., 2000).

Further, some researchers have investigated clear links between childhood divorce and insecure attachment, finding that history of parental separation or divorce is positively related to avoidant and anxious attachment styles in adulthood and is associated with an expectation of abandonment by others (D’Rozario & Pilkington, 2021). Lewis and colleagues (2000) found that regardless of participants’ attachment style at age one, parental divorce in childhood was significantly correlated with insecure attachment at age 18, which was then associated with maladaptive adjustment; additionally, they found that the timing of the divorce did not impact outcomes, suggesting the experience of divorce itself and the continuing impact on the family system is significant, regardless of the developmental frame it first occurred in. Similarly, in a study of romantic dyads, researchers found a significant relationship between history of divorce in childhood and insecure attachment style (Crowell et al., 2009). In contrast to other findings, this study indicated that timing of the divorce impacted attachment style for female members of the dyad, with earlier timing of divorce having a greater negative influence. Additionally, adult children of divorce with a secure attachment style were themselves less likely to divorce than those with insecure attachment styles; this finding indicates that while divorce may not lead to insecure attachment in all cases, secure attachment from a caregiver can protect from future negative effects of childhood divorce, including intergenerational transmission of divorce (Amato & Cheadle, 2005; Amato & Patterson, 2017). Overall, these results indicate that parental divorce can shift attachment style due to the loss of a secure base and that attachment can be influenced by the individual’s experience.

Why might the experience of divorce impact children so significantly that it can shift their attachment style? The primary hypothesis is that this major life event is associated with other systemic impacts, such as shifts in socioeconomic status and inter-parental conflict during

the divorce process, which may limit the accessibility, responsiveness, and engagement of their parents (Tein et al., 2000; Kelly & Emery, 2003; Lansford, 2009; Raley & Sweeney, 2020). This then creates shift in the caregiving environment, as parenting styles towards children can change after divorce, with parents providing less consistency, less affection, and less stability which all negatively impact attachment (Wood et al., 2004; Nair & Murray, 2005; Martinez et al., 2002). The more that transitions of this nature occur, such as marriage, cohabitation, or divorce, the more negative outcomes for children in adulthood due to accumulated stress and disruption (Fomby & Bosick, 2013; Cavanagh & Fomby, 2019; Wu & Martinson, 1993; Rosenfeld & Roesler, 2019; Fergusson et al., 2013; Amato & Patterson, 2017); this can further support the idea that these transitions limit caregivers' accessibility with their children, leading to insecure attachment. One study, in fact, found that parental provision of emotional availability to their children post-divorce during the divorce process was significantly correlated with attachment security, while other factors like age of onset of overnight stays with the non-residential parent was not (Altenhofen et al., 2010); this may reinforce that the salient variable in promoting positive outcomes for children after divorce is the emotional engagement of at least one parent.

Romantic Attachment

Attachment not only refers to the quality of the parent-child relationship, but it was also expanded to incorporate romantic relationships in adulthood in the 1980s by Hazan and Shaver (1987). These authors have theorized that the same attachment styles in childhood also manifest in romantic relationships in adulthood, due to the enduring impact of their internalized attachment; in fact, these authors found in a study that the ratio of secure, anxious, and avoidant individuals was roughly the same in their adult sample as compared to the ratio in American infants (Hazan & Shaver, 1987). Since children with insecure attachments to their parents have

seen that they cannot rely on their caregivers, due to them being inaccessible, unresponsive, and emotionally unengaged, this experience changes the way that the individual sees others in a romantic relationship in adulthood. They may have little trust in others and shy away from depending on them, as is the case with the avoidantly attached. They might be preoccupied with love and acceptance in an “almost painfully exciting struggle to merge with another person”, as is the case with the anxiously attached (Hazan & Shaver, 1987, p. 513). These attitudes are contrasted with secure individuals, who approach their relationships with trust, friendship, and positivity. While not included in some of the attachment literature, a fourth attachment style, disorganized, is characterized by a low view of self and a low view of others (Shaver & Cassidy, 2016); oftentimes those who were traumatized by caregivers fall into this category, due to longing for a close relationship but finding them unsafe in childhood (Lyons-Ruth et al., 2006).

Attachment style also influences the expectations individuals have in a relationship and their internal working models, as secure individuals operate from assumptions that love can persist through difficulty, others are generally open and safe, and they are loveable and have worth (Hazan & Shaver, 1987). Avoidant individuals operate from assumptions that love is unreliable and unlikely to persevere, others are not trustworthy, and they do not need to depend on others to achieve satisfaction. Anxious individuals operate from the assumptions that they can find love but will not be able to sustain it, and they must protect their relationship by scanning for and voicing potential problems to their partner, leading to doubt, criticism, and a low view of self. While insecure attachment styles have been identified by a variety of names in the existing literature, anxious, avoidant, and disorganized will be used to reduce confusion for the purposes of this study. Altogether, it is not difficult to see how these internal working models on the reliability and safety of others and the individual’s sense of worth impact romantic relationships.

Researchers have indeed shown that attachment styles are consistent from childhood throughout adulthood, signifying that parental attachment also applies to romantic attachment in adulthood (Waters et al., 2000). Feeney and Noller (1990) confirmed Hazan and Shaver's study in 1987, finding that the characteristics of their respondents paralleled traditional attachment groupings. These researchers also found that securely attached individuals likely have higher relationship quality, due to longer lasting relationships and low reports on an assessment for unfulfilled hopes. In addition, Kumar and Mattanah (2016) found in their sample of emerging adults that secure attachment gave individuals a beneficial model for romantic relationships, which then was associated with greater psychosocial adjustment. This is congruent with the theory of internal working models, which impact the way that an individual views themselves and their partner in a relationship, leading to intimacy and connection for the secure, distance and independence for the avoidant, and pursuit and preoccupation for the anxious (Bowlby, 1969; Ainsworth & Wittig, 1969; Shaver & Cassidy, 2016).

Insecure attachment has been found to have negative impacts on romantic relationships in adulthood. Collins et al. (2002) found that insecure attachment in adolescence increased risk for adverse relationship outcomes in adulthood, which was especially evident for those with an avoidant attachment style. In fact, a meta-analysis of 132 studies confirmed that adult insecure attachment is correlated with lower relationship satisfaction (Candel & Turliuc, 2019). Further, Li and Chan's (2012) meta-analysis of 73 studies confirmed that the cognitive, emotional, and behavioral aspects of relationship satisfaction are negatively affected by insecure attachment. These authors also found differential effects by attachment style, noting that anxious attachment was positively associated with conflict. Avoidant attachment, instead, was negatively associated with general satisfaction, sense of connection, and support in a relationship. Conversely, parental

support can promote positive outcomes in their child's romantic attachment (Luerssen et al., 2019). While this study did not explicitly determine what attachment style an emerging adult had with their caregiver, researchers found that a higher quality relationship with their caregiver was connected to higher levels of quality communication regarding relationships, which was then connected to lower levels of romantic attachment anxiety. Similarly, River et al. (2021) found in their systematic review of literature that parental attachment and interaction quality with children was correlated with romantic outcomes in adulthood, including relationship adjustment and interactions between partners.

The systemic concept of circularity applies to understanding couple interaction (von Bertalanffy, 1968); circular patterns of interaction occur in relationships where one individual's behavior exhibits a response from their partner, which in turn elicits a behavior from the individual again. This cycle continues and can escalate when conflict or disconnection occur (Johnson, 2019). It is not difficult to see how insecure attachment in one member of the couple can influence the partner and the dyad as a whole, as attachment impacts view of self, others, and resulting behavioral responses (Ainsworth & Wittig, 1969). One partner seeking comfort may do so in an elevated manner, as is often the case with the anxiously attached, and their partner may experience fear and withdraw, as is often the case with the avoidantly attached (Johnson, 2019); this may intensify the behavioral response and desperation for comfort from the anxious member, which also intensifies the response for the avoidant member, creating a pursue-withdraw pattern known for relational distress (Eldridge et al., 2007). Indeed, it has been found that attachment anxiety in one partner was associated with distress in both members of the couple (Campbell et al., 2005). Thus, the way that each member of the couple engages in the relationship influences and is influenced by the other.

Considering that internal working models persist over time, it is likely that individuals interpret and internalize meaning from the messages they receive from their partner, which informs the way they engage in the relationship. In fact, Marks and colleagues (2013) found that internal attachment scripts influence the way individuals interpret relationship behaviors, which in turn influences relationship satisfaction. A number of studies have investigated the impact of attachment style on relational engagement, with some utilizing data from dyads and investigating actor and partner effects with an Actor Partner Interdependence Model (Shi, 2003; Ebrahimi & Kimiaei, 2014; Brassard et al., 2012; Mondor et al., 2011). Avoidant partners have been observed to employ methods of conflict resolution consistent with characteristics of their attachment style by avoiding a stressful issue, and anxious partners similarly reflect their attachment style by obliging their partner and sacrificing their own concern to keep the peace, with both behaviors influencing relationship satisfaction (Shi, 2003). Similar connections between attachment and communication styles have been observed in divorcing couples (Ebrahimi & Kimiaei, 2014), and attachment avoidance and anxiety have been associated with dissatisfaction (Mondor et al., 2011), including sexual dissatisfaction (Brassard et al., 2012), which has observed actor and partner effects, indicating reciprocal influence. Altogether, empirical evidence seems to support the hypothesis that the lack of accessible, responsive, and emotionally engaged caregiving from parental attachment figures leads to adults having difficulty both experiencing and providing these same characteristics to their partner.

Insecure Attachment and Internalizing Symptoms

Research on attachment theory can help researchers better understand the extensive impact that divorce has on children, evidenced by a number of negative outcomes. Namely, insecure attachment in adulthood is correlated with, and may cause increased vulnerability to,

internalizing symptoms (Davila et al., 2005). A conceptualization for the connection between avoidant and anxious attachment to depressive symptoms can be made (Liao & Wei, 2015). Those with anxious attachments have a low view of self and can project this onto others, which increases the likelihood of developing the depressive symptoms of feeling abandoned and blaming self. Additionally, those with avoidant attachment mask an internal sense of insecurity and high level of self-criticism, leading them to suppress emotion. This coinciding with their low view of others, which can inhibit true connection, can lead to depressive symptoms. Past mere conceptualization, the empirical short-term effects of insecure attachment have been demonstrated in childhood and adolescence, as a meta-analysis of 46 studies found that insecure attachment is moderately associated with anxiety in childhood (Colonnesi et al., 2011).

Additionally, Brumariu and Kerns (2010) found in their literature review that insecure attachment is associated with the development of depression and anxiety symptoms and that secure attachment, conversely, is associated with lower rates of these symptoms. The article provides a theoretical foundation for these findings by highlighting how fear about an attachment figure's accessibility can increase prolonged anxiety, and loss of this figure through separation can increase the threat of depression; this was theorized by Bowlby (1980) himself. The authors also commented that the data suggested that the association between attachment and internalizing symptoms became stronger with older individuals, demonstrating the possibility that patterns are fortified over time. Indeed, both those who experience depression in youth versus a later onset have a stronger association with insecure attachment than those without depression, supporting the hypothesis that attachment is not only salient earlier in life (Paradiso et al., 2011). There have been several studies indicating that insecure attachment is associated with higher rates of depression and anxiety in adults (Safford et al., 2004; Wei et al., 2004; Shaver et al., 2005;

Dagan et al., 2018; Rosas Santiago et al., 2020; Zheng et al., 2020). Altogether, there is significant empirical support connecting insecure attachment with internalizing symptoms into adulthood, further supporting Bowlby's (1969; 1980) writings.

Parental Divorce

Due to the increasing rate of divorce in the U.S. in the latter part of the 20th century, research examining the impacts, both short-term and long-term, on children has been especially extensive (Wallerstein, 1991; Christensen & Brooks, 2001; Sirvanli-Ozen, 2005; Amato, 2014; Raley & Sweeney, 2020). While the divorce rate is notoriously difficult to measure, it has slowed and decreased to under 50%, perhaps due to higher rates of cohabitation, and research continues to abound on physical, emotional, and relational outcomes in adulthood (Raley & Sweeney, 2020). It is pivotal to explore the current research base regarding the impact of parental divorce on romantic attachment and internalizing symptoms in order to better understand gaps in the literature.

Negative Effects of Parental Divorce

Various negative effects from parental divorce have been observed, both short-term and long term, and have created a robust foundation of literature. Behavior and adjustment issues have specifically been targeted, with researchers finding that children of divorce have more adjustment problems than those who have not experienced divorce (Sirvanli-Ozen, 2005). Specifically, children of divorce have greater difficulty adjusting socially, academically, and personally, and may express this distress in varying ways by gender. These children are at higher risk for increased hostility, aggressive behavior, and anxious symptoms; this is consistent with findings indicating that children of divorce have increased intrapersonal difficulties in adolescence (Servaty & Hayslip, 2001). Adolescents are also at higher risk of initiating sexual

behavior earlier than their peers who did not experience divorce. Those whose parents divorced also have weakened emotional bonds with their caregivers, especially with their father (Amato, 2014). Well-being has also been a focus of study, as Amato and Anthony (2014) found that divorce for children was associated with decreased well-being. They found that children who experienced divorce had declines in academic outcomes, interpersonal skills, and self-control, with greater difficulty in emotionally regulating with internalizing and externalizing symptoms. One study found that those who experienced separation from their parents coupled with poor family relationships had lower social support and more hostility in adulthood (Luecken, 2000). Altogether, negative short-term effects of divorce have been demonstrated through academic, relational, behavioral, and emotional outcomes.

The long-term impacts have also been studied. A meta-analysis of 54 studies found a significant correlation between parental divorce and varying mental health outcomes in adulthood, including higher risk for a suicide attempt, suicidal ideation, distress, alcohol use, smoking, and drug use (Auersperg et al., 2019). Children of divorce are also more likely to have adjustment difficulties in college and a lower view of self at this stage of development (Sirvanli-Ozen, 2005). Adults who experienced divorce are less educated and have more economic difficulties, perhaps stemming from the instability and financial stress they experienced in childhood due to divorce. It has even been found that those who experienced divorce have a higher risk of experiencing poor health outcomes in adulthood (Amato, 2014). Thus, children who experience the parental loss of divorce have higher risk for negative outcomes in various areas of development, in childhood and beyond.

Parental Divorce and Romantic Relationships

Due to potentially witnessing the downfall of their own parents' relationships in an extremely formative time of life, adult children of divorce have been extensively studied in terms of their intimate relationships in their own lives, both in attitudes and outcomes (Christensen & Brooks, 2001). As a result, there have been countless studies conducted from the 1970s to the present. While some have challenged the long-term romantic effects of experiencing divorce in childhood and have not found significant differences (Sinclair & Nelson, 1998), the majority of research has shown differential outcomes for those from intact families and those from divorced families (Ensign et al., 1998; Ross & Mirowsky, 1999; Amato & DeBoer, 2001; Christensen & Brooks, 2001; Gabardi & Rosen, 2008). Christensen and Brooks (2001) provide an excellent overview of literature on adult children of divorce and their romantic relationships conducted until 2001, noting particular themes and relevant findings and highlighting the great variability and oftentimes conflicts in results. They note that much research has been devoted to investigating differences in outcomes by gender, with some observing that female adult children of divorce have a greater number of sexual partners and higher relational conflict (Kinnaird & Gerrard, 1986; Aro & Palosaari, 1992), while others noting a greater number of sexual partners for both men and women in adulthood (Gabardi & Rosen, 1992). Some have also investigated behavior in dating for those who have experienced divorce, finding that those in their late teenage years had "more accelerated courtship patterns and more interest in relationships," which authors attribute to a desire to prove that losses do not hurt and relationships have a lower value (Hepworth et al., 1984, p. 79). Thus, the pain from experiencing divorce in childhood may cause these adults to differ in relational patterns than their peers who did not experience the same.

There has also been contrasting evidence regarding whether age at the time of divorce leads to differential outcomes in adulthood (Christensen & Brooks, 2001). Some have found that

the younger the child was at the time of divorce, the greater the difficulties they experienced in their intimate relationships (Oderberg, 1986). Others have argued that younger children can recollect less of this distressing period of their life, and thus have fewer negative outcomes in their adult relationships (Wallerstein, 1984). Trust and emotional neediness of adult children of divorce have been studied, which relates to findings on insecure attachment. One study found that adult children of divorce experienced lower levels of trust regarding relationships and marriage than those from intact families with low conflict (Johnston & Thomas, 1996). Christensen and Brooks (2001) note, “As [adult children of divorce] expect to have failed marriages, their perceived relationship risk is high. Thus, adult children of divorce are more likely...to experience lower levels of trust in their relationships and partners. As a result, intimate relationships are hindered due to a fear of rejection and a lack of trust” (p. 290). This parallels findings on avoidant and anxious attachment styles, as those with these insecure attachments have low trust in others and a fear of abandonment, respectively (Hazan & Shaver, 1987).

