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Exploring the Utility of Parent-Provided Interpersonal Emotion Regulation in Emerging Adulthood

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ABTRACT OF THE DISSERTATION

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by

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This dissertation investigates the dynamics of interpersonal emotion regulation (IER) between emerging adults (ages 18-25) and their parents. IER refers to the management of one's own emotions through the support of another person. Although emerging adulthood is often characterized by identity exploration and increased independence from family, many youth remain reliant on and highly sensitive to the socialization efforts of their parents. Despite the critical role of parental influence during the transitional phase of emerging adulthood, research on the day-to-day IER processes within the parent-child relationship remains limited. Drawing on previous findings that highlight how parental autonomy support contextualizes the perceived effectiveness of parent-provided IER (Newman & Davis, 2023), my dissertation further examines the frequency, quality, and goals of IER interactions between emerging adults and their parents, particularly considering how past experiences shape current and future IER endeavors. I also explore how these perceptions inform youths' willingness to seek and engage in IER, considering factors such as individual intrapersonal emotion regulation (ER), tendencies to utilize IER in everyday life, parental autonomy support, and cultural

contexts. This online study consisted of multiple questionnaires, a semi-structured interview, and ecological momentary assessment (EMA) of parent-provided IER. Eighty-four emerging adult college students (M_{age} = 19.81 years, 73.8% women) completed questionnaires assessing their emotion IER tendencies, relationship quality with their parents, and parental autonomy support. Youth recounted general instances of receiving IER from parents, and reported on their parents' IER behaviors, the perceived effectiveness of the IER, and their willingness to seek out subsequent IER with their parents. They also reported on aspects of their family background or culture that may influence how emotions are dealt with in their family. Lastly, they participated in a 10-day daily diary survey, wherein they reported on day-to-day IER interactions with their parents. Findings indicated that youth who remembered past parent-youth IER interactions as effective and had higher parent-child relatedness (i.e., relationship quality) reported increased desire for subsequent parent-provided IER. Furthermore, for father-provided IER, the association between IER effectiveness and subsequent IER was stronger for participants from families that engage in culturally normalized suppression. Neither specific IER strategies nor parental autonomy support related to youths' desire for subsequent parent-provided IER. I also found unexpected gender differences—for mothers, both autonomy support and relatedness were associated with youths' perceived effectiveness of parent-provided IER; for fathers, only autonomy support was a significant predictor. Moreover, youths' general tendencies to utilize IER in their daily life did not relate to parent-provided IER effectiveness. Lastly, on average participants engaged in parent-provided IER approximately once in the span of 10 days, were more

likely to receive IER from their mothers than their fathers, and effectiveness of EMA mother-provided IER effectiveness was positively related to maternal autonomy support. Ultimately, insights gained from this study highlight the importance of perceived IER effectiveness, parental autonomy support, parent-child relatedness, and the cultural context in shaping IER processes within families. These findings contribute to the burgeoning field of IER by providing practical insights into improving ER in this important familial relationship, and by shedding light on the unique dynamics of IER during the transition from adolescence to adulthood.

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Chapter 1

Introduction

Imagine a young adult, recently moved away for college, feeling overwhelmed by the pressures of her new independence and responsibilities. Struggling with midterms and fearing failure, she sits scrolling on her phone, trying to decide whether to call home. She wonders if her parents will even understand what she's feeling—will Dad lecture her about not studying enough? Will Mom ask her a billion unrelated questions, like if she's been taking her vitamins? Or will they actually help her feel better, by listening and empathizing? She might even welcome some advice, as long her parents don't make her feel like she's *in trouble,* like a five-year-old. Plus, she misses them, and their relationship has improved since she moved out. These thoughts run through her mind, one after another, until finally… she calls home.

Within the broad fields of developmental and social psychology, interpersonal emotion regulation (IER) research focuses on how emotions are managed through social means, and dives into the subtleties of how individuals both shape and are shaped by the emotional experiences of those around them (Zaki & Williams, 2013). In the opening vignette, a college student weighs the costs and benefits of seeking IER from her parents, a decision which is contextualized by her previous experiences, her drive to maintain autonomy, and her relationship with her parents. As IER is a relatively recent framework within the field of emotion research, there is much to learn about these processes—specifically, that of the dynamic interplay of IER between emerging adults and their

parents, a relationship that often has numerous implications for emotional functioning throughout the lifespan.

My dissertation aims to provide insight into the complex emotion dynamics between parents and their adult children, drawing from functionalist views of emotion, IER frameworks, cognitive appraisal theory, self-determination theory, and the influence of familial and cultural backgrounds. By exploring how past and recent IER interactions with parents influence future interactions, my goal is to integrate theoretical frameworks with tangible real-world outcomes. There currently exists a gap in the literature pertaining to how aspects of parent-child relationship quality and recent instances of parent-youth IER inform youths' subsequent IER goals, support seeking behavior, and perception of IER effectiveness. We know little about the frequency and quality of parent-youth IER interactions—thus, highlighting factors like past experiences with IER, youths' individual emotional and social functioning, aspects of parent-youth relationship quality, and cultural expectations will aid in unraveling these relations. This dissertation sheds light on the intricacies of emotions in interpersonal contexts, offering valuable insights to bolster the emotional well-being of youth and their families.

Emotion Processes in Emerging Adulthood

Emotion is often studied from multiple perspectives and theoretical frameworks (Buss et al., 2019). For instance, decades of research studies have utilized discrete emotion perspectives (Ekman & Friesen, 1971; Izard, 1971), which posit that all humans develop to experience a basic set of universal emotions. These emotions (i.e., interest, joy, anger, sadness, fear, surprise, and disgust) have distinct features, such as facial

expressions, physiological responses, and affective feelings. However, discrete emotion perspectives are just one angle from which to understand emotional experiences. In fact, discrete emotion perspectives are echoed in various other emotion theories, such as in the functionalist view of emotion (Campos et al., 1994; Lazarus, 1991). A functionalist perspective distinguishes itself from other theories by defining emotions based on the relationship between the individual and their environment, specifically in relation to their goals, rather than viewing an emotion as separate from its contextual background (Lazarus, 1991). From a functionalist view, emotions prepare and orient an individual for action, while their expressions act as cues for others, underlining the social nature of emotions. This involves a constant evaluation of changing situations, accompanied by adjustments to physiological and behavioral functioning that enable a person to maintain a sense of well-being. For instance, happiness motivates a person to sustain their relationship with the environment, aiming to preserve a sense of well-being. Anger reflects attempts to change one's relationship with the environment and overcome obstacles to well-being. Sadness conveys the withdrawal of efforts to influence one's relation with the environment and relinquish a specific well-being goal. Fear is a response to remove oneself from danger and evade threats to well-being.

Understanding the appropriate times and methods to express emotions in social environments aids in managing emotions, resolving social issues, and fostering and sustaining relationships (Gross, 2014). Such perspectives are crucial to understanding how emotions are regulated in social contexts. For instance, Kobak and Ferenz-Gillies (1995) applied this functionalist approach to examine the goals of adolescents and their

mothers. They identified autonomy-related goals in adolescents and attachment and intimacy goals in mothers. This led to the development of comprehensive assessments including parent-youth communication tasks and measures of mothers' emotional functioning. Their research highlights the role of emotion in monitoring goal pursuit, suggesting that hindered progress towards these goals might increase the risk of negative affect and depressive symptoms, especially in older adolescents. Specifically, their findings indicated that older adolescents struggling to assert autonomy in conflicts (as well as mothers' dissatisfaction in their adult relationships), exhibited heightened depressive symptoms. This aligns with the functionalist perspective, emphasizing the monitoring function of emotions in goal pursuit and how disruptions can impact mental health.

Moreover, sociocultural perspectives provide additional context by considering how emotional development is influenced by cultural norms (Cole & Tan, 2015). Emotions, shaped by cultural environments, evolve as individuals navigate various contexts eliciting strong emotions, presenting both challenges and opportunities for growth, particularly in social situations. For instance, emerging adults raised in cultures or families that put an emphasis on freely expressing emotions may be more likely to view emotional support from others as welcome and beneficial (Hall et al., 2017; Ishii et al., 2017). On the other hand, if one was raised in an environment that prioritized emotional restraint, emotional support may be less well-received, potentially being seen as disingenuous, invasive, or shameful (e.g., Mortenson, 2009). These perceptions are

typically shaped by youths' own experiences, conversations within one's family, and deep-rooted familial beliefs.

Emerging adulthood, typically spanning from the late teens through the twenties, presents a unique period for emotional processes. This stage of life is often marked by increased identity exploration, where newfound independence and the uncertainty of self-discovery introduce a spectrum of opportunities to evoke emotion (Arnett, 2015). Due to neurological changes (especially in the prefrontal cortex; Yurgelun-Todd, 2007) and accumulated life experiences, adolescents' and emerging adults' emotion regulation abilities improve. Such emotional developments become increasingly useful as youth become more independent from their caregivers. Emerging adulthood often ushers in many novel experiences and challenges that can evoke strong emotions, such as the start of secondary education or a career, living independently, and navigating romantic relationships (Levine et al., 2021; Smith et al., 2023). Other emotional changes during this phase include changes in social support. Shifts in youths' roles in the family (e.g., increased independence within the household, or moving out) often modify the social network an individual is enmeshed in, impacting emotional well-being (Arnett, 2015). It is also important to note that compared to childhood, adolescence and emerging adulthood see an increase in several mental health disorders (e.g., anxiety and mood disorders; Kessler et al., 2007), which can significantly alter emotional experiences (Tanner et al., 2019). In sum, emerging adulthood is a transformative time in emotional development and is informed by both internal processes and external circumstances.

Intrapersonal Emotion Regulation

Emotion regulation (ER) lies at the heart of human emotional experience. Gross (2015) conceptualized ER as the shaping of emotions in terms of their occurrence, intensity, and the way they are experienced or expressed. To date, the majority of ER research has examined *intra*-personal ER, which refers to a person's own efforts in regulating their own emotions (Thompson, 2011). The modal model of emotion is particularly useful for conceptualizing intrapersonal ER (Gross, 2015), separating the processes into five key domains: situation selection, situation modification, attentional deployment, cognitive change, and response modulation. Specifically, situation selection is about actively opting for or avoiding settings that could arouse certain emotions. Situation modification, on the other hand, is the act of altering a situation to modify its emotional impact. Attentional deployment refers to shifting focus within an event to intensify or mitigate the emotion experienced. Cognitive change involves modifying one's perception of a situation, often referred to as reappraisal. Finally, response modulation pertains to the direct adjustment of the emotional response, such as through behavior or physiology.

This structured understanding of ER is particularly pertinent during emerging adulthood, as intrapersonal ER abilities play a crucial role in emotional well-being (e.g., Smith et al., 2023; Webb et al., 2012). On the cognitive side of ER, individuals often employ strategies to mentally process and respond to emotions (Garnefski & Kraaij, 2006; Garnefski et al., 2001; John & Eng, 2014). Some of these include rumination (continuously mulling over the causes and consequences of an emotional experience),

positive reappraisal (thinking about how one can learn from the situation, or finding the "silver lining"), perspective-taking (such as comparing emotional challenges to potentially worse situations), and refocusing/distraction (directing attention to other stimuli or to more pleasant thoughts; Garnefski & Kraaij; 2001). These strategies can be used in tandem (such as reappraising *and* perspective-taking), sequentially (ruminating *then* refocusing), or in isolation.

Emphasizing the functional nature of emotions, it is crucial to acknowledge that successful ER does not inherently stem from *controlling* or *reducing* negative affect (Cole et al., 1994; Thompson, 2011). Difficulties fully experiencing and understanding emotions can be as maladaptive as the inability to calm intense negative emotions (Gross & Munoz, 1995). As such, effective ER not only involves altering emotional responses but also includes monitoring and understanding them (Sörman et al., 2022). In line with this, individuals may experience various difficulties regulating their emotions (Gratz & Roemer, 2004; Tull et al., 2010). These range from the nonacceptance of emotional responses, where one may become frustrated or angered by their own feelings, to challenges in goal-directed behavior where emotional upheaval prevents focusing on other tasks. Another difficulty is impulse control, which is struggling to manage immediate reactions to emotional experiences. A lack of emotional awareness and clarity can also thwart ER, such as finding it challenging to recognize, understand, or make sense of emotions. Lastly, having limited access to ER strategies can leave individuals feeling ill prepared to navigate emotional challenges.

The utility of framing ER in terms of strategies is not merely academic; it has real-world implications for emerging adults. Effective ER is intricately linked to improved well-being. For instance, those who can positively refocus or employ positive reappraisal might find themselves better equipped to handle the stressors associated with college or the early years of a career (e.g., Brockman et al., 2017; Spann et al., 2019; Waizman et al., 2023). In a recent study by Waizman and colleagues (2023), ER strategies (specifically cognitive reappraisal and expressive suppression) and emotion beliefs (i.e., the extent to which individuals believe their emotions are malleable versus fixed) were shown to predict shifts in anxiety symptoms and loneliness over five longitudinal assessments spanning six months, both before and during the early stages of the COVID-19 pandemic. Their findings showed that emerging adults experienced a decrease in anxiety following the pandemic's onset, which eventually returned to baseline, whereas levels of loneliness stayed mostly constant over time. While youths' beliefs about emotions accounted for variations in anxiety over time, higher use of reappraisal was associated with decreased loneliness levels, beyond the influence of emotional beliefs. Furthermore, the use of suppression was associated with increased anxiety and loneliness. In a similar vein, ER strategies can aid in the prevention of mental illness, as well as function as a mechanism through which mental illness is maintained—for instance, Pugach and Wisco (2023) found that higher levels of emotional clarity may help foster a healthy repertoire of ER strategies and protect against the development of PTSD among trauma-exposed college students. In another study, Ewing et al. (2019) found that over three years, a rise in stressful experiences for university student emerging

adults predicted increased risk for nonsuicidal self-injury through emotion dysregulation (i.e., difficulties in ER), while nonsuicidal self-injury also escalated the experience of stress—again mediated by emotion dysregulation. With the many challenges and transitions in emerging adulthood, studies such as these underscore the importance of effective ER, as ER influences mental health, interpersonal dynamics, and overall well-being. Moreover, it is crucial to acknowledge that ER does not exist in an intrapersonal vacuum—emotions are often regulated through social means.

Interpersonal Emotion Regulation

Interpersonal emotion regulation (IER) refers to the management of one's own and others' emotions through social interactions (Zaki & Williams, 2013). This includes intrinsic IER processes, in which a person seeks/receives emotional support from someone else (the main focus of this dissertation) and extrinsic IER, wherein a person attempts to change the emotional experience of another. As a relatively recent direction for the field, the development and effectiveness of IER remains an understudied process. Nonetheless, our understanding of IER is enriched by a substantial body of work on topics like social support (e.g., Cohen & Wills, 1985), social sharing of emotions (e.g., Rimé, 2009), and empathetic and altruistic behaviors (e.g., Eisenberg & Fabes, 1990). Insights from such studies highlight that while certain supportive strategies are generally more effective at regulating emotions, their utility is context-dependent.

Interpersonal emotion regulation (IER) and social support, though closely linked in the domain of interpersonal interactions, possess distinct nuances. At its core, IER is emotion-specific and goal-oriented (Barthel et al., 2018; Zaki & Williams, 2013). It does

not only address a general need or challenge but focuses on managing specific emotional states with a targeted outcome in mind (often a goal of feeling less negative affect). Social support, on the other hand, encompasses a broader range of behaviors intended to assist or benefit another, not strictly limited to emotional objectives (Dixon-Gordon et al., 2015; Thoits, 2011). Social support is commonly understood as the help provided by important individuals in one's life, with the main types of support being emotional, informational, and instrumental (House et al., 1985). Emotional support involves expressions of affection, esteem, encouragement, and empathy. Informational support encompasses the sharing of knowledge or guidance that can aid in problem-solving, which may also extend to appraisal support—like offering perspectives on one's interpretation of events and advising on potential actions (Cohen & Wills, 1985). Instrumental support includes tangible aid in completing tasks or resolving issues. The availability of these forms of support depends on the existence of social connections with others, and the extent and strength of an individual's social network can affect the type and amount of support received (Thoits, 2011). Similarities arise as both IER and social support revolve around social interactions that aim to alleviate distress or enhance well-being. However, while IER processes may broadly fall under the umbrella of social support, not all social support can be considered IER, as theorists stipulate that IER is a proactive process undertaken with the clear objective of altering emotional states (Zaki & Williams, 2013). Nonetheless, as the field of IER research grows, there is invaluable insight to gain from the established body of social support literature. For instance, in a meta-analysis of 170 studies (Rueger et al., 2016), parental social support was

significantly associated with lower levels of depression in children and adolescents, highlighting the integral role of parental support in youths' emotional health. Likewise, in a longitudinal study of emerging adults, Galambos and colleagues (2006) found that increases in social support were associated with increased psychological well-being, whereas longer periods of unemployment were related to higher depression and lower self-esteem. They also found that depression and expressed anger decreased fastest among emerging adults with two university-educated parents, possibly due to higher SES parents being better able to financially assist their children in making the transition to adulthood. Leveraging knowledge gained from such studies as these can expedite our understanding of the importance of IER processes, ensuring that the study of IER is not starting from scratch but building upon the substantial insights of related constructs.

Central to IER are distinct tendencies that individuals gravitate towards in their daily interactions (Altan-Atalay, 2019; Hofmann et al., 2016). One tendency is to enhance positive affect—seeking the company of others during moments of happiness, thus amplifying positive affect by sharing it with others. Another prevalent tendency is perspective taking, where individuals find solace in understanding that others might be facing even more challenging situations. There is also the tendency to engage in soothing, where individuals seek emotional comfort, particularly that of compassion and understanding from close others during distressing times. Lastly, the social modeling tendency is when individuals feel supported from learning about how others have navigated and coped with similar emotional experiences. Together, these tendencies underscore the ways our emotions are interlinked with the social world around us and are

a promising direction of research within emerging adulthood. In fact, Chan and Rawana (2021) found that tendencies for utilizing various IER strategies significantly related to the socioemotional development of emerging adults. In their study, a greater use of enhancing positive affect was related to fewer internalizing symptoms and increased overall well-being. Moreover, a greater tendency towards perspective taking was associated with reduced internalizing symptoms, enhanced well-being, and improved relationship quality. Given that intrapersonal ER abilities typically improve with age, emerging adults, who may not be as skilled in managing their emotions as other adults (Arnett, 2015), could particularly benefit from being reminded not to worry when confronting negative emotions. The findings of Chan and Rawana (2021) are also consistent with social sharing literature, which has found that individuals who share positive experiences with others tend to experience a boost in positive affect (Langston 1994) and overall life satisfaction (Gable et al., 2004; Quoidbach et al., 2010). On the other hand, Chan and Rawana (2021) also found that a greater tendency to rely on soothing was related to increased internalizing symptoms and diminished well-being, possibly reflecting a deficit in ER skills and a dependency on others for immediate comfort and reassurance. Additionally, a greater tendency for social modeling was related to elevated internalizing symptoms. However, the literature on this association presents mixed results (e.g., Aldao & Dixon-Gordon, 2014; Hofmann et al. 2016), suggesting that the effectiveness of social modeling for emerging adults may vary based on the specific ER strategies being observed and modeled. For example, Aldao and Dixon-Gordon (2014) found that behaviors similar to social modeling (e.g., advice seeking) were

negatively related to depressive symptoms. Conversely, when social modeling is used in contexts wherein the behavior observed has negative implications (such as consuming alcohol to dampen negative affect; Kuntsche et al., 2005), this strategy may have unintended consequences.

The landscape of IER is broad, encompassing a range of strategies that emerging adults can use to navigate their complex environments. Given that contemporary models conceptualizing IER have only recently emerged, and few measures exist to assess these frameworks (e.g., Hofmann et al., 2016; Niven et al., 2011; Swerdlow & Johnson, 2022), it can be difficult to succinctly operationalize the processes involved in IER. For instance, Tamminen and colleagues (2019) utilized a daily diary approach to assess IER processes in university athletes, measuring IER as "affect-improving" or "affect-worsening". They found that among athletes who perceived more esteem support (perceptions that teammates would enhance one's self-esteem or provide boosts of confidence), decreases in receiving affect-worsening IER prior to a competition predicted the team winning. Also employing longitudinal methods, Tran and colleagues (2023) examined IER within everyday social interactions. Their findings indicated that individuals engaged in extrinsic IER (regulating the emotions of others) approximately twice daily, intrinsic IER (regulating their own emotions through others) approximately once daily and regulated both their own and others' emotions within the same interaction approximately every other day. Compared to intrinsic IER, participants tended to engage in extrinsic IER more frequently and with greater effort. In such cases, the goal was often to enhance feelings of well-being for themselves or others, by increasing positive emotions instead of reducing

negative ones. It is important to note, however, that like the study with university athletes (Tamminen et al., 2019), Tran and colleagues (2023) did not assess specific IER processes—aside from "utilizing other people to regulate emotions", what behaviors or actions were employed to provide the regulation? Such omissions in longitudinal studies are often a result of reducing participant burden, yet nevertheless have left a gap in knowledge.

Throughout the literature three IER processes have garnered attention for their distinct roles and implications: emotional responsiveness, cognitive support, and neglect/hostility (Pauw et al., 2018; Rimé, 2009; Swerdlow & Johnson, 2022). These processes have not only been observed as prevalent in social interactions, but also have significant implications for well-being. While emotional responsiveness and cognitive support are generally associated with positive outcomes, such as improved mood and relationship quality (Cutrona & Russell, 2017; Levy-Gigi & Shamay-Tsoory, 2017), neglect/hostility can lead to adverse effects (Swerdlow et al., 2022), underlining the importance of adaptive IER strategies. My dissertation homes in on these three processes, in order to unravel the nuances of their influence and their contextual effectiveness for emerging adults.

Emotional responsiveness encompasses IER strategies such as displaying care, understanding, validation, empathetic concern, promoting social sharing of emotions, and providing a comforting physical presence (e.g., Chan & Rawana, 2021; Lougheed et al., 2016; Ray-Yol et al., 2022; Swerdlow & Johnson, 2022; Wang, 2019). These supportive responses tend to be associated with immediate alleviation of distress. Most research has

associated the use of emotional responsiveness with beneficial outcomes, such as higher relationship quality (Cutrona & Russell, 2017), positive mood (Levy-Gigi & Shamay-Tsoory, 2017), and prosocial behavior (Eisenberg & Fabes, 1990). In a 2022 study of undergraduate students, Swerdlow and colleagues found that emotional responsiveness was positively related to perceived helpfulness of recent IER interaction. They further found that individuals who received emotional responsiveness tended to experience less negative affectivity, less expressive suppression of emotions, and less shame in relation to their IER interaction.

On the other hand, cognitive support often involves strategies like reappraisal, informational support, planning, problem-solving, and perspective-taking. Those who receive cognitive support report having fewer emotional difficulties (Chan & Rawana, 2021), decreased distress (Levy-Gigi & Shamay-Tsoory, 2017), and greater perceived helpfulness of given support (Sahi et al., 2022). Interestingly, prior studies have confirmed that individuals typically view both emotional responsiveness and cognitive support as effective and advantageous methods of assistance (Newman & Davis, 2023; Swerdlow & Johnson, 2022). Furthermore, Swerdlow and colleagues (2022) found that cognitive support was positively related to perceived helpfulness of a recent IER interaction. Similar to receiving emotion responsiveness, emerging adults who received cognitive support tended to experience less negative affectivity, less expressive suppression of emotions, and less shame in relation to their IER interaction.