Studies conducted since the 2001 systematic literature review have found similar results. Sirvanli-Ozen (2005) compiled a literature review, finding comparable negative relational outcomes. Adult children of divorce are at higher risk of marrying earlier, getting divorced, remarrying, experiencing less relational satisfaction, and having lower levels of trust (Sirvanli-Ozen, 2005). Negative attitudes on relationships persist into adulthood, with these individuals feeling anxious about being a suitable partner, fearing marital failure, being concerned about the future, and distrusting the durability of marriage. Other studies have examined the detrimental impact of childhood loss on specific relational attitudes and romantic outcomes in adulthood, including increased sexual activity (Gabardi & Rosen, 1992), higher rates of cohabitation (Raley & Sweeney, 2020), lower relationship satisfaction (Roper et al., 2020), lower levels of intimacy

(Ensign et al., 1998; Mullett & Stolberg, 2002), lower levels of commitment (Duran-Aydintug, 1997; Amato & DeBoer, 2001; Miles & Servaty-Seib, 2010), lower levels of trust (Duran-Aydintug, 1997; Ross & Mirowsky, 1999), and greater risk for divorce (Ross & Mirowsky, 1999; Amato & DeBoer, 2001; Amato & Cheadle, 2005). Further, longitudinal studies indicate that adult children of divorce are more likely to dissolve their first partnership, even when taking age, class, academic, and behavioral variables into account (Kiernan & Cherlin, 1999). Authors have hypothesized that these negative relationship outcomes surface from the template of their parents' romantic relationship, affecting their own relationship quality and stability (Sassler et al., 2009). Altogether, the evidence supporting the correlation between parental divorce and increased difficulty in romantic relationships is substantial.

Parental Divorce and Internalizing Symptoms

The short-term impacts of parental divorce on children regarding internalizing symptoms has been well-documented, indicating higher risk for developing anxious and depressive symptoms than their peers who have not experienced the same (Servaty & Hayslip, 2001; Lansford, 2009; Amato, 2014; Amato & Anthony, 2014). There has also been investigation into the correlation between parental divorce in childhood and rates of anxiety and depression in adulthood. Studies indicate that children of divorce are at increased risk of developing depression and anxiety in adulthood (Auersperg et al., 2019). Adolescents who have depression and experienced divorce are at greater risk for experiencing recurrence in adulthood as compared to peers with depression who did not experience the divorce (Bohman et al., 2017). To further solidify these findings, a meta-analysis of 29 studies showed that parental divorce in childhood had a significant correlation with depression in adulthood (Sands et al., 2017). Other studies confirm these findings, as one found that those who experienced parental separation had

significantly higher rates of depressive and anxiety disorders in adulthood as compared to those from intact families (Tyrka et al., 2008). The authors noted that the onset of these disorders was after the parental separation and that these increased rates were not due to variations in demographics, maltreatment, or parental relationships in childhood. This demonstrates that the separation itself puts adults at higher risk for internalizing symptoms, even when other influences are controlled for, providing support to the idea that an attachment loss has a strong impact, even aside from other contextual variables (Bowlby, 1969).

Maier and Lachman (2000) examined the impact of parental divorce on adults' mental and physical health. These researchers found that men who experienced divorce before age 17 had "less positive relations with others, less self-acceptance... and greater depression" (p. 183). Others have found no gender differences, such as in Coffino's (2009) study examining the impact of a childhood parent figure loss on depression in adulthood. The author found that experiencing loss through separation between age 5 and 2nd grade was a predictor of developing depression in adulthood, even after controlling for socioeconomic status, maternal life stress, participant life stress, gender, early caregiving, and family functioning after loss. This indicates that the divorce itself increases risk of depression and that other factors cannot fully protect from the impact of separation. Kendler et al. (1992) found that parental separation increased risk for developing major depression and generalized anxiety disorder later in life for women. Generally, it seems that there are less findings regarding childhood divorce and anxiety in adulthood, with many more focusing solely on depression or on general negative mental health outcomes; Sands et al. (2017) specifically noted the need for focused research on anxiety in adult children of divorce. Regardless, it is clear that there is a significant association between divorce in childhood and higher risk for developing anxiety or depression in adulthood, which may be explained by

insecure attachment resulting from separation from a primary caregiver, economic disadvantages due to shifts in socioeconomic status, and potential stigmatization from others which creates distress (Auersperg et al., 2019).

Child Resilience

While the literature connecting parental divorce in childhood to long-term negative effects of both romantic outcomes and internalizing symptoms is extensive, it is pivotal to note that children can be resilient through challenging circumstances and that they are not doomed to experience all of these outcomes in adulthood. As these studies have indicated, children who experience parental divorce are placed at increased risk for experiencing a range of negative outcomes, as compared to children from intact families (Hepworth et al., 1984; Christensen & Brooks, 2001; Mack, 2001; Sirvanli-Ozen, 2008; Tyrka et al., 2008; Lansford, 2009; Amato & Anthony, 2014); as with all types of risk, having an increased risk for a psychosocial outcome does not ensure that one will experience these symptoms in adulthood, however, or that those from intact families will inherently be protected. In fact, some studies have indicated little or no difference between children of intact families and those who experienced divorce, whether that relates to adolescent adjustment, young adult relationships, or romantic attachment (Sinclair & Nelson, 1998; Ruschena et al., 2005; Lansford, 2009; Fraley & Heffernan, 2013). Related to risk and resilience for children of divorce, Kelly and Emery (2003) even state, “There is considerable overlap between groups of children and adolescents in married and postdivorce families, with some divorced (and remarried) children functioning quite well in all dimensions, and some children in married families experiencing severe psychological, social, and academic difficulties” (p. 357). Some adult children of divorce have reported beneficial attributes in adulthood, such as

compassion, enthusiasm, and perspective taking in respect to their experience with divorce (Bernstein et al., 2012).

Systemic changes that coincide with parental divorce, such as financial strain or the emotional inaccessibility of the remaining parent, can be coinciding factors that create additional challenges which inhibit a steady foundation and healthy development for the child (Tein et al., 2000; Kelly & Emery, 2003; Lansford, 2009; Raley & Sweeney, 2020); as indicated by research, however, there are a variety of protective factors that can assist children in becoming resilient and coping with divorce, in order to prevent further consequences in adulthood (Kelly & Emery, 2003; Rogers, 2004). These include maintaining stability in standard of living, processing emotions for parents, using an authoritative parenting style, having positive co-parenting relationships, limiting housing or academic transitions, allowing children space and time to process and grieve before introducing new romantic partners, having strong support networks outside the family, and parenting with accessibility, responsiveness, and engagement (Amato, 2000; Hetherington & Kelly, 2002; Kelly & Emery, 2003; Lansford, 2009; Amato & Pennsylvania State University, 2014; Roper et al., 2019).

Not only are some children protected from extensive negative outcomes, some even demonstrate posttraumatic growth from parental divorce, where they experience “transformation by gaining positive changes from the experience” (Simsek Arslan et al., 2020, p. 2). This phenomenon has been observed in children who have undergone various family transitions and traumatic events, and is positively correlated with family, social, and professional support, religiosity, coping, and positive mental health resources and outcomes (Meyerson et al., 2011). Posttraumatic growth can offer hope for those who experience parental divorce, but certain demographic, psychological, or contextual factors may be necessary for it to occur in children

(Simsek Arslan et al., 2020). While the impact of parental divorce and its associated risks should not be minimized, it is pivotal to note that children can be incredibly adaptive (Ellis et al., 2017) and that additional factors may shield them from harmful effects of parental death or divorce.

Conclusion

After examining research in the field on parental divorce, romantic attachment, and internalizing symptoms and various associations between these variables, it is clear that they have been extensively studied and many significant correlations have been found amongst these experiences. To our knowledge, however, there is a lack of literature connecting these three variables in a cohesive manner while also conceptualizing the findings with attachment theory; this provides ample opportunity to build on a preexisting foundation of robust literature. Thus, this study aimed to examine how the experience of parental divorce was associated with romantic attachment and internalizing symptoms in adulthood, examining both the individual and relational impacts on these variables. The study used data from romantic dyads, the mothers and fathers of college students at a southeastern university, in order to analyze individual and relational differences in attachment style and internalizing symptoms between those who experienced childhood divorce and those who did not.

CHAPTER 3: METHODOLOGY

Purpose of the Study

Parental divorce has been shown to have negative impacts on romantic outcomes in adulthood and is associated with internalizing symptoms of depression and anxiety (Christensen & Brooks, 2001; Auersperg et al., 2019). While there is extensive research relating some of these variables, we hoped to build on existing research by exploring a distinct connection between them with a firm theoretical foundation. Attachment theory may help explain the relationship between these variables and why divorce is correlated with long-lasting negative outcomes in a variety of areas. Thus, the purpose of this study was to examine the impact of parental divorce on romantic attachment and internalizing symptoms in adulthood. This was done with the use of dyadic data, not only to show the individual impact of divorce over time, but also the relational consequences of parental divorce in adult intimate relationships. It is pivotal to investigate this topic because there are potentially devastating relational, emotional, and mental health impacts that may surface as a result of childhood divorce.

Research Questions

Research Question 1: Is parental divorce in childhood related to an individual's romantic attachment and the presence of internalizing symptoms of anxiety and depression in adulthood?

Research Question 2: Is their romantic partner's experience of parental divorce in childhood related to the individual's romantic attachment and the presence of internalizing symptoms of anxiety and depression in adulthood?

Hypotheses

Hypothesis 1: We hypothesized that history of parental divorce in childhood would be negatively associated with secure attachment, as evidenced by categorization into one of the three insecure attachment styles and significant actor effects.

Hypothesis 2: We hypothesized that history of parental divorce in childhood would be positively associated with internalizing symptoms of depression and anxiety, as evidenced by higher scores on the PHQ-2 and the GAD-2 and significant actor effects.

Hypothesis 3: We hypothesized that a romantic partner's history of parental divorce in childhood would be negatively associated with the actor's secure attachment, as evidenced by categorization into one of the three insecure attachment styles and significant partner effects.

Hypothesis 4: We hypothesized that a romantic partner's history of parental divorce in childhood would be positively associated with the actor's internalizing symptoms of depression and anxiety, as evidenced by higher scores on the PHQ-2 and the GAD-2 and significant partner effects.

Study Design

The Actor Partner Interdependence Model (APIM; Cook & Kenny, 2005) was utilized to examine the individual and relational impact of divorce on dyadic data, using structural equation modeling (SEM; Jöreskog, 1970) to determine actor and partner effects; analyses were run on the 8th version of the Mplus program (Muthén & Muthén, 2017). The APIM is a useful model for analyzing dyadic data, as it determines the extent to which two individuals influence each other, whereas other correlations assume total independence (Cook & Kenny, 2005); thus, the APIM accounts for multicollinearity, which occurs when two or more independent variables are significantly correlated and must be assessed simultaneously to avoid misinterpretations of findings (Vatcheva et al., 2016). Comprising of demographic information, frequencies, means,

standard deviations, and ranges, descriptive statistics were generated, gathered, and listed in a table. Variables that were significantly correlated to the main constructs were subsequently used as controls.

Participants and Enlistment

For the purposes of this study, data were drawn from broader studies on attachment, technology, and obesity conducted in 2018 and 2019. Data were collected from a group of emerging adults at a large southeastern university (Arnett, 2004). Students were informed of the opportunity to participate in the study in multiple Human Development and Family Science courses; they were offered extra credit on completion of the study, with additional credit for a romantic partner and/or parents or caregivers. Further, diversity of sampling was encouraged by offering extra credit to those who recruited a student of a different gender and ethnicity to participate in the survey. This allowed the researcher to gather more diverse dyadic data, both within the emerging adult population and in the parents' generation. Due to the greater number of pairs of romantic dyads included in the parental generation, data from only the mothers and fathers of the students were analyzed for the purposes of this study.

Procedures

Respondents participated in an online survey, which included investigation of variables outside the scope of this paper. Relevant to the current study, participants were asked to report demographic information, the absence or presence of parental divorce (through family formation questions), attachment style (assessed by reliable and validated questionnaires), and the severity of anxious or depressive symptoms (assessed by empirically validated health screeners).

Informed Consent

To maintain ethical standards and support participant autonomy, respondents were offered informed consent at the beginning of the online survey. Participants were notified of the voluntary nature of the survey and were told they could terminate filling out the survey at any point. Participants were also notified of the purpose of the study, possible risks or rewards from engaging in the survey, and the measures taken to ensure confidentiality. After reading the informed consent, participants were asked to confirm their compliance and agreement.

Measures

Controls and Covariates

Participants answered a demographic questionnaire that provided information, including their role (student currently enrolled in an HDFS course at ECU, parent/caregiver of a student currently enrolled in an HDFS course at ECU, parent/caregiver of someone who took the survey but IS NOT enrolled in an HDFS course, romantic partner of a student enrolled in an HDFS course at ECU, or a friend or student who was referred by a student enrolled in an HDFS course at ECU), their age (in years), their gender (male or female), their relationship status (single no partner, in a committed relationship living apart, in a committed relationship living together, engaged, married, divorced, or remarried), and their ethnicity (Caucasian/White, African-American/Black, Hispanic, Asian, Pacific Islander, American Indian/Alaska Native, other).

Outside of gender, we controlled for any demographic characteristics that were significantly correlated with the study variables in order to minimize the influence on the outcomes.

Length of Time with Family Formation

Respondents were asked to select the approximate length of time they spent in the following family formations (one parent because of divorce, one parent because a parent had

died, both biological parents, a parent and a step-parent because parents had divorced, a parent and a step-parent because a parent had died, a foster family, an adoptive family, and a relative (grandparent, uncle, aunt, etc.)). The participants could choose 0 years, 1-3 years, 4-6 years, 7-9 years, 10-12 years, 13-15 years, 16-17 years, or 18+ years for each family formation. For the purpose of this study, participants were coded into two categories: divorce, for those who indicated experiencing any amount of time greater than zero in the “one parent because of divorce” and/or the “a parent and a step-parent because parents had divorced” family formations, or no divorce, for those who indicated spending zero years in both of these family formations. A dummy variable was created in the data set and participants were coded with either a 1 or 0, with 1 representing a history of divorce and 0 representing no history of divorce.

Attachment Style

These data were collected over two different studies in two years, and as a result there are two different measures for romantic attachment style in the appended dataset. Between the studies, 49.7% of respondents were given the Relationship Scales Questionnaire (RSQ) and 50.3% of respondents were given the Experience in Close Relationships - Revised Scale (ECR-r). While, to our knowledge, there have not been studies testing the inter-reliability of the two measures, both have been proven to be valid and reliable, which will be further explicated below (Ravitz et al., 2010). Additionally, in a review of 29 attachment measures, both the ECR-r and the RSQ were found to be among the 11 instruments with “strong psychometric properties, wide use, or use in psychosomatic research” (Ravitz et al., 2010, p. 419). Both questionnaires were scored to create a new variable, attachment style, to determine the relationship between attachment and childhood divorce. We used categorical measures of attachment, rather than dimensions of attachment, as attachment styles provide concrete pictures of how the individual

sees others and themselves with their working models (Ainsworth et al., 1978). Ainsworth and colleagues (1978) have argued in favor of categorical measurement systems, stating that “it would be foolish to believe that the dimensions that we have so far subjected to quantification take into account all the behaviors that are important components to the patterning of individual differences” (p. 57; Raby et al., 2021). While there is certainly debate in the field and validity to both approaches, attachment research has historically preferred categorizing attachment styles, with primary tools like the Adult Attachment Interview recommending classification into attachment styles. Thus, the secure, anxious, avoidant, and disorganized attachment styles were coded as 1, 2, 3, and 4, respectively.