Neglect/hostility represents a dimension of IER that diverges from the supportive elements of emotional responsiveness and cognitive support. Rather than fostering

understanding or offering constructive means of coping, neglect/hostility encompasses behaviors that are dismissive, invalidating, or even aggressive towards an individual's emotional experiences (Swerdlow & Johnson, 2022). Such reactions can stem from a myriad of factors, including a provider's misplaced efforts, emotional discomfort, lack of empathy, or even intentional malice (Burleson, 2008; Niven et al., 2011). Research indicates that encountering neglect or hostility while in the midst of an emotional experience can exacerbate distress (López-Pérez et al., 2017), erode trust in relationships, and potentially lead to further emotional complications, such as experiences of shame (Swerdlow et al., 2022). In contrast to the typically uplifting effects of emotional responsiveness and cognitive support, the implications of neglect/hostility in interpersonal contexts are often detrimental, underscoring the pivotal role of adaptive IER in emotional well-being and the potential downsides of its maladaptive forms. However, as in intrapersonal ER, the effectiveness of IER processes is context dependent, and it is likely that no one process is purely adaptive or maladaptive.

Contextualizing the Utility of IER

IER plays a foundational role in shaping emotional experiences, particularly within the nuanced context of parent-youth relationships. Central to understanding the dynamics and effectiveness of IER is the concept of cognitive appraisal, which can help explain how emerging adults evaluate and interpret IER attempts by their parents. Concurrently, parental autonomy support emerges as a pivotal factor, likely influencing how these regulatory endeavors are perceived. It can also serve as a backdrop against which emerging adults gauge the sincerity and intention behind parent-provided IER.

Adding another layer of complexity is the context of familial and cultural backgrounds, which carry unique beliefs, values, and emotional norms. These cultural and familial underpinnings likely shape expectations, interpretations, and the overall landscape of IER. Together, cognitive appraisal, parental autonomy support, and cultural background create a multifaceted framework through which the utility of parent-provided IER can be understood.

Cognitive Appraisal of IER

Cognitive appraisal theory is a useful framework for understanding the effectiveness of perceived IER from parents, as it centers on the ways individuals evaluate and interpret emotional events. This theory posits that our emotional responses to a situation arise not just from the event itself, but from how we appraise it (e.g., Collins & Feeney, 2004; Davis et al., 2023; Marroquín et al., 2019; Hudek-Knežević & Kardum, 2000). For instance, Collins and Feeney (2004) explored the relationship between attachment styles and perceptions of social support in their research. Their initial study employed an experimental approach, manipulating social support levels during a stress-inducing task. Participants with insecure attachment styles (both anxious and avoidant) who were exposed to messages with low support tended to interpret these messages more negatively. They also viewed prior interactions with their partners as less supportive and demonstrated poorer performance in the task compared to their secure counterparts. In a subsequent study, using a similar setup, partners provided authentic support messages. Here, insecure participants, particularly those with a fearful attachment style, perceived these messages as less supportive. This perception held true even when

accounting for independent evaluations of the messages and relationship-specific expectations. These findings illustrate cognitive appraisal theory in action: individuals interpret support based on factors beyond the actual interaction. When applied to parent-provided IER, it suggests that the effectiveness of a parent's emotional support is not solely determined by the overt action or words, but also by the youth's interpretation of those actions. For instance, a parent's attempt to offer reassurance might be perceived differently based on an emerging adult's appraisal: one might see it as genuine concern and feel comforted, while another might perceive it as dismissive and feel invalidated. Through the lens of cognitive appraisal theory, the importance of perception in these interactions is underscored, emphasizing that for IER processes to be effective, they must align not only with the parent's intent but also with the emerging adult's appraisal of that intent.

Parental Autonomy Support

Research has highlighted parental autonomy support as an important factor in supporting healthy socioemotional development. According to self-determination theory (SDT; Ryan & Deci, 2017), motivation can be framed within three psychological needs: competence, relatedness, and autonomy. SDT suggests that our ability to make choices and regulate behavior is reliant on these three innate needs. Competence is the need to be effective and gain mastery of various skills and tasks. When people feel like they are competent they can successfully engage in activities that are important to them. When competence is lacking, one may experience frustration or helplessness. Relatedness concerns the need to experience a sense of belonging with other people—i.e., feeling

bonded with and significant to those around them. If people lack relatedness, they may experience social alienation, exclusion, and loneliness. Finally, autonomy refers to the need to feel in control of one's own behaviors and goals. When this need is satisfied, individuals feel authentic, and when autonomy is thwarted, people feel conflicted and often pressured to behave in inauthentic ways. Important others (e.g., parents) can either support or thwart autonomy. When supporting autonomy, parents are expressing that they accept and support their children for who they are and what they are experiencing. This can be conveyed through practices like providing meaningful choices, encouraging initiative and exploration, offering rationales when making rules or limitations, and acknowledging feelings (Mageau et al., 2015). In a prospective longitudinal study, Koestner and colleagues (2020) found that goal support from emerging adults' parents was associated with increased well-being throughout the academic year, particularly when this support was autonomy-supportive (characterized by empathy and encouragement of volitional functioning). It was also revealed that parental autonomy support positively affected emerging adults' subjective well-being over the year. This effect was mediated by improvements in their progress towards personal goals and an enhanced sense of personal autonomy in their daily lives. Such findings highlight that the psychological impacts of parental socialization continue past childhood and have tangible impacts on well-being.

The association between parental autonomy support and socioemotional functioning suggests that a lack of autonomy support contributes to the development of poor emotion regulation skills (Benita et al., 2019), in addition to several

psychopathological outcomes (e.g., anxiety, depression, mood disorders; Brenning et al., 2015; Gong & Wang, 2021). In adolescence and early adulthood, higher levels of parental autonomy support are related to greater social competence, higher self-efficacy, effective emotion regulation, and general healthy psychosocial functioning (Brenning et al., 2015; Soenens et al., 2007; Won & Yu, 2018). For instance, Brenning and colleagues (2015) conducted a longitudinal study to explore the relationship between early adolescents' perceptions of maternal autonomy-supportive parenting and their engagement with three ER processes: emotional integration (a willingness to fully acknowledge and experience emotions in an unbiased way), suppressive regulation (the avoidance or minimization of emotional experiences), and dysregulation (strategies that are ineffective at downregulating negative emotions). The findings revealed that when mothers were perceived as providing autonomy support, there was a notable increase in adolescents' use of emotional integration and a decrease in suppressive regulation. Conversely, an increase in emotional dysregulation was linked to a perceived decrease in maternal autonomy support. Additionally, increases in emotional integration were associated with increased self-esteem, while decreases in suppressive regulation were associated with decreased depression. Collectively, these findings suggest that early adolescents who view their mothers as autonomy-supportive tend to develop more adaptive ER strategies, leading to better emotional and psychological adjustment. Likewise, other research has found that lower levels of parental autonomy support are associated with emotion dysregulation (Roth & Assor, 2012), and greater likelihood of developing internalizing and externalizing problems (Gong & Wang, 2021; Pinquart, 2017).

Past research regarding types of social support and wellness highlights autonomy support as one possible moderator (e.g., Guntzviller et al., 2017; Lougheed et al., 2016; Newman & Davis, 2023; Ryan et al., 2005), such that social support is most effective in conditions of high autonomy support. For instance, Ryan and colleagues (2005) found that youth reported greater willingness to rely on a parent for emotional support when they perceived their parent to be more autonomy supportive and less controlling. Moreover, the best psychological adjustment was found for youth who were willing to rely on mothers who were responsive to their needs, as well as for youth who were not willing to rely on unresponsive mothers. Over repeated exchanges across development, parental autonomy support may influence youths' cognitive appraisals, or interpretations, of IER interactions. When autonomy support is high, youth may tend to interpret emotional responsiveness and cognitive support as genuine care and understanding, leading to a positive appraisal of the interaction's effectiveness. In fact, in my recent study of emerging adults (Newman & Davis, 2023), I found that parental autonomy support moderated the relation between parent-provided IER and its perceived effectiveness, such that at higher levels of support, parental emotional responsiveness and cognitive support related to higher perceived IER effectiveness. It is also possible that at low levels of autonomy support, youth may interpret these interactions as less genuine, leading to a less positive appraisal and reduced perception of effectiveness. This reasoning is further extended to highlight that cognitive appraisal perspectives provide a theoretical basis for expecting parental autonomy support to qualify the perceived effectiveness of IER (i.e., a moderation effect). Specifically, the degree of autonomy

support offered by parents may contextualize how youth appraise and interpret interactions with parents, ultimately shaping their perception of the effectiveness of parent-provided IER.

Family and Cultural Background

Given the highly diverse racial and ethnic composition of the undergraduate student population at UC Riverside, it is essential to integrate considerations of identity—race, ethnicity, culture, etc.—into my dissertation. Specifically, in the social sciences at UCR, 42.2% of students identify as Hispanic/Latinx, followed by 32.5% Asian, 10.5% White, 7.6% African American, and 5.5% international (*Fall Enrollment at a Glance*, 2023). This diversity offers a unique opportunity to explore how varying cultural and familial backgrounds relate to the effectiveness of parent-provided IER. This approach ensures that findings are relevant to a wide range of people, providing insights that are inclusive and representative of the diverse experiences of emerging adults.

Family and cultural background play an important role in shaping the dynamics and effectiveness of parent-provided IER. Families, each with their distinct histories, traditions, and relational dynamics, inherently foster unique emotional environments. For instance, in some families, open expression of emotions may be encouraged, leading youth to perceive emotional responsiveness as genuine and effective (e.g., Hall et al., 2017; Ishii et al., 2017). Conversely, in families where emotional restraint is valued, explicit IER processes may not resonate as well, as youth may perceive them as shameful, inauthentic, or even intrusive (e.g., Mortenson, 2009). The lens through which

these interactions are evaluated is often informed by long-standing family beliefs, values, and past emotional exchanges.

It is very likely that broader cultural contexts also inform perception and effectiveness of parent-provided IER. Cultural norms dictate not just which emotions are acceptable to express, but also the appropriate ways to regulate them. For instance, in collectivist cultures that emphasize group harmony, indirect and non-verbal forms of IER, like acts of service or physical presence, might be more valued and effective than direct verbal reassurances or advice (e.g., Kim et al., 2006; Markus & Kitayama, 1991; Mortenson, 2009). On the other hand, in individualistic cultures, where personal autonomy and expression are prioritized, direct communication and problem-solving might be perceived as more genuine and supportive (Hall et al., 2017; Ishii et al., 2017; Ryan et al., 2005). For instance, Kim et al. (2006) investigated if individuals from collectivistic cultures are less inclined to seek social support compared to those from individualistic cultures, due to concerns about disrupting their social networks. They found that Asian and Latinx Americans, representing a more collectivistic background, were less likely to seek social support and perceived it as less effective than White participants, who came from more individualistic cultures. The research also revealed that while White participants' likelihood of seeking support remained stable regardless of relationship dynamics, Asian and Latinx Americans were less likely to seek support when they were primed to think about people they were close with. Further, they found that the general tendency to seek and expect helpfulness from social support was linked to concerns about relationship impacts, such that those from more collectivist cultures were

more concerned about negatively affecting their social network. These findings highlight the significant role that cultural differences in relationship dynamics play in how social support is sought and perceived. Therefore, understanding the cultural and familial backdrop is pivotal to gauging the effectiveness of parent-provided IER for emerging adults.

Given the demographic breakdown of UC Riverside students, it is important to further address how IER may operate within specific ethnic groups. Regarding Hispanic and Latinx youth, Sasser and colleagues (2023), utilizing a three-wave longitudinal approach, offer valuable insights into this. Their study investigated Hispanic and Latinx emerging adults, and explored changes in perceived family dynamics, such as parental support, monitoring, and communication, as well as adjustment outcomes, like depressive symptoms and alcohol use. Focusing on the transition from high school to college, they found that perceptions of parental support during high school were prospectively linked to improved family communication in the first semester of college. Such findings highlight the downstream, promotive effects of family communication prior to the college transition. Moreover, Sasser and colleagues (2023) utilized a strengths-based approach to their research, emphasizing the positive aspects of cultural values such as familism—a value deeply rooted in Hispanic or Latinx cultures that emphasizes reciprocity, loyalty, and commitment (Sabogal et al., 1987). Familism can profoundly influence how parent-provided IER is perceived and utilized by emerging adults. As such, healthy communication patterns established within the family prior to significant transitions, like starting college, may encourage emerging adults to continue seeking parental support. In

Hispanic or Latinx families, where the interconnectedness of family members is highly valued, the effectiveness of parent-provided IER might be enhanced. The supportive and communicative family environment may lead to more effective IER strategies, as parents would be well-positioned to understand and respond to their children's emotional needs during transitional periods.

Also relevant to Hispanic and Latinx families is the cultural norm of *machismo*. Arciniega and colleagues (2008) operationalize *machismo* in a bidimensional fashion, splitting it into two constructs: traditional *machismo* and *caballerismo*. Traditional *machismo* emphasizes male dominance and the suppression of emotional expression. In environments where traditional *machismo* is strong, men may feel pressured to exhibit stoicism and control, often discouraging open emotional communication and vulnerability. This may lead to a lack of emotional support and understanding among family members, as men struggle to express themselves or seek emotional support (Lane & Addis, 2005; Ramos-Sánchez & Atkinson, 2009). However, *machismo* can also serve adaptive or protective functions, such as fostering resilience and a sense of responsibility in challenging situations. The ostensibly positive dimension of *machismo*, *caballerismo*, encompasses attributes such as chivalry, respect, and honor, and has been related to social responsibility and emotional awareness (Arciniega et al., 2008). The emphasis on these characteristics can be beneficial in providing stability and security and may reinforce a strong commitment to family welfare.

The dynamics of social support seeking among Asian American emerging adults also reveals interesting patterns informed by cultural values. For instance, Wang and Lau

(2015) found that Asian American college students more frequently seek support from peers than from their parents. This is in line with research that suggests that those from collectivistic cultural heritages are less likely to seek support from individuals who are closer to the self (Kim et al., 2006; Wang et al., 2010). One explanation for this finding is that in collectivistic cultures, the welfare of the social relationship is often prioritized over the individual's experiences or desires. The possibility of worrying a social partner, or burdening them with one's own problems, acts as a threat to the harmony of the relationship. As family connections are likely to be viewed as long-term, youth may feel more motivated to protect these bonds, compared to peer bonds, which tend to be shorter-term and less obligatory.

It is also important to consider how other factors, such as need satisfaction (autonomy, relatedness, and competence) operate within a family's culture, in order to better understand how parent-provided IER functions. Cross-cultural research often highlights how cultural differences impact individual well-being in specific cultural contexts. For example, a study by Oishi and colleagues (1999) revealed that in countries with high levels of individualism, personal satisfaction and autonomy were more strongly correlated with overall life satisfaction than in countries with low levels of individualism. Findings like this have led some researchers to propose that autonomy may be more beneficial for those in individualistic societies, where independence and self-reliance are prioritized (e.g., Iyengar & Devoe, 2003; Uchida & Kitayama, 2009). In more collectivist cultures, well-being may be more closely tied to the quality of one's relationships and the ability to function within social groups, as interdependence tends to be prioritized over

individual autonomy (Iyengar & Lepper, 1999; Uchida et al., 2004). However, Chen and colleagues (2015) argued that the fulfillment of psychological needs can be achieved through various means that align with the values and practices of different cultural contexts. For instance, in societies with a collectivist orientation, individuals may experience a sense of autonomy when adhering to the advice of significant others, while in cultures with an individualistic orientation, autonomy might be felt more strongly when making personal decisions and expressing individual opinions. Although the specific behaviors that lead to need satisfaction may vary across cultures, the end result tends to be similar: individuals experience feelings of effectiveness, volition, and connection with others. This suggests that while the ways of achieving need satisfaction might differ based on cultural influences, the positive effects associated with fulfilling these needs are universal. In support of this, in a cross-cultural study conducted across Belgium, China, the USA, and Peru, Chen and colleagues (2015) examined the relationship between the psychological needs for autonomy, relatedness, and competence and overall well-being. They found that the positive association between psychological need satisfaction and well-being were consistent across all four countries. Interestingly, these effects were not significantly influenced by individual variations in the desire for need satisfaction, underscoring the universal nature of these psychological needs and their impact on well-being. This universality in need satisfaction is particularly relevant in the context of parent-provided IER. It suggests that while the specific ways parents support their children's emotional needs may vary across cultures, the fundamental impact of this support on well-being is a common thread. Understanding these cultural

nuances in emotional processes, while recognizing the shared importance of such support in fostering well-being, is crucial for a comprehensive view of parent-child dynamics in varying cultural contexts.

IER Through a Temporal Lens

Past instances of parent-provided IER play an essential role in shaping the foundation of future parent-youth IER experiences. Childhood and adolescence are formative years, in which the emotional strategies and responses that parents employ have a lasting impact on the emotional development of the child (e.g. Briscoe et al., 2019; Cabecinha-Alati et al., 2020; Fosco et al., 2012; Hajal & Paley, 2020; McKee et al., 2021; Shih et al., 2018). For instance, in a study that collected data from participants in early childhood and adolescence, Briscoe and colleagues (2019) found that when mothers consistently implemented supportive emotion socialization during the early years of their children's development, there was a subsequent decrease in the children's internalizing symptoms during adolescence. Additionally, when mothers responded punitively to their young children's emotions, this was linked to an increase in negative emotionality in adolescence. Interestingly, remembered experiences of emotion socialization can be similarly impactful for well-being (McKee et al., 2021; Ryan et al., 2005). McKee and colleagues (2021) demonstrated that recollections of parental emotion socialization during one's childhood were associated with internalizing symptoms in emerging adulthood, mediated by present mindfulness and cognitive reappraisal. Maternal support in response to negative emotions during childhood was a predictor of future mindfulness, and this increased mindfulness was related to a greater use of cognitive reappraisal.

Additionally, higher use of cognitive reappraisal was found to be associated with fewer internalizing symptoms. Such findings suggest that parents serve as primary emotion socializers for their children, especially in early life. When parents consistently respond to their child's emotions with understanding, validation, and guidance, they foster an environment of trust and emotional safety (Janssen et al., 2021; Joussemet et al., 2008). This foundation means that in subsequent years, youth may be likely to approach parents with emotional concerns and feel confident in receiving effective support (Luebbe et al., 2018). Conversely, if past interactions were characterized by dismissal, hostility, or oversolicitousness it could create an emotional rift, making future IER interactions challenging and characterized by hesitation or mistrust (Segrin et al., 2012; Roth & Assor, 2012).

From childhood into adolescence and emerging adulthood, these patterns of parent-provided IER become established, guiding the dynamics of the child's interpersonal emotional interactions. To date, few studies have examined how IER in childhood informs IER in later life, although research that focuses on changes in parent-child relationship quality can help demystify these processes. In a prospective longitudinal study, Fang and colleagues (2022) explored how both the starting intensity and the change over time of parenting practices—specifically parental involvement, warmth, and discipline—throughout late childhood and adolescence related to the quality of relationships between emerging adults and their parents. Their findings indicated that both the initial levels and the trajectory of change in these three domains of parenting were predictive of various facets of the parent-youth relationship. Notably, higher initial

levels and a less steep decline of parental warmth were associated with greater closeness with parents in emerging adulthood—highlighting that parenting patterns established during childhood and adolescence are foundational, significantly influencing the quality of their future relationships with their parents. Although not specifically addressing IER, such findings provide context to research that implicates relationship quality as a predictor of successful IER (e.g., Lougheed et al., 2016; Sahi et al., 2023). Moreover, the consistency or inconsistency of past IER experiences likely becomes the lens through which youth interpret and anticipate future emotional support from their parents (Ryan et al., 2005; Wang, 2019; Williams et al., 2018). As previously discussed, Ryan and colleagues (2005) found that the best psychological adjustment was for youth who were willing to rely on mothers who were responsive to their needs, as well as for youth who were not willing to rely on unresponsive mothers. Thus, this perception of a parent's ability to provide effective IER affects the immediate parent-youth relationship but can also shape youths' broader emotional functioning.

Recent instances of parent-provided IER are particularly important for contextualizing parent-youth IER experiences. While emotional patterns established during childhood play a crucial role in shaping long-term expectations and experiences, recent interactions act as immediate precursors that set the tone for future IER interactions. If an emerging adult recently experienced effective IER with their parent (such as feeling heard, validated, and comforted) they may be more likely to seek out their parent for emotional support in the near future (Benita et al., 2019; Ryan et al., 2005). This immediate reinforcement likely strengthens the relationship and fosters an

environment where open communication about emotions can exist. On the other hand, if recent interactions were characterized by misunderstandings, dismissiveness, overcontrol, or conflict, it can introduce a sense of doubt or bias for youth in the perceived effectiveness of future IER interactions (Segrin et al., 2012; Roth & Assor, 2012). Moreover, in my prior study on parent-provided IER (Newman & Davis, 2023), I included a free-response prompt for participants to describe a recent instance they received emotional support from a parent. Although I did not include this qualitative data in my publication, one of the themes that emerged was participants providing unprompted context to their parent-provided IER—such as "[my mother] has always tried to educate herself and learn more about what is bothering me"; "my dad was always telling me what to do all my life"; and "can't remember the last time [my mother] has given me any support for anything." Thus, it is likely that youth are recollecting past interactions with parents even as they are describing a specific instance of emotional support. These past interactions may act as a barometer, gauging the likelihood of successful parent-provided IER.

Ecological Momentary Assessment of IER

As previously discussed, emerging adults are often navigating new roles and environments, which can make emotions particularly intense and variable. Traditional retrospective methods of studying ER might not capture the dynamic nature of these experiences. The majority of IER research utilizes retrospective and single time-point data collection (e.g., Altan-Atalay, 2019; Chan & Rawana, 2021; Lougheed et al., 2016; Ray-Yol et al., 2022), and few studies have employed longitudinal methods (e.g.,

Swerdlow et al., 2022; Springstein et al., 2023; Tamminen et al., 2019; Tran et al., 2023). Ecological Momentary Assessment (EMA), however, would allow for the assessment of IER processes as they occur day-to-day, offering insights into the effectiveness of strategies and contexts that inform them (Bylsma & Rottenberg, 2011; Shiffman et al., 2008). EMA is a research methodology known for its ability to capture ecologically valid data, providing a nuanced understanding of individuals' behaviors, thoughts, and emotions as they occur in their natural environments (see Shiffman et al., 2008 for a comprehensive review). This method involves prompting participants to report about their experiences at specific moments each day, typically through surveys on smartphones or other mobile devices. Broadly however, EMA is not just one method or a specific technology; instead, it is a term used to describe a number of methods that all revolve around real-time data collection in natural environments. This can include traditional diaries using paper and pencil, or phone-based methods (e.g., apps, texts, and emails). It also includes ambulatory physiological monitoring and even the tracking of medication adherence through specialized pill bottles. While the technologies and data collection schedules may vary across these methods, they all share the common goal of gathering data repeatedly, promptly, and within participants' everyday settings. Moreover, the strength of EMA lies in its timing and ability to capture contexts that participants might otherwise be unaware of, thus reducing recall bias and enhancing the ecological validity of findings (Shiffman et al., 2008). By prompting participants to report their experiences close to the time they occur, EMA can collect data with more subtleties that might otherwise be missed or altered in retrospective reports.

EMA is particularly valuable in fields like developmental and social psychology, where understanding the dynamics of experiences and behaviors in their authentic context is crucial to understanding their causes and consequences. The development of EMA methods was, to some extent, motivated by the shortcomings associated with retrospective recall. Despite people feeling generally confident in their memory capabilities, research in the field of autobiographical memory has consistently demonstrated that our memories can often be surprisingly unreliable (Bradburn et al., 1987; Horselenberg et al., 2004; Merckelbach et al., 1997). To combat this, EMA research encompasses a wide range of repeated measures, varying in duration and intensity of assessment. Some studies adopt a frequent assessment approach, evaluating participants as often as every 30 minutes over several days (Shiffman et al., 2008). Conversely, others might conduct assessments less regularly, such as daily, extending over longer periods (Shiffman et al., 2008; Tamminen et al., 2019; Tran et al., 2023). For instance, using both daily diary and experience sampling, Tran and colleagues (2023) found that nearly every participant engaged in IER at least once during the study period. They also found that individuals put more effort into and more frequently engaged in extrinsic IER, rather than seeking help to regulate their own emotions. Research such as this highlights the usefulness of assessing emotion processes longitudinally, as opposed to cross-sectionally.

The transition to adulthood is a time when social relationships take on new meanings and complexities, yet we know very little about day-to-day IER processes during this developmental phase. Due to this gap in the literature, it may be useful to

explore how IER processes function during other transitional life phases, such as in adolescence. In a study by Do and colleagues (2023) focusing on early adolescent girls, it was found that both parents and peers played a significant role in helping youth manage their daily negative emotions. The study revealed that when the girls received assistance from either their parents or peers, they were less likely to report persistent negative affect at the time they responded to the EMA prompt. Moreover, in an EMA study pertaining to parental support of adolescents, Janssen and colleagues (2021) found that adolescents generally reported higher negative mood on days they felt less support from their parents. However, the strength of this association varied significantly among individuals, partly due to differences in depressive symptoms and perceived parental intrusiveness. In one of the few EMA studies that has assessed IER in emerging adults, Swerdlow and colleagues (2022) found that even when emerging adults' IER interactions were perceived as effective, they could still elicit feelings of shame, indicating that shame is not necessarily the result of ineffective IER. Likewise, Tamminen and colleagues (2019) examined the impact of IER among emerging adult university athletes over a 10-day period using daily EMA. As discussed previously, the study focused on how athletes' engagement in IER, particularly in affect-improving or affect-worsening interactions with teammates, changed in the days before and after a competition. Findings indicated a decrease in affect-worsening IER before competitions and a reduction in both providing and receiving affect-improving IER after competitions. Such studies highlight the complexity of emotional outcomes in IER during the transitional developmental phases, even when the interactions are otherwise perceived as successful.

As IER is inherently a social process, EMA can provide data that is not only more detailed but also more fully situated within the relational dynamics that are central to emerging adulthood (Bylsma & Rottenberg, 2011). It can document how IER strategies function over time and how they are informed by the shifting social environments that emerging adults encounter. EMA can also be tailored to examine the role of contextual factors, such as the type of IER support or the nature of the stressor. However, it is important to note that EMA does have limitations, namely in capturing enough data for analysis in the case of low frequency behaviors. Regardless, describing such data would be useful to provide a first step towards better understanding an understudied phenomenon. In sum, EMA stands out as a methodologically useful approach to studying IER in emerging adulthood. Its contextual and nuanced data collection fits well with the dynamic and socially embedded nature of emotion regulation during this developmental phase. Through EMA, we can hopefully deepen our understanding of the immediate and long-term patterns of IER, ultimately contributing to the well-being and successful transition of youth into adulthood.

Current Study

IER takes many forms, and its effectiveness is often contextualized by the type of support being offered (e.g., emotional responsiveness, cognitive support), youths' intrapersonal ER abilities, relationship quality, and desire for IER. The role of parental autonomy support (conveying authentic support for another person) in IER processes is underexplored, particularly between emerging adults and parents. As perception guides current and subsequent behavior, youths' interpretations of parent-provided support likely

influence their motivation to engage with future support opportunities. Therefore, the goal of this dissertation is to explore how parental autonomy support and recent instances of parent-youth IER inform youths' subsequent IER goals, support seeking behavior, and perception of IER effectiveness. My study additionally aims to describe and predict the frequency and quality of parent-youth IER interactions—I will highlight factors that are implicated in these parent-youth IER interactions, such as past experiences with IER, youths' individual emotional and social functioning (e.g., intrapersonal ER abilities), aspects of parent-youth relationship quality (e.g., parental autonomy support, parent-child relatedness), and cultural expectations. To examine these processes, participants completed surveys, one interview, and reported on their daily emotional experiences for ten consecutive days.

Research Questions and Hypotheses

My first research question pertains to remembered instances of parent-youth IER. Specifically, how do youths' perceptions of remembered parent-youth IER interactions relate to their desire for subsequent parent-provided IER? Moreover, to what extent do factors such as intrapersonal ER abilities, familial expectations, and parental autonomy support contextualize or even moderate this association? I hypothesize that youth who remember past parent-youth IER interactions as effective will report increased desire for subsequent parent-provided IER. Furthermore, youth who report parent-provided IER characterized by emotional responsiveness and cognitive support will also indicate an increased desire for subsequent parent-provided IER. Associations between parent-

provided IER processes and parental autonomy support, intrapersonal ER abilities, and familial expectations are exploratory.

My second research question focuses on emerging adults' general tendencies to use IER. What are the individual and joint effects of parental autonomy support and youths' tendencies to utilize IER on youths' perceptions of the effectiveness of parent-provided IER? I hypothesize that higher levels of parental autonomy support will be positively associated with youths' perceptions of the effectiveness of parent-provided IER. Likewise, youth with higher general tendencies to utilize IER will have more positive perceptions of the effectiveness of parent-provided IER. Youth who have high general tendencies to utilize IER and receive high levels of autonomy support from their parents will report the highest perceptions of parent-provided IER effectiveness.

My last research question investigates day-to-day experiences of emotions and parent-provided IER. How do day-to-day instances of parent-youth IER inform youths' overall perception of parent-provided IER effectiveness, and subsequent support seeking behavior and IER goals? I expect that youth who experience more frequent and effective parent-provided IER in their day-to-day lives will have higher perceptions of overall parent-provided IER effectiveness, as well as be more likely to seek out IER interactions with their parent in the future. Associations involving subsequent IER goals are exploratory.

Chapter 2

Method

Participants

Throughout the Winter and Spring 2024 quarters, I recruited UCR undergraduate students enrolled in one of the Introductory Psychology courses (PSYC001/V, PSYC002/V) through University of California, Riverside's SONA system. The entire sample consisted of 109 participants, all of whom completed the pre-interview surveys. The final sample consisted of 84 participants who completed all three parts of the study (pre-interview surveys, semi-structured interview, and 10-day EMA; the differences between these samples are described in the preliminary results). Accordingly, 84 ethnically diverse emerging adults (ages 18 – 25, M_{age} = 19.81 years, *SD* = 1.31, 73.8% women) completed all three parts of the study (36.9% Asian, 33.3% Latinx, 10.7% multi-racial, 7.1% White, 6% Middle Eastern, 6% Black). Participation in this study was voluntary, and if for any reason a student did not wish to participate in research, there was an alternative writing assignment they could complete to meet the course research participation requirement. Students from these Introductory Psychology courses were informed by their instructors that they must complete 4 credit hours of participation (via participation in a research study or written assignment) by the end of the academic quarter. They were directed to (1) register on the online research requirement tracking system; (2) sign up for studies; and (3) participate in the experiments. To qualify for this study, participants had to be between the ages of 18 and 25 (to be considered an emerging adult), have at least one living parent with whom they interacted regularly, indicate that

they were willing/able to complete the study procedures in English (as all materials will be in English), and have access to a computer/smart-phone capable of video-calls (i.e., Zoom). There were no other exclusionary criteria. This eligibility was conveyed to participants via recruitment in SONA and in the study description/consent.

Procedure

The study took place online, consisting of the following: First, participants completed multiple questionnaires via Qualtrics. These surveys could be accessed and completed via web browser (e.g., Google Chrome, Apple Safari) on computers, tablets, or smart phones. Second, participants who completed this initial survey were invited to participate in a semi-structured interview through Zoom. After the interview, participants were asked to complete an ecological momentary assessment (EMA) procedure for ten days in which they were prompted (via email) each evening to answer a short set of questions on Qualtrics. To reduce EMA attrition, at the end of the interview I asked participants to set an alarm on their mobile phones to alert them every evening at 7pm. Following the completion of the EMA, participants completed surveys similar to those at the beginning of the study.

Before beginning, participants signed up for all three parts of the study on SONA. Once they signed up for all study parts, they were given a link to access the initial survey (Part 1). In Part 1, participants completed a battery of survey questions to assess demographics and psychological factors (e.g., well-being, IER tendencies, parent-child relationship quality). Participants completed the initial survey before moving on to Part 2. In Part 2, participants completed a semi-structured interview with me via Zoom. The

interview consisted of questions such as how the participant perceives parent-provided IER, and their emotion regulation goals when engaging in said IER. Interviews lasted approximately 30 minutes. For Part 3, each evening for ten days participants reported on (1) their most prominent emotion eliciting experience, (2) whether they explicitly sought support from their parents, (3) what this support was, and (4) whether they perceived it as effective. Participants were reminded that one "day" included the time since they completed the previous evening's survey to the present moment. I used Qualtrics software to schedule email messages to be sent. A hyperlink in the email message opened a short Qualtrics survey. Participants received one email message per day at 7pm for ten consecutive days. Each EMA included 1 to 24 questions, depending on the participant's answers, and took less than five minutes. Following the completion of the EMA, participants completed a final survey similar to the survey at the beginning of the study, in which they were additionally prompted to reflect on their parent-provided IER interactions throughout the duration of the study, how effective they perceived their parents' support to be throughout the study, and whether they feel their emotion regulation goals have changed. This final survey took less than 30 minutes.

Measures

Copies of all measures are included in Appendix A.

Intrapersonal Emotion Regulation

The Difficulties in Emotion Regulation Scale (DERS; Gratz & Roemer, 2004) measured youths' emotion regulation difficulties. Participants completed the 36-item measure by rating items on a 5-point Likert scale (e.g., *1: almost never,* to *5: almost*

always). The measure provides a total of six subscales to represent various dimensions of emotion dysregulation: nonacceptance of emotion responses (e.g., *"When I'm upset, I become angry with myself for feeling that way"*), difficulty engaging in goal-directed behavior (e.g., *"When I'm upset, I have difficulty focusing on other things"*), impulse control difficulties (e.g., *"I experience my emotions as overwhelming and out of control"*), lack of emotional awareness (e.g., *"When I'm upset, I acknowledge my emotions"*; reverse-scored), limited access to emotion regulation strategies (e.g., *"When I'm upset, I believe there is nothing I can do to make myself feel better"*), and lack of emotional clarity (e.g., *"I have difficulty making sense out of my feelings"*). Emotion dysregulation scores were calculated by reverse scoring some items and then averaging the endorsement of items. A total DERS score was calculated by averaging all items. Higher scores indicated more emotion regulation difficulties. The original validation study with undergraduate students reported high internal consistency for the total DERS score ($\alpha = .93$), and good construct and predictive validity (Gratz & Roemer, 2004). In the present study, internal consistency was acceptable ($\alpha = .77$).

Interpersonal Emotion Regulation Tendencies

Tendency to utilize interpersonal emotion regulation (IER) was assessed with the Interpersonal Emotion Regulation Questionnaire (IERQ; Hofmann et al., 2016). Participants completed the 20-item measure by rating items on a 5-point Likert scale (e.g., *1: not true at all,* to *5: extremely true*). The measure provided a total of four subscales to represent the various ways in which people tend to utilize IER: enhancing positive affect (e.g., *"I like being around others when I'm excited to share my joy"*);

perspective taking (e.g., *"Having people remind me that others are worse off helps me when I'm upset"*); soothing (e.g., *"I look for other people to offer me compassion when I'm upset"*); and social modeling (e.g., *"When I'm sad, it helps me to hear how others have dealt with similar feelings"*). Subscales were calculated by summing each scale's items (five each). Higher scores indicate more endorsement of the IER tendency. The original validation study (Hofmann et al., 2016) reported high internal consistency, with Cronbach's alpha estimates ranging from .89 to .94. In the present study, internal consistency was good (αs = .83 – .89).

Parental Autonomy Support

Youths' perception of parental autonomy support was assessed by the Perceived Parental Autonomy Support Scale (24 items; Mageau et al., 2015), which includes autonomy support and psychological control. For the purposes of this study, I utilized only the autonomy support subscale (12 items), as actively supporting an individual's autonomy is distinct from simply avoiding controlling behaviors (and vice-versa). Although related constructs, offering autonomy support and engaging in controlling behaviors are separate actions with their own unique associations and outcomes (Vansteenkiste & Ryan 2013). The perceived parental autonomy support items were rated on a 7-point scale (e.g., *1: do not agree at all,* to *7: very strongly agree*), with youth endorsing aspects of parental autonomy support including being aware of, accepting, and recognizing the youth's feelings (e.g., *"My parents encouraged me to be myself"*); explaining the reasons behind the demands, rules, and limits (e.g., *"When my parents asked me to do something, they explained why they wanted me to do it"*); and offering

choices within certain limits (e.g., *"My parents hoped that I would make choices that corresponded to my interests and preferences regardless of what theirs were"*). Higher scores indicated perceptions of greater parental autonomy support. Reliability of this subscale in initial measure development was excellent (α = .94, Mageau et al., 2015). In the present study, internal consistency was excellent (maternal autonomy support α = .92, paternal autonomy support α = .91).

Parent-Child Relatedness

Parent-child relatedness was assessed by the Basic Need Satisfaction in Relationships measure (BNSR; La Guardia et al., 2000). This measure assessed three aspects of psychological fulfillment in relationships: autonomy, competence, and relatedness. Although participants completed the entire measure, using a 7-point scale (e.g., *1: not true at all,* to *7: very true*), this current study only utilized the subscale of parent-child relatedness (three items). Relatedness items were averaged and included the following: *"When I am with my parent, I feel loved and cared about", "When I am with my parent, I often feel a lot of distance in our relationship"* (reverse coded), and *"When I am with my parent, I feel a lot of closeness and intimacy."* Reliability of this subscale in initial measure development was excellent (αs > .94, La Guardia et al., 2000). In the present study, internal consistency was good (mother-child relatedness α = .82, father-child relatedness α = .84).

Ecological Momentary Assessment

Each evening for ten days, participants completed ecological momentary assessments (EMAs), where they reported on their most prominent emotion-eliciting experience and any emotional support they received from their parents (Appendix C).

Emotional Experience Context and Intrapersonal ER

Participants were first asked what they were most upset about. Choices included an economic or job issue, academic issue, cultural or societal issue, physical/mental health issue, family issue, romantic relationship issue, or peer/friend issue. There was also an "other" (write-in) option. Participants could also report, "I was not upset about anything today", which would end the EMA for the day. They were then asked how upset they were about the issue when they experienced it earlier in the day, as well as how upset they currently are about it. Participants indicated which intrapersonal ER strategies they utilized (by checking all that apply): rumination (thinking over and over about the issue); worrying (thinking about what bad things could happen in the future); avoidance (choosing to do something else or go somewhere else, like leaving the room); problem-solving (taking action to change the situation, minimize the consequences, or fix what caused the emotions); distraction (focusing your attention on something other than the situation, like listening to music or watching TV); reappraisal (changing what you think about the situation or changing what the situation means to you, like looking on the bright side, thinking about how it won't matter in 5 years); emotional suppression (not allowing yourself to feel your emotions); expressive suppression (not allowing yourself to express your emotions or not showing others how you feel, like hiding facial expressions);

acceptance (acknowledging and becoming aware of emotions without trying to change them, like telling yourself "It's okay I feel like this"); sharing (expressing and talking about emotions with another person); gratitude (focusing on what you are grateful for); physical activity (doing something physical, like exercising, working out, or purposefully changing your breathing); or other (write-in).

Daily Parent-Provided IER

Participants were then asked whether their parents tried to manage or change their emotions (regardless of whether this was helpful or not). If they responded with no, they were asked if anyone else (such as a peer) supported them. If they responded with no, the EMA ended. If they responded with yes regarding their parents, they were asked for contextualizing information, such as which parent (e.g., mother, father, both), and where the interaction took place (e.g., in-person, phone-call, texting). In the original study plan, participants would have then been asked whether they actively solicited the emotional support from their parents (i.e., "Yes, I approached my parent for emotional support" or "No, my parent offered support before I indicated (or without me expressing) that I wanted support"). Due to a technical error on Qualtrics, this question was not presented to participants. Similar questions were asked if participants reported that they received support from a non-parent, however, this data was not utilized in the current study. Next, participants indicated whether their parent provided them with emotional responsiveness (e.g., being caring, understanding, or validating), active care (e.g., cooking a nice meal, giving a gift), practical aid (e.g., fixing the problem that made them upset, such as paying for a bill or changing a flat tire), cognitive support (e.g., looking on the bright side,

problem-solving, providing information, or planning), and/or neglect/hostility (e.g., being invalidating, dismissive, or aggressive). Using a five-point Likert scale, they answered six questions regarding the effectiveness of the IER (i.e., "Overall, how much did that interaction help you to change how you were feeling?"; "How did that interaction change how you felt about yourself overall?"; "How did that interaction change how connected you felt to your parent?"; "How did that interaction change your ability to cope with the situation?"; "How did that interaction change your sense of control over your emotions?"; "How did that interaction change your ability to cope with the situation?"). Lastly, they were asked "How did that interaction change how willing you are to receive emotional support from your parent(s)?" (rated from 1 "felt much less willing" to 9 "felt much more willing").

Data Reduction and Coding

Tendency to Seek Parent-Provided IER

Youths' tendency to seek mother-provided and father-provided IER were assessed through the interview question, "When you feel upset, do you ever actively seek out your [mother/father] to help yourself feel better?" Responses were coded on a scale of 1 – 4, with 1 indicating never (e.g., "No, because I feel like sometimes she may not understand how I'm feeling or it might get [us] into an argument…"), 2 indicating rarely (e.g., "Usually not 'cause I like to keep things to myself and cope in that way. But if something is *really* bothering me, then I usually come to her and talk to her about it."), 3 indicating occasionally (e.g., "Not always, sometimes it's a situation where she probably will not understand regardless of how much I try to explain to her… But there are plenty of times

where I will ask her for support, especially if it's something I know that she can help me with…"), and 4 indicating very often/always (e.g., "I do, a lot… I like to tell her what's happening… Like just ranting– venting to her."). To assess the inter-rater reliability of the coding process, two independent coders evaluated a subset of the data. The coders underwent extensive training sessions and coded the data based on predefined criteria. Interclass correlation coefficient (ICC) was calculated to determine the agreement between the two coders. The ICC was 0.68 (95% CI [0.56, 0.79]), indicating acceptable agreement between the raters.

Remembered Parent-Provided IER

Remembered parent-provided IER was transcribed via Otter.ai (Otter.ai, 2024) from the semi-structured interview (Appendix B), edited for accuracy, and then coded by trained research assistants. There were two questions in the interview that ask participants about IER interactions with their parents. First, I prompted for general IER interactions with their parents: "If something unrelated to your parent(s) makes you feel upset or distressed, and your parent(s) is/are aware of your feelings, what do they do?" Responses to this prompt were coded for the presence or absence of IER processes, namely emotional responsiveness, active care, practical aid, cognitive support, hostility, and absence of support. These six processes better represented the data, compared to the original plan to only code for emotional responsiveness, cognitive support, and neglect/hostility. Nonetheless, conceptually, these processes group together as originally planned—emotional responsiveness and active care, practical aid and cognitive support, and hostility and absence of support. Cohen's Kappa was calculated to determine the

agreement between the two research assistant coders. The kappa value was 0.72 (SE = 0.08, 95% CI [0.61, 0.84]), indicating acceptable agreement between the raters (Landis & Koch, 1977). Next, I asked "On a scale of zero to 100, how helpful is it when your parent [does that]?" Lastly, to assess participants' perceptions of how parent-provided IER impacts their willingness to seek support in the future, I prompted "On a scale of zero to 100, when your parent [does that], how likely are you to seek their support in the future?"

In addition to general parent-provided IER, participants were prompted to reflect on a significant loss/transition and were given the opportunity to discuss interactions with their parents during this time. Specifically, participants were asked "Did your parent(s) do anything to try to help you get through this experience?" As before, this prompt was coded for the presence or absence of IER processes and the effectiveness of the IER. To assess participants' perceptions of how this experience of parent-provided IER impacted their willingness to seek support in the future, I asked, "Did sharing about this experience with your parent(s) impact your future decisions to share your feelings with them?" If the response was "No", it was coded as "no change." If the response was "Yes," an open-ended question of "In what way?" gauged how their future decisions were impacted, which was coded as "more willing," "less willing," or "in-between." Cohen's Kappa was calculated to determine the agreement between the two research assistant coders. For IER processes, the kappa value was 0.61 (SE = 0.09, 95% CI [0.49, 0.82]); for future IER willingness, the kappa value was 0.78 (SE = 0.07, 95% CI [0.64, 0.88])—overall indicating acceptable agreement between the raters (Landis & Koch, 1977).

The rationale for prompting participants about parent-provided IER processes in two distinct ways—general IER and significant loss/transition IER—was to capture parent-youth emotional interactions across different contexts. The general IER prompt was designed to understand the usual patterns of IER that parents provide when their children face everyday stressors. This helps to reveal the typical dynamics of the parent-youth relationship and the common IER strategies parents employ. On the other hand, the significant loss/transition IER prompt delves into the parent-youth interactions during more impactful and potentially life-altering events. This is critical because individuals may respond differently to high-stress situations compared to everyday problems. The support provided by parents during these times may be more intense, involved, or different in nature than the support provided during more routine upsets. Such a salient experience may also have stronger implications for emerging adults' future willingness to engage in parent-provided IER. By including both types of prompts, I aimed to distinguish between the everyday IER processes and those that are mobilized during more significant emotional challenges. This distinction is important because it further allows for the exploration of how parent-provided IER is context-dependent.

Familial Cultural Norms of Emotion

Familial cultural norms of emotion were coded from the interview question "Is there anything about your family's culture or background that you feel plays a role in how emotions are dealt with in the family?" The following codes were utilized (dummy coded 0 and 1): Nothing identified (e.g., "no" or "I don't think so"); Endorsed gender roles (i.e., does the participant's family endorse following gender norms related to

emotion, such as machismo, or men being stoic and unemotional, or women being more expressive); Rejected gender roles (i.e., does the family reject gender norms?); Acculturation/Immigration (i.e., does participant mention anything about how they or their family have emotion norms related to their heritage culture county they emigrated from, or how they have adapted to or borrowed aspects of US culture relating to emotion?); Expressive/emotional suppression (i.e., does the participant's family suppress the expression or experience of emotions, such as hiding negative feelings, dealing with their emotions on their own, trying to not feel negative emotions, etc.); Religiosity (i.e., does participant mention religion or spirituality playing a role in emotions within the family?); Intergenerational change (i.e., does the participant talk about how their parent(s) deal with emotions differently because they want their family to be different than from what they grew up experiencing?); and rejecting cultural norms (i.e., does participant mention that their family/parent(s) reject an emotion norm that is typical in their culture?). Interrater reliability kappa value was 0.66 (SE = 0.08, 95% CI [0.56, 0.72]), indicating acceptable agreement between the raters (Landis & Koch, 1977).

Subsequent Goals for Parent-Provided IER

Youths' subsequent goals for parent-provided IER were coded from the free-response survey data that participants completed after finishing the 10-day EMA period (Appendix D). Specifically, participants were asked: "Are there any specific goals you have for improving or maintaining the quality of your emotional support interactions with your parent(s)?" The following codes were utilized (dummy coded 0 and 1): No goal (i.e., participant indicates that they have no goals to change/maintain emotional support

interactions with their parents, such as “no” or “not really”); Same (i.e., participant indicates that their goal is to maintain their current relationship / keep things the same, such as “Just doing the same thing as I am now”); Closer (i.e., participant’s goal is to become closer with parent(s) and/or improve their relationship); Independent (i.e., participant’s goal is to become more independent from parent(s) or rely on them less); Open (i.e., participant’s goal is to be more open/honest/genuine when interacting with parents); Talk more (i.e., participant’s goal is to talk to parents more, communicate more often, or contact more often); See more (i.e., participant’s goal is to spend more quality time with their parents or do more activities together); Meta (i.e., participant’s goal is to communicate more with parents about the quality of their emotional support); and parental change (i.e., participant’s goal is that their parent(s) should change something about their interpersonal dynamics). Interrater reliability kappa value was 0.67 (SE = 0.08, 95% CI [0.57, 0.72]), indicating acceptable agreement between the raters (Landis & Koch, 1977).