As noted previously, 49.7% of respondents were asked to fill out the Relationship Scales Questionnaire (RSQ), which examines both categories and dimensions of attachment, including secure, anxious, avoidant, and disorganized, along with the model of self and others (Gillath et al., 2016); while authors like Zortea and colleagues (2019) assert that this instrument is best utilized to discover dimensions of attachment, it can also be used to categorize respondents into attachment styles by identifying their beliefs about close relationships using a Likert scale to determine range of applicability. The RSQ was developed by Griffin and Bartholomew (1994) and includes 30 items that are informed by Hazan and Shaver’s (1987), Bartholomew and Horowitz’s (1991), and Collins and Read’s (1990) measures of attachment (Ravitz et al., 2010). Ravitz and colleagues’ (2010) review of attachment measures indicated that the RSQ has adequate test-retest, interrater, or interitem reliability; validity scores were also found to be convergent with other attachment scales and there was evidence of convergent, discriminant, and predictive validity. While the reliability on the secure attachment scale is lower than desired

($\alpha=.50$), the reliability of all other scales scored between .69 and .82, indicating good reliability (Ravitz et al., 2010).

The portion of respondents who received the RSQ in the survey were asked to fill this out multiple times with several different close relationships in mind; for the purposes of this thesis, we used the data where participants were thinking of their romantic relationship. We scored the RSQ by creating a mean subscale score from different questions for each attachment style: secure, anxious, avoidant, and disorganized (Griffin & Bartholomew, 1994). After obtaining these averages for each attachment style, we took the highest score of the four subscales and placed the participant into the corresponding attachment style. For participants with scores that were equally high on two or more subscales, the attachment style was not determined and was scored as missing.

In the surveys, 50.3% of respondents were given the Experience in Close Relationships – Revised Scale (ECR-r). Similarly to the RSQ, the ECR-r can categorize attachment styles and assess for attachment dimensions of anxiety and avoidance that surface in emotionally intimate relationships (Fraley & Shaver, 2000). The scale includes 36 questions regarding intimate relationships, which can be answered on a Likert scale from “strongly disagree” to “strongly agree”. Developed by Fraley and Shaver (2000) as a revision of the original ECR by Brennan and colleagues (1998), the scale has been found to be valid and reliable, as “ α coefficients are reported to be near or above .90, and test-retest coefficients are reported to be between .50 and .75” (Ravitz et al., 2010, p. 427). In order to categorize this subset of participants into attachment styles for the attachment style variable, we created a mean score for the anxious and avoidant subscales, which can each range from one to seven. Those who scored equal or less than four on both subscales were categorized as secure. Those who scored above four on the anxious subscale

but scored four or less on the avoidant subscale were categorized as anxious. Those who scored above four on the avoidant subscale but scored four or less on the anxious subscale were categorized as avoidant. Finally, those who scored higher than four on both subscales were categorized as disorganized.

Patient Health Questionnaire (PHQ-2)

The Patient Health Questionnaire (PHQ-9) is a tool used for the assessment of nine depressive symptoms, which is done through the respondent's self-report (Kroenke & Spitzer, 2002). The PHQ-9 has been proven to be valid and reliable in a variety of areas, including internal reliability ($\alpha = .86-.89$), test-retest (.84), and self-rated versus interviewer (.84) (Kroenke et al., 2010). The researchers used the PHQ-2, which is an abbreviated version of the initial screener that assesses for the presence of depressed mood and anhedonia. The PHQ-2 has been shown to be responsive in tracking depressive symptoms and demonstrates reliability, construct validity, and criterion validity (Lowe et al., 2005). Respondents were offered the question "Over the last 2 weeks, how often have you been bothered by any of the following problems?", with "Little interest or pleasure in doing things" and "Feeling down, depressed, or hopeless" as the potential depressive symptoms. Participants could then either answer "Not at all," "Several days," "More than half the days," or "Nearly every day" for both of the depressive symptoms to indicate the frequency of occurrence in their life during the past two weeks. These answers were weighted differently, with "Not at all" being 0 and "Nearly every day" being 3. The numbers for both questions were then added to form a score out of 6 for the participant's depressive symptoms, with higher scores indicating higher levels of occurrence and with a score greater than or equal to 3 indicating clinically significant depression (Kroenke et al., 2010).

Generalized Anxiety Disorder Questionnaire (GAD-2)

The Generalized Anxiety Disorder Questionnaire (GAD-7) is also used in screening for the presence of anxious symptoms through self-report (Spitzer et al., 2006). The GAD-7 is valid and reliable, as it has excellent internal ($\alpha = .92$), test-retest (.83), and self-rated versus interviewer (.83) reliability. Similar to the PHQ-9, the GAD-7 has an abbreviated version called the GAD-2, which acts as a screener for the severity of two primary anxious symptoms and has demonstrated validity and retention of the positive psychometric properties of the GAD-7 (Sapra et al., 2020). Researchers used the GAD-2 and participants were asked, “Over the last 2 weeks, how often have you been bothered by any of the following problems?”, with “Feeling nervous, anxious, or on edge” and “Not being able to stop or control worrying” as the potential anxious symptoms. Participants could then answer “Not at all,” “Several days,” “More than half the days,” or “Nearly every day” for both of the anxious symptoms to indicate the frequency of occurrence in their life during the past two weeks. Participants’ answers were scored, ranging from 0 to 6, with scores greater than or equal to 3 indicating clinically significant anxiety (Kroenke et al., 2010).

Data Analysis

This study used an Actor Partner Interdependence Model (APIM; Cook & Kenny, 2005) to test the actor and partner effects of the independent variable (parental divorce) within a male/female dyad on the dependent variables (romantic attachment and internalizing symptoms). The appropriate descriptive statistics, including frequency, mean, standard deviation, and range, were calculated for the variables through the use of the SPSS statistical program (Version 27.0). A correlation table with the independent and dependent variables of both the males and females was generated. A basic APIM path model (Fitzpatrick et al., 2016) was created to determine actor and/or partner effects of divorce for males and females on attachment style, PHQ-2 scores,

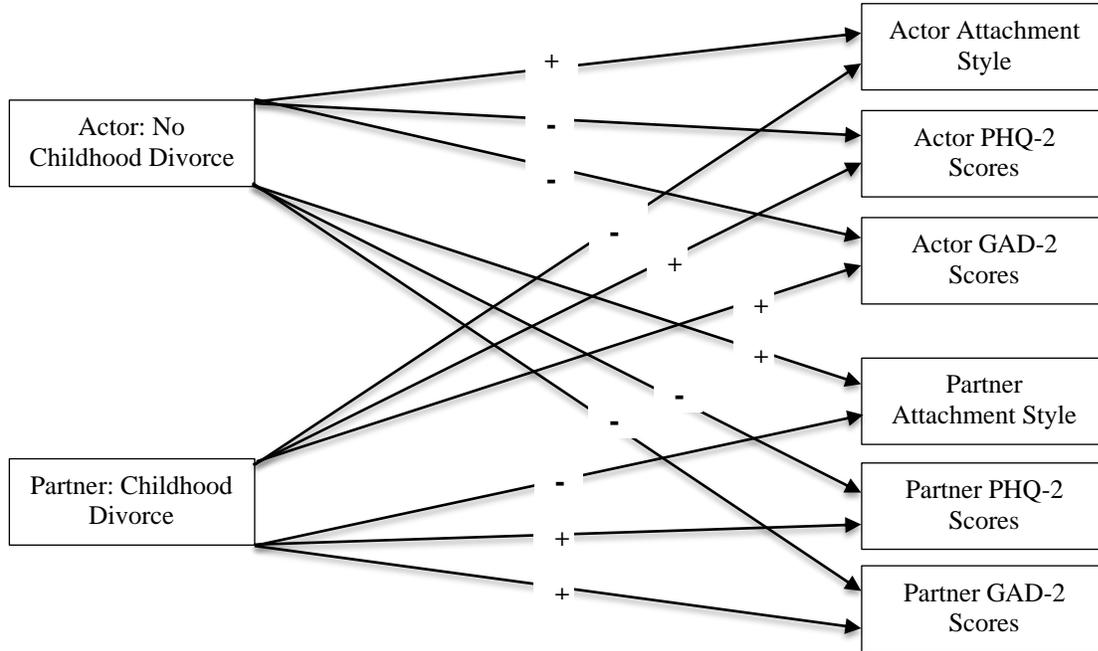
and GAD-2 scores. Dyadic data was imported into Mplus in a wide dataset with one couple's data in each row to be analyzed and demographic influence was controlled (Muthén & Muthén, 2017; Fitzpatrick et al., 2016). A new syntax file was labeled, the file location of the data was identified, and all variables included in analysis were listed, including male and female history of divorce, attachment style, PHQ-2 scores, and GAD-2 scores. Missing data was flagged under the variable command. Full information maximum likelihood was used to account for missing data.

Actor Partner Interdependence Model

Correlations between each of the male and female variables were tested. Regressions were tested between each of the female dependent variables and female history of divorce, and between each of the male dependent variables and male history of divorce; significant outcomes determined actor effects and were signified at the end of each identified regression with (a). Regressions were tested between the female dependent variables and male history of divorce, and between each of the male dependent variables and female history of divorce; significant outcomes determined partner effects and were signified at the end of each identified regression with (p). To account for skewed data, 95% confidence intervals with bootstrapping were used, as this corrects flawed standard errors that would be too small with skewed data (Ledermann et al., 2011). Small standard errors can lead to false significant results, and thus we used bootstrapping to correct for this and ensure results were sound. Significant actor and partner effects were determined from the results of this analysis and the bootstrap confidence interval (low 2.5% and high 2.5%), which allowed us to determine the specific dyadic pattern: the couple pattern, the contrast pattern, the actor-only pattern, or the partner-only pattern (Fitzpatrick et al., 2016).

Figure 1:

Actor-Partner Conceptualization Model



A chi-squared statistic, the comparative fit index (CFI; Bentler, 1990), the root mean square error of approximation (RMSEA; Bentler, 1995), the Tucker-Lewis index (Tucker & Lewis, 1973), and the standardized root mean square residual (SRMR; Hu & Bentler, 1999) were utilized to determine goodness of fit for the actor-partner interdependence models created (Brimhall et al., 2018). This indicates whether the model truly explains the relationship between variables, whether that is not at all, fully, or in part. CFI and TLI values closer to 1, RMSEA values close to zero, and SRMR values lower than .08 indicate significant findings and confirm that the model has goodness of fit (Kline, 2015). A non-significant p-value for the chi-square test of model fit also represents a good fitting model, as this confirms that the data is not significantly different from the distribution we have hypothesized.

CHAPTER 4: MANUSCRIPT

Parental divorce has been associated with decreased well-being not only for parents, but for their children as well (Raley & Sweeney, 2020). Further, these negative impacts seem to persist into adulthood across a variety of domains; literature indicates that divorce can be transmitted intergenerationally (Amato & Cheadle, 2005). Data indicates that 15% of children in the U.S. currently live with divorced or separated parent(s), so at least 10.6 million American children are currently affected by marital dissolution (Pew Research Center, 2010; Raley & Sweeney, 2020). While divorce can produce positive benefits, it is pivotal to consider long-lasting effects on children (Raley & Sweeney, 2020; Christensen & Brooks, 2001)

The period in which childhood parental divorce occurs can be a uniquely vulnerable phase of development (Andresen, 2014; Viru et al., 1999); children depend on their caregivers to provide for their physical and emotional needs (Erikson, 1963; Gottman & DeClaire, 1997; Shaver & Cassidy, 2016). Attachment theorists suggest that a caregiver's most important role is to provide a safe haven of security by being accessible, responsive, and engaged, thereby allowing the child to feel confident stepping out, taking risks, and being open with others (Bowlby, 1969; Ainsworth et al, 1978; Cashmore & Paxman, 2006). Parental divorce has the capacity to greatly alter this relationship between the child and their attachment figure. Johnson (2019) hypothesizes there is a devastating impact of this shift in access, since "emotional and physical isolation from attachment figures is inherently traumatizing", accompanied by the feeling of helplessness (p. 7).

Should this loss of an attachment figure be inherently traumatizing, there would likely be observable, negative outcomes that surface throughout the lifespan (Johnson, 2019). Indeed, divorce for a child can alter their life trajectory, due to the significant instability for the entire

family system, which dictates the support and resources the child has access to (Wu & Martinson, 1993; Valle & Tillman, 2014; Cavanagh & Fomby, 2019). Research demonstrates lasting impacts of divorce on well-being, including financial, emotional, psychological, and relational consequences (Hepworth et al., 1984; Christensen & Brooks, 2001; Amato, 2014; Tyrka et al., 2008). Many have studied the romantic lives for those who experienced parental divorce, noting lower levels of intimacy, higher rates of distress, and a higher likelihood for divorcing as well (Christensen & Brooks, 2001; Ensign et al., 1998; Mullett & Stolberg, 2002; Roper et al., 2020; Ross & Mirowsky, 1999; Amato & DeBoer, 2001; Amato & Cheadle, 2005). Some have studied the mental health of these individuals, finding higher rates of anxiety and depression in adulthood (Auersperg et al., 2019; Bohman et al., 2017; Tyrka et al., 2008; Sands et al., 2017; Kendler et al., 1992).

While a wealth of literature has been devoted to examining various long-term effects of divorce on the individual, there appears to be a lack of research connecting this experience to romantic attachment, depressive symptoms, and anxiety symptoms with the use of dyadic data. Should divorce profoundly influence the way the individual engages in relationships and impact their mental health, it is clear that their romantic partner would be affected as well and could provide reciprocal influence; individuals can profoundly impact the overall dynamic of the relational system and play a role in the specific patterns that surface (von Bertalanffy, 1968). Thus, it is pivotal to obtain information from both members of a couple in order to better understand the impact of parental divorce on mental health and relationships. Considering how widespread the occurrence of marital dissolution is in the United States (U.S. Census Bureau, 2021; Pew Research Center, 2010), increasing understanding about parental divorce in childhood will better equip society to support these individuals throughout the lifespan.

The Purpose of the Study

Informed by attachment theory, we explored whether a history of parental divorce for the individual or their romantic partner was associated with romantic attachment security and internalizing symptoms in adulthood for the individual. Secondary data was used, utilizing dyadic information from mothers and fathers of college students at a southeastern university. Using structural equation modeling (SEM) to test an Actor Partner Interdependence Model (APIM; Cook & Kenny, 2005), we conducted statistical analyses to determine actor and partner effects of parental divorce on romantic attachment and internalizing symptoms of depression and anxiety. To promote healthy partnerships in adulthood, it is important to understand the link between impactful childhood experiences like divorce and outcomes that influence relationships.

Literature Review

Attachment Theory

Attachment theory, conceptualized by Bowlby (1969) and expanded by Ainsworth (1971), provides a framework for understanding how children are shaped to see themselves and others, guiding social and emotional development (Crittenden, 2017). Bowlby (1969; 1973; 1980) described the process of forming emotional bonds to caregivers and the separation distress that occurs when isolated from attachment figures. He proposed that those whose attachment figure is accessible and responsive will have lower levels of fear, that confidence in caregivers, or lack thereof, builds over time and sets expectations, and that expectations reflect individual experiences of accessibility or inaccessibility (Bowlby, 1973; Shaver & Cassidy, 2016). Ainsworth built on this theory by identifying that the responsiveness of parents dictates varying emotional and behavioral responses from children, categorized into secure, avoidant, and anxious attachment styles (Ainsworth et al., 1971; Ainsworth & Wittig, 1969). Since this initial

conceptualization, the disorganized attachment style has also been recognized (Main & Solomon, 1990). Attachment styles are persistent from childhood into adulthood, continuing to influence the ways that individuals see themselves and interact with others (Kim et al., 2021).

Parental Divorce and Insecure Attachment

Parental divorce can interfere with secure attachment. Bowlby (1969) noted the extreme distress children experience when separated from attachment figures, leading to protest, despair, and eventually detachment when unmet with accessibility, responsiveness, or engagement. It is not surprising that lengthened separation due to divorce causes distress in children and can lead to an insecure attachment. Bowlby (1980) noted the presence of a secure base can protect a child from negative outcomes after experiencing loss, such as having one accessible parent after being separated from the other. Losing a safe haven, however, may still lead to feelings of grief and long-term effects on well-being for the child (Bowlby, 1960).

This major life event is associated with other systemic impacts, such as shifts in socioeconomic status and inter-parental conflict during the divorce process, which may limit the accessibility, responsiveness, and engagement of their parents (Tein et al., 2000; Kelly & Emery, 2003; Lansford, 2009; Raley & Sweeney, 2020). This creates a shift in the caregiving environment, with parents providing less consistency, affection, and stability, which all negatively impact attachment (Wood et al., 2004; Nair & Murray, 2005; Martinez et al., 2002). The more that transitions of this nature occur, such as marriage, cohabitation, or divorce, the more negative outcomes for children in adulthood due to accumulated stress and disruption (Fomby & Bosick, 2013; Cavanagh & Fomby, 2019; Wu & Martinson, 1993; Rosenfeld & Roesler, 2019; Fergusson et al., 2013; Amato & Patterson, 2017); this further supports that these transitions limit caregivers' accessibility with children, leading to insecure attachment, while

emotional availability in the wake of divorce can provide attachment security (Altenhofen et al., 2010).

Supporting this theoretical link between divorce and attachment, researchers have found that divorce can cause a shift in attachment style (Waters et al., 2000); parental divorce is positively related to insecure attachment styles in adulthood and an expectation of abandonment (D’Rozario & Pilkington, 2021). Some have found regardless of attachment style in infancy or timing of the divorce, parental divorce was significantly correlated with insecure attachment in adulthood and maladaptive adjustment (Lewis et al., 2000). Additionally, adult children of divorce with secure attachment were less likely to divorce than those with insecure attachment, indicating that while divorce may not always lead to insecure attachment, secure attachment can protect from negative effects (Amato & Cheadle, 2005; Amato & Patterson, 2017).

Romantic Attachment

Attachment was also expanded to incorporate romantic relationships in adulthood in the 1980s by Hazan and Shaver (1987). The same attachment styles in childhood also manifest in romantic relationships in adulthood, due to the enduring impact of internalized working models. Children with insecure attachments to parents cannot rely on their caregivers, which changes how the individual sees others in romantic relationships in adulthood. They may have little trust in others and shy away from depending on them, as in avoidant attachment. They might be preoccupied with love and acceptance, as in anxious attachment. These attitudes are contrasted with secure individuals, who approach relationships with trust, friendship, and positivity. A fourth attachment style, disorganized, is characterized by a low view of self and others (Shaver & Cassidy, 2016); often those traumatized by caregivers fall into this category, due to longing for a close relationship but finding them unsafe in childhood (Lyons-Ruth et al., 2006).

Attachment style also influences the expectations individuals have in a relationship and the way they engage in relationships (Hazan & Shaver, 1987). Attachment styles are consistent from childhood throughout adulthood, signifying that parental attachment also applies to romantic attachment in adulthood (Waters et al., 2000; Feeney & Noller, 1990).

Insecure attachment has negative impacts on romantic relationships in adulthood, including lower relationship satisfaction, increased conflict, and decreased satisfaction, connection, and support (Collins et al., 2002; Candel & Turluic, 2019; Li & Chan, 2012). The systemic concept of circularity applies to understanding couple interaction (von Bertalanffy, 1968); circular patterns of interaction occur in relationships where one individual's behavior exhibits a response from their partner, and vice versa. This cycle continues and can escalate when disconnection occurs (Johnson, 2019). It is not difficult to see how insecure attachment in one member of the couple can influence the partner and dyad as a whole, as attachment impacts view of self, others, and behavioral responses (Ainsworth & Wittig, 1969). An anxious individual seeking comfort may do so in an elevated manner and their avoidant partner may experience fear and withdraw (Johnson, 2019); this intensifies the desperation for comfort from the anxious member, which also intensifies the response for the avoidant member, creating a pursue-withdraw pattern known for relational distress (Eldridge et al., 2007). Thus, the way that each member of the couple engages in the relationship influences and is influenced by the other.

Considering that internal working models persist over time, it is likely that individuals interpret and internalize meaning from the messages they receive from their partner, confirming internal attachment scripts, which informs the way they engage in the relationship and influences relationship satisfaction (Marks et al., 2013). A number of studies have investigated the impact of attachment style on relational engagement, finding consistency with attachment characteristics

in conflict resolution, communication styles, and sexual dissatisfaction (Shi, 2003; Ebrahimi & Kimiaei, 2014; Brassard et al., 2012; Mondor et al., 2011); some found observed actor and partner effects, indicating reciprocal influence (Brassard et al., 2012). Empirical evidence supports that the lack of accessible, responsive, and emotionally engaged caregiving leads to difficulty experiencing and providing these same characteristics to their partner in adulthood.

Insecure Attachment and Internalizing Symptoms

Insecure attachment is correlated with, and may cause increased vulnerability to, internalizing symptoms in adulthood (Davila et al., 2005). A conceptualization for the connection between insecure attachment to depression has been made, as low view of self, feelings of abandonment, blame of self, suppression of emotion, and lack of true connection can exacerbate depressive symptoms (Liao & Wei, 2015). Additionally, the link from insecure attachment to higher rates of anxiety can be made, as fear about an attachment figure's accessibility can increase prolonged anxiety, which was theorized by Bowlby (1980) himself (Brumariu & Kerns, 2010). This hypothesis is confirmed by higher rates of internalizing symptoms in adulthood, while secure attachment, conversely, is associated with lower rates of these symptoms (Wei et al., 2004; Shaver et al., 2005; Dagan et al., 2018; Rosas Santiago et al., 2020; Zheng et al., 2020). There is significant empirical support connecting insecure attachment with internalizing symptoms, further supporting Bowlby's (1969; 1980) writings.

Parental Divorce and Romantic Relationships

Due to potentially witnessing the downfall of their own parents' relationships during a formative time of life, adult children of divorce have been extensively studied in terms of their intimate relationships, indicating differential outcomes for those from intact families and those from divorced families (Christensen & Brooks, 2001; Ensign et al., 1998; Ross & Mirowsky,

1999; Amato & DeBoer, 2001; Gabardi & Rosen, 2008). Adult children of divorce experience higher risk of increased sexual activity (Gabardi & Rosen, 1992), higher rates of cohabitation (Raley & Sweeney, 2020), lower relationship satisfaction (Roper et al., 2020), lower levels of intimacy (Ensign et al., 1998; Mullett & Stolberg, 2002), lower levels of commitment (Duran-Aydintug, 1997; Amato & DeBoer, 2001; Miles & Servaty-Seib, 2010), lower levels of trust (Duran-Aydintug, 1997; Ross & Mirowsky, 1999), and greater risk for divorce (Ross & Mirowsky, 1999; Amato & DeBoer, 2001; Amato & Cheadle, 2005). Authors have hypothesized that these negative relationship outcomes surface from the template of their parents' romantic relationship, affecting their own relationship quality and stability (Sassler et al., 2009). While debate over differential outcomes by gender and timing of the divorce persist, the evidence supporting the correlation between parental divorce and increased difficulty in romantic relationships is substantial (Christensen & Brooks, 2001).

Parental Divorce and Internalizing Symptoms

Children of divorce are at increased risk of developing depression and anxiety in adulthood (Auersperg et al., 2019; Bohman et al., 2017; Tyrka et al., 2008; Sands et al., 2017; Kendler et al., 1992). Some found that the onset of these disorders was after the parental separation and that these increased rates were not due to variations in demographics, maltreatment, or parental relationships in childhood (Tyrka et al., 2008). This demonstrates that the separation itself puts adults at higher risk for internalizing symptoms, providing support to the idea that an attachment loss has a strong impact, even aside from other contextual variables (Bowlby, 1969). Similarly, Coffino (2009) found that experiencing separation between age 5 and 2nd grade was a predictor of developing depression in adulthood, even after controlling for socioeconomic status, maternal and participant life stress, gender, early caregiving, and family

functioning. This indicates that the divorce itself increases risk of depression and that other factors cannot fully protect from the impact of separation.

Child Resilience

While the literature connecting parental divorce in childhood to long-term negative effects of both romantic outcomes and internalizing symptoms is extensive, it is pivotal to note that children can be resilient and that they are not doomed to experience all of these outcomes in adulthood. While children who experience parental divorce have an increased risk for experiencing a range of negative outcomes (Hepworth et al., 1984; Christensen & Brooks, 2001; Tyrka et al., 2008), having an increased risk for a psychosocial outcome does not ensure that one will experience these symptoms in adulthood, however, or that those from intact families will inherently be protected. In fact, some studies have indicated little or no difference between outcomes of children of intact families and those who experienced divorce (Sinclair & Nelson, 1998; Ruschena et al., 2005; Lansford, 2009; Fraley & Heffernan, 2013).

While there are systemic changes that coincide with parental divorce that can inhibit a steady foundation and healthy development for the child (Tein et al., 2000; Kelly & Emery, 2003; Lansford, 2009; Raley & Sweeney, 2020), there are also a variety of protective factors that can assist children in coping with divorce to prevent further consequences in adulthood (Kelly & Emery, 2003; Rogers, 2004; Amato, 2000; Hetherington & Kelly, 2002; Lansford, 2009; Amato & Pennsylvania State University, 2014; Roper et al., 2019). Some children even demonstrate posttraumatic growth from parental divorce, where they experience “transformation by gaining positive changes from the experience” (Simsek Arslan et al., 2020, p. 2). While the impact of parental divorce should not be minimized, it is pivotal to note that children can be adaptive (Ellis et al., 2017) and additional factors may shield them from harmful effects of parental divorce.

Conclusion

After examining research in the field on parental divorce, romantic attachment, and internalizing symptoms, researchers could benefit from connecting these variables with dyads while also conceptualizing the findings with attachment theory; this provides ample opportunity to build on a preexisting foundation of robust literature.

Methodology

Participants

Data were drawn from broader studies on attachment, technology, and obesity conducted in 2018 and 2019. Data were collected from a group of emerging adults at a large southeastern university through undergraduate courses. Students were offered extra credit on completion of the study, with additional credit for a romantic partner and/or parents or caregivers. Participants in this study were mothers and fathers of the students initially recruited. This study's sample included 338 individuals making up 169 dyads. The sample was evenly divided by gender, with 169 males and 169 females participating. The average age of males was 52.61; the range was 39, with a low of 33 and high of 72. The average age of females was 50.90; the range was 44, with a low of 33 and high of 77. The majority of males (78.1%) and females (76.9%) reported being married. All participant demographics are listed in Table 1.

Table 1:

Participant Demographics

	Frequency	Percent	<i>M (SD)</i>
Gender			
Male	169	50	
Female	169	50	

Male Age		52.61 (6.91)
Female Age		50.90 (6.71)
Male Relationship Status		
Single, no partner	11	6.5
In a committed relationship, living apart	1	.6
In a committed relationship, living together	6	3.6
Engaged	2	1.2
Married	132	78.1
Divorced	11	6.5
Remarried	6	3.6
Female Relationship Status		
Single, no partner	7	4.1
In a committed relationship, living apart	5	3
In a committed relationship, living together	9	5.3
Engaged	3	1.8
Married	130	76.9
Divorced	12	7.1
Remarried	3	1.8
Male Ethnicity		
Caucasian/White	135	79.9
African American/Black	23	13.6
Hispanic	5	3
Asian	3	1.8
Other	3	1.8
Female Ethnicity		
Caucasian/White	132	78.1
African American/Black	21	12.4
Hispanic	4	2.4
Asian	6	3.6
Other	5	3
Missing	1	.6

Procedures

Controls and Covariates. Participants answered a demographic questionnaire that provided information, including their role (student currently enrolled in an HDFS course at ECU, parent/caregiver of a student currently enrolled in an HDFS course at ECU, parent/caregiver of someone who took the survey but IS NOT enrolled in an HDFS course, romantic partner of a

student enrolled in an HDFS course at ECU, or a friend or student who was referred by a student enrolled in an HDFS course at ECU), their age (in years), their gender (male or female), their relationship status (single no partner, in a committed relationship living apart, in a committed relationship living together, engaged, married, divorced, or remarried), and their ethnicity (Caucasian/White, African-American/Black, Hispanic, Asian, Pacific Islander, American Indian/Alaska Native, other). We controlled for age, ethnicity, and relationship status in order to minimize the influence on the outcomes.

Length of Time with Family Formation. Respondents were asked to select the approximate length of time they spent in the following family formations (one parent because of divorce, one parent because a parent had died, both biological parents, a parent and a step-parent because parents had divorced, a parent and a step-parent because a parent had died, a foster family, an adoptive family, and a relative (grandparent, uncle, aunt, etc.)). The participants could choose 0 years, 1-3 years, 4-6 years, 7-9 years, 10-12 years, 13-15 years, 16-17 years, or 18+ years for each family formation. Participants were coded into two categories: divorce, for those who indicated experiencing any amount of time greater than zero in the “one parent because of divorce” and/or the “a parent and a step-parent because parents had divorced” family formations, or no divorce, for those who indicated spending zero years in both of these family formations. A dummy variable was created and participants were coded with either a 1 or 0, with 1 representing a history of divorce and 0 representing no history of divorce.

Attachment Style. These data were collected over two different studies in two years, and as a result there are two different measures for romantic attachment style in the appended dataset. Between the studies, 49.7% of respondents were given the Relationship Scales Questionnaire (RSQ) and 50.3% of respondents were given the Experience in Close Relationships - Revised

Scale (ECR-r). While, to our knowledge, there have not been studies testing the inter-reliability of the two measures, both have been proven to be valid and reliable (Ravitz et al., 2010). The RSQ and ECR examine both categories and dimensions of attachment, and were used to categorize respondents into the secure, anxious, avoidant, or disorganized attachment styles (Gillath et al., 2016; Fraley & Shaver, 2000). Respondents answering the RSQ were asked to fill the questionnaire out with their romantic partner in mind, and to identify their beliefs about close relationships with a Likert scale (“not at all like me” to “very much like me”) on 30 items (Griffin & Bartholomew, 1994). The validity scores of the RSQ are convergent with other attachment scales and indicate convergent, discriminant, and predictive validity (Ravitz et al., 2010); while the reliability on the secure attachment scale is lower than desired ($\alpha=.50$), the reliability of all other scales scored between .69 and .82, indicating good reliability. Respondents answering the ECR were asked to answer 36 items regarding intimate relationships, which can be answered on a Likert scale from “strongly disagree” to “strongly agree” (Fraley & Shaver, 2000). The scale has been found to be valid and reliable, as “ α coefficients are reported to be near or above .90, and test-retest coefficients are reported to be between .50 and .75” (Ravitz et al., 2010, p. 427).

Both questionnaires were scored to create a new variable, attachment style, in order to determine the relationship between this and childhood divorce. We used categorical measures of attachment, rather than dimensions of attachment, as attachment styles provide concrete pictures of how the individual sees others and themselves with their working models (Ainsworth et al., 1978). While there is certainly debate in the field and validity to both approaches, attachment research has historically preferred categorizing attachment styles (Raby et al., 2021). Thus, the

secure, anxious, avoidant, and disorganized attachment styles were coded as 1, 2, 3, and 4, respectively.

Patient Health Questionnaire (PHQ-2). The Patient Health Questionnaire (PHQ-2) was used to assess for two depressive symptoms, depressed mood and anhedonia, through self-report (Kroenke & Spitzer, 2002). The PHQ-2 has been shown to be responsive in tracking depressive symptoms and demonstrates reliability, construct validity, and criterion validity (Lowe et al., 2005). Respondents were asked “Over the last 2 weeks, how often have you been bothered by any of the following problems?”, with “Little interest or pleasure in doing things” and “Feeling down, depressed, or hopeless” as the potential depressive symptoms. Participants could then either answer “Not at all,” “Several days,” “More than half the days,” or “Nearly every day” for both of the depressive symptoms to indicate the frequency of occurrence. These answers were weighted differently, with “Not at all” being 0 and “Nearly every day” being 3. These scores for both questions were then added to form a composite score out of 6 for the participant’s depressive symptoms, with higher scores indicating higher levels of occurrence and with a score greater than or equal to 3 indicating clinically significant depression (Kroenke et al., 2010).

Generalized Anxiety Disorder Questionnaire (GAD-2). The Generalized Anxiety Disorder Questionnaire (GAD-2) was used to assess for two primary anxious symptoms through self-report (Spitzer et al., 2006). It has demonstrated validity and retention of the positive psychometric properties of the GAD-7, which has excellent internal ($\alpha = .92$), test-retest (.83), and self-rated versus interviewer (.83) reliability (Sapra et al., 2020; Spitzer et al., 2006). Participants were asked, “Over the last 2 weeks, how often have you been bothered by any of the following problems?”, with “Feeling nervous, anxious, or on edge” and “Not being able to stop or control worrying” as the potential anxious symptoms. Participants could then answer “Not at

all,” “Several days,” “More than half the days,” or “Nearly every day” for both of the anxious symptoms to indicate the frequency of occurrence. Participants’ answers were added to create a composite score for the participants’ anxious symptoms, ranging from 0 to 6, with scores greater than or equal to 3 indicating clinically significant anxiety (Kroenke et al., 2010).