Chapter 3

Results

Overview

All data were analyzed using R and RStudio software, primarily with packages such as lm (multiple linear regressions; R Core Team, 2023) and lavaan (Rosseel, 2012). Patterns of missing data were assessed with Little's MCAR test, and then full information maximum likelihood (FIML) was used to get estimates of the parameters of the model. FIML takes advantage of all available information, including the covariance structure, to estimate model parameters while accounting for missing data patterns (Enders & Bandalos, 2001). Compared to list-wise deletion and multiple imputation, this approach allows for more accurate parameter estimation and better utilization of the available data. Before running my main analyses, I assessed the associations between my variables of interest. This correlational approach considered IER effectiveness, intrapersonal ER strategies, IER tendencies, parental autonomy support, parent-child relationship quality (i.e., relatedness), family cultural norms, and demographic variables (e.g., gender, age, SES, etc.), to help identify covariates to include in subsequent analyses. Covariates were included in analyses if they were theoretically relevant to the processes at hand or if they emerged as significantly related to my outcome variables (e.g., desire for subsequent IER, IER effectiveness, etc.). Before running the main analyses, I conducted a series of preliminary data screening steps. First, I used descriptive analyses to summarize the data, including frequencies, variability, and other relevant central tendency measures. Additionally, I assessed the distributions of continuous variables to confirm that they met

normality assumptions (all variables did). Finally, a series of multilinear regressions were conducted to test my main hypotheses (model building described below). All *F* statistics were derived from complete data, as the FIML function in R (i.e., laavan) is unable to provide that information. Several exploratory analyses examined the role of intrapersonal ER and familial cultural norms.

Preliminary Analyses

The entire sample consisted of 109 participants, all of whom completed the pre-interview surveys (part 1); 85 of whom completed the semi-structured interview (part 2); and 87 of whom completed the daily diary surveys (part 3). The pattern of missingness in the data was assessed using Little's MCAR test (Little, 1988), which overall found no significant patterns ($\chi^2(235) = 255$, $p = .18$), suggesting that the missingness did not significantly deviate from a missing completely at random pattern. However, given that the mice package in R gives a median *p* value, I explored missingness more closely through *t* tests. There were no significant differences between key study variables for those who completed all parts of the study ($N = 84$) and those who did not ($N = 25$), *p*s > .15, with one exception. Participants who completed the part 1 surveys but did not complete one or both of the remaining parts of the study had higher emotion dysregulation scores ($M = 17.01$, $SD = 3.45$) than those who completed all three parts ($M = 15.18$, $SD = 3.62$), $t(36.4) = -2.22$, $p = .032$, Cohen's $d = -.51$. The final sample consisted of 84 participants who completed all three parts of the study, and missing data was handled with FIML.

Regarding the semi-structured interview, 92.9% of participants reported having two parents, and 7.1% of participants reported having one parent. 98.8% of participants reported having a mother figure, and 94% reported having a father figure. A paired samples t-test compared the relatedness scores for mothers and fathers (range = 1 – 7) and revealed higher relatedness scores reported for mothers (M = 5.49, SD = 1.36) than fathers (M = 5.00, SD = 1.45), $t(73) = 3.18$, $p = .002$, $d = .34$. Another paired samples t-test compared the perceived effectiveness of IER for mothers and fathers (range = 0 – 100). There was a significant difference in the scores, with higher perceived effectiveness of mother-provided IER (M = 71.11, SD = 22.48) than father-provided IER (M = 63.11, SD = 28.05); $t(74) = 2.22$, $p = .029$, $d = .32$. Given that the 92.9% of participants with two parents answered questions separately for each of them, subsequent analyses were conducted separately for mother-child and father-child dyads.

Mother-Child Correlations

Descriptive information of means, standard deviations, and ranges are presented in Table 1a, with correlations between mother and child variables are presented in Table 1b. As expected, youths' perceived effectiveness of mother-provided IER was strongly associated with the desire to seek subsequent IER ($r = .69$, $p < .001$). Perceived IER effectiveness was also associated with mother-child relatedness ($r = .50$, $p < .001$) and maternal autonomy support ($r = .49$, $p < .001$). Furthermore, perceived IER effectiveness was associated with youths' tendency to utilize IER to enhance positive emotions ($r = .26$, $p = .03$), as well as the average perceived effectiveness of parent-provided IER over the 10-day daily diary period ($r = .54$, $p < .001$). Youths' desire to seek subsequent IER

was related to mother-child relatedness ($r = .62$, $p < .001$), maternal autonomy support ($r = .51$, $p < .001$), and the tendencies to utilize IER to enhance positive emotions ($r = .31$, $p = .02$) and to soothe oneself ($r = .26$, $p = .02$).

Father-Child Correlations

Descriptive information of means, standard deviations, and ranges are presented in Table 2a, with correlations between father and child variables presented in Table 2b. As expected, the perceived effectiveness of father-provided IER was significantly associated with youths' desire to seek subsequent IER ($r = .75$, $p < .001$). Perceived IER effectiveness was also associated with father-child relatedness ($r = .43$, $p < .001$) and paternal autonomy support ($r = .62$, $p < .001$). Youths' desire to seek subsequent IER was related to father-child relatedness ($r = .46$, $p < .001$) and paternal autonomy support ($r = .62$, $p < .001$).

IER During Significant Loss or Transition

Originally, I aimed to explore the parent-provided IER processes used during significant losses or transitions and compare them to the general parent-provided IER processes. However, due to the relatively low number of participants and the specific nature of the data collected, I was unable to perform certain planned analyses. Specifically, though 53 out of 70 participants reported discussing their significant loss or transition with their parent(s), the data were further divided among those who talked with both of their parents together (17 participants), with their mother alone (23 participants), and with their father alone (13 participants). This distribution limited the types of analyses available to me, particularly for regressions and paired comparisons (e.g., I was

unable to utilize McNemar's test due to limited paired data). Given these constraints, I will focus on providing a descriptive analysis of these data.

To understand the use of parent-provided IER strategies, I calculated frequencies and percentages for mothers and fathers for both IER during a significant experience (i.e., significant experience IER) and general IER; Table 3), focusing on weighted averages. The weighted averages consider the number of instances of each strategy within each parental grouping, and the total number of participants, providing a more accurate reflection of the overall use of each strategy by both parents, mothers, and fathers separately. For each strategy, I multiplied each parental group's percentage (e.g., the percentage of mothers in the "mother only" category who used the strategy) with its corresponding total count, summed all the parental groups together (i.e., "both parents", "mother only", "father only"), then divided that sum by the total number of participants. For instance:

$$Sig.Exper.Emotional\ Responsiveness = \frac{(.471 \times 17) + (.652 \times 23) + (.308 \times 13)}{17 + 23 + 13}$$

For emotional responsiveness, the weighted average for significant experience IER was 50%, while for general IER, it was 31.8%. For active care, the weighted average for significant experience IER was 13.5%, compared to 10.8% for general IER. Practical aid showed a weighted average of 26.9% for significant experience IER and 32.5% for general IER. Cognitive support had a weighted average of 25% for significant experience IER and 26.1% for general IER. Hostility showed a weighted average of 3.8% for significant experience IER and 6.4% for general IER. Finally, for absence of support, the weighted average for significant experience IER was 7.5%, while for general IER, it was

16.6%. In sum, these descriptive data indicate that emotional responsiveness was the most commonly reported IER strategy, while hostility was the least experienced. Regarding the possible differences between IER contexts, emotional responsiveness emerged as occurring more often during significant experience IER compared to general IER experiences.

Youths' Subsequent IER Goals

After completing the 10-day EMA, participants were prompted to reflect on whether they had any specific goals for improving or maintaining the quality of their emotional support interactions with their parent(s). Several themes arose, of which participants could endorse multiple: 50.9% identified wanting to talk to their parents more (i.e., goals of talking), 32.7% identified wanting to be more open and honest with their parents (i.e., goals of openness), 18.2% identified wanting to keep things the same (i.e., goals of continuity), 18.2% identified wanting to become closer with their parents (i.e., goals of closeness), 12.7% identified wanting their parents to change their behavior (i.e., goals of parent change), and 5.5% identified wanting to become more independent from their parents (i.e., goals of independence). The following analyses focused on goals of talking and openness, as the other goals were endorsed infrequently (e.g., a goal of 18.2% is only 10 participants) and limited analyses.

Inclusion of Covariates and Model Building

Covariates were retained in the final regression models if they contributed significantly to explaining the variance in the outcome variables or if their inclusion was supported by theoretical rationale. For instance, participant gender, age, parent-child

relatedness, and the effectiveness of parent-provided IER were consistently included (except in the case of Research Question 2, wherein IER effectiveness was the dependent variable) due to their established importance in the literature on parent-child dynamics, as well as their impact on model fit.

To test my research questions, I ran a series of 26 regression models. Multiple regression models were constructed to incorporate theoretically relevant covariates. Analyses were run twice—once utilizing the Benjamini-Hochberg method to correct for Type 1 errors within analyses that utilized the same dependent variable, and once without. These analyses did not alter the pattern or interpretation of results, and thus the "non-corrected" data are presented throughout. Additionally, interactions between key variables, such as the perceived effectiveness of past IER interactions and familial cultural norms of emotion (e.g., emotional suppression), were explored to examine potential moderating effects. Each model was evaluated using model fit statistics, such as the adjusted R^2, F-statistic, and p-values for individual predictors. For all analyses, I first assessed the model with just the covariates predicting the outcome variable. In step two I entered my main independent variables (much like a simultaneous regression approach), which allowed me to assess the impact of these variables on a single outcome variable without expectations about their relative importance. Throughout the modeling process, I also assessed potential multicollinearity by examining variance inflation factors (*VIF*s), and all variables for all models were within acceptable parameters (*VIF*s < 2). When exploring moderation analyses, I centered continuous predictors before including them in interaction terms. When probing significant interactions, simple slopes were examined at

1 *SD* above and below the mean of the moderating variable. Overall, the final models were chosen based on their statistical significance, theoretical basis, and overall fit to the data, ensuring a robust and comprehensive analysis of the factors relating to youth's perceptions and desires for parent-provided IER.

Research Question 1: How do parent-provided IER effectiveness and cultural norms of emotion relate to youths' desire for subsequent IER?

My first research question aimed to investigate the relationship between youths' perceptions of remembered parent-youth IER interactions and their desire for subsequent parent-provided IER. First, a multiple regression analysis was conducted to examine the predictors of youths' desire to seek mother-provided IER (Table 4a). In the first step, mother-child relatedness, gender, and age were entered as covariates. The model was significant, indicating that these factors collectively explained a significant portion of the variance in the desire to seek IER, $F(3, 79) = 19.48$, $p < .001$, adjusted $R^2 = .43$. Mother-child relatedness ($b = 11.20$, $p < .001$) and gender ($b = 12.83$, $p = .008$) were significant predictors, whereas age approached significance ($b = -2.68$, $p = .086$). In the second step, perceived effectiveness of IER interactions was added as a predictor along with the previous covariates. This model showed significant improvement in explaining the variance, $F(4, 78) = 28.77$, $p < .001$, adjusted $R^2 = .61$ (R^2 change = .173, $p < .001$). Perceived effectiveness ($b = 0.53$, $p < .001$), mother-child relatedness ($b = 6.73$, $p < .001$), gender ($b = 10.66$, $p = .007$), and age ($b = -2.58$, $p = .046$) were significant predictors. These findings support my hypothesis that youth who remembered past IER

interactions as effective would report increased desire for subsequent mother-provided IER.

Next, I examined the predictors of youths' desire for subsequent father-provided IER (Table 4b). The first step, which included covariates of father-child relatedness, gender, and age, was significant, $F(3, 75) = 6.46$, $p < 0.001$, adjusted $R^2 = .19$. Father-child relatedness was a significant positive predictor ($b = 8.96$, $p < 0.001$), however, neither age ($b = -0.88$, $p = .69$) nor gender ($b = 2.78$, $p = .68$) were significant predictors. In the second step, perceived effectiveness of father-provided IER was added as a predictor. This step was also significant, $F(4, 74) = 26.55$, $p < 0.001$, adjusted $R^2 = .57$ (R^2 change = .388, $p < .001$). The perceived effectiveness of IER was a significant positive predictor ($b = .69$, $p < 0.001$). Father-child relatedness approached significance ($b = 3.07$, $p = .062$), while age ($b = -1.66$, $p = .30$) and gender ($b = 2.69$, $p = .58$) remained non-significant. These analyses support my hypothesis that youth who remembered past IER interactions as effective would report increased desire for subsequent father-provided IER.

Exploratory analyses examined the role of familial cultural background (specifically, whether participants identified that their family engages cultural norms of emotional or expressive suppression), and how this related to the desire for subsequent parent-provided IER. The first step of the mother-child regression (Table 5a), which included the perceived effectiveness of mother-provided IER, mother-child relatedness, gender, and age, was significant, $F(4, 78) = 28.77$, $p < .001$, adjusted $R^2 = .61$. Next, familial norms of suppression was included in step 2, and although the model was

significant ($F(5, 77) = 22.44$, $p < .001$, adjusted $R^2 = .60$), suppression itself was not ($b = -0.40$, $p = .92$), and its inclusion did not significantly improve model fit (R^2 change = .001, $p > .05$). Including the interaction term between perceived effectiveness and suppression ($b = -0.09$, $p = .57$) also did not significantly improve the model fit (R^2 change = .001, $p > .05$).

Next, I examined the role of familial norms of suppression for father-child dyads (Table 5b). The first step, which included the perceived effectiveness of father-provided IER, father-child relatedness, gender, and age, was significant, $F(4, 74) = 26.55$, $p < 0.001$, adjusted $R^2 = .57$. Familial norms of suppression was included in step 2, and although the model was significant ($F(5, 73) = 19.62$, $p < .001$, adjusted $R^2 = .57$), suppression itself was not ($b = 5.04$, $p = .27$), and its inclusion did not significantly improve model fit (R^2 change < .001, $p > .05$). However, the interaction term between perceived effectiveness and suppression was significant ($b = 0.44$, $p = .005$), indicating that the relationship between perceived effectiveness and desire for subsequent IER from fathers was moderated by familial cultural norms of suppression, $F(6, 72) = 19.09$, $p < .001$, adjusted $R^2 = .609$ (R^2 change = .035, $p < .01$). Simple slopes analyses (Figure 1) suggest that the perceived effectiveness of past IER interactions significantly predicts the desire for subsequent father-provided IER, and that this association is stronger for participants from families that engage in culturally normalized suppression, $b = 0.89$, *S.E.* = 0.10, $t = 8.56$, $p < .001$. For participants from families that do not engage in culturally normalized suppression, the relationship is still significant but weaker, $b = 0.41$, *S.E.* = 0.14, $t = 2.85$, $p = .007$.

I also conducted exploratory analyses to examine the endorsement of emotion-related gender roles within the family, and how this relates to the desire for subsequent parent-provided IER. The first step of the mother-child regression (Table 6a), which included the perceived effectiveness of mother-provided IER, mother-child relatedness, gender, and age, was significant, $F(4, 78) = 28.77$, $p < .001$, adjusted $R^2 = .61$. Next, familial gender norms was included in step 2, and although the model was significant ($F(5, 77) = 22.51$, $p < .001$, adjusted $R^2 = .62$), gender norms was not ($b = -1.97$, $p = .67$), and its inclusion did not significantly improve model fit (R^2 change = .01, $p > .05$). Including the interaction term between perceived effectiveness and gender norms ($b = -0.29$, $p = .16$) also did not significantly improve the model fit (R^2 change = .01, $p > .05$).

Next, I examined father-child dyads (Table 6b). The first step, which included the perceived effectiveness of father-provided IER, father-child relatedness, gender, and age, was significant, $F(4, 74) = 26.55$, $p < 0.001$, adjusted $R^2 = .57$. Next, familial gender norms was included in step 2, and although the model was significant ($F(5, 73) = 19.37$, $p < .001$, adjusted $R^2 = .57$), gender norms was not ($b = -2.61$, $p = .65$), and its inclusion did not significantly improve model fit (R^2 change = .001, $p > .05$). Including the interaction term between perceived effectiveness and gender norms ($b = -0.25$, $p = .17$) also did not significantly improve the model fit (R^2 change = .001, $p > .05$).

I next explored the role of specific mother-provided IER strategies and youths' desire for subsequent mother-provided IER (Table 7a). Step 1 included the usual covariates (mother-child relatedness, gender, and age), as well as IER effectiveness, $F(4, 78) = 28.77$, $p < .001$, adjusted $R^2 = .61$. In step 2, I added six parent-provided IER

strategies (dummy coded)—emotional responsiveness, active caring, practical aid, cognitive support, hostility, and absence of support. The overall model was significant ($F(10, 70) = 11.58$, $p < .001$, adjusted $R^2 = .60$), however, only the covariates emerged as significant predictors. All six of the IER strategies were nonsignificant (bs > ± 8.63, ps > .113). Such findings do not provide support for my hypotheses.

I next examined the role of specific father-provided IER strategies and youths' desire for subsequent father-provided IER (Table 7b). Step 1 included covariates (father-child relatedness, gender, and age), as well as IER effectiveness, $F(4, 74) = 26.55$, $p < 0.001$, adjusted $R^2 = .57$. In step 2, six parent-provided IER strategies (dummy coded) were added—emotional responsiveness, active caring, practical aid, cognitive support, hostility, and absence of support. The overall model was significant ($F(10, 68) = 11.58$, $p < .001$, adjusted $R^2 = .59$), and although the fit improved from step 1, the change was not significant (R^2 change = .02, $p > .05$). Of all the predictors, only IER effectiveness ($b = 0.60$, $p < .001$) and practical aid ($b = 11.29$, $p = .022$) emerged as significant. Such findings provide partial support for my hypothesis, that parent-provided practical aid would relate to increased desire for IER.

A multiple regression analysis was conducted to examine the relationship between the desire for subsequent mother-provided IER and several predictors: covariates, the perceived effectiveness of mother-provided IER, and maternal autonomy support (Table 8a). When maternal autonomy support was added into the model, the model fit did not significantly improve ($F(5,75) = 22.86$, $p < .001$, adjusted $R^2 = .59$, R^2 change = .01, $p > .05$), and maternal autonomy support was not significant ($b = 1.16$, $p = .54$). Additionally,

a second model including the interaction between autonomy support and the perceived effectiveness of past IER interactions showed no significant interaction effect, $F(6,74) = 18.84$, $p < .001$, adjusted $R^2 = .58$, R^2 change = .012, $p > .05$, ($b = 0.02$, $p = .72$).

I next examined the relationship between the desire for subsequent father-provided IER, the perceived effectiveness of father-provided IER, and paternal autonomy support (Table 8b). When paternal autonomy support was added into the model, the model fit did not significantly improve ($F(5,73) = 23.1$, $p < .001$, adjusted $R^2 = .60$, R^2 change = .026, $p > .05$), although paternal autonomy support was significant ($b = 5.50$, $p = .025$). However, a second model including the interaction between autonomy support and the perceived effectiveness of past IER interactions showed no significant interaction effect, $F(6,72) = 19.25$, $p < .001$, adjusted $R^2 = .58$, R^2 change = .02, $p > .05$, ($b = 0.06$, $p = .80$).

Finally, to investigate the potential relationship between intrapersonal ER abilities and desire for subsequent parent-provided IER, I reran all the aforementioned analyses with youths' score for total emotion regulation difficulties (i.e., emotion dysregulation) included as an additional predictor. When youths' emotion dysregulation was added into the models for both mother-provided (Table 9a) and father-provided IER (Table 9b), the model fits did not significantly improve (adjusted R^2s = .57 – .61, R^2 change < .001, $p > .05$), and emotion regulation did not significantly relate to youths' desire for subsequent mother-provided IER ($b = 0.81$, $p = .11$), or father-provided IER ($b = -0.48$, $p = .42$).

Research Question 2: How does parental autonomy support and youths' tendencies to utilize IER relate to the effectiveness of parent-provided IER?

My second research question aimed to investigate the relationship between parental autonomy support, youths' general tendencies to utilize IER, and the effectiveness of parent-youth IER interactions. First, a multiple regression analysis was conducted to examine the predictors of perceived mother-provided IER effectiveness (Table 10a). In the first step, mother-child relatedness, gender, and age were included as predictors. The model was significant, indicating that these factors collectively explained a significant portion of the variance in mother-provided IER, $F(3, 77) = 7.69$, $p < .001$, adjusted $R^2 = .23$. Mother-child relatedness ($b = 8.04$, $p < .001$) was a significant covariate while gender ($b = 3.86$, $p = .45$) and age ($b = -0.19$, $p = .91$) were not. In the second step, maternal autonomy support was added as a predictor along with the previous covariates. This model showed significant improvement in explaining the variance, $F(4, 76) = 7.09$, $p < .001$, adjusted $R^2 = .27$ (R^2 change = .037, $p < .05$). Maternal autonomy support ($b = 5.16$, $p = .023$) and mother-child relatedness ($b = 5.10$, $p = .017$) were significant predictors. These analyses support my hypothesis that youth who perceive their parents as being autonomy supportive would report increased effectiveness of parent-provided IER.

Next, a multiple regression analysis was conducted to examine the predictors of perceived father-provided IER effectiveness (Table 10b). In the first step, father-child relatedness, gender, and age were included as predictors. The model was significant, indicating that these factors collectively explained a significant portion of the variance in

father-provided IER, $F(3, 75) = 5.22$, $p < .001$, adjusted $R^2 = .16$. Father-child relatedness ($b = 8.59$, $p < .001$) was a significant covariate, while gender ($b = 0.07$, $p = .99$) and age ($b = 1.20$, $p = .59$) were not. In the second step, paternal autonomy support was added as a predictor along with the previous covariates. This model showed significant improvement in explaining the variance, $F(4, 74) = 9.32$, $p < .001$, adjusted $R^2 = .33$ (R^2 change = .171, $p < .01$). Paternal autonomy support ($b = 12.30$, $p < .001$) was the only significant predictor. These findings support my hypothesis that youth who perceive their parents as being autonomy supportive would report increased effectiveness of parent-provided IER.

A multiple regression analysis was then conducted to examine the relationship between the perceived effectiveness of parent-provided IER and several predictors: general tendency to seek parent-provided IER and the four subscales of the IERQ (enhancing positive affect, soothing, perspective taking, social modeling). I first examined mother-provided IER (Table 11a), entering the usual covariates in step one, $F(3, 77) = 7.69$, $p < .001$, adjusted $R^2 = .23$. In step two, I added youths' general tendency to seek mother-provided IER ($b = 5.59$, $p < .001$) which resulted in a significant improvement to model fit, $F(3, 77) = 8.23$, $p < .001$, adjusted $R^2 = .30$ (R^2 change = .07, $p < .01$). In step three, the four IER tendencies were added. Although the model was significant, ($F(8, 72) = 4.30$, $p < .001$, adjusted $R^2 = .29$), the model fit did not improve, and none of the IER tendencies significantly predicted perceived IER effectiveness (bs < 0.88, ps > .17). Thus, I did not find support for my hypothesis that youth with higher

general tendencies to utilize IER would have more positive perceptions of the effectiveness of parent-provided IER.

Next, I examined the perceived effectiveness of father-provided IER, and its associations with youths' tendency to seek father-provided IER and the four subscales of the IERQ (Table 11b). Covariates were added in step 1 ($F(3, 75) = 5.22$, $p < .001$, adjusted $R^2 = .16$), and in step two I included youths' general tendency to seek father-provided IER ($b = 5.32$, $p = .064$) which did not significantly improve model fit, $F(4, 74) = 4.65$, $p = .002$, adjusted $R^2 = .181$ (R^2 change = .011, $p > .05$). In step three, the four IER tendencies were added. Although the model was significant, ($F(8, 70) = 4.30$, $p = .032$, adjusted $R^2 = .14$), the model fit did not improve, and none of the IER tendencies significantly predicted perceived IER effectiveness (bs < 0.53, ps > .47). This too did not support my hypothesis that youth with higher general tendencies to utilize IER would have more positive perceptions of the effectiveness of parent-provided IER.

Additional analyses explored the individual and joint effects of parental autonomy support and youths' parent-provided IER seeking tendency on parent-provided IER effectiveness. First, mother-provided IER effectiveness was examined (Table 12a). Step 1 included covariates (age, gender, and mother-child relatedness), $F(3, 77) = 7.69$, $p < .001$, adjusted $R^2 = .23$. Step 2 added mother-provided IER seeking tendency, $F(4, 76) = 8.003$, $p < .001$, adjusted $R^2 = .29$ (R^2 change = .06, $p < .001$). Both mother-child relatedness ($b = 6.63$, $p < 0.001$) and the IER seeking tendency ($b = 5.59$, $p = .003$) were significant predictors, while age ($b = -0.61$, $p = .70$) and gender ($b = 2.82$, $p = .56$) remained non-significant. In the third step, maternal autonomy support was included. The model

remained significant, $F(5, 76) = 8.003$, $p < .001$, adjusted $R^2 = .31$ (R^2 change = .02, $p > .05$). Mother-child relatedness ($b = 4.26$, $p = .042$) and IER seeking tendency remained significant ($b = 4.98$, $p = .007$), while maternal autonomy support approached significance ($b = 4.05$, $p = .071$), and neither age nor gender (bs < 3.60, ps > .45) were significant. Lastly, in step 4 I added the interaction term between IER seeking tendency and maternal autonomy support, $F(6, 75) = 7.04$, $p < .001$, adjusted $R^2 = .35$ (R^2 change = .043, $p < .05$). The interaction term was a significant predictor ($b = -3.51$, $p = .013$), indicating that the effect of IER seeking tendency on IER effectiveness was moderated by maternal autonomy support. Simple slopes analyses (Figure 2) suggest that IER seeking tendency significantly predicts the effectiveness of mother-provided IER, but that this association is driven by those who perceive their mothers as being low autonomy supportive, $b = 9.29$, *S.E.* = 2.79, $t = 3.33$, $p < .001$. IER seeking tendency did not predict the effectiveness of mother-provided IER in conditions of high autonomy support, $b = 0.88$, *S.E.* = 2.63, $t = 0.33$, $p = .74$.

Next, father-provided IER effectiveness was explored (Table 12b). Step 1 included covariates (age, gender, and father-child relatedness), $F(3, 75) = 5.22$, $p < .001$, adjusted $R^2 = .16$. Step 2 added father-provided IER seeking tendency, $F(4, 74) = 4.65$, $p = .002$, adjusted $R^2 = .18$ (R^2 change = .02, $p > .05$). Father-child relatedness was a significant predictor ($b = 7.30$, $p = 0.001$), while IER seeking tendency approached significance, ($b = 5.32$, $p = .064$), and age and gender remained non-significant. In the third step, paternal autonomy support was included. Model fit significantly improved, $F(5, 73) = 7.34$, $p < .001$, adjusted $R^2 = .32$ (R^2 change = .14 , $p < .01$), with paternal

autonomy support being the only significant predictor (b = 11.65, p < .001). Lastly, step 4 added the interaction term between IER seeking tendency and paternal autonomy support, $F(6, 72) = 6.05$, $p < .001$, adjusted $R^2 = .30$ (R^2 change = .02, $p < .05$). The interaction term was non-significant (b = -0.70, p = .75).

Research Question 3: How do day-to-day instances of parent-youth IER inform youths' overall perception of parent-provided IER effectiveness and subsequent support seeking behavior and IER goals?

My third research question investigated how day-to-day instances of parent-youth IER influence youths' overall perception of parent-provided IER effectiveness and their subsequent support-seeking behavior and IER goals. Initially, I planned to use linear mixed models (LMM) to analyze the ecological momentary assessment (EMA) data. For LMM to be effective, the data should have a sufficient number of observations per participant and variability in the predictor and outcome variables across these observations. The recommended frequency of observations for one group of participants ranges from 20 observations per participant for a sample of 50 participants, to 10 observations per participant for a sample of 100 participants (Hox, 2010). Unfortunately, my participants (N = 84) engaged in parent-provided IER 1.7 times on average, which is far below the recommended frequency. Consequently, my analyses focus on the frequency and mean effectiveness of mother-provided and father-provided IER over a 10-day period (operationalized as EMA IER effectiveness), using multiple regression analyses instead. I ran exploratory analyses to examine (1) the extent to which parent-child relatedness and parental autonomy support relate to EMA IER effectiveness and

EMA IER frequency, and (2) how EMA IER effectiveness relates to subsequent IER goals with parents.

I conducted exploratory analyses to examine the extent to which parent-child relatedness and parental autonomy support relate to EMA IER effectiveness. First, mother-provided IER effectiveness was explored (Table 13), with step 1 including covariates (age, gender, and mother-child relatedness). The overall model was significant, $F(3, 32) = 3.35$, $p = .031$, adjusted $R^2 = .28$. Mother-child relatedness was a significant positive predictor ($b = 2.96$, $p = .001$), while age and gender were not. In step 2, parental autonomy support was added to the predictors, $F(4, 31) = 6.54$, $p < .001$, adjusted $R^2 = .39$. Parental autonomy support emerged as a significant positive predictor ($b = 3.61$, $p < .00l$), while mother-child relatedness became nonsignificant ($b = 0.99$, $p = .28$). Unfortunately, I was underpowered to analyze EMA father-provided IER effectiveness due to insufficient sample size ($n = 16$).

Next, I conducted exploratory analyses to examine the extent to which parent-child relatedness and parental autonomy support relate to EMA IER frequency. First, the frequency of mother-provided IER was explored (Table 14a), with step 1 including covariates (age, gender, and mother-child relatedness). The overall model was nonsignificant, $F(3, 81) = 1.57$, $p = .20$, adjusted $R^2 = .01$. In step 2, parental autonomy support was added to the predictors, $F(4, 80) = 1.19$, $p = .32$, adjusted $R^2 = .001$, which was also nonsignificant. Next, the frequency of father-provided IER was explored (Table 14b), with step 1 including covariates (age, gender, and father-child relatedness). Father-child relatedness emerged as a significant predictor ($b = 0.17$, $p = .002$), $F(3, 81) = 4.85$,

p = .004, adjusted R^2 = .14. In step 2, parental autonomy support (b = 0.08, p = .29) was added to the predictors, which did not significantly improve model fit, $F(4, 80) = 4.01$, p = .006, adjusted R^2 = .13 (R^2 change = .001, $p > .05$).

Next, I explored how youths' subsequent IER goals related to parent-provided IER processes during the 10-day EMA. First, a t-test was conducted to compare the mean effectiveness of mother-provided IER between youth who reported subsequent goals to talk to their parents more (0 = no, 1 = yes). There was a significant difference in the IER effectiveness for those who did not report talking goals (M = 26.49, SD = 10.34) and those who did report talking goals (M = 33.98, SD = 9.87), $t(23.86) = -3.01$, p = .006, d = 1.16. This suggests that those with the goal to talk with their parents more also perceived mother-provided IER as more effective. Next, I conducted a t-test to compare the mean effectiveness of mother-provided IER between youth who reported subsequent goals to become more open with their parents (0 = no, 1 = yes). There was no significant difference in the IER effectiveness between those with openness goals (M = 28.54, SD = 9.44) and those without openness goals (M = 30.54, SD = 6.65), $t(50.25) = 1.34$, p = .19, d = -0.27. Unfortunately, I was underpowered to run logistic regressions predicting IER goals, due to the small sample size (n = 38) and the large number of predictors (7 total, including age, gender, maternal EMA IER effectiveness, and both parents' autonomy support and parent-child relatedness).

Chapter 4

Discussion

This dissertation aimed to provide insight into the complex emotion dynamics between parents and their adult children. My first research question pertained to remembered instances of parent-youth IER. Specifically, I explored how youths' perceptions of remembered parent-youth IER interactions related to their desire for subsequent parent-provided IER. I also examined the extent to which factors such as intrapersonal ER abilities, familial norms, and parental autonomy support contextualized these associations. Results supported my hypothesis that youth who remembered past IER interactions as effective would report increased desire for subsequent mother-provided and father-provided IER. Moreover, compared to male participants, emerging adult women reported higher desire for subsequent mother-provided IER. Exploratory analyses revealed that familial cultural norms, specifically norms around emotional suppression, moderated the relationship between perceived IER effectiveness and the desire for subsequent father-provided IER. My second research question focused on the individual and joint effects of parental autonomy support and youths' tendencies to utilize IER on youths' perceptions of the effectiveness of parent-provided IER. Results supported my hypothesis that youth who perceive their parents as being autonomy supportive would report increased effectiveness of parent-provided IER. Exploratory analyses revealed that youths' general tendency to seek mother-provided IER significantly related to the effectiveness of mother-provided IER, but that this association was driven by those who perceived their mothers as low in autonomy support. My final

research question investigated day-to-day experiences of emotions and parent-provided IER—I aimed to examine how day-to-day instances of parent-youth IER inform youths' overall perception of parent-provided IER effectiveness, and subsequent support seeking behavior and IER goals. However, due to unforeseen circumstances related to data collection, my third research question pivoted to explore the extent to which parent-child relatedness and parental autonomy support relate to IER effectiveness and IER frequency over a 10-day period, as well as how IER effectiveness relates to subsequent IER goals with parents. Higher maternal autonomy support related to higher IER effectiveness, while higher father-child relatedness related to high frequency of father-provided IER. Also, when youth perceived their mothers as effective in providing IER, they were more likely to set goals to communicate with their parents more frequently. In sum, these findings provide partial support to my hypotheses, and will be discussed below in turn.

Youths' Desire for Subsequent Parent-Provided IER

Results supported my hypothesis that youth who remembered past IER interactions as effective would report increased desire for subsequent mother-provided and father-provided IER. In my study, participants were asked "If something unrelated to your parent makes you feel upset or distressed, and your parent is aware of your feelings, what do they do?", immediately followed by two other questions: "On a scale of zero to 100, how helpful is it when your parent [does that]?" and "On a scale of zero to 100, when your parent [does that], how likely are you to seek their support in the future?" As the question pertaining to desire for subsequent IER was asked last, and explicitly referred to the proceeding IER processes and effectiveness mentioned by the participant,

my variables became sequentially linked. Thus, although my study was not experimental or longitudinal in design, the ordering of the interview questions contextualizes the data, and provides a first step toward future research exploring causal relationships. Although the nature of my data is cross-sectional and correlational, my findings contribute to an understudied area of emotion research—that of IER processes between emerging adults and their parents. Future research should build upon this association and explore possible causal relationships, as the perceived effectiveness of previous IER may play a crucial role in shaping youths' willingness to seek out future IER from their parents.

Connecting my findings to existing literature, Segrin and colleagues (2012) found that overparenting (which includes aspects of ineffective affect management and advice) was associated with less open and more problematic parent-child communication between emerging adults and their parents. Conceptually, a lack of openness and more problematic communication may be similar to youth not wanting to engage in parent-provided IER. These suboptimal relationship qualities may hinder effective communication and the ability to express emotional needs. As a result, youth might be reluctant to seek out their parents for IER, fearing that their emotional needs will not be understood or appropriately met. This would align with my empirical findings (i.e., youth who remembered past parent-provided IER interactions as ineffective reported decreased desire for subsequent IER), and can also be seen in the qualitative aspects of my data, wherein one participant noted:

> "I know when it comes to my health, I'll be way more open to seeking emotional support since they are way more approachable and open to

> helping me out. But for other situations or issues that they might have caused, I won't be as open to seeking emotional support."

This statement illustrates how youth adjust their willingness to seek IER based on the perceived effectiveness of past parent-provided support in different contexts. It is also possible that the association between IER solicitation and IER effectiveness is bidirectional—for instance, Carlson (2014) found that parental advice that was unsolicited (not directly asked for) was perceived more negatively compared to advice that was actively sought. In sum, the relation between the perceived effectiveness of IER and the subsequent desire for IER emerges as a promising future direction, one which could have substantial implications for the well-being of families. When youth perceive their parents as effective in providing IER, it may foster a positive feedback loop where youth are more likely to seek support in the future, benefit from that support, and then continue to seek support, ultimately promoting open communication and trust. Additionally, parents reflecting on, recognizing, and addressing the reasons their children don't seek their support (such as youth not perceiving it as effective) may help parents improve their IER interactions, further contributing to a healthier family dynamic. Future interventions and parenting programs could be designed to enhance parents' IER processes, tailored to the needs of emerging adults.

It is important to address how youths' desire for subsequent parent-provided IER operates differently for mother-child dyads and father-child dyads. Although IER effectiveness emerged as a significant predictor for all parent-child dyads, I found that only paternal (not maternal) autonomy support related to youths' desire for subsequent

parent-provided IER. Based on research by Ryan and colleagues (2005) that found that youth reported greater willingness to rely on a parent for emotional support when they perceived their parent to be more autonomy supportive and less controlling, it stands to reason that parental autonomy support would be positively related to youths' desire for subsequent parent-provided IER. Interestingly, in my previous research (Newman & Davis, 2023), I found that parental autonomy support did *not* differ for youth who actively sought parent-provided IER compared to those who did not. However, this was a preliminary finding, and did not consider the effectiveness of past IER, nor the parent's gender. My current study aimed to explore the role of parental autonomy support, while accounting for these other contextualizing variables like IER effectiveness and relationship quality. As such, my results showed that only paternal autonomy support related to youths' desire for subsequent parent-provided IER. As there was not a significant mean-level difference between maternal and paternal autonomy support, my findings could possibly be explained by participants' perceptions of traditional gender roles that their parents may take on. In many cultures, mothers are traditionally seen as primary caregivers and are often more involved in the emotional and day-to-day care of their children (e.g., Gaunt & Deutsch, 2024; Kaufman & White, 2016; Reich-Stiebert et al., 2023). Because of this, the impact of maternal autonomy support might be less pronounced because seeking emotional support from one's mother may be more normative and consistent with youths' perceptions of traditional caregiving roles. In other words, seeking IER from a mother who is one's primary caregiver/emotional support parent may not be contingent on receiving autonomy support from her. Fathers, on the

other hand, may be seen more traditionally as providers or disciplinarians. When fathers engage in IER, it may stand out more because it deviates from these traditional expectations. This interpretation is supported by cognitive psychology research, such as the oddball paradigm, wherein individuals are more likely to notice events that stand out from the majority (e.g., "one of these things is not like the others"; Schlüter et al., 2019). If youth typically receive IER from mothers as they did in this study (my EMA data indicate that mother-provided IER occurred significantly more than father-provided IER), when father-provided IER occurs, it may be scrutinized more heavily, and related factors such as parental autonomy support may become increasingly salient. Nonetheless, my study did not explicitly measure parents' adherence to or youths' perceptions of family gender roles, and as such, cannot directly address how gender roles relate to parental autonomy support and youths' willingness to engage in parent-provided IER.

Throughout my analyses I included several covariates, namely participants' age and gender, as well as parent-child relatedness. Even when controlling for IER effectiveness, mother-child relatedness was associated with youths' subsequent desire for IER, while father-child relatedness was marginally significant. This aligns with other research, which has found that individuals tend to be more receptive to advice or emotional support from others when they perceive relational closeness (e.g., Feng & MacGeorge, 2006). This association may be explained by what parent-child relatedness indicates about the relationship—specifically, higher relatedness often conveys trust, good intentions, care, and understanding between two people (Ryan & Deci, 2017). Within such a context, youth may feel more comfortable engaging in IER when they are

closer with their parent. The marginally significant association with father-child dyads could be explained by participants also reporting lower relatedness with fathers on average, compared to mothers. Although my findings are cross-sectional, this could suggest that, overall, youths feel less close to their fathers, which might reduce the impact of father-child relatedness on their desire for IER. Lower relatedness might mean fewer positive interactions, making it harder for youths to seek IER from fathers even if they recognize past IER as being effective. Additionally, I found that compared to emerging adult men, women reported higher desire for subsequent mother-provided IER. Such a finding could reflect broader socialization patterns. Research has shown that women are often socialized to be more emotionally expressive and to seek out emotional support more often than men (Brody, 1997; Rose & Rudolph, 2006; Verhofstadt & Weytens, 2013). It is also possible that young women feel more comfortable engaging in mother-provided IER than do young men, because they are the same gender. In fact, Carlson (2016) found that emerging adults were more likely implement the advice of their parents when they perceived higher similarity with their parent. This finding could also extend to youths' desire for IER, although additional research is necessary to explore the relation.

Exploratory analyses examined the association of intrapersonal ER processes with youths' desire for parent-provided IER, and results indicated no significant associations. I ultimately decided to investigate youths' difficulties with emotion regulation, as previous research has highlighted aspects of emotion dysregulation relating to individuals' tendencies to seek social support (Schwartz-Mette, 2021; Starr, 2015; Vélez et al., 2016). Interestingly, I found no significant associations between youths' emotion dysregulation

and youths' desire for parent-provided IER. The lack of significant associations may be due to the complex nature of emotion regulation. Emotion dysregulation encompasses a broad range of difficulties (Gratz & Roemer, 2004) and not all aspects may directly relate to the desire for parent-provided IER. It is possible that only specific aspects of emotion dysregulation, such as difficulties in impulse control or emotional clarity, might relate to the need for emotional support, and these specific facets were not isolated in my analysis, as I did not have expectations about them. Moreover, it is possible that within the complex interpersonal dynamics of a parent-child relationship, aspects of social functioning (such as relatedness and autonomy support) are simply better predictors of youths' desire for IER, above and beyond personal characteristics like intrapersonal ER abilities. For other social relationships, like with peers, this may not be the case. For instance, Schwartz-Mette (2021) found positive longitudinal and concurrent associations between emotion regulation difficulties and maladaptive social behaviors (i.e., excessive reassurance seeking, conversational self-focus, negative feedback seeking), but not adaptive social behaviors (i.e., self-disclosure). In sum, future research should further examine how specific emotion dysregulation facets operate in interpersonal contexts, distinguishing between familial contexts and peer contexts.

Culture and family background play crucial roles in understanding emotion dynamics within families by shaping norms, expectations, and practices related to emotional expression and regulation (Brady et al., 2023; Mesquita et al., 2017; Mortenson, 2009). My findings revealed that the perceived effectiveness of past IER interactions significantly predicted the desire for subsequent father-provided IER, with

this association being strongest for participants from families that engage in culturally normalized suppression. For those from families that do not engage in suppression, the association was still significant but weaker. Interestingly, this effect emerged only for father-child dyads. This could be related to the role of gender in expressive suppression, as some participants noted that men in their families were socialized to not show emotions. Notably, 26.4% of participants endorsed gender as playing a role in family emotion dynamics, but the model was not significant, possibly due to the fact that participants were not explicitly asked about gender roles, leading to potential methodological limitations. Without explicitly querying gender roles, the data may not fully capture the nuances of how gender norms of emotion relate to IER processes with the family. This variable was measured by asking participants, "Is there anything about your family's culture or background that you feel plays a role in how emotions are dealt with within the family?" This conceptually grouped culture and family structure together, which may be a limitation as it potentially conflates distinct constructs, making it harder to disentangle the specific influence of cultural norms from family dynamics.

Previous research has shown that cultural norms significantly influence emotional expression and regulation (Matsumoto et al., 2008). In cultures where expressive suppression is normalized, individuals often manage their emotions privately rather than seeking external support (Matsumoto et al., 2008; Mesquita et al., 2017; Mortenson, 2009). When emerging adults in such families perceive emotional support from their fathers as effective, it may be particularly impactful because it contrasts with their expectations. Experiences that deviate from expectations tend to be more salient and

impactful (e.g., expectancy violation theory; Burgoon, 1993). In families where emotional support is normalized, the effectiveness of IER may align with existing norms and expectations (Burleson, 2003), making it less surprising or impactful. Additionally, the availability of multiple support sources in expressive families may dilute the impact of effective IER from a single person. These findings underscore the importance of considering cultural context when examining parent-child dynamics. Future research could expand upon my findings by exploring the nuances of these dynamics. Over 20% of participants mentioned acculturation, immigration, or generation status in their responses, noting how emotion norms in the US differ from their family's heritage culture. Acculturation might have interesting implications for familial cultural norms of suppression, as parents and children may be operating within slightly different norms. For example, parents who have grown up with strong suppression norms might continue to practice these, while their children, influenced by the host culture, might adopt more expressive norms. This dynamic could create a unique interplay between differing emotional regulation practices within the same family, providing a rich area for future research.

Effectiveness of Parent-Provided IER

Results supported my hypothesis that youth who perceived their parents as being autonomy supportive would also report increased effectiveness of parent-provided IER. This aligns with my previous research (Newman & Davis, 2023), which found that parental autonomy support significantly related to the perceived effectiveness of parent-provided IER. However, my current study extends this finding, showing that autonomy

support was a significant predictor for both mother-child and father-child dyads, as opposed to primarily mother-child dyads in the previous sample. Moreover, my previous research exclusively utilized survey data, while my current study incorporated an interview methodology. The replication of findings using different methods strengthens the validity of my results, enhancing the reliability and robustness of findings (Iso-Ahola, 2020; Klein et al., 2014). Parental autonomy support may positively relate to IER effectiveness because it fosters an environment where children feel respected and understood, leading to greater receptiveness to emotional support (Ryan & Deci, 2000). When parents support their child's autonomy, it signals trust, care, and respect, thereby facilitating more effective emotional exchanges.

Contrary to my expectations, youths' general tendencies to use IER in their daily life did not predict IER effectiveness, although their tendency to seek out their parents did predict IER effectiveness (specifically for mother-child dyads, though it approached significance for father-child dyads). This lack of significance for general IER tendencies is likely due to the IERQ not being specific to IER interactions with parents. The IERQ asks participants about the ways they engage in IER, without specifying who they are interaction with (e.g., "I look for other people to offer me compassion when I'm upset"). Had I adapted the IERQ to explicitly prompt for parents (e.g., "I look for my mother to offer me compassion when I'm upset"), the study could have been strengthened by providing more precise insights into how youths' tendencies to seek specific types of IER from parents relate to IER effectiveness, thus offering a more nuanced understanding of parent-youth IER interactions. Nonetheless, a strength of my study lies in the

consideration of youths' tendency to seek out their parents for IER. Although this variable was limited to youths' general tendency to seek out their parents, as opposed to the various IER processes they engage in with their parents (akin to the IERQ subscales), its inclusion did explain a significant portion of variance in predicting IER effectiveness. This also aligns with my previous research, which found that active solicitation of parent-provided IER related to higher perceived IER effectiveness (Newman & Davis, 2023). It is likely that when youth actively seek IER, they are more engaged in the process, making the support more effective. Research on the "support gap" has demonstrated that when emotional support is received, but was not sought, it is less likely to be experienced as effective (Segrin et al., 2012; Wang, 2019). Specific to emotional support, Wang (2019) found that receiving a surplus (i.e., more support than desired) of "nurturing" support from parents related to an increase in perceived stress. Such unsolicited support may reinforce feelings of emotional helplessness, or even engender feelings of resentment towards parents.