Research Questions and Hypotheses

RQ 1: Is parental divorce in childhood related to an individual’s romantic attachment and the presence of internalizing symptoms of anxiety and depression in adulthood?

RQ 2: Is their romantic partner’s experience of parental divorce in childhood related to the individual’s romantic attachment and the presence of internalizing symptoms of anxiety and depression in adulthood?

H 1: History of parental divorce will be negatively associated with secure attachment, as evidenced by categorization into an insecure attachment style and significant actor effects.

H 2: History of parental divorce will be positively associated with internalizing symptoms of depression and anxiety, as evidenced by higher scores on the PHQ-2 and the GAD-2 and significant actor effects.

H 3: A romantic partner’s history of parental divorce will be negatively associated with the actor’s secure attachment, as evidenced by categorization into one of the three insecure attachment styles and significant partner effects.

H 4: A romantic partner’s history of parental divorce will be positively associated with the actor’s internalizing symptoms of depression and anxiety, as evidenced by higher scores on the PHQ-2 and the GAD-2 and significant partner effects.

Data Analysis

This study used an Actor Partner Interdependence Model (APIM; Cook & Kenny, 2005) to test the actor and partner effects of the independent variable (parental divorce) within a dyad on the dependent variables (romantic attachment and internalizing symptoms). The appropriate descriptive statistics, including frequency, mean, standard deviation, and range, were calculated for the variables through the use of the SPSS statistical program (Version 27.0), as seen in Table 2. A correlation table with the independent and dependent variables of both the males and females was generated, as seen in Table 3.

Actor Partner Interdependence Model

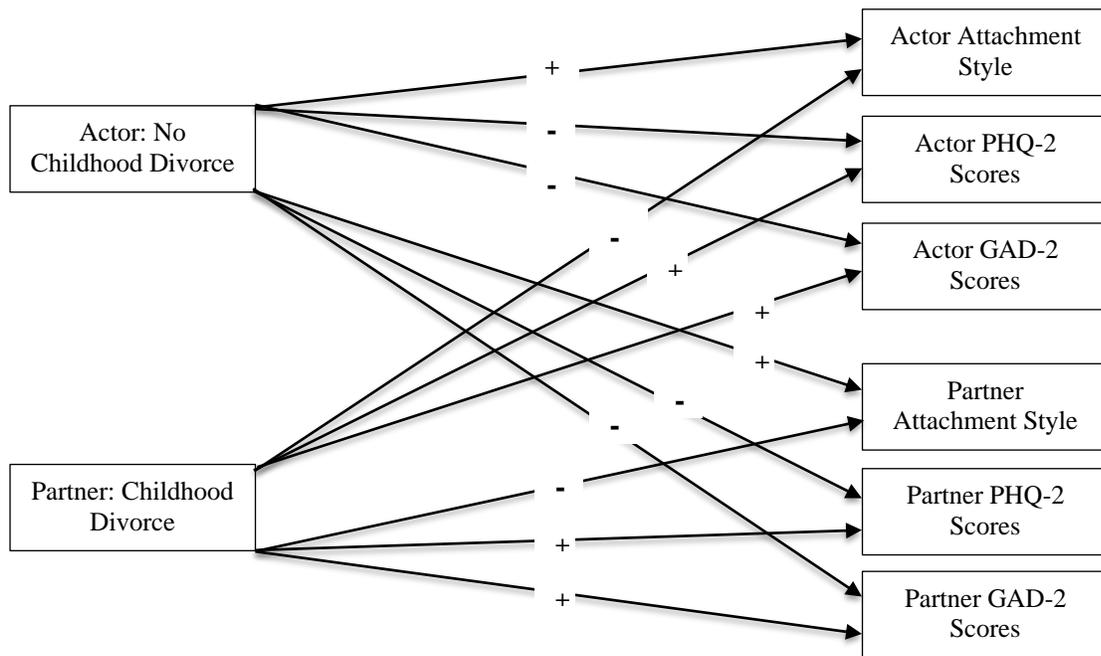
A basic APIM path model (Fitzpatrick et al., 2016) was created to determine actor and/or partner effects of divorce for males and females on attachment style, PHQ-2 scores, and GAD-2 scores and was analyzed with structural equation modeling (SEM). Dyadic data was imported into Mplus in a wide dataset with one couple's data in each row to be analyzed and demographic influence was controlled (Muthén & Muthén, 2017; Fitzpatrick et al., 2016). All variables included in analysis were listed, including male and female history of divorce, attachment style, PHQ-2 scores, and GAD-2 scores. Missing data was flagged under the variable command. Full information maximum likelihood was used to account for missing data.

Correlations between each of the male and female variables were tested. Regressions were tested between each of the female dependent variables and female history of divorce, and between each of the male dependent variables and male history of divorce; significant outcomes determined actor effects and were signified at the end of each identified regression with (a). Regressions were tested between the female dependent variables and male history of divorce, and between each of the male dependent variables and female history of divorce; significant outcomes determined partner effects and were signified at the end of each identified regression

with (p). To account for skewed data, 95% confidence intervals with bootstrapping was used, as this corrects flawed standard errors that would be too small with skewed data (Ledermann et al., 2011). Small standard errors can lead to false significant results, and thus we used bootstrapping to ensure results were sound. Significant actor and partner effects were determined from the results of this analysis and the bootstrap confidence interval (low 2.5% and high 2.5%), which allowed us to determine the specific dyadic pattern: the couple pattern, the contrast pattern, the actor-only pattern, or the partner-only pattern (Fitzpatrick et al., 2016). The hypothesized APIM path is seen in Figure 1.

Figure 1:

Actor-Partner Conceptualization Model



A chi-squared statistic, the comparative fit index (CFI; Bentler, 1990), the root mean square error of approximation (RMSEA; Bentler, 1995), the Tucker-Lewis index (Tucker & Lewis, 1973), and the standardized root mean square residual (SRMR; Hu & Bentler, 1999) were

utilized to determine goodness of fit for the actor-partner interdependence models created (Brimhall et al., 2018). This indicates whether the model truly explains the relationship between variables, whether that is not at all, fully, or in part. CFI and TLI values closer to 1, RMSEA values close to zero, and SRMR values lower than .08 indicate significant findings and confirm that the model has goodness of fit (Kline, 2015). A non-significant p-value for the chi-square test of model fit also represents a good fitting model, as this confirms that the data is not significantly different from the distribution we have hypothesized.

Results

Preliminary Analyses

Descriptive statistics are reported in Table 1, and intercorrelations between variables are reported in Table 2 below. The majority of males (78.1%) and females (66.9%) reported no history of divorce in childhood, with 21.9% of males and 32% of females reporting experiencing divorce in childhood. The majority of males (62.1%) and females (72.8%) were categorized into the secure attachment style, with 26.1% and 18.4%, respectively, categorized into the three insecure attachment styles. Males, on average, scored below the clinically significant cutoff on the PHQ-2 ($M = .52$) and the GAD-2 ($M = .88$). Females, on average, scored below the clinically significant cutoff on the PHQ-2 ($M = .65$) and the GAD-2 ($M = 1.06$). While significant correlations were found between several of the dependent variables, there were no significant correlations found between a participant's experience with divorce in childhood and their attachment style, PHQ-2 scores, or GAD-2 scores. Significant correlations between male and female dependent variables were also found.

Table 2:*Descriptive Statistics*

	Frequency	Percent	Mean (SD)
Male Family Formation			
No divorce	132	78.1	
Divorce	37	21.9	
Female Family Formation			
No divorce	113	66.9	
Divorce	54	32	
Missing	2	1.1	
Male Attachment Style			
Secure	105	62.1	
Anxious	13	7.7	
Avoidant	26	15.4	
Disorganized	5	3	
Missing	20	11.8	
Female Attachment Style			
Secure	123	72.8	
Anxious	9	5.3	
Avoidant	16	9.5	
Disorganized	6	3.6	
Missing	15	8.9	
Male PHQ-2 Scores			
0	116	68.6	.52 (.899)
1	21	12.4	
2	24	14.2	
3	4	2.4	
4	0		
5	1	.6	
6	0		
Missing	3	1.8	
Female PHQ-2 Scores			
0	107	63.3	.65 (1.067)
1	28	16.6	
2	24	14.2	
3	5	3	
4	2	1.2	
5	1	.6	
6	1	.6	
Missing	1	.6	
Male GAD-2 Scores			
0	97	57.4	.88 (1.363)
1	32	18.9	
2	22	13	

3	6	3.6	
4	6	3.6	
5	1	.6	
6	4	2.4	
Missing	1	.6	
Female GAD-2 Scores			1.06 (1.245)
0	76	45	
1	37	21.9	
2	35	20.7	
3	9	5.3	
4	7	4.1	
5	3	1.8	
6	0		
Missing	2	1.2	

Table 3:

Intercorrelations for study variables

Variables	1.	2.	3.	4.	5.	6.	7.	8.
1. Male divorce in childhood	—							
2. Female divorce in childhood	0.217**	—						
3. Male attachment style	-0.049	-.066	—					
4. Female attachment style	-0.077	.082	.301**	—				
5. Male PHQ-2 score	0.046	.010	.203*	.063	—			
6. Female PHQ-2 score	-0.057	-.079	.077	.105	.539**	—		
7. Male GAD-2 score	0.101	.048	.265**	.181*	.638**	.333**	—	
8. Female GAD-2 score	0.021	.129	.037	.272**	.331**	.500**	.265**	—

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

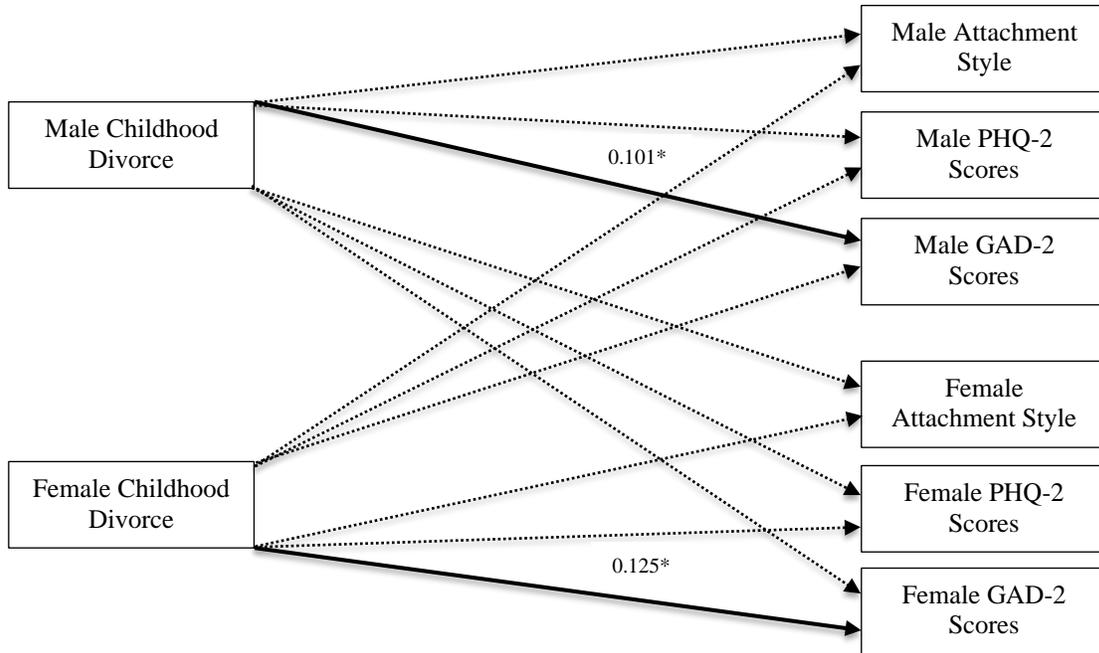
Analysis

We continued with the planned method of analysis, the Actor-Partner Interdependence Model (APIM; Cook & Kenny, 2005) to investigate the proposed model of dyadic interaction by determining whether actor and/or partner effects were present between the independent variable of childhood divorce and the dependent variables of attachment style, PHQ-2 scores, and GAD-2 scores, as seen in Figure 2. A basic model, meaning a model with degrees of freedom, was then tested (Cook & Kenny, 2005; Fitzpatrick et al., 2016). Mplus Version 8 was utilized to analyze the data and full information maximum likelihood was used to manage missing data (Muthén & Muthén, 2017). The chi-squared statistic, the comparative fit index (CFI; Bentler, 1990), the root mean square error of approximation (RMSEA; Bentler, 1995), the Tucker-Lewis index (Tucker & Lewis, 1973), and the standardized root mean square residual (SRMR; Hu & Bentler, 1999) were tested to determine goodness of fit for the model. A non-significant chi-square p-value, CFI and TLI value close to 1, and SRMR and RMSEA values close to 0 indicate a good-fitting model. Additionally, bootstrapping was used in the analysis to adjust any non-normality within the data and to diminish statistical bias. The basic APIM model is displayed in Figure 2. Findings indicated a good fitting model both before bootstrapping based on traditional fit indices, and after utilizing bootstrapping, with a chi-square value of 2.93 (DF = 4, $p = 0.5696$), a RMSEA of 0.00, a CFI of 1.00, a TLI of 1.00, and a SRMR of 0.015. Hypotheses were partially supported by significant actor effects, as the experience of divorce in childhood for both males and females was associated with higher rates of anxiety symptoms in adulthood. The confidence interval estimate for the standardized model for males was 0.101, with a lower 2.5% of .002 and an upper 2.5% of 0.209. The confidence interval estimate for the standardized model for females was 0.125, with a lower 2.5% of 0.002 and an upper 2.5% of 0.250. This indicates statistical

significance and that those who experienced divorce scored 0.101 or 0.125 higher on the GAD-2 than those who did not experience divorce. No significant partner effects were found.

Figure 2:

Actor-partner interdependence model



Note: Confidence interval estimates are provided for significant pathways. Nonsignificant pathways are designated with dashed lines. Model fit statistics: $\chi^2 = 2.93$ (DF = 4, $p = 0.5696$), RMSEA = 0.00, CFI = 1.00, TLI = 1.00, SRMR = 0.015. * $p < .05$

Hypotheses

No significant actor effects for males or females were found between history of childhood divorce and attachment style or PHQ-2 scores. Significant actor effects for males and females were found between history of childhood divorce and GAD-2 scores, indicating that

history of divorce was significantly correlated with anxiety symptoms in adulthood. Thus, hypothesis 1 was unsupported, but hypothesis 2 was partially supported. This supports the identification of an actor-only dyadic pattern (Fitzpatrick et al., 2016). No significant partner effects for males or females were found between history of childhood divorce and attachment style, PHQ-2 scores, and GAD-2 scores. Thus, hypotheses 3 and 4 were unsupported.

Discussion

The purpose of this study was to investigate the individual and relational association between parental divorce in childhood, romantic attachment, and internalizing symptoms of anxiety and depression in adulthood within romantic dyads. The current literature base indicates that the experience of parental separation and divorce in childhood not only has short-term negative emotional and behavioral consequences, but also is linked with higher risk for romantic and mental health challenges in adulthood, as compared to those from intact families. This includes increased rates of anxiety and depression (Auersperg et al., 2019; Bohman et al., 2017; Tyrka et al., 2008; Sands et al., 2017; Kendler et al., 1992), and an array of negative relational attitudes and outcomes (Roper et al., 2020; Ensign et al., 1998; Miles & Servaty-Seib, 2010; Ross & Mirowsky, 1999; Amato & Cheadle, 2005). While this makes up a substantive pool of research, there is little literature that connects the variables of parental divorce, romantic attachment, and internalizing symptoms using dyadic data. This is pivotal to study in order to better understand both the individual and relational impact of divorce. To this end, this study's findings add to current literature by confirming elements of previous research and by providing a different form of analysis by utilizing information from both members of a couple with these variables.

Actor Effects of Divorce on Romantic Attachment and Internalizing Symptoms

The results for the actor effects hypotheses, which examined the individual impact of divorce, indicated that there was a significant relationship between experience with divorce in childhood and rates of anxiety in adulthood for both males and females. Findings suggest that both males and females experience a greater number of anxious symptoms than their counterparts who did not experience divorce. This finding supports current literature in the field, indicating that the experience of divorce in childhood is linked with higher rates of internalizing symptoms, including anxiety (Auersperg et al., 2019). These findings contribute to the field, as the need for further support for anxiety in adult children of divorce has been noted by authors (Sands et al., 2017); our study also provided information for anxiety rates by gender, which has been another focus of literature with some finding no gender differences and others finding varying outcomes for internalizing symptoms by gender (Coffino, 2009; Maier & Lachman, 2000). From the lens of attachment theory, divorce in childhood could create or exacerbate patterns of inaccessibility, unresponsiveness, and disengagement from parents to their children due to systemic influences (Bowlby, 1969; Raley & Sweeney, 2020); while this may or may not be associated with categorizable insecure attachment styles, this unintentional emotional neglect can be associated with greater distress in the child, heightened vigilance in relationships, and long-term anxiety due to the lack of a secure base (Schimmenti & Bifulco, 2013; Lewis et al., 2000).

Our study found no relationship between parental divorce and depression, which contradicts a significant pool of research indicating that the experience of divorce in childhood increases risk for developing depressive symptoms in adulthood (Sands et al., 2017; Auersperg et al., 2019; Tyrka et al., 2008; Maier & Lachman, 2000; Coffino, 2009; Kendler et al., 1992). There may be a variety of reasons that this was not significant with the sample we had. Because

we studied dyads who were, on average, middle-aged, this could have potentially contributed to attitudes about struggling with mental health. Older adults may be more susceptible to cultural misconceptions, stigma, and negative perceptions regarding seeking help for their mental health (Jang et al., 2007); additionally, older adults are less likely to seek care for their depression than those who are younger (Crabb & Hunsley, 2006). This may be due to generational factors and societal messaging shifting over time in terms of discussing mental health factors openly. While the survey was anonymous, adults in the study may not have felt comfortable recognizing or voicing any symptoms of depression they may have. Additionally, a 2019 study on symptoms of depression in the U.S found that the percentage of adults who experienced symptoms of depression was highest among 18-29 year-olds (21%), with 45-64 year-olds (18.4%), 65 and over (18.4%), and 30-44 year-olds (16.8%) experiencing slightly lower rates (Villarroel & Terlizzi, 2020). Because we studied a smaller range of ages, it is possible that we collected data mostly from a group with lower rates of depression. Finally, due to the method of sampling used to collect data, we were only able to study a small subset of the overall American population which is likely not representative. Utilizing a more diverse population in a variety of social locations could help us better understand the impact of divorce on openness about mental health and rates of depression.

Diverging from past literature, our study did not indicate significant relationships between parental divorce and secure attachment. This contradicts numerous studies which support that divorce and its associated systemic challenges can exacerbate inaccessibility, unresponsiveness, and disengagement from caregivers, thereby forming an insecure attachment style in the individual that persists over time (Bowlby, 1960; Feeney & Noller, 1990; Maier & Lachman, 2000; Sirvanli-Ozen, 2005; Waters et al., 2000; D’Rozario & Pilkington, 2021; Lewis

et al., 2000; Crowell et al., 2009; Tein et al., 2000; Kelly & Emery, 2003; Lansford, 2009; Raley & Sweeney, 2020; Wood et al., 2004; Nair & Murray, 2005; Martinez et al., 2002; Althenhofen et al., 2010; Fomby & Bosick, 2013). There are a variety of factors that could have limited our ability to find significant results. First, the way divorce was measured in the study could not fully encapsulate the vastly different experiences that may occur within marital dissolution (Demo & Fine, 2010). For example, one participant may have experienced their parents amicably separating, were able to spend quality time with both parents post-separation and maintained economic and emotional stability. In contrast, another participant may have experienced a drop in socioeconomic status due to divorce, had limited contact with their residential parent due to living on one income and working several jobs, and completely lost access to their non-residential parent. While the first child may be able to maintain secure attachment, the second had additional challenges that limit the accessibility, responsiveness, and engagement of their parent (Tein et al., 2000; Kelly & Emery, 2003; Lansford, 2009; Raley & Sweeney, 2020). Thus, the way divorce was measured in the study, by merely noting the presence or absence of divorce in a sample, does not account for the array of experiences that may occur. Additionally, research has indicated that certain factors, such as family socioeconomic status, stressful events post-divorce, or timing of the divorce in the developmental frame for the child, can impact outcomes and attachment (Oderburg, 1986; Wallerstein, 1984; Tein et al., 2000; Kelly & Emery, 2004; Lansford, 2009). These variables were not included in the study.

Additionally, only 21.9% of males and 32% of females experienced divorce in childhood in our sample. Due to little variability within the data, it may have been difficult to find associations between divorce and attachment style. There are several potential reasons our data set had fewer individuals who experienced divorce in childhood. First, as previously stated, our

sample largely included middle-aged adults. Older adult's attitudes towards divorce have become more positive over time with less stigma, especially after 2002 (Brown & Wright, 2019); conversely, previous generations may have stayed in difficult marriages and refrained from divorcing due to perceived judgment or unspoken societal rules regarding longevity of marriage. Some of our sample may have experienced this while growing up, whereas a younger cohort may have had parents who did not experience as many negative messages about divorce; this could have led to more variability in their childhood experience with separation or divorce. Additionally, because our study only sampled parents of college students, our population was not representative of the broader societal experience of divorce. Divorce rates are lower among those with higher education, and education is often transmitted generationally (Wang, 2020; Behrman, 1997). Thus, it is likely that college students' parents also achieved higher educational achievement, and may have come from a family with higher educational achievement. Therefore, the sample we drew from may have lower divorce rates due to education and other associated factors, like socioeconomic status (Karney, 2021).

Finally, it is possible that resilience has played a role in the lack of significant findings between parental divorce in childhood, attachment, and depressive symptoms in adulthood. Some have hypothesized that divorce can alter the life-course of children, which inherently causes them to develop abnormally (Wallerstein & Lewis, 2004). Others have contested this, as Hetherington and Kelly (2002) found that most children in one study demonstrated remarkable adjustment six years after the divorce of their parents had occurred. As many have argued, children can be resilient in the face of challenges, can demonstrate profound strength, and can even grow after painful events (Simsek Arslan et al., 2020; Meyerson et al., 2011; Bernstein et al., 2012). Thus, it is possible that our sample demonstrated resilience in the face of divorce, due

to protective factors or inherent fortitude, which shielded them from some of the negative effects of divorce in adulthood (Kelly & Emery, 2003; Rogers, 2004; Ellis et al., 2017). Some adult children of divorce have even reported relational benefits in adulthood, including greater compassion for others and ability to perspective-take due to their experience of divorce (Bernstein et al., 2012); thus, this childhood experience for some individuals may improve internal qualities that reap benefits in romantic relationships (Cahill et al., 2020; Ulloa et al., 2017). This may have specifically influenced the relationship between parental divorce and romantic attachment in our study.

Partner Effects of Divorce on Romantic Attachment and Internalizing Symptoms

The results for the partner effects hypotheses were all insignificant, indicating no impact of a partner's experience of parental divorce on the individual's attachment style or rates of internalizing symptoms. These findings diverged from the theoretical foundation of systemic circularity (von Bertalanffy, 1968; Ainsworth & Wittig, 1969; Johnson, 2019) and studies that indicate significant partner effects related to insecure attachment (Campbell et al., 2005; Shi, 2003; Ebrahimi & Kimiaei, 2014; Brassard et al., 2012; Mondor et al., 2011). Many factors explaining why some actor effects were not significant can also apply to the partner effects. If there is a limited number of participants who experienced divorce and divorce was not measured in a way that accounts for varying experiences, it is likely that there will be difficulty drawing an association between the independent and dependent variables.

Limitations

While this dataset and study provides an addition to current research, there are a number of limitations that contributed to the lack of significant findings. First, the sampling of the dataset may have caused problems that limited the results. This study was cross-sectional, which limits

the ability to infer causation and does not provide as much insight on the effects of divorce and attachment over time, as a longitudinal study might. The participants engaged in a self-report survey online, which may provide more opportunity for bias. The original participants for this study were recruited with extra credit for their classes, which may have created a sample that was not representative of the broader student population and also is not generalizable (Padilla-Walker et al., 2005). Because the students were given more extra credit for the more people they could recruit for the survey, this may have introduced additional bias. Additionally, because the students engaged in snowball sampling to introduce their parents into the survey or friends, the sample likely includes a specific subset of the total population that is not truly representative of broader American society and had limited variability. The socioeconomic status of participants was not studied, which may limit the ability to interpret the findings. The data used for this study was gathered for the purpose of two different studies; while this included measures of the variables we examined, a study designed specifically around the research questions we investigated may have been able to more precisely target what we intended to research.

Additionally, the ways variables were measured may have impacted the significance of the findings. For example, due to the appending two datasets, there were two methods of measuring attachment style. While the RSQ and ECR-r are very similar in content, they are not identical and could contribute to the insignificance of attachment style. Additionally, due to the way that attachment style is coded for the RSQ, a small number of participants were not able to be placed into an attachment style. Thus, those who scored equally high on secure and insecure attachment styles or between two different insecure attachment styles were coded as missing. This may have slightly decreased the number of participants who were categorized into attachment styles, and thus made it more difficult to find significance. Second, the measurement

of the divorce variable could be more ideal and introduce more nuance into the participant's experience of divorce. Simply categorizing whether the participant did or did not experience divorce limited the context available and the ability to interpret the findings.

Implications

Having an understanding of how parental divorce may impact not only the individual, but also future trajectories of their relationships, is pivotal for marriage and family therapists to consider in their work with individuals, couples, and families. While many of the results of the study lack significance, the study further adds to the field by providing a theoretical foundation for the connection between these variables and a good-fitting model. This provides implications for research and clinical work with individuals, couples, and families.

Research Implications

Because the theoretical basis for this study was robust and results indicated that we had a good-fitting model, future research can utilize a similar model with a different data set that could potentially produce more significant results. Due to the limitations from the data collection, sample, and measurement of this study, it may be useful for researchers to analyze parental divorce, attachment, and internalizing symptoms utilizing dyadic data from a more diverse population, including socioeconomic status, age, race, and sexual orientation. Specifically, since the relationships of young adults have been a focus in parental divorce literature (Christensen & Brooks, 2001), conducting a study on parental divorce, attachment, and internalizing symptoms with a younger population, potentially emerging adults from ages 18-26, could further add to the field (Nelson & Barry, 2005). Additionally, it would be beneficial to provide further support on the long-lasting impacts of these variables by utilizing a longitudinal study, especially considering the cumulative impact of attachment insecurity on a relationship. Further,

researchers can provide more nuanced data regarding varying experiences of parental divorce and attachment by utilizing qualitative study methods, such as in-depth interviewing. Having the researchers conduct an attachment style interview, rather than allowing participants to self-report through a survey, may provide a more accurate view of attachment style for the sample in a qualitative study. All of these findings may assist clinicians in supporting children of divorce throughout the lifespan, both individually and relationally.

Clinical Implications

Marriage and family therapists, along with other helping professionals, occupy a unique role to support those influenced by divorce and the potentially long-lasting impacts on attachment and mental health. While this study did not yield the predicted results, attachment-based therapy theories, such as Emotionally Focused Therapy (EFT), can provide insight on attending to children of divorce throughout the lifespan (Johnson, 2019). EFT suggests that creating emotionally corrective experiences in therapy when attachment has been injured can allow for healing, connection, and growth, which can apply to work with families experiencing divorce, and couples where one or both members has experienced parental divorce.

For example, knowing that parental emotional availability can protect from negative outcomes and promote secure attachment, facilitating a parent's accessibility within session, coaching them on ways to support their child in the midst of divorce, and creating moments of secure interaction between the parent and child can offer security for the child, who may be undergoing massive systemic changes (Altenhofen et al., 2010; Raley & Sweeney, 2020). Additionally, EFT is especially helpful with couples, as it highlights the destructive interactional patterns that can occur when two individuals with insecure attachment interact, as is supported by research (Marks et al., 2013; Brassard et al., 2012). Explicitly highlighting how internal

working models impact the way that individuals interpret relational behaviors, including abandonment schemas from parental divorce, can assist couples in increasing insight into their relationship and the circular patterns that occur (D’Rozario & Pilkington, 2021). Further, promoting healthy, secure interaction between two members of a couple can help mitigate the negative effects of divorce and insecure attachment, as this can create new, positive interaction cycles that may diminish poor romantic and mental health outcomes.

Providing marriage and family therapists with research on the potential connection between parental divorce, attachment, and internalizing symptoms can assist them in supporting individuals, couples, and families, and offers these clinicians context and perspective to explore the long-lasting individual and relational impacts of divorce with clients. Promoting secure connection throughout the lifespan, even when parental divorce has occurred, can potentially decrease the impact of this experience on attachment and symptoms of anxiety and depression.

Conclusion

In summation, it is pivotal to consider the individual and relational impacts of parental divorce, which may surface in insecure romantic attachment and internalizing symptoms, as understood through the lens of attachment theory. As our study confirms, parental divorce in childhood can increase risk to elevated rates of anxiety in adulthood. Additional literature provides support as well for the impact of parental divorce on the accessibility, responsiveness, and engagement of the parent, which can lead to insecure attachment, romantic consequences, and internalizing symptoms for the individual in adulthood. It is important to continue to study the impact of parental divorce on the individual and their romantic relationships in order to promote health across a variety of domains.

REFERENCES

- Ainsworth, M. D. S., Bell, S. M., & Stayton, D. J. (1971). Individual differences in strange-situation behaviour of one-year-olds. In Shaffer, H. R. (Ed.), *The origins of human social relations*. London & New York: Academic Press.
- Ainsworth, M., & Wittig, B. (1969). Attachment and exploratory behavior of one-year-olds in a strange situation. In B. . Foss (Ed.), *Determinants of infant behavior: Proceedings* (Vol. IV, pp. 113–136). essay, Methuen.
- Altenhofen, S., Sutherland, K., & Biringen, Z. (2010). Families experiencing divorce: Age at onset of overnight stays, conflict, and emotional availability as predictors of child attachment. *Journal of Divorce & Remarriage*, *51*(3), 141-156. <https://doi.org/10.1080/10502551003597782>
- Amato, P. R. (2000). The consequences of divorce for adults and children. *Journal of Marriage and Family*, *62*(4), 1269-1287. <https://doi.org/10.1111/j.1741-3737.2000.01269.x>
- Amato, P. R., & Anthony, C. J. (2014). Estimating the effects of parental divorce and death with fixed effects models. *Journal of Marriage and Family*, *76*(2), 370-386. <https://doi.org/10.1111/jomf.12100>
- Amato, P., & Cheadle, J. (2005). The long reach of divorce: Divorce and child well-being across three generations. *Journal of Marriage and Family*, *67*(1), 191-206. <https://doi.org/10.1111/j.0022-2445.2005.00014.x>
- Amato, P. R., & DeBoer, D. D. (2001). The transmission of marital instability across generations: Relationship skills or commitment to marriage? *Journal of Marriage and Family*, *63*(4), 1038-1051. <https://doi.org/10.1111/j.1741-3737.2001.01038.x>
- Amato, P. R., & Patterson, S. E. (2017). The intergenerational transmission of union instability

- in early adulthood. *Journal of Marriage and Family*, 79(3), 723-738.
<https://doi.org/10.1111/jomf.12384>
- Amato, P. R., & Pennsylvania State University, University Park, PA, USA. (2014). The consequences of divorce for adults and children: An update. *Društvena Istraživanja*, 23(1), 5-24. <https://doi.org/10.5559/di.23.1.01>
- Andresen, S. (2014) Childhood Vulnerability: Systematic, Structural, and Individual Dimensions. *Child Indicators Research*, 7(4), 699-713. DOI:[10.1007/s12187-014-9248-4](https://doi.org/10.1007/s12187-014-9248-4)
- Arnett, J. J. (2004). *Emerging adulthood: The winding road from the late teens through the twenties*. New York; Oxford: Oxford University Press.
doi:10.1093/acprof:oso/9780195309379.001.0001
- Aro, H. M., & Palosaari, U. K. (1992). Parental divorce, adolescence, and transition to young adulthood: A follow-up study. *American Journal of Orthopsychiatry*, 62(3), 421-429.
<https://doi.org/10.1037/h0079342>
- Auersperg, F., Vlasak, T., Ponocny, I., & Barth, A. (2019). Long-term effects of parental divorce on mental health – A meta-analysis. *Journal of Psychiatric Research*, 119, 107-115.
<https://doi.org/10.1016/j.jpsychires.2019.09.011>
- Bartholomew, K., & Horowitz, L. M. (1991). Attachment styles among young adults: A test of a four-category model. *Journal of Personality and Social Psychology*, 61, 226–244
- Behrman, J. (1997). From parent to child: Intergenerational relations and intrahousehold allocations. In J. Neill (ed.), *Poverty and Inequality: The Political Economy of Redistribution*. Kalamazoo, MI: W. E. Upjohn Institute for Employment Research.
- Bentler, P. M. (1990). Comparative fit indexes in structural models. *Psychological Bulletin*, 107(2), 238-246. <https://doi.org/10.1037/0033-2909.107.2.238>