Interestingly, the effect of IER seeking tendency on the effectiveness of mother-provided IER was moderated by maternal autonomy support. Specifically, IER seeking tendency significantly predicted the effectiveness of mother-provided IER, and this association was driven by those who perceived their mothers as being low in autonomy support. In conditions of high autonomy support, IER seeking tendency did not predict the effectiveness of mother-provided IER. There are several potential explanations for these findings. In mother-child dyads, when mothers are perceived as low in autonomy support, youth may find it particularly meaningful and impactful when they tend to seek

out their mothers for IER and receive effective IER. This might be because low autonomy support generally means fewer instances of validation and encouragement (Ryan & Deci, 2017), making the moments when IER is sought and received more salient and impactful. Conversely, in conditions of high autonomy support, youths may already feel validated and supported, making the additional seeking of IER less impactful on its perceived effectiveness. The baseline level of support is already high, so variations in seeking behavior might not significantly alter perceptions of effectiveness. When autonomy support is low, the combination of purposely seeking IER and perceiving it as effective may actually bolster youths' sense of autonomy and offset the potential negative effects of having a low autonomy supportive mother.

For father-child dyads, paternal autonomy support was the only significant predictor of father-provided IER effectiveness, with no significant interaction found between IER seeking tendency and paternal autonomy support. Although youths' father-provided IER seeking tendency approached significance, its positive relation to IER effectiveness should be interpreted cautiously. This suggests that paternal autonomy support alone may be a key factor in the perceived effectiveness of father-provided IER, possibly irrespective of the frequency with which youths seek out their fathers for support. One possible explanation for this difference is that paternal autonomy support might stand out more due to traditional parenting roles (e.g., Gaunt & Deutsch, 2024; Kaufman & White, 2016; Reich-Stiebert et al., 2023). As discussed previously in relation to youths' desire for subsequent parent-provided IER, when fathers provide autonomy support, it could be perceived as more significant and impactful, thus directly enhancing

the effectiveness of their IER. Since fathers were likely not the primary source of parent-provided IER for my participants (as evidenced by the EMA data), the presence of autonomy support from fathers could carry more weight in determining the perceived effectiveness of IER, regardless of IER seeking tendency.

Context of IER: General Experiences vs. Significant Losses and Transitions

Originally, I aimed to explore the parent-provided IER processes used during significant losses or transitions and compare them to the general parent-provided IER processes. However, due to the relatively low number of participants and how participants described these experiences (i.e., some participants received IER from both parents together, while others only received mother-provided IER, or only father-provided IER), I was unable to perform certain planned analyses. Consequently, the analyses were primarily descriptive, which restricted the depth of the findings. Comparing parent-provided IER during significant losses or transitions with general IER would have offered valuable insights into the context-specific dynamics of emotional support. Such a comparison is crucial because the nature and effectiveness of IER strategies are likely to differ depending on the context. For instance, Shu and colleagues (2021) found when experiencing sadness, individuals perceived advice to be significantly less helpful than emotional support. Given that significant losses or transitions are associated with heightened emotional distress, these experiences may require more intensive or specific IER strategies. Understanding these differences can reveal how parents adapt their support to meet their children's needs during significantly upsetting

experiences, and whether certain strategies are more effective in these high-stress situations compared to routine contexts.

Using the data I had access to, several interesting themes emerged. First, 50% of youth reported that their parents engaged in emotional responsiveness in response to significant losses or transitions, while 31.8% identified emotional responsiveness in general IER interactions. Parents may be more likely to engage in emotional responsiveness during significant emotional experiences than in everyday situations. This could be because losses and transitions often involve higher intensity emotions, and potentially the loss of something irretrievable (such as the death of a family member). Intrapersonal ER research has found that strategies that involve problem solving or reappraisal tend to be less effective in high intensity or uncontrollable situations (Haines et al., 2016; Troy et al., 2013), and the same may apply to IER interactions. Specifically, parents may opt to engage emotional responsiveness over other strategies that may be perceived as less context-appropriate (e.g., reappraisal). Regarding the frequency of other IER processes, there were few noticeable differences between significant losses or transitions and general IER experiences. For instance, 25% of youth reported that their parents engaged in cognitive support during significant losses or transitions, and 26.1% of participants identified cognitive support in general IER interactions, suggesting that parents provide similar levels of cognitive support regardless of the context. This consistency might imply that cognitive support is a stable aspect of the parent-child relationship, regardless of the situation's significance. However, there was a slight difference in youth perceiving their parents as being absent in the face of their upsetting

experiences—7.5% of youth reported that their parents did nothing in response to their significant loss or transition, and 16.6% of participants identified absence of support in general IER interactions. This difference could indicate that parents are less likely to withhold support during significant experiences, highlighting the importance they place on being present and supportive during critical times. Overall, future research should explore the contexts in which IER processes are most effective, with a large enough sample size to compare various contexts. This is particularly important to examine, as memory recall research has found that compared to every-day experiences, emotionally salient events tend to be perceived and remembered more vividly (Markovik et al., 2014), which could have implications for youths' willingness to engage in parent-provided IER in the future.

Parent-Provided IER Effectiveness and Frequency Over 10 Days

My third research question aimed to explore the impact of daily parent-youth IER instances on youths' perceptions of IER effectiveness and their future IER goals. Past research, such as that by Guntzviller and colleagues (2017), has found that individuals who perceive previous social support interactions with a partner as effective also tended to rate subsequent advice quality as higher. However, very little research has explored these longitudinal IER dynamics between emerging adults and parents, and I intended to remedy this by using linear mixed models (LMM) to analyze ecological momentary assessment (EMA) data. Effective LMM analysis requires a sufficient number of observations per participant, with recommendations suggesting 20 observations per participant for 50 participants or 10 observations per participant for 100 participants

(Hox, 2010). However, my participants (N = 84) reported an average of only 1.7 parent-provided IER instances, which falls significantly short of these guidelines. Consequently, I shifted my focus to examine the frequency and mean effectiveness of mother- and father-provided IER over the 10-day period. Since my original research questions and models did not align with this data structure, I conducted exploratory analyses to investigate (1) the relationship between parent-child relatedness, parental autonomy support, and EMA IER effectiveness and frequency, and (2) how EMA IER effectiveness relates to subsequent IER goals with parents.

I first conducted exploratory analyses to examine the extent to which parent-child relatedness and parental autonomy support relate to IER effectiveness over the 10-day EMA. The discussion of these analyses is limited to mother-child dyads, as I was underpowered to analyze EMA father-provided IER effectiveness due to insufficient sample size (n = 16). The limited number of observations for father-provided IER effectiveness prevented a robust analysis, highlighting the need for larger datasets in future research to draw more reliable conclusions regarding father-specific IER dynamics. Rather than solely increasing the sample size, future studies should consider implementing strategies to ensure a higher base rate of the behaviors of interest. This could involve extending the duration of EMA data collection beyond 10 days to capture more instances of parent-provided IER, especially from fathers. Future research could also employ more frequent prompts throughout the day to increase the chances of capturing these interactions as they occur.

Regarding mother-child dyads, maternal autonomy support emerged as a significant positive predictor of EMA IER effectiveness. This finding suggests that youths who perceive their mothers as supportive of their autonomy tend to experience more effective IER interactions. This aligns with my findings from research question 2, providing additional support for my hypothesis that higher parental autonomy support would relate to higher perceptions of IER effectiveness. As discussed previously, high autonomy support likely fosters an environment where youth feel validated and encouraged to express their emotions (Ryan & Deci, 2017), which in turn enhances the effectiveness of IER. However, in contrast to my findings from research question 2, when controlling for autonomy support, mother-child relatedness did not predict IER effectiveness. This discrepancy might be due the methodological differences in these two portions of my study and highlights a potential limitation in my study design. Retrospective reports of IER effectiveness may be more biased by broader quality of the parent-child relationship, compared to parent-child IER interactions that occurred the same day they are reported. Additionally, the 10-day period may not be long enough to capture the full range of variability in parent-child interactions, and extending the observation period could help mitigate short-term fluctuations. Future studies should aim for a longer EMA period, ideally spanning several weeks or months, to capture more stable interaction patterns. Moreover, combining EMA with periodic retrospective assessments could help compare and validate findings across methods, providing a clearer understanding of the differences and similarities between aggregated EMA data and retrospective reports (Shiffman et al., 2008).

Next, I conducted exploratory analyses to examine the extent to which parent-child relatedness and parental autonomy support relate to EMA IER frequency. When exploring the frequency of mother-provided IER, I found that neither mother-child relatedness nor maternal autonomy support significantly predicted the frequency of IER interactions. This could suggest that the frequency of mother-provided IER is influenced by other factors not captured in this study, such as contextual or situational variables that prompt IER interactions. My study did collect data on the context of IER instances, but because I deviated from my initial analysis plan, I could not use this data in the same way. Originally, I planned to use LMM to analyze EMA data, which would have allowed me to consider the context of each IER interaction more robustly. Without LMM, I could aggregate the frequency of contexts (e.g., how many times the participant was upset about school, a social issue, their health, etc.) and include those as covariates. However, this approach would lead to a significant loss of variance and likely lack the statistical power needed due to the six possible contexts. Despite these limitations, I could still consider the context in a descriptive manner by examining which contexts tend to accompany parent-provided IER.

For father-provided IER frequency, only father-child relatedness emerged as a significant predictor. This finding indicates that a closer father-child relationship is associated with more frequent IER interactions. Strong father-child relatedness may facilitate a more open and communicative relationship (Ryan & Deci, 2017) thereby increasing the opportunities for fathers to provide emotional support. In contrast, paternal autonomy support did not predict the frequency of IER, suggesting that while autonomy

support relates to the effectiveness of IER, it does not necessarily relate to how often these interactions occur. One reason might be that for father-child dyads, the frequency of interactions is more contingent on the relationship quality, especially considering that participants were less close with their fathers than with their mothers. Youth may naturally seek out their father if they feel comfortable and close with him, regardless of the level of paternal autonomy support.

Lastly, the effectiveness of mother-provided IER over 10 days predicted youth having the goal to talk to their parents more. This underscores my previous findings from my first research question, highlighting the role of effective IER in fostering open communication between parents and their children. When youth perceived their mothers as effective in providing IER, they were more likely to set goals to communicate with their parents more frequently. This finding aligns with existing literature which emphasizes the importance of perceived support quality in strengthening communication within parent-child relationships (e.g., Carlson, 2016). When youth experience effective emotional support from their mothers, it may reinforce their perception of their mothers as reliable and supportive figures, encouraging them to seek further interaction. However, as discussed previously, the low frequency of father-provided IER prevented me from examining the association between father-provided EMA IER effectiveness and subsequent goals. This would be an interesting avenue to explore in the future, as several studies have identified mothers as preferred social partners for support (e.g., Greene & Grimsley, 1990; Portugal et al., 2019), and there is little to no research examining how the effectiveness of father-provided IER relates to changes in youths' IER goals.

Strengths, Limitations, and Future Directions

This dissertation has several limitations that should be considered when interpreting the findings. A number of these limitations have been highlighted throughout the preceding discussion and will be summarized below when appropriate. First, the cross-sectional and correlational nature of the study design limits the ability to make causal inferences. While significant associations were found between various factors, such as perceived IER effectiveness and the desire for subsequent IER, the directionality of these relationships cannot be assumed. Future longitudinal or experimental studies are needed to clarify these causal pathways. Secondly, the study's small sample size and occasionally infrequent observations pose significant limitations. For instance, with only 84 participants and an average of 1.7 parent-provided IER instances per participant, I was underpowered for more complex analyses, particularly those involving father-provided IER. Likewise, the limited data for significant loss/transition IER also restricted the scope of the analyses, highlighting the necessity for larger sample sizes in future research to ensure there are enough observations in each parental group (e.g., mother-only, father-only, both parents together) to conduct robust analyses. Furthermore, the phrasing of the significant loss/transition IER may have positively biased participants' responses. Namely, participants were asked "Did your parent(s) do anything to try to help you get through this experience?" The use of the work "help" might not pull for the more negative aspects of IER such as neglect or hostility. The retrospective nature of some data collection methods also introduces potential biases. Participants' reports of past IER effectiveness may be influenced by their overall relationship quality with their parents,

rather than specific interactions. This highlights the need for methods that can reduce recall biases, such as real-time data collection through EMA. Although my study aimed to address the limitation of recall biases, future EMAs examining familial IER processes should extend the data collection period in order to obtain more observations. As mentioned previously, it is recommended to have at least 10 observations per participant for a sample of 100 participants. It may also be useful to survey only emerging adults who live with their parents, which may correspond with more opportunities to engage in IER (however, this would limit the generalizability of findings). In my current study, I did not measure the living arrangements of participants during the bulk of the EMA period. Many participants lived both with their parents and in dorms on campus (alternating between weekdays and weekends), which could affect their opportunity to engage in IER. This oversight means that the context in which IER interactions occurred was not fully accounted for. Lastly, participants from my study were all university students, thus they do not represent all emerging adults. As there are likely distinct differences between emerging adults who attend college and those who do not (e.g., SES, psychological well-being, Arnett, 2016; NCES, 2023), my findings should be interpreted cautiously. Future studies should include noncollege emerging adults, as well as measure participants' living arrangements at the time of data collect to better understand the environmental factors relating to IER dynamics. Overall, addressing these limitations in future research will

enhance the understanding of IER processes and their implications for the well-being of emerging adults and their relationships with their parents.

One notable strength of my study is that it addresses a somewhat novel and understudied topic, exploring the dynamics of IER within emerging adults' families. First, I simultaneously examined IER processes for both mothers and fathers. Including both parents provides a more comprehensive view of the family dynamics and highlights the unique and potentially different roles mothers and fathers play in providing emotional support. Moreover, my study helps build upon existing empirical work that has identified social and emotional support as integral for the health of emerging adults. For instance, other research (e.g., Galambos et al., 2006; Rueger et al., 2016) has found significant associations between parental support and lower levels of depression in children and adolescents, and increased psychological well-being in emerging adults. By understanding the more nuanced aspects of parental support (e.g., perceived IER effectiveness, desire for subsequent IER, autonomy support, and parent-child relatedness), developmental and social psychology researchers are better equipped to aid families through intervention and prevention programs.

Another strength of this study is the diverse and primarily non-White sample, which deviates from the characteristics of typical samples. The inclusion of a substantial number of Asian and Latinx participants provided a unique opportunity to examine parent-provided IER processes within the context of cultures that emphasize values such as interdependence, filial piety, and *familismo* (Cole & Tan, 2015). For instance, by asking emerging adults how their family's culture or background informs emotion

processes within the family, I was able to qualitatively identify themes that otherwise would not have emerged from the data. Although a handful of participants mentioned culture when broadly asked about parent-provided IER, the vast majority did not until they were prompted to reflect upon it. As such, this sample of participants allowed for a more inclusive study of parent-child relationships and emotional dynamics amidst families from diverse cultural backgrounds.

Looking ahead, several avenues for future research and application can build on the findings from this study. First, this dissertation highlights the importance of examining potential mediating relationships between IER effectiveness and subsequent desire for IER. For instance, understanding how parents' reflections on their IER interactions can influence both their effectiveness and youths' subsequent support-seeking behavior could be beneficial. Effective IER interactions may stem from parents addressing specific reasons their children do not perceive their support as effective. Future interventions and parenting programs can be designed to enhance parent-child relatedness and autonomy support, which were significant predictors of IER effectiveness. Given the developmental period of emerging adulthood, autonomy support is particularly crucial for fostering independence and emotional growth (e.g., Ryan & Deci, 2017).

Moving beyond youths' *desire* for IER, future research should also explore the relationship between perceptions of IER, desire for future IER, and *actual*, observed, subsequent behavior. Although youth may report that certain aspects of IER relate to their decisions to seek support in the future, to what extent do these desires predict IER

seeking behavior? Regardless of whether emerging adults think they will or will not engage in subsequent parent-provided IER, does their intent correspond to actual behavior? This direction of research would provide additional context to my findings, as well as expand on the real-life implications of parent-provided IER during emerging adulthood.

Additionally, focusing on family dynamics and non-familial support could provide further insights. Some participants reported not seeking support from their fathers because they felt closer to their mothers and already felt better after receiving maternal support. For example, one participant noted, "By the time I talk to my mom, I feel better and don't need to talk to my dad." This underscores the need to explore the relational context within families and how support dynamics between different family members influence IER. Furthermore, the role of other support partners in emerging adults' lives, such as friends, romantic partners, and siblings, warrants investigation. These relationships may play a complementary or substitutive role in providing IER, and understanding these dynamics could provide a more holistic view of IER in emerging adults.

Given that IER frameworks are relatively new, continued theoretical testing is necessary. Future research should aim to validate and expand upon existing IER models (e.g., Hofmann et al., 2016; Zaki & Williams, 2013), exploring their applicability across different cultural and developmental contexts. Expanding research to include diverse cultural backgrounds can provide a more comprehensive understanding of how IER processes function across different environments. For instance, cultural norms

surrounding emotional expression and support-seeking behavior can vary widely (e.g., Mesquita et al., 2017), and these differences may influence how IER strategies are perceived and utilized. Moreover, developmental context plays a crucial role in emotional regulation and support dynamics (e.g., Fosco et al., 2012; Shih et al., 2018; Zhang & Grant, 2023), and emerging adulthood in particular is a distinct developmental period characterized by significant emotional and social changes (Arnett, 2015). Future studies should examine how IER processes differ across various stages of development, such as childhood, adolescence, emerging adulthood, and later adulthood. Understanding these differences can help tailor interventions to be developmentally appropriate and more effective.

Conclusion

In this dissertation, I aimed to shed light on the nuanced dynamics of IER between parents and their emerging adult children. By exploring the predictors of effective parent-provided IER and youths' desire for parent-provided IER, this study contributes to the burgeoning field of emotional regulation within family contexts. Key findings reveal that parental autonomy support and parent-child relatedness significantly relate to the perceived effectiveness of IER, underscoring the importance of fostering supportive and open family environments. Interestingly, this study also highlights the differential impact of cultural norms and gender roles on IER processes. For instance, father-provided IER was particularly impactful in families that endorsed expressive suppression norms, suggesting that emotional support from fathers may be more salient when it deviates from expected behavior. This emphasizes the importance of considering

cultural and gender dynamics in emotional regulation research. The simultaneous examination of mother- and father-provided IER, along with the use of diverse methods, enhances the robustness of the findings. Future studies should build on these insights, exploring the mediating relationships between IER predictors and outcomes, the role of family dynamics, and the impact of other support networks in emerging adults' lives. As the field of IER continues to evolve, this research offers a valuable foundation for future theoretical work and empirical explorations, emphasizing the need for a better understanding of emotional processes within the intricate tapestry of family life.

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Appendix A – Measures

Demographic Questionnaire

1. What is your birth date?
    - Dropdown menus (year, month, day)
2. What is your gender identity?
    - Female
    - Male
    - Non-binary/Third gender
    - Prefer not to say
    - Prefer to self-describe: *free response
3. What is your sexual identity?
    - Straight/heterosexual
    - Bisexual/pansexual
    - Gay/lesbian
    - Asexual
    - Prefer not to say
    - Prefer to self-describe: *free response
4. What is your current relationship status?
    - Single
    - In a relationship
    - Married
    - Divorced
    - Widowed
    - Prefer not to say
    - Prefer to self-describe: *free response
5. What is the highest level of education you have completed?
    - Grade school (e.g., 8th grade)
    - Some high school
    - High school
    - Trade or technical school
    - Some college / currently in college
    - Undergraduate degree (e.g., B.A./B.S.)
    - Some graduate school
    - Graduate degree (e.g., master's or doctorate)
6. Who do you currently live with? (check all that apply)
    - Mother
    - Father
    - Brother(s)
    - Sister(s)
    - Spouse or significant other
    - Friend(s) or roommate(s)

- I live alone
- I am unhoused (e.g., shelters, cars, streets)
- +click here to add additional persons
- Other: *free response

7. Are you a dependent? (i.e., Does someone pay for most of your expenses, such as rent, insurance, food, etc.? Most students qualify as a dependent.)
    - Yes
    - No
8. What is your total income before taxes (if you are a dependent, please report your family's income)?
    - Under $10,000
    - $10,000 to $19,000
    - $20,000 to $39,000
    - $40,000 to $59,000
    - $60,000 to $79,000
    - $80,000 to $100,000
    - Over $100,000

Ethnic Identity: Multigroup Ethnic Identity Measure – Revised (MEIM-R)

In this country, people come from a lot of different cultures and there are many different words to describe the different backgrounds or *ethnic groups* that people come from. Some examples of the names of ethnic groups are Latino, Hispanic, Black, Asian-American, Native-American, and White. Everyone person is born into an ethnic group, or sometimes more than one group, but people differ on how important their ethnicity is to them, how they feel about it, and how much their behavior is affected by it. These questions are about your ethnicity and how you feel about it.

1. In terms of my ethnicity, I consider myself to be: [write-in]
2. Using a scale of 1 (strongly disagree) to 5 (strongly agree), indicate how you feel about the following statements.
    1. I have spent time trying to find out more about my ethnic group, such as its history, traditions, and customs.
    2. I have a strong sense of belonging to my own ethnic group.
    3. I understand pretty well what my ethnic group membership means to me.
    4. I have often done things that will help me understand my ethnic background better.
    5. I have often talked to other people in order to learn more about my ethnic group.
    6. I feel a strong attachment towards my own ethnic group.
3. Please check the box(es) that best describe your ethnicity:
    - Asian (A person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent including, for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam)
    - Black/African/African American (A person having origins in any of the Black racial groups of Africa)
    - Latino/a/x (A person having Latin American origin or ancestry)
    - Native Hawaiian/Other Pacific Islander (A person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands)
    - White (A person having ancestry in any of the original peoples of Europe)
    - Middle Eastern/North African (A person having ancestry in any of the original peoples of the Middle East or North Africa)
    - Native American/Indigenous Peoples (A person having origins in any of the original peoples of North and South America (including Central America), and who maintains tribal affiliation or community attachment)
    - Prefer not to say
4. Please check the box(es) that best describe your mother's ethnicity:
    - Asian (A person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent including, for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam)

- Black/African/African American (A person having origins in any of the Black racial groups of Africa)
- Latino/a/x (A person having Latin American origin or ancestry)
- Native Hawaiian/Other Pacific Islander (A person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands)
- White (A person having ancestry in any of the original peoples of Europe)
- Middle Eastern/North African (A person having ancestry in any of the original peoples of the Middle East or North Africa)
- Native American/Indigenous Peoples (A person having origins in any of the original peoples of North and South America (including Central America), and who maintains tribal affiliation or community attachment)
- Prefer not to say
- Unknown

5. Please check the box(es) that best describe your father's ethnic background:
    - Asian (A person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent including, for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam)
    - Black/African/African American (A person having origins in any of the Black racial groups of Africa)
    - Latino/a/x (A person having Latin American origin or ancestry)
    - Native Hawaiian/Other Pacific Islander (A person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands)
    - White (A person having ancestry in any of the original peoples of Europe)
    - Middle Eastern/North African (A person having ancestry in any of the original peoples of the Middle East or North Africa)
    - Native American/Indigenous Peoples (A person having origins in any of the original peoples of North and South America (including Central America), and who maintains tribal affiliation or community attachment)
    - Prefer not to say
    - Unknown

Parent-Child Relatedness: Basic Need Satisfaction in Relationships

Please respond to each statement by indicating how true it is for you. Use the following scale.

1 = *not true at all* —— 7 = *very true*

1. When I am with my parent, I feel free to be who I am.
2. When I am with my parent, I feel like a competent person.
3. When I am with my parent, I feel loved and cared about.
4. When I am with my parent, I often feel inadequate or incompetent.
5. When I am with my parent, I have a say in what happens, and I can voice my opinion.
6. When I am with my parent, I often feel a lot of distance in our relationship.
7. When I am with my parent, I feel very capable and effective.
8. When I am with my parent, I feel a lot of closeness and intimacy.
9. When I am with my parent, I feel controlled and pressured to be certain ways.