- Bentler, P. M. (1995). EQS structural equations program manual [Computer software manual]. Encino, CA: Multivariate Software.
- Bernstein, R., Keltner, D., & Laurent, H. (2012). Parental divorce and romantic attachment in young adulthood: Important role of problematic beliefs. *Marriage & Family Review, 48*(8), 711-731. <https://doi.org/10.1080/01494929.2012.700910>
- Bohman, H., Låftman, S. B., Päären, A., & Jonsson, U. (2017). Parental separation in childhood as a risk factor for depression in adulthood: A community-based study of adolescents screened for depression and followed up after 15 years. *BMC Psychiatry, 17*(1), 117-117. <https://doi.org/10.1186/s12888-017-1252-z>
- Bowlby, J. (1951). *Maternal care and mental health*. World Health Organization Monograph.
- Bowlby, J. (1969). *Attachment and loss: Vol. 1. Attachment*. New York: Basic Books.
- Bowlby, J. (1973). *Attachment and loss: Vol. 2. Separation: Anxiety and anger*. New York: Basic Books.
- Bowlby, J. (1980). *Attachment and loss: Vol. 3. Loss*. New York: Basic Books.
- Brassard, A., Péloquin, K., Dupuy, E., Wright, J., & Shaver, P. R. (2012). Romantic attachment insecurity predicts sexual dissatisfaction in couples seeking marital therapy. *Journal of Sex & Marital Therapy, 38*(3), 245-262. <https://doi.org/10.1080/0092623X.2011.606881>
- Brennan, K. A., Clark, C. L., & Shaver, P. R. (1998). Self-report measurement of adult attachment: An integrative overview. In J. A. Simpson & W. S. Rholes (Eds.), *Attachment theory and close relationships* (pp. 46–76). The Guilford Press.
- Brimhall, A. S., Bonner, H. S., Tyndall, L., & Jensen, J. F. (2018). A.R.E. you there for me? The

- relationship between attachment, communication, and relationship satisfaction of law enforcement officers and their partners. *Journal of Couple & Relationship Therapy*, 17(4), 338-361. <https://doi.org/10.1080/15332691.2018.1483279>
- Brown, S. L., & Wright, M. R. (2019). Divorce attitudes among older adults: Two decades of change. *Journal of Family Issues*, 40(8), 1018-1037. <https://doi.org/10.1177/0192513X19832936>
- Brumariu, L. E., & Kerns, K. A. (2010). Parent–child attachment and internalizing symptoms in childhood and adolescence: A review of empirical findings and future directions. *Development and Psychopathology*, 22(1), 177-203. <https://doi.org/10.1017/S0954579409990344>
- Cahill, V. A., Malouff, J. M., Little, C. W., & Schutte, N. S. (2020). Trait perspective taking and romantic relationship satisfaction: A meta-analysis. *Journal of Family Psychology*, 34(8), 1025-1035. <https://doi.org/10.1037/fam0000661>
- Campbell, L., Simpson, J. A., Boldry, J., & Kashy, D. A. (2005). Perceptions of conflict and support in romantic relationships: The role of attachment anxiety. *Journal of Personality and Social Psychology*, 88(3), 510-531. <https://doi.org/10.1037/0022-3514.88.3.510>
- Candel, O., & Turliuc, M. N. (2019). Insecure attachment and relationship satisfaction: A meta-analysis of actor and partner associations. *Personality and Individual Differences*, 147, 190-199. <https://doi.org/10.1016/j.paid.2019.04.037>
- Cashmore, J. & Paxman, M. (2006) Predicting after-care outcomes: the importance of ‘felt’ security. *Child and Family Social challenge*. New York: Basic books.
- Cavanagh, S. E., & Fomby, P. (2019). Family instability in the lives of American children.

- Annual Review of Sociology*, 45(1), 493-513. <https://doi.org/10.1146/annurev-soc-073018-022633>
- Christensen, T. M., & Brooks, M. C. (2001). Adult children of divorce and intimate relationships: A review of the literature. *The Family Journal*, 9(3), 289–294. <https://doi.org/10.1177/1066480701093008>
- Coffino, B. (2009). The role of childhood parent figure loss in the etiology of adult depression: Findings from a Prospective Longitudinal Study. *Attachment & Human Development*, 11(5), 445–470. <https://doi.org/10.1080/14616730903135993>
- Collins, N. L., Cooper, M. L., Albino, A., & Allard, L. (2002). Psychosocial vulnerability from adolescence to adulthood: A prospective study of attachment style differences in relationship functioning and partner choice. *Journal of Personality*, 70(6), 965-1008. <https://doi.org/10.1111/1467-6494.05029>
- Collins, N. L., & Read, S. J. (1990). Adult attachment, working models, and relationship quality in dating couples. *Journal of Personality and Social Psychology*, 58, 644–663.
- Colonesi, C., Draijer, E. M., Jan J. M. Stams, Geert, Van der Bruggen, Corine O, Bögels, S. M., & Noom, M. J. (2011). The relation between insecure attachment and child anxiety: A meta-analytic review. *Journal of Clinical Child and Adolescent Psychology*, 40(4), 630-645. <https://doi.org/10.1080/15374416.2011.581623>
- Cook, W. L., & 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. <https://doi.org/10.1080/01650250444000405>
- Crabb, R & Hunsley, J. (2006). Utilization of mental health care services among older adults with depression. *Journal of Clinical Psychology*, 62: 299–312.

- Crittenden, P. M. (2017). Gifts from Mary Ainsworth and John Bowlby. *Clinical Child Psychology and Psychiatry*, 22(3), 436-442. <https://doi.org/10.1177/1359104517716214>
- Crowell, J. A., Treboux, D., & Brockmeyer, S. (2009). Parental divorce and adult children's attachment representations and marital status. *Attachment & Human Development*, 11(1), 87-101. <https://doi.org/10.1080/14616730802500867>
- Dagan, O., Facompré, C. R., & Bernard, K. (2018). Adult attachment representations and depressive symptoms: A meta-analysis. *Journal of Affective Disorders*, 236, 274-290. <https://doi.org/10.1016/j.jad.2018.04.091>
- Davila, J., Ramsay, M., Stroud, C. B., & Steinberg, S. (2005). Attachment as vulnerability to the development of psychopathology . In B.L. Hankin & J. R. Z. Abela (Eds.), *Development of psychopathology: A vulnerability-stress perspective* (pp. 215 – 242) Thousand Oaks , CA: Sage.
- Demo, D., & Fine, M. (2010). Research methods for studying variation and fluidity in divorce. In. D. Demo & M. Fine (Eds.), *Beyond the average divorce* (pp. 27-47). SAGE Publications.
- D'Rozario, A. B., & Pilkington, P. D. (2021). Parental separation or divorce and adulthood attachment: The mediating role of the abandonment schema. *Clinical Psychology and Psychotherapy*, <https://doi.org/10.1002/cpp.2659>
- Duran-Aydintug, C. (1997). Adult children of divorce revisited: When they speak up. *Journal of Divorce & Remarriage*, 27(1-2), 71-83. https://doi.org/10.1300/J087v27n01_05
- Ebrahimi, E., & Ali Kimiaei, S. (2014). The study of the relationship among marital satisfaction, attachment styles, and communication patterns in divorcing couples. *Journal of Divorce & Remarriage*, 55(6), 451-463. <https://doi.org/10.1080/10502556.2014.931759>

- Elder, G. H. (1995). The life course paradigm: Social change and individual development. In P. Moen, G. H. Elder, & K. Lüscher (Eds.), *Examining lives in context: Perspectives on the ecology of human development* (pp. 101-140). American Psychological Association.
- Eldridge, K. A., Sevier, M., Jones, J., Atkins, D. C., & Christensen, A. (2007). Demand-withdraw communication in severely distressed, moderately distressed, and nondistressed couples: Rigidity and polarity during relationship and personal problem discussions. *Journal of Family Psychology, 21*(2), 218-226. <https://doi.org/10.1037/0893-3200.21.2.218>
- Ellis, B. J., Bianchi, J. G., Griskevicius, V., & Frankenhuis, W. E. (2017). Beyond risk and protective factors: An adaptation-based approach to resilience. *Perspectives on Psychological Science, 12*(4), 561-587. <https://doi.org/10.1177/1745691617693054>
- Ensign, J., Scherman, A., & Clark, J. J. (1998). The relationship of family structure and conflict to levels of intimacy and parental attachment in college students. *Adolescence, 33*(131), 575-582.
- Erikson, E. H. (1963). *Youth: Change and challenge*. New York: Basic books.
- Feeney, J. A., & Noller, P. (1990). Attachment style as a predictor of adult romantic relationships. *Journal of Personality and Social Psychology, 58*(2), 281-291. <https://doi.org/10.1037/0022-3514.58.2.281>
- Fergusson, D. M., McLeod, G. F. H., & John Horwood, L. (2014). Parental separation/divorce in childhood and partnership outcomes at age 30. *Journal of Child Psychology and Psychiatry, 55*(4), 352-360. <https://doi.org/10.1111/jcpp.12107>
- Fitzpatrick, J., Gareau, A., Lafontaine, M., & Gaudreau, P. (2016). How to use the actor-partner

- interdependence model (APIM) to estimate different dyadic patterns in MPLUS: A step-by-step tutorial. *Tutorials in Quantitative Methods for Psychology*, 12(1), 74-86. <https://doi.org/10.20982/tqmp.12.1.p074>
- Fomby, P., & Bosick, S. J. (2013). Family instability and the transition to adulthood. *Journal of Marriage and Family*, 75(5), 1266-1287. <https://doi.org/10.1111/jomf.12063>
- Fraley, R. C., & Heffernan, M. E. (2013). Attachment and parental divorce: A test of the diffusion and sensitive period hypotheses. *Personality & Social Psychology Bulletin*, 39(9), 1199-1213. <https://doi.org/10.1177/0146167213491503>
- Fraley, R. C., & Shaver, P. R. (2000). Adult Romantic Attachment: Theoretical Developments, Emerging Controversies, and Unanswered Questions. *Review of General Psychology*, 4(2), 132–154. <https://doi.org/10.1037/1089-2680.4.2.132>
- Gabardi, L., & Rosen, L. A. (1992). Intimate relationships: College students from divorced and intact families. *Journal of Divorce & Remarriage*, 18(3-4), 25.
- Gabardi, L., & Rosen, L. A. (2008). Differences between college students from divorced and intact families. *Journal of Divorce & Remarriage*, 15(3-4), 175-192.
https://doi.org/10.1300/J087v15n03_10
- Gillath, O., Karantzas, G. C., & Fraley, R. C. (2016). Chapter 5 - how are individual differences in attachment measured? *Adult attachment* (pp. 103-127). Elsevier Inc.
<https://doi.org/10.1016/B978-0-12-420020-3.00005-0>
- Gottman, J., & DeClaire, J. (1997). *The heart of parenting: How to raise an emotionally intelligent child*. New York: Simon & Schuster.
- Griffin, D., & Bartholomew, K. (1994). Models of the self and other: Fundamental dimensions

- underlying measures of adult attachment. *Journal of Personality and Social Psychology*, 67(3), 430-445. <https://doi.org/10.1037/0022-3514.67.3.430>
- Hazan, C., & Shaver, P. (1987). Romantic love conceptualized as an attachment process. *Journal of Personality and Social Psychology*, 52(3), 511–524. <https://doi.org/10.1037/0022-3514.52.3.511>
- Hepworth, J., Ryder, R. G., & Dreyer, A. S. (1984). The effects of parental loss on the formation of intimate relationships. *Journal of Marital and Family Therapy*, 10(1), 73–82. <https://doi.org/10.1111/j.1752-0606.1984.tb00567.x>
- Hetherington, E. M., & Kelly, J. (2002). For better or for worse: Divorce reconsidered. New York: Norton.
- Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, 6(1), 1-55. <https://doi.org/10.1080/10705519909540118>
- Jang, Y., Chiriboga, D. A., & Okazaki, S. (2009). Attitudes toward mental health services: Age-group differences in Korean American adults. *Aging & Mental Health*, 13(1), 127-134. <https://doi.org/10.1080/13607860802591070>
- Johnson, S. M. (2019). *Attachment theory in practice: Emotionally Focused Therapy (EFT) with individuals, couples, and families*. New York, NY: The Guilford Press.
- Johnston, S. G., & Thomas, A. M. (1996). Divorce versus intact parental marriage and perceived risk and dyadic trust in present heterosexual relationships. *Psychological Reports*, 78(2), 387-390. <https://doi.org/10.2466/pr0.1996.78.2.387>
- Jöreskog, K. G. (1970). A general method for estimating a linear structural equation

- system. *Research Bulletin (Educational Testing Service.)*, 1970(2), i-41. <https://doi.org/10.1002/j.2333-8504.1970.tb00783.x>
- Karney, B. R. (2021). Socioeconomic status and intimate relationships. *Annual review of psychology*, 72, 391-414.
- Kelly, J. B., & Emery, R. E. (2003). Children's adjustment following divorce: Risk and resilience perspectives. *Family Relations*, 52(4), 352-362. <https://doi.org/10.1111/j.1741-3729.2003.00352.x>
- Kendler, K. S., Neale, M. C., Kessler, R. C., Heath, A. C., & Eaves, L. J. (1992). Childhood parental loss and adult psychopathology in women: A twin study perspective. *Archives of General Psychiatry*, 49(2), 109-116. <https://doi.org/10.1001/archpsyc.1992.01820020029004>
- Kiernan, K. E., & Cherlin, A. J. (1999). Parental divorce and partnership dissolution in adulthood: Evidence from a british cohort study. *Population Studies*, 53(1), 39-48. <https://doi.org/10.1080/00324720308068>
- Kim, S., Baek, M., & Park, S. (2021). Association of parent–child experiences with insecure attachment in adulthood: A systematic review and meta–analysis. *Journal of Family Theory & Review*, 13(1), 58-76. <https://doi.org/10.1111/jftr.12402>
- Kinnaird, K. L., & Gerrard, M. (1986). Premarital sexual behavior and attitudes toward marriage and divorce among young women as a function of their mothers' marital status. *Journal of Marriage and Family*, 48(4), 757-765. <https://doi.org/10.2307/352568>
- Kline, R. B. (2015). Global fit testing. In R. B. Kline (Eds.), *Principles and practice of structural equation modeling* (pp. 262-299). Guilford Publications.
- Kroenke, K., & Spitzer, R. L. (2002). The PHQ-9: A new depression diagnostic and severity

- measure. *Psychiatric Annals*, 32(9), 509-515.
- Kroenke, K., M.D, Spitzer, R. L., M.D, Williams, J. B. W., D.S.W, & Löwe, Bernd, M.D., Ph.D. (2010). The patient health questionnaire somatic, anxiety, and depressive symptom scales: A systematic review. *General Hospital Psychiatry*, 32(4), 345-359.
<https://doi.org/10.1016/j.genhosppsych.2010.03.006>
- Kumar, S. A., & Mattanah, J. F. (2016). Parental attachment, romantic competence, relationship satisfaction, and psychosocial adjustment in emerging adulthood. *Personal Relationships*, 23(4), 801-817. <https://doi.org/10.1111/pere.12161>
- Lansford, J. E. (2009). Parental divorce and children's adjustment. *Perspectives on Psychological Science*, 4(2), 140-152. <https://doi.org/10.1111/j.1745-6924.2009.01114.x>
- Ledermann, T., Macho, S., & Kenny, D. A. (2011). Assessing mediation in dyadic data using the actor-partner interdependence model. *Structural Equation Modeling*, 18(4), 595-612. <https://doi.org/10.1080/10705511.2011.607099>
- Lewis, M., Feiring, C., & Rosenthal, S. (2000). Attachment over time. *Child Development*, 71(3), 707-720. <https://doi.org/10.1111/1467-8624.00180>
- Li, T., & Chan, D. K.-S. (2012). How anxious and avoidant attachment affect romantic relationship quality differently: A meta-analytic review. *European Journal of Social Psychology*, 42(4), 406–419. <https://doi.org/10.1002/ejsp.1842>
- Liao, K. Y., & Wei, M. (2015). Insecure attachment and depressive symptoms: Forgiveness of self and others as moderators. *Personal Relationships*, 22(2), 216-229.
<https://doi.org/10.1111/pere.12075>
- Löwe, B., Kroenke, K., & Gräfe, K. (2005). Detecting and monitoring depression with a two-

- item questionnaire (PHQ-2). *Journal of Psychosomatic Research*, 58(2), 163-171. <https://doi.org/10.1016/j.jpsychores.2004.09.006>
- Luerssen, A., Shane, J., & Budescu, M. (2019). Emerging adults' relationship with caregivers and their romantic attachment: Quality communication helps. *Journal of Child and Family Studies*, 28(12), 3412-3424. <https://doi.org/10.1007/s10826-019-01523-4>
- Lyons-Ruth, K., Dutra, L. L., Schuder, M. R., & Bianchi, I. (2006). From infant attachment disorganization to adult dissociation: Relational adaptations or traumatic experiences? *Psychiatry Clinical of North America*, 29(1), 63–86.
doi:10.1016/j.psc.2005.10.011
- Mack, K. Y. (2001). Childhood family disruptions and adult well-being: The differential effects of divorce and parental death. *Death Studies*, 25(5), 419–443.
<https://doi.org/10.1080/074811801750257527>
- Maier, E. H., & Lachman, M. E. (2000). Consequences of early parental loss and separation for health and well-being in midlife. *International Journal of Behavioral Development*, 24(2), 183–189. <https://doi.org/10.1080/016502500383304>
- Main, M., & Solomon, J. (1990). Procedures for identifying infants as disorganized/disoriented during the Ainsworth Strange Situation. In M. T. Greenberg, D. Cicchetti, & E. M. Cummings (Eds.), *Attachment in the preschool years: Theory, research, and intervention* (pp. 121–160). Chicago: University of Chicago Press.
- Marks, M. J., Trafimow, D., & Rice, S. C. (2014). Attachment-related individual differences in the consistency of relationship behavior interpretation. *Journal of Personality*, 82(3), 237-249. <https://doi.org/10.1111/jopy.12048>
- Martinez, C. R., & Forgatch, M. S. (2002). Adjusting to change: Linking family structure

- transitions with parenting and boys' adjustment. *Journal of Family Psychology*, *16*(2), 107-117. <https://doi.org/10.1037/0893-3200.16.2.107>
- Meyerson, D. A., Grant, K. E., Carter, J. S., & Kilmer, R. P. (2011). Posttraumatic growth among children and adolescents: A systematic review. *Clinical Psychology Review*, *31*(6), 949-964. <https://doi.org/10.1016/j.cpr.2011.06.003>
- Miles, N. J., & Servaty-Seib, H. L. (2010). Parental marital status and young adult offspring's attitudes about marriage and divorce. *Journal of Divorce & Remarriage*, *51*(4), 209-220. <https://doi.org/10.1080/10502551003597865>
- Mondor, J., McDuff, P., Lussier, Y., & Wright, J. (2011). Couples in therapy: Actor-partner analyses of the relationships between adult romantic attachment and marital satisfaction. *The American Journal of Family Therapy*, *39*(2), 112-123. <https://doi.org/10.1080/01926187.2010.530163>
- Mullett, E., & Stolberg, A. L. (2002). Divorce and its impact on the intimate relationships of young adults. *Journal of Divorce & Remarriage*, *38*(1-2), 39-59. https://doi.org/10.1300/J087v38n01_03
- Muthén, L. K., & Muthén, B. O. (1998-2017). Mplus User's Guide. Eighth Edition. Los Angeles, CA: Muthén & Muthén.
- Nair, H., & Murray, A. D. (2005). Predictors of attachment security in preschool children from intact and divorced families. *The Journal of Genetic Psychology*, *166*(3), 245-263. <https://doi.org/10.3200/GNTP.166.3.245-263>
- Nelson, L. J., & Barry, C. M. (2005). Distinguishing features of emerging adulthood: The role of self-classification as an adult. *Journal of adolescent research*, *20*(2), 242-262.
- Oderberg, N. (1986). College students from divorced families: The impact of post-divorce life on

- long-term psychological adjustment. *Family Court Review*, 24(1), 103-110.
<https://doi.org/10.1111/j.174-1617.1986.tb00134.x>
- Padilla-Walker, L. M., Thompson, R. A., Zamboanga, B. L., & Schmerral, L. A. (2005). Extra credit as incentive for voluntary research participation. *Teaching of Psychology*, 32(3), 150-153. https://doi.org/10.1207/s15328023top3203_2
- Paradiso, S., Naridze, R., & Holm-Brown, E. (2012). Lifetime romantic attachment style and social adaptation in late-onset depression. *International Journal of Geriatric Psychiatry*, 27(10), 1008-1016. <https://doi.org/10.1002/gps.2814>
- Pew Research Center. (2010). *The decline of marriage and rise of new families*.
<https://www.pewresearch.org/social-trends/2010/11/18/the-decline-of-marriage-and-rise-of-new-families/>
- Raby, K. L., Fraley, R. C., & Roisman, G. I. (2021). Categorical or dimensional measures of attachment?: Insights from factor-analytic and taxometric research. In R. A. Thompson, J. A. Simpson, & L. J. Berlin (Eds.), *Attachment: The fundamental questions* (pp. 70-77). The Guilford Press.
- Raley, R. K., & Sweeney, M. M. (2020). Divorce, repartnering, and stepfamilies: A decade in review. *Journal of Marriage and Family*, 82(1), 81-99.
<https://doi.org/10.1111/jomf.12651>
- Ravitz, P., Maunder, R., Hunter, J., Sthankiya, B., & Lancee, W. (2010). Adult attachment measures: A 25-year review. *Journal of Psychosomatic Research*, 69(4), 419-432.
<https://doi.org/10.1016/j.jpsychores.2009.08.006>
- River, L. M., O'Reilly Treter, M., Rhoades, G. K., & Narayan, A. J. (2021). Parent-child

- relationship quality in the family of origin and later romantic relationship functioning: A systematic review. *Family Process*, <https://doi.org/10.1111/famp.12650>
- Rogers, K. N. (2004). A theoretical review of risk and protective factors related to post-divorce adjustment in young children. *Journal of Divorce & Remarriage*, *40*(3-4), 135-147. https://doi.org/10.1300/J087v40n03_09
- Roper, S. W., Fife, S. T., & Seedall, R. B. (2020). The intergenerational effects of parental divorce on young adult relationships. *Journal of Divorce & Remarriage*, *61*(4), 249-266. <https://doi.org/10.1080/10502556.2019.1699372>
- Rosas Santiago, F. J., Marván Garduño, M. L., Hernández-Aguilera, R. D., & Campos Uscanga, Y. (2020). Insecure attachment as a risk factor for the development of anxiety and depression symptoms in a sample of Mexican adults. *Issues in Mental Health Nursing*, *42*(8), 768-775. <https://doi.org/10.1080/01612840.2020.1836538>
- Rosenfeld, M. J., & Roesler, K. (2019). Cohabitation experience and cohabitation's association with marital dissolution. *Journal of Marriage and Family*, *81*(1), 42-58. <https://doi.org/10.1111/jomf.12530>
- Ross, C. E., & Mirowsky, J. (1999). Parental divorce, life-course disruption, and adult depression. *Journal of Marriage and Family*, *61*(4), 1034-1045. <https://doi.org/10.2307/354022>
- Ruschena, E., Prior, M., Sanson, A., & Smart, D. (2005). A longitudinal study of adolescent adjustment following family transitions. *Journal of Child Psychology and Psychiatry*, *46*(4), 353-363. <https://doi.org/10.1111/j.1469-7610.2004.00369.x>
- Safford, S. M., Alloy, L. B., Crossfield, A. G., Morocco, A. M., & Wang, J. C. (2004).

- The relationship of cognitive style and attachment style to depression and anxiety in young adults . *Journal of Cognitive Psychotherapy* , 18 , 25 – 41.
- Sands, A., Thompson, E. J., & Gaysina, D. (2017). Long-term influences of parental divorce on offspring affective disorders: A systematic review and meta-analysis. *Journal of Affective Disorders*, 218, 105-114. <https://doi.org/10.1016/j.jad.2017.04.015>
- Sapra, A., Bhandari, P., Sharma, S., Chanpura, T., & Lopp, L. (2020). Using generalized anxiety disorder-2 (GAD-2) and GAD-7 in a primary care setting. *Curēus (Palo Alto, CA)*, 12(5), e8224-e8224. <https://doi.org/10.7759/cureus.8224>
- Sassler, S., Cunningham, A., & Lichter, D. T. (2009). Intergenerational patterns of union formation and relationship quality. *Journal of Family Issues*, 30(6), 757-786. <https://doi.org/10.1177/0192513X09331580>
- Schimmenti, A., & Bifulco, A. (2015). Linking lack of care in childhood to anxiety disorders in emerging adulthood: The role of attachment styles. *Child and Adolescent Mental Health*, 20(1), 41-48. <https://doi.org/10.1111/camh.12051>
- Servaty, H. L., & Hayslip, B. (2001). Adjustment to loss among adolescents. *OMEGA - Journal of Death and Dying*, 43(4), 311–330. <https://doi.org/10.2190/b9mh-uu5h-9cg2-raw6>
- Shaver, P. R., & Cassidy, J. (2016). In Cassidy J., Shaver P. R.(Eds.), *Handbook of attachment: Theory, research, and clinical applications* (Third ed.). The Guilford Press.
- Shaver, P. R., Schachner, D. A., & Mikulincer, M. (2005). Attachment style, excessive reassurance seeking, relationship processes, and depression . *Personality and Social Psychology Bulletin* , 31 , 343 – 359.
- Shi, L. (2003). The association between adult attachment styles and conflict resolution in

- romantic relationships. *The American Journal of Family Therapy*, 31(3), 143-157. <https://doi.org/10.1080/01926180301120>
- Şimşek Arslan, B., Özer, Z., & Buldukoğlu, K. (2020). Posttraumatic growth in parentally bereaved children and adolescents: A systematic review. *Death Studies*, , 1-13. <https://doi.org/10.1080/07481187.2020.1716886>
- Sinclair, S. L., & Nelson, E. S. (1998). The impact of parental divorce on college students' intimate relationships and relationship beliefs. *Journal of Divorce & Remarriage*, 29(1-2), 103-129. https://doi.org/10.1300/J087v29n01_06
- Sirvanli-Ozen, D. (2005). Impacts of divorce on the behavior and adjustment problems, parenting styles, and attachment styles of children: Literature review including turkish studies. *Journal of Divorce & Remarriage*, 42(3-4), 127-151. https://doi.org/10.1300/J087v42n03_08
- Spitzer, R. L., Kroenke, K., Williams, J. B. W., & Löwe, B. (2006). A brief measure for assessing generalized anxiety disorder: The GAD-7. *Archives of Internal Medicine (1960)*, 166(10), 1092-1097. <https://doi.org/10.1001/archinte.166.10.1092>
- Tein, J., Sandler, I. N., & Zautra, A. J. (2000). Stressful life events, psychological distress, coping, and parenting of divorced mothers: A longitudinal study. *Journal of Family Psychology*, 14(1), 27-41. <https://doi.org/10.1037/0893-3200.14.1.27>
- Tucker, L. R., & Lewis, C. (1973). A reliability coefficient for maximum likelihood factor analysis. *Psychometrika*, 38(1), 1-10. <https://doi.org/10.1007/BF02291170>
- Tyrka, A. R., Wier, L., Price, L. H., Ross, N. S., & Carpenter, L. L. (2008). Childhood parental

- loss and adult psychopathology: Effects of loss characteristics and contextual factors. *The International Journal of Psychiatry in Medicine*, 38(3), 329–344.
- <https://doi.org/10.2190/pm.38.3.h>
- Ulloa, E. C., Hammett, J. F., Meda, N. A., & Rubalcaba, S. J. (2017). Empathy and romantic relationship quality among cohabitating couples: An Actor–Partner interdependence model. *The Family Journal (Alexandria, Va.)*, 25(3), 208-214. <https://doi.org/10.1177/1066480717710644>
- U.S. Census Bureau. (2021). *Number, timing, and duration of marriages and divorces: 2016 : Current population reports. P-70(167)*.
- Valle, G., & Tillman, K. H. (2014). Childhood family structure and romantic relationships during the transition to adulthood. *Journal of Family Issues*, 35(1), 97-124.
- <https://doi.org/10.1177/0192513X12463555>
- Vatcheva, K. P., Lee, M., McCormick, J. B., & Rahbar, M. H. (2016). Multicollinearity in regression analyses conducted in epidemiologic studies. *Epidemiology (Sunnyvale, Calif.)*, 6(2).
- Villarroel M. A., Terlizzi E. P. (2020). Symptoms of depression among adults: United States, 2019. NCHS Data Brief, no 379. Hyattsville, MD: National Center for Health Statistics.
- Viru, A., Loko, J., Harro, M., Volver, A., Laaneots, L., & Viru, M. (1999). Critical periods in the development of performance capacity during childhood and adolescence. *European Journal of Physical Education*, 4(1), 75-119. DOI: 10.1080/1740898990040106
- von Bertalanffy, L. (1968). *General systems theory: Foundations, development, applications*. New York: George Braziller.
- Wallerstein, J. S. (1984). Children of divorce: Preliminary report of a ten-year follow-up

- of young children. *American Journal of Orthopsychiatry*, 54(3), 444-458.
<https://doi.org/10.1111/j.1939-0025.1984.tb01510.x>
- Wallerstein, J. S. (1991). The long-term effects of divorce on children: A review. *Journal of the American Academy of Child and Adolescent Psychiatry*, 30(3), 349-360.
<https://doi.org/10.1097/00004583-199105000-00001>
- Wallerstein, J. S., & Lewis, J. M. (2004). THE UNEXPECTED LEGACY OF DIVORCE: Report of a 25-year study. *Psychoanalytic Psychology*, 21(3), 353-370. <https://doi.org/10.1037/0736-9735.21.3.353>
- Wang, W. (2020, May 30). *The link between a college education and a lasting marriage*. Pew Research Center. Retrieved March 15, 2022, from <https://www.pewresearch.org/fact-tank/2015/12/04/education-and-marriage/>
- Waters, E., Merrick, S., Treboux, D., Crowell, J., & Albersheim, L. (2000). Attachment security in infancy and early adulthood: A twenty-year longitudinal study. *Child Development*, 71(3), 684–689. <https://doi.org/10.1111/1467-8624.00176>
- Wei, M., Mallinckrodt, B., Russell, D. W., & Abraham, W. T. (2004). Maladaptive perfectionism as a mediator and moderator between adult attachment and depressive mood. *Journal of Counseling Psychology*, 51, 201 – 212.
- Wood, J. J., Repetti, R. L., & Roesch, S. C. (2004). Divorce and Children’s adjustment problems at home and school: The role of Depressive/Withdrawn parenting. *Child Psychiatry and Human Development*, 35(2), 121-142. <https://doi.org/10.1007/s10578-004-1881-6>
- Wu, L. L., & Martinson, B. C. (1993). Family structure and the risk of a premarital birth. *American Sociological Review*, 58(2), 210-232. <https://doi.org/10.2307/2095967>
- Zheng, L., Luo, Y., & Chen, X. (2020). Different effects of attachment anxiety and attachment

avoidance on depressive symptoms: A meta-analysis. *Journal of Social and Personal Relationships*, 37(12), 3028-3050. <https://doi.org/10.1177/0265407520946482>

Zortea, T. C., Gray, C. M., & O'Connor, R. C. (2019). Adult attachment: Investigating the factor structure of the relationship scales questionnaire. *Journal of Clinical Psychology*, 75(12), 2169-2187. <https://doi.org/10.1002/jclp.22838>