Scoring key
Autonomy: 1, 5, 9(R)
Competence: 2, 4(R), 7
Relatedness: 3, 6(R), 8

Difficulties in Emotion Regulation Scale (DERS)

Please indicate how often the following statements apply to you by clicking on the appropriate response.

Scale:
Almost never – 1, Sometimes – 2, About half the time – 3, Most the time – 4, Almost always – 5

1. I am clear about my feelings.
2. I pay attention to how I feel.
3. I experience my emotions as overwhelming and out of control.
4. I have no idea how I am feeling.
5. I have difficulty making sense out of my feelings.
6. I am attentive to my feelings.
7. I know exactly how I am feeling.
8. I care about what I am feeling.
9. I am confused about how I feel.
10. When I'm upset, I acknowledge my emotions.
11. When I'm upset, I become angry with myself for feeling that way.
12. When I'm upset, I become embarrassed for feeling that way.
13. When I'm upset, I have difficulty getting work done.
14. When I'm upset, I become out of control.
15. When I'm upset, I believe that I will remain that way for a long time.
16. When I'm upset, I believe that I will end up feeling very depressed.
17. When I'm upset, I believe that my feelings are valid and important.
18. When I'm upset, I have difficulty focusing on other things.
19. When I'm upset, I feel out of control.
20. When I'm upset, I can still get things done.
21. When I'm upset, I feel ashamed of myself for feeling that way.
22. When I'm upset, I know that I can find a way to eventually feel better.
23. When I'm upset, I feel like I am weak.
24. When I'm upset, I feel like I can remain in control of my behaviors.
25. When I'm upset, I feel guilty for feeling that way.
26. When I'm upset, I have difficulty concentrating.
27. When I'm upset, I have difficulty controlling my behaviors.
28. When I'm upset, I believe there is nothing I can do to make myself feel better.
29. When I'm upset, I become irritated at myself for feeling that way.
30. When I'm upset, I start to feel very bad about myself.
31. When I'm upset, I believe that wallowing in it is all I can do.
32. When I'm upset, I lose control over my behavior.
33. When I'm upset, I have difficulty thinking about anything else.
34. When I'm upset, I take time to figure out what I'm really feeling.
35. When I'm upset, it takes me a long time to feel better.
36. When I'm upset, my emotions feel overwhelming.

Interpersonal Emotion Regulation Questionnaire (IERQ)

Below is a list of statements that describe how people use others to regulate their emotions. Please read each statement and then indicate how much this is true for you by using a scale from 1 (not true for me at all) to 5 (extremely true for me). Please do this for each statement. There are no right or wrong answers.

Scale:
Not true at all – 1, A little bit – 2, Moderately – 3, Quite a bite – 4, Extremely true – 5

1. It makes me feel better to learn how others dealt with their emotions.
2. It helps me deal with my depressed mood when others point out that things aren't as bad as they seem.
3. I like being around others when I'm excited to share my joy.
4. I look for other people to offer me compassion when I'm upset.
5. Hearing another person's thoughts on how to handle things helps me when I am worried.
6. Being in the presence of certain other people feels good when I'm elated.
7. Having people remind me that others are worse off helps me when I'm upset.
8. I like being in the presence of others when I feel positive because it magnifies the good feeling.
9. Feeling upset often causes me to seek out others who will express sympathy.
10. When I am upset, others make me feel better by making me realize that things could be a lot worse.
11. Seeing how others would handle the same situation helps me when I am frustrated.
12. I look to others for comfort when I feel upset.
13. Because happiness is contagious, I seek out other people when I'm happy.
14. When I am annoyed, others can soothe me by telling me not to worry.
15. When I'm sad, it helps me to hear how others have dealt with similar feelings.
16. I look to other people when I feel depressed just to know that I am loved.
17. Having people telling me not to worry can calm me down when I am anxious.
18. When I feel elated, I seek out other people to make them happy.
19. When I feel sad, I seek out others for consolation.
20. If I'm upset, I like knowing what other people would do if they were in my situation.

Perceived Parental Autonomy Support Scale (P-PASS)

Please answer the following questions about your parent (i.e., the same parent that gave you emotional support). Using the scale below, indicate the extent to which you agree with each of the statements regarding your parent's behaviors over the past few months.

Scale:
Do not agree at all- 1, Hardly agree- 2, Slightly agree- 3, Somewhat agree- 4, Agree- 5, Strongly agree- 6, Very strongly agree- 7

For the past few months…

1. My parent gave me many opportunities to make my own decisions about what I was doing.
2. When my parent asked me to do something, they explained why they wanted me to do it.
3. When I refused to do something, my parent threatened to take away certain privileges in order to make me do it.
4. My point of view was very important to my parent when they made important decisions concerning me.
5. My parent refused to accept that I could want simply to have fun without trying to be the best.
6. When my parent wanted me to do something differently, they made me feel guilty.
7. My parent encouraged me to be myself.
8. Within certain limits, my parent allowed me the freedom to choose my own activities.
9. When I was not allowed to do something, I usually knew why.
10. I always had to do what my parent wanted me to do, if not, they would threaten to take away privileges.
11. My parent believed that, in order to succeed, I always had to be the best at what I did.
12. My parent made me feel guilty for anything and everything.
13. My parent was able to put themselves in my shoes and understand my feelings.
14. My parent hoped that I would make choices that corresponded to my interests and preferences regardless of what theirs was.
15. When my parent wanted me to do something, I had to obey or else I was punished.
16. My parent was open to my thoughts and feelings even when they were different from theirs.
17. In order for my parent to be proud of me, I had to be the best.
18. When my parent wanted me to act differently, they made me feel ashamed in order to make me change.
19. My parent made sure that I understood why they forbid certain things.
20. As soon as I didn't do exactly what my parent wanted, they threatened to punish me.
21. My parent used guilt to control me.

22. My parent insisted that I always be better than others.
23. When I asked why I had to do, or not do, something, my parent gave me good reasons.
24. My parent listened to my opinion and point of view when I disagreed with them.

Appendix B – Semi-Structured Interview

"Before we get started, I'm curious how you are feeling right now. On a sadness scale of 10, 1 being not sad at all to 10 being very sad, how sad are you feeling right now? On a happiness scale of 10, 1 being not happy at all to 10 being very happy, how happy are you feeling right now?"

"Today I'm going to ask you some questions about you, your family, and what things are like in your lives. Some of the questions I will ask will be about your parents. For the purposes of this conversation, your parents are the people who were your primary caregivers, who were responsible for your care and upbringing. Who are your parents and are you in contact with them?"

- **If in contact with one parent,** the following questions will be asked for only that one parent.
- **If in contact with two parents,** the following questions will be asked individually for each parent.
- **If participant expresses more than two parental figures** (e.g., step-parents, foster-parents, other caregivers), ask them to reflect upon whether they consider each of these people their parent. Instruct the participant to choose a maximum of two parents to discuss during the interview; the following questions will be asked individually for each parent.

"Please tell me about your home. Who do you live with?"

- **If living independently from parent(s):** "Do your parent(s) live nearby? How often do you communicate with them?"

"Do you talk with your parent(s) about your life? If so, what kinds of things do you talk about?"

"Tell me about your relationship with your parent(s)."

"What kinds of things do you and your parent(s) like to do together?"

"Do your parent(s) like to talk about and show their feelings, or do they prefer to keep feelings to themselves?"

"If something unrelated to your parent(s) makes you feel upset or distressed, and your parent(s) are aware of your feelings, what do they do?"

- "On a scale of 0-100, how helpful is it when your parent [does that]?"
- "When your parent [does that], do you think it makes you more or less likely to seek their support in the future?"

"If something about your parent(s) makes you feel upset or distressed, and your parent(s) are aware of your feelings, what do they do?"

- "On a scale of 0-100, how helpful is it when your parent [does that]?"
- "When your parent [does that], do you think it changes your willingness to seek their support in the future?"
- "What about on a scale of 0-100, 0 being extremely less willing, and 100 being extremely more willing?"

"When you feel upset, do you ever actively seek out your parent(s) to help yourself feel better? Why or why not?"

"What happens when you and your parent(s) disagree about something?"

"What kinds of things make you feel upset or distressed, in general?"

"When you feel upset, what do you do or think about to help yourself feel better?"

"Does it help you feel better to do [that]?"

"What about when your parent(s) feel upset or distressed, what do they do to try to feel better?"

"Do you think it helps them feel better when they do [that]?"

"And what do you do when you parent(s) feel upset or distressed about something?"

"Can you tell me about anything [else] that has been stressful for you and your parent(s) (or family in general) recently?"

"Is there anything about your family's culture or background that you feel plays a role in how emotions are dealt within the family?"

"What kinds of activities make you and your parent(s) (or family in general) feel happy and not stressed?"

"Now I'd like you to think of a time in your life that involved **a significant loss or transition** (e.g., death, moving, starting a new job). Whenever you're ready, tell me about this significant loss or transition. Try to talk for a few minutes—if you were writing, think about filling a whole page with writing."

"How do you think this event impacted you?"

- **Follow up if they don't mention feeling words:** "What do you remember feeling during this time?"

"Did you do anything to get through this experience?"

"Did you do or think about anything to maintain or change how you felt?"

"Is there anything else you did or thought about?"

"Did doing that/thinking about that change how you felt?"

"Thank you for sharing all of that with me. Have you talked with your parent(s) about this experience?

- **If NO:** "Is that something you would be willing to talk to them about?"
    - **If NO:** "Why not?"
    - **If YES:** "Why haven't you shared this experience with them?"

- **If YES:**
    - "What was your goal when you shared about this experience with your parent(s)?"
    - "How did you feel when you shared about this experience with your them?"
    - "Did your parent(s) do anything to try to help you get through this experience?"
    - "On a scale of 0-100, how helpful was it when your parent [did that]?"
    - "How do you think your parent(s) felt when you shared this experience with them?"
        - **Follow up if they don't mention feeling words:** "What do you remember your parents expressing during this time?"
    - "Do you feel like you also provided your parent(s) with emotional support regarding with experience? If so, in what way?"
    - "Are there any details you changed or left out when discussing this experience with your parent(s)?"
    - "Did talking about this experience with your parent(s) change your future decisions to share your feelings with them?"
        - **If NO:** "Why not?"
        - **If YES:** "In what way?"

"Can you tell me about something about something you and your parent(s) are excited about or looking forward to?"

"And what's something unrelated to your family that you are excited about or looking forward to?"

"Thank you for talking about this with me, I really appreciate your sharing this story. I'm curious how you are feeling right now. On a sadness scale of 10, 1 being not sad at all to 10 being very sad, how sad are you feeling right now? On a happiness scale of 10, 1 being not happy at all to 10 being very happy, how happy are you feeling right now?"

Appendix C – Ecological Momentary Assessment

Each evening for 10 days, you will be asked to report on your most prominent emotion eliciting experience that day, whether you received support from your parent(s), what this support was, and whether this support was effective. Today is day number [insert EMA day x/10].

Having emotions is a natural part of life. We are interested in how interactions with other people affect our emotions. You might remember times when someone else's presence or something they did or said helped you to manage your emotions or feel better. These other people might include romantic partners, friends, family members, acquaintances, or anyone else.

We are interested in what you experienced today (i.e., within the past 24 hours). Think about times in the past day when you wanted to feel more or less positive, more or less negative, or more or less calm.

For the following questions, please think about an emotional experience you had today (i.e., within the past 24 hours). This emotional experience might have been minor, moderate, or intense. Please do not discount an emotional experience simply because it was brief. If you can think of more than one experience, please focus only on the one that you can remember most clearly.

1. Which of the following were you the most upset about today? Select one.
    - Economic or job issue
    - Academic issue
    - Cultural or societal issue
    - Physical/mental health issue
    - Family issue
    - Romantic relationship issue
    - Peer/friend issue
    - Other (write-in):
    - I was not upset about anything today
        - **[ends EMA]**

2. How upset were you about this [issue] when you experienced it earlier today?
    - [insert scale from 1 (hardly upset at all) to 10 (extremely upset)]

3. How upset are you about this [issue] now?
    - [insert scale from 1 (hardly upset at all) to 10 (extremely upset)]]

4. What strategies did you use to regulate your emotions about your [issue]? Select all that apply.

- Rumination: thinking over and over about the issue
- Worrying: thinking about what bad things could happen in the future
- Avoidance: choosing to do something else or go somewhere else (like leaving the room)
- Problem-Solving: taking action to change the situation, minimize the consequences, or fix what caused the emotions
- Distraction: focusing your attention on something other than the situation (like listening to music or watching TV)
- Reappraisal: changing what you think about the situation or changing what the situation means to you (like looking on the bright side, thinking about how it won't matter in 5 years)
- Emotional Suppression: not allowing yourself to feel your emotions
- Expressive Suppression: not allowing yourself to express your emotions or not showing others how you feel (like hiding facial expressions)
- Acceptance: acknowledging and becoming aware of emotions without trying to change them (like telling yourself "It's okay I feel this like.")
- Sharing: expressing and talking about emotions with another person
- Gratitude: focusing on what you are grateful for
- Physical Activity: doing something physical, like exercising, working out, or purposefully changing your breathing
- Other (write-in)

5. Did your parent(s) try to manage or change your emotions (*regardless of whether this was helpful or not*)?

- **If NO: [end EMA]**
- **If YES:**
    - 6. Which parent(s)?
        - Mother
        - Father
        - Other (write-in)
    - 7. Where did the interaction with your [insert parent] take place?
        - In-person
        - Phone-call
        - Video-call (e.g., Facetime, Zoom, Skype)
        - Texting
        - Social media (e.g., Facebook, Snapchat, Instagram)
        - Other (write-in)
    - 8. Did you actively try to get the emotional support from your [insert parent]?
        - Yes, I approached my parent for emotional support
        - No, my parent offered support before I indicated (or without me expressing) that I wanted support
    - 9. What did your [insert parent] do?

        - [Parent] was emotionally responsive: such as being caring, understanding, or validating
        - [Parent] was cognitively supportive: such as looking on the bright side, problem-solving, providing information, or planning
        - [Parent] was neglectful/hostile: such as being invalidating, dismissive, or aggressive
    - Answer the following questions based on how you felt after the emotional support from your parent.
        - 10. Overall, how much did that interaction help you to change how you were feeling? (rated from 1 "definitely unhelpful" to 9 "definitely helpful")
        - 11. How did that interaction change how you felt about yourself overall? (rated from 1 "felt much worse about myself" to 9 "felt much better about myself")
        - 12. How did that interaction change how connected you felt to your parent? (rated from 1 "felt much less connected" to 9 "felt much more connected")
        - 13. How did that interaction change your ability to cope with the situation? (rated from 1 "felt much less able to cope" to 9 "felt much more able to cope")
        - 14. How did that interaction change your sense of control over your emotions? (rated from 1 "felt much less in control" to 9 "felt much more in control")
        - 15. How did that interaction change how willing you are to receive emotional support from your parent(s)? (rated from 1 “felt much less willing” to 9 “felt much more willing”)

Thank you for your responses! As a reminder, please note that to receive the full 1 SONA credit for Part 3 of this study, you need to complete at least 7 of the 10-day surveys **and** complete the final survey. If you do not complete this final survey, you will only receive .5 SONA credits. Likewise, if you do not complete at least 7 of the 10-day surveys, you will only receive .5 SONA. If you do not complete at least 7 of the 10-day surveys and do not complete the final survey, you will receive no SONA credit.

Appendix D – Final Survey

Final Survey

For the following questions, please reflect back on the 10 days you that you were asked to complete daily surveys.

1. Please reflect on the past 10 days and think about your experiences in receiving emotion support from your parent(s). Were there any instances where you felt their support was particularly helpful or unhelpful?
   [free-response)

2. Over the past 10 days, how comfortable did you feel seeking emotional support from your parent(s)?
   [free-response)
   Are there any factors that made you more or less likely to approach them for support?
   [free-response)

3. Have there been any changes in your relationship with your parent(s) during the past 10 days that may have affected the quality of emotional support provided by your parent(s)?
   [free-response)
   If so, how have these changes impacted your emotional support experiences with your parent(s)?
   [free-response)

4. Looking ahead, do you foresee any changes in how you seek and receive emotional support from your parent(s) in the future?
   [free-response)
   Are there any specific goals you have for improving or maintaining the quality of your emotional support interactions with your parent(s)?
   [free-response)

5. Based on your experiences with parent-provided emotional support throughout the study, what insights or recommendations do you have for improving emotional support interactions between parents and their adult-aged children?
   [free-response)

Appendix E: Tables and Figures

Table 1a: Mother-child variable means, standard deviations, and ranges

Variable	*M*	*SD*	*Range*
1. Age	19.81	1.31	18.08 – 24.99
2. Gender	1.76	0.43	1 – 2
3. Mother-Child Relatedness	5.49	1.36	2 – 7
4. Autonomy Support	4.49	1.28	2.08 – 6.92
5. Emotion Dysregulation	15.18	3.62	6.57 – 26.32
6. IER Enhance Pos. Emotions	19.31	4.35	8 – 25
7. IER Soothing	13.98	5.36	5 – 25
8. IER Perspective Taking	12.24	4.89	5 – 25
9. IER Social Modeling	17.19	4.78	5 – 25
10. Suppression Norm	0.62	0.49	0 – 1
11. IER Effectiveness	71.11	22.48	10 – 100
12. IER Desire	69.46	24.86	0 – 100
13. Tendency to Seek IER	2.41	1.20	1 – 4
14. IER EMA Frequency	0.82	1.16	0 – 5
15. IER EMA Effectiveness	30.34	8.19	11.75 – 45

Note. M and *SD* are used to represent mean and standard deviation, respectively. IER refers to interpersonal emotion regulation.

Table 1b: Mother-child correlations

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Age														
2. Gender	.03													
3. Mother-Child Relatedness	-.08	-.01												
4. Autonomy Support	.01	-.07	.69**											
5. Emotion Dysregulation	-.07	.13	-.41**	-.38**										
6. IER Enhance Pos. Emotions	-.22*	.43**	.28*	.18	-.03									
7. IER Soothing	-.25*	.27*	.02	.09	.12	.48**								
8. IER Perspective Taking	-.15	.18	-.05	.17	.11	.29**	.55**							
9. IER Social Modeling	-.13	.29**	.03	.19	-.02	.33**	.45**	.50**						
10. Suppression Norm	-.01	.30**	-.21	-.15	.10	-.03	-.12	.05	.11					
11. IER Effectiveness	-.06	.08	.50**	.49**	-.22*	.26*	.10	.04	.08	-.06				
12. IER Desire	-.20	.23*	.62**	.51**	-.12	.31**	.22*	.05	.16	-.04	.69**			
13. Tendency to Seek IER	.06	.06	.38**	.40**	-.17	.07	-.03	-.03	.10	-.09	.44**	.35**		
14. IER EMA Frequency	-.16	.11	.12	.07	.16	.20	.21	.13	.16	.01	.08	.14	.18	
15. IER EMA Effectiveness	-.05	-.25	.47**	.64**	-.57**	-.18	-.05	-.09	.01	-.30	.54**	.41*	.40**	-.07

Note. * indicates $p < .05$. ** indicates $p < .01$. IER refers to interpersonal emotion regulation.

Table 2a: Father-child variable means, standard deviations, and ranges

Variable	*M*	*SD*	*Range*
1. Age	19.81	1.31	18.08 – 24.99
2. Gender	1.76	0.43	1 – 2
3. Father-Child Relatedness	5.00	1.45	2 – 7
4. Autonomy Support	4.48	1.23	1.92 – 6.75
5. Emotion Dysregulation	15.18	3.62	6.57 – 26.32
6. IER Enhance Pos. Emotions	19.31	4.35	8 – 25
7. IER Soothing	13.98	5.36	5 – 25
8. IER Perspective Taking	12.24	4.89	5 – 25
9. IER Social Modeling	17.19	4.78	5 – 25
10. Suppression Norm	0.62	0.49	0 – 1
11. IER Effectiveness	63.12	28.05	0 – 100
12. IER Desire	59.47	28.44	0 – 100
13. Tendency to Seek IER	1.77	1.06	1 – 4
14. IER EMA Frequency	0.29	0.67	0 – 4
15. IER EMA Effectiveness	32.26	10.31	4 – 45

Note. M and *SD* are used to represent mean and standard deviation, respectively. IER refers to interpersonal emotion regulation.

Table 2b: Father-child correlations

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Age														
2. Gender	.03													
3. Father-Child Relatedness	-.16	.02												
4. Autonomy Support	-.07	-.00	.65**											
5. Emotion Dysregulation	-.07	.13	-.23*	-.25*										
6. IER Enhance Pos. Emotions	-.22*	.43**	.27*	.20	-.03									
7. IER Soothing	-.25*	.27*	-.03	.03	.12	.48**								
8. IER Perspective Taking	-.15	.18	.09	.21	.11	.29**	.55**							
9. IER Social Modeling	-.13	.29**	.01	.16	-.02	.33**	.45**	.50**						
10. Suppression Norm	-.01	.30**	-.13	-.17	.10	-.03	-.12	.05	.11					
11. IER Effectiveness	-.02	.01	.43**	.59**	-.16	.12	-.04	.08	-.03	-.15				
12. IER Desire	-.12	.05	.46**	.62**	-.18	.18	.06	.16	.18	-.04	.75**			
13. Tendency to Seek IER	.01	.14	.32**	.42**	-.32**	.00	-.02	.07	.07	.11	.31**	.40**		
14. IER EMA Frequency	.04	.19	.31**	.29*	-.09	.04	.14	.12	-.07	.04	.21	.21	.27*	
15. IER EMA Effectiveness	-.12	-.31	.08	.14	-.27	-.08	.12	.46	.40	-.08	.17	.21	.39	-.02

Note. * indicates $p < .05$. ** indicates $p < .01$. IER refers to interpersonal emotion regulation.

Table 3: Strategies during significant loss/transition IER and general IER

IER Strategy	Significant IER	General IER
Emotional Responsiveness		
Both Parents	8/17 = 47.1%	–
Mother	14/22 = 63.6%	36/80 = 45%
Father	4/13 = 30.8%	14/77 = 18.2%
Weighted Average	50%	31.8%
Active Care		
Both Parents	4/17 = 23.5%	–
Mother	1/22 = 4.5%	9/80 = 11.2%
Father	2/13 = 15.4%	8/77 = 10.4%
Weighted Average	13.5%	10.8%
Practical Aid		
Both Parents	5/17 = 29.4%	–
Mother	6/22 = 27.3%	32/80 = 40%
Father	3/13 = 23.1%	19/77 = 24.7%
Weighted Average	26.9%	32.5%
Cognitive Support		
Both Parents	3/17 = 17.6%	–
Mother	7/22 = 31.8%	25/80 = 31.2%
Father	3/13 = 23.1%	16/77 = 20.8%
Weighted Average	25%	26.1%
Hostility		
Both Parents	1/17 = 5.9%	–
Mother	1/23 = 4.3%	5/80 = 6.2%
Father	0/13 = 0%	5/77 = 6.5%
Weighted Average	3.8%	6.4%
Absence of Support		
Both Parents	1/17 = 5.9%	–
Mother	2/23 = 8.7%	12/80 = 15%
Father	1/13 = 7.7%	14/77 = 18.2%
Weighted Average	7.5%	16.6%

Table 4a: Multiple regression relating desire for subsequent mother-provided IER to IER effectiveness

Predictor	*b*	*b* 95% CI	*p*	*beta*	*beta* 95% CI	sr^2	sr^2 95% CI	*r*	Fit	Difference
(Intercept)	38.08	[-28.01, 113.77]	.20							
Relatedness	11.20**	[7.75, 14.27]	< .001	0.61	[0.41, 0.76]	.34	[.18, .51]	.61**		
Gender	12.83*	[2.71, 22.99]	.010	0.22	[0.05, 0.39]	.05	[-.02, .12]	.22		
Age	-2.68	[-6.10, 0.39]	.062	-0.14	[-0.33, 0.02]	.02	[-.03, .07]	-.22		
									Adj. R^2 = .434**, p < .001 95% CI[.25,.55]	
(Intercept)	26.69	[-31.74, 87.71]	.26							
IER Effectiveness	0.53**	[0.34, 0.71]	< .001	0.48	[0.31, 0.64]	.17	[.06, .29]	.67**		
Relatedness	6.73**	[3.66, 9.89]	< .001	0.37	[0.20, 0.53]	.10	[.01, .19]	.61**		
Gender	10.66**	[2.46, 19.53]	.009	0.19	[0.04, 0.33]	.04	[-.02, .09]	.22		
Age	-2.58*	[-5.39, 0.07]	.032	-0.14	[-0.29, 0.00]	.02	[-.02, .06]	-.22		
									Adj. R^2= .607**, p < .001 95% CI[.45,.69]	ΔR^2 = .173** 95% CI[.06, .29]

Note. Step 1 included only covariates and step 2 added the variable of interest. Relatedness refers to mother-child relatedness; Gender and Age refer to the participant. IER Effectiveness refers to youths' perception of mother-provided IER effectiveness. * indicates p < .05. ** indicates p < .01.

Table 4b: Multiple regression relating desire for subsequent father-provided IER to IER effectiveness

Predictor	*b*	*b* 95% CI	*p*	*beta*	*beta* 95% CI	sr^2	sr^2 95% CI	*r*	Fit	Difference
(Intercept)	27.05	[-69.66, 133.20]	.61							
Relatedness	8.96**	[4.65, 13.19]	< .001	0.46	[0.24, 0.67]	.20	[.04, .36]	.46**		
Gender	2.79	[-10.49, 17.75]	.69	0.04	[-0.16, 0.27]	.00	[-.02, .03]	.07		
Age	-0.88	[-5.79, 3.50]	.72	-0.04	[-0.27, 0.16]	.00	[-.02, .02]	-.13		
									Adj. R^2 = .186**, p < .001 95% CI[.05,.35]	
(Intercept)	28.59	[-39.81, 104.72]	.48							
IER Effectiveness	0.69**	[0.54, 0.88]	< .001	0.69	[0.52, 0.86]	.39	[.23, .55]	.76**		
Relatedness	3.07	[-0.41, 6.32]	.061	0.16	[-0.02, 0.32]	.02	[-.02, .06]	.46**		
Gender	2.69	[-6.77, 13.35]	.57	0.04	[-0.10, 0.20]	.00	[-.01, .02]	.07		
Age	-1.66	[-5.22, 1.42]	.32	-0.08	[-0.24, 0.07]	.01	[-.02, .03]	-.13		
									Adj. R^2 = .574**, p < .001 95% CI[.43,.69]	ΔR^2 = .388** 95% CI[.23, .55]

Note. Step 1 included only covariates and step 2 added the variable of interest. Relatedness refers to father-child relatedness; Gender and Age refer to the participant. IER Effectiveness refers to youths' perception of father-provided IER effectiveness. * indicates p < .05. ** indicates p < .01.

Table 5a: Multiple regression relating desire for subsequent mother-provided IER to suppression norms

Predictor	*b*	*b* 95% CI	*p*	sr^2	sr^2 95% CI	Fit	Difference
(Intercept)	27.52	[-28.64, 93.30]	.33				
Relatedness	6.69**	[3.73, 10.26]	<.001	.10	[.01, .19]		
Age	-2.60*	[-5.70, -0.14]	.04	.02	[-.02, .07]		
Gender	10.79**	[3.19, 21.77]	.01	.04	[-.02, .10]		
IER Effectiveness	0.53**	[0.30, 0.69]	<.001	.14	[.04, .25]		
Suppression	-0.40	[-8.95, 7.20]	.92	.00	[-.00, .00]		
						Adj. R^2 = .60**, *p* <.001 95% CI[.44,.69]	
(Intercept)	24.35	[-33.97, 92.07]	.40				
Relatedness	6.71**	[3.73, 10.29]	<.001	.10	[.01, .19]		
Age	-2.61*	[-5.71, -0.11]	.04	.02	[-.02, .07]		
Gender	10.70**	[3.02, 21.74]	.01	.04	[-.02, .09]		
IER Effectiveness	0.58**	[0.27, 0.80]	<.001	.09	[.00, .17]		
Suppression	5.87	[-21.25, 30.65]	.62	.00	[-.01, .01]		
IER Effect. X Suppress.	-0.09	[-0.41, 0.26]	.57	.00	[-.01, .01]		
						Adj. R^2 = .617**, *p* <.001 95% CI[.43,.69]	ΔR^2 = .017 95% CI[-.01, .01]

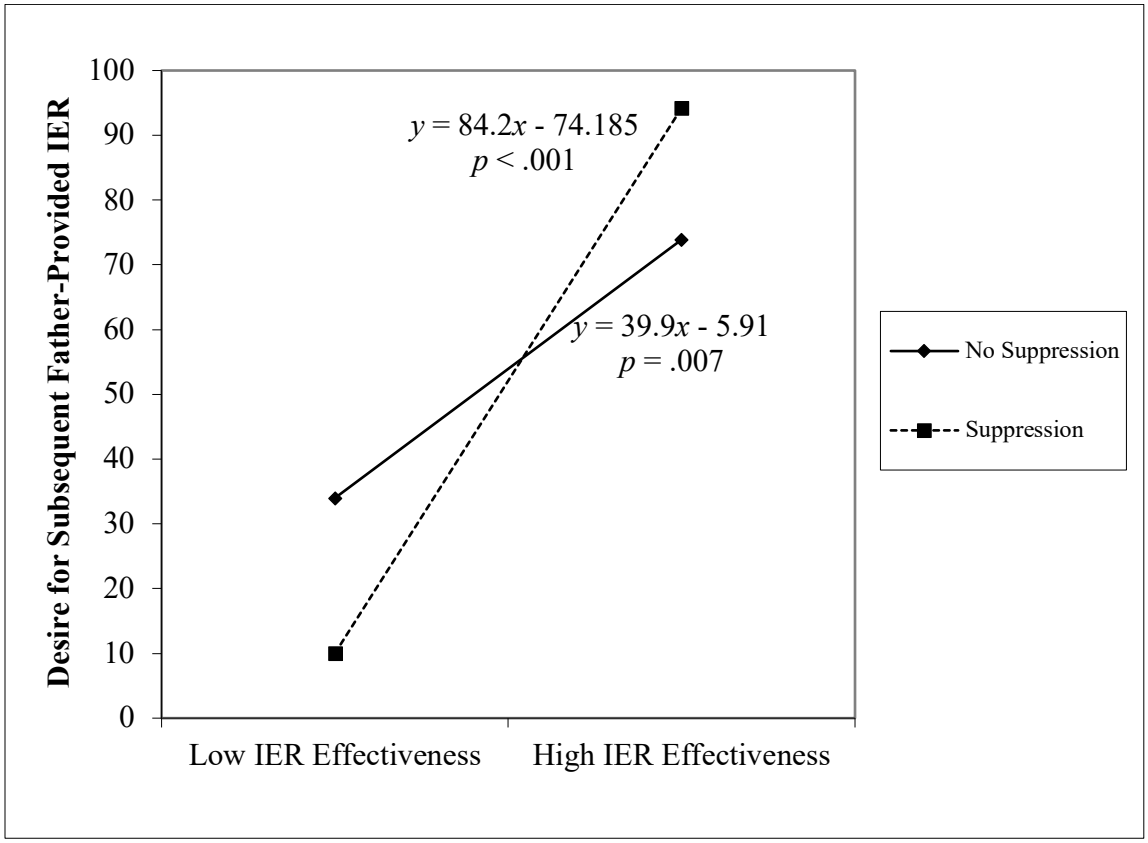
Note. Step 1 included only covariates and step 2 added the variable of interest. Relatedness refers to mother-child relatedness; Gender and Age refer to the participant. IER Effectiveness refers to youths' perception of mother-provided IER effectiveness. Suppression refers to familial norms of suppression. IER Effect X Suppress. refers to the interaction term. * indicates $p < .05$. ** indicates $p < .01$.

Table 5b: Multiple regression relating desire for subsequent father-provided IER to suppression norms

Predictor	*b*	*b* 95% CI	*p*	sr^2	sr^2 95% CI	Fit	Difference
(Intercept)	27.48	[-43.81, 105.55]	.42				
Relatedness	3.17	[-0.28, 6.62]	.053	.02	[-.02, .06]		
Age	-1.62	[-5.18, 1.63]	.30	.01	[-.02, .03]		
Gender	0.38	[-10.78, 11.73]	.94	.00	[-.00, .00]		
IER Effectiveness	0.71**	[0.54, 0.90]	<.001	.40	[.23, .56]		
Suppression	5.04	[-5.68, 14.23]	.27	.00	[-.02, .02]		
						Adj. R^2 = .574**, p < .001 95% CI[.41,.68]	
(Intercept)	53.62	[-16.29, 132.16]	.12				
Relatedness	3.82*	[0.47, 7.13]	.02	.03	[-.02, .08]		
Age	-2.02	[-5.46, 1.08]	.18	.01	[-.02, .04]		
Gender	-0.03	[-10.80, 10.73]	.99	.00	[-.00, .00]		
IER Effectiveness	0.40**	[0.12, 0.70]	<.001	.05	[-.01, .11]		
Suppression	-23.97*	[-49.46, -1.24]	.03	.02	[-.02, .07]		
IER Effect. X Suppress.	0.44**	[0.11, 0.79]	.005	.04	[-.02, .10]		
						Adj. R^2 = .609**, p < .001 95% CI[.45,.71]	ΔR^2 = .035** 95% CI[-.02, .10]

Note. Step 1 included only covariates and step 2 added the variable of interest. Relatedness refers to father-child relatedness; Gender and Age refer to the participant. IER Effectiveness refers to youths' perception of father-provided IER effectiveness. Suppression refers to familial norms of suppression. IER Effect X Suppress. refers to the interaction term. * indicates p < .05. ** indicates p < .01.

Figure 1: Simple slopes of familial norms of suppression moderating IER effectiveness of desire for subsequent father-provided IER



Note. Suppression refers to dummy coded variable of familial norms of suppression.

Table 6a: Multiple regression relating desire for subsequent mother-provided IER to gender norms

Predictor	*b*	*b* 95% CI	*p*	sr^2	sr^2 95% CI	Fit	Difference
(Intercept)	26.69	[-31.74, 87.71]	.26				
Relatedness	6.73**	[3.66, 9.89]	< .001	.10	[.01, .19]		
Gender	10.66**	[2.46, 19.53]	.009	.04	[-.02, .09]		
Age	-2.58*	[-5.39, 0.07]	.032	.02	[-.02, .06]		
IER Effectiveness	0.53**	[0.34, 0.71]	< .001	.17	[.06, .29]		
						Adj. R^2= .607**, p < .001 95% CI[.45,.69]	
(Intercept)	42.29	[-17.41, 102.00]	.16				
Relatedness	6.95**	[3.71, 10.19]	< .001	.10	[.01, .19]		
Gender	12.59**	[3.54, 21.64]	.007	.04	[-.02, .10]		
Age	-2.81*	[-5.61, -0.01]	.049	.02	[-.02, .06]		
IER Effectiveness	0.50**	[0.30, 0.69]	< .001	.14	[.04, .25]		
Gender Norms	-1.97	[-11.02, 7.08]	.67	.00	[-.01, .01]		
						Adj. R^2 = .617**, p < .001 95% CI[.44,.69]	ΔR^2 = .01 95% CI[-.01, .02]
(Intercept)	33.79	[-26.68, 94.26]	.27				
Relatedness	6.92**	[3.71, 10.14]	<.001	.10	[.01, .19]		
Gender	12.34**	[3.34, 21.33]	.008	.04	[-.02, .10]		
Age	-2.60	[-5.40, 0.20]	.068	.02	[-.02, .06]		
IER Effectiveness	0.56**	[0.35, 0.78]	<.001	.15	[.04, .26]		
Gender Norms	18.98	[-11.72, 49.69]	.22	.01	[-.02, .03]		
IER Effect. X Norms.	-0.29	[-0.69, 0.11]	.16	.01	[-.02, .04]		
						Adj. R^2 = .628**, p < .001 95% CI[.45,.70]	ΔR^2 = .011 95% CI[-.02, .04]

Note. Step 1 included only covariates and step 2 added the variable of interest. Relatedness refers to mother-child relatedness; Gender and Age refer to the participant. IER Effectiveness refers to youths' perception of mother-provided IER effectiveness. Gender Norms refers to familial emotional norms of gender. IER Effect X Norms. refers to the interaction term. * indicates p < .05. ** indicates p < .01.

Table 6b: Multiple regression relating desire for subsequent father-provided IER to gender norms

Predictor	*b*	*b* 95% CI	*p*	sr^2	sr^2 95% CI	Fit	Difference
(Intercept)	27.48	[-43.81, 105.55]	.42				
Relatedness	3.17	[-0.28, 6.62]	.053	.02	[-.02, .06]		
Age	-1.62	[-5.18, 1.63]	.30	.01	[-.02, .03]		
Gender	0.38	[-10.78, 11.73]	.94	.00	[-.00, .00]		
IER Effectiveness	0.71**	[0.54, 0.90]	<.001	.40	[.23, .56]		
Suppression	5.04	[-5.68, 14.23]	.27	.00	[-.02, .02]		
						Adj. R^2 = .574**, p < .001	
(Intercept)	36.08	[-37.03, 109.19]	.32				
Relatedness	2.82	[-0.72, 6.36]	.12	.02	[-.02, .05]		
Age	-1.81	[-5.23, 1.62]	.30	.01	[-.02, .03]		
Gender	3.06	[-7.93, 14.05]	.58	.00	[-.01, .01]		
IER Effectiveness	0.70**	[0.52, 0.88]	<.001	.38	[.21, .54]		
Gender Norms	-2.61	[-13.84, 8.63]	.65	.00	[-.01, .01]		
						Adj. R^2 = .575**, p < .001 95% CI[.44,.69]	ΔR^2 = .001 95% CI[-.01, .01]
(Intercept)	26.23	[-47.72, 100.17]	.48				
Relatedness	2.55	[-0.99, 6.09]	.16	.01	[-.02, .05]		
Age	-1.56	[-4.97, 1.86]	.37	.01	[-.02, .03]		
Gender	2.08	[-8.93, 13.08]	.71	.00	[-.01, .01]		
IER Effectiveness	0.81**	[0.57, 1.04]	<.001	.29	[.14, .45]		
Gender Norms	11.89	[-11.62, 35.39]	.32	.01	[-.02, .03]		
IER Effect. X Norms.	-0.25	[-0.60, 0.10]	.17	.01	[-.02, .04]		
						Adj. R^2 = .591**, p < .001 95% CI[.45,.70]	ΔR^2 = .016 95% CI[-.02, .04]

Note. Step 1 included only covariates and step 2 added the variable of interest. Relatedness refers to father-child relatedness; Gender and Age refer to the participant. IER Effectiveness refers to youths' perception of father-provided IER effectiveness. Gender Norms refers to familial emotional norms of gender. IER Effect X Norms. refers to the interaction term. * indicates p < .05. ** indicates p < .01.

Table 7a: Multiple regression relating desire for subsequent mother-provided IER to IER processes

Predictor	*b*	*b* 95% CI	*p*	*beta*	*beta* 95% CI	sr^2	sr^2 95% CI	*r*	Fit	Difference
(Intercept)	26.69	[-31.74, 87.71]	.34							
Relatedness	6.73**	[3.66, 9.89]	<.001	0.36	[0.20, 0.53]	.10	[.01, .19]	.61**		
Age	-2.58*	[-5.39, 0.07]	.046	-0.14	[-0.29, 0.00]	.02	[-.02, .06]	-.22		
Gender	10.66*	[2.46, 19.53]	.007	0.19	[0.04, 0.33]	.04	[-.02, .09]	.22		
IER Effectiveness	0.53**	[0.34, 0.71]	<.001	0.47	[0.31, 0.64]	.17	[.06, .29]	.67**		
									Adj. R^2 = .612**, p < .001 95% CI[.45,.69]	
(Intercept)	19.60	[-43.58, 80.11]								
Relatedness	7.00**	[3.82, 10.44]	<.001	0.38	[0.20, 0.56]	.10	[.01, .19]	.61**		
Age	-2.53*	[-5.33, 0.34]	.049	-0.13	[-0.29, 0.02]	.02	[-.02, .05]	-.22		
Gender	10.93*	[1.68, 19.95]	.007	0.18	[0.03, 0.34]	.03	[-.02, .08]	.22		
IER Effectiveness	0.61**	[0.40, 0.84]	<.001	0.55	[0.36, 0.75]	.17	[.06, .28]	.67**		
Emo. Responsiveness	-3.49	[-12.14, 5.16]	.41	-0.07	[-0.25, 0.10]	.00	[-.01, .02]	.31**		
Active Care	3.65	[-8.38, 15.69]	.52	0.05	[-0.11, 0.20]	.00	[-.01, .01]	.03		
Practical Aid	-6.14	[-14.24, 1.96]	.11	-0.12	[-0.28, 0.04]	.01	[-.02, .04]	.06		
Cog. Support	2.71	[-6.36, 11.77]	.57	0.05	[-0.12, 0.22]	.00	[-.01, .01]	.20		
Hostility	8.88	[-8.60, 26.37]	.27	0.09	[-0.09, 0.26]	.01	[-.01, .03]	-.27*		
Absence of Support	3.61	[-7.82, 15.03]	.48	0.05	[-0.11, 0.20]	.00	[-.01, .01]	.04		
									Adj. R^2 = .597**, p < .001 95% CI[.42,.69]	ΔR^2 = .015 95% CI[-.02, .07]

Note. Step 1 included only covariates and step 2 added the variables of interest. Relatedness refers to mother-child relatedness; Gender and Age refer to the participant; IER Effectiveness refers to youths' perception of mother-provided IER effectiveness; Emo. Responsiveness refers to emotional responsiveness; Cog. Support refers to cognitive support. * indicates p < .05. ** indicates p < .01.

Table 7b: Multiple regression relating desire for subsequent father-provided IER to IER processes

Predictor	*b*	*b* 95% CI	*p*	*beta*	*beta* 95% CI	sr^2	sr^2 95% CI	*r*	Fit	Difference
(Intercept)	28.59	[-39.81, 104.72]	.41							
Relatedness	3.07	[-0.41, 6.32]	.062	0.15	[-0.02, 0.32]	.02	[-.02, .06]	.46**		
Age	-1.66	[-5.22, 1.42]	.30	-0.09	[-0.24, 0.07]	.01	[-.02, .03]	-.13		
Gender	2.69	[-6.77, 13.35]	.58	0.05	[-0.10, 0.20]	.00	[-.01, .02]	.07		
IER Effectiveness	0.69**	[0.54, 0.88]	<.001	0.69	[0.52, 0.86]	.39	[.23, .55]	.76**		
									Adj. R^2 = .574**, p <.001 95% CI[.43,.69]	
(Intercept)	22.32	[-44.16, 101.83]	.50							
Relatedness	2.48	[-1.02, 5.87]	.12	0.12	[-0.05, 0.30]	.01	[-.02, .04]	.46**		
Age	-0.90	[-4.60, 2.16]	.56	-0.06	[-0.21, 0.10]	.00	[-.01, .02]	-.13		
Gender	0.31	[-9.56, 11.21]	.95	0.01	[-0.14, 0.17]	.00	[-.00, .00]	.07		
IER Effectiveness	0.6**	[0.42, 0.82]	<.001	0.60	[0.41, 0.80]	.22	[.09, .35]	.76**		
Emo. Responsiveness	5.94	[-7.20, 17.04]	.27	0.07	[-0.10, 0.23]	.00	[-.01, .02]	.18		
Active Care	.01	[-16.01, 13.10]	.99	-0.02	[-0.17, 0.14]	.00	[-.00, .00]	-.04		
Practical Aid	11.29*	[-0.79, 21.50]	.022	0.16	[-0.01, 0.32]	.02	[-.02, .06]	.42**		
Cog. Support	6.92	[-5.03, 16.40]	.16	0.08	[-0.07, 0.24]	.01	[-.02, .03]	.25*		
Hostility	-1.67	[-23.38, 19.89]	.86	-0.01	[-0.19, 0.16]	.00	[-.00, .00]	-.30*		
Absence of Support	-7.63	[-20.28, 3.36]	.16	-0.12	[-0.28, 0.05]	.01	[-.02, .04]	-.22		
									R^2 = .59**, p <.001 95% CI[.43,.70]	ΔR^2 = .016 95% CI[-.01, .10]

Note. Step 1 included only covariates and step 2 added the variables of interest. Relatedness refers to father-child relatedness; Gender and Age refer to the participant; IER Effectiveness refers to youths' perception of father-provided IER effectiveness; Emo. Responsiveness refers to emotional responsiveness; Cog. Support refers to cognitive support. * indicates $p < .05$. ** indicates $p < .01$.

Table 8a: Multiple regression relating desire for subsequent mother-provided IER to autonomy support

Predictor	*b*	*b* 95% CI	*p*	*beta*	*beta* 95% CI	sr^2	sr^2 95% CI	*r*	Fit	Difference
(Intercept)	26.69	[-31.74, 87.71]	.34							
Relatedness	6.73**	[3.66, 9.89]	<.001	0.36	[0.20, 0.53]	.10	[.01, .19]	.61**		
Age	-2.58*	[-5.39, 0.07]	.046	-0.14	[-0.29, 0.00]	.02	[-.02, .06]	-.22		
Gender	10.66*	[2.46, 19.53]	.007	0.19	[0.04, 0.33]	.04	[-.02, .09]	.22		
IER Effectiveness	0.53**	[0.34, 0.71]	<.001	0.47	[0.31, 0.64]	.17	[.06, .29]	.67**		
									Adj. R^2 = .612**, p < .001 95% CI[.45,.69]	
(Intercept)	26.79	[-32.08, 87.97]	.34							
Relatedness	6.10**	[2.37, 9.97]	.001	0.33	[0.13, 0.53]	.06	[-.01, .12]	.61**		
Age	-2.65*	[-5.47, 0.03]	.041	-0.15	[-0.29, 0.00]	.02	[-.02, .06]	-.22		
Gender	10.88*	[2.61, 19.84]	.006	0.19	[0.04, 0.34]	.04	[-.02, .09]	.22		
IER Effectiveness	0.52**	[0.32, 0.71]	<.001	0.46	[0.29, 0.63]	.15	[.04, .26]	.67**		
Autonomy Support	1.16	[-2.88, 5.14]	.54	0.06	[-0.14, 0.26]	.00	[-.01, .01]	.49**		
									Adj. R^2 = .602**, p < .001 95% CI[.44,.69]	ΔR^2 = .01 95% CI[-.01, .01]

Note. Step 1 included only covariates and step 2 added the variable of interest. Relatedness refers to mother-child relatedness; Gender and Age refer to the participant; IER Effectiveness refers to youths' perception of mother-provided IER effectiveness; Autonomy Support refers to maternal autonomy support. * indicates p < .05. ** indicates p < .01.

Table 8b: Multiple regression relating desire for subsequent father-provided IER to autonomy support

Predictor	*b*	*b* 95% CI	*p*	*beta*	*beta* 95% CI	sr^2	sr^2 95% CI	*r*	Fit	Difference
(Intercept)	28.59	[-39.81, 104.72]	.41							
Relatedness	3.07	[-0.41, 6.32]	.062	0.15	[-0.02, 0.32]	.02	[-.02, .06]	.46**		
Age	-1.66	[-5.22, 1.42]	.30	-0.09	[-0.24, 0.07]	.01	[-.02, .03]	-.13		
Gender	2.69	[-6.77, 13.35]	.58	0.05	[-0.10, 0.20]	.00	[-.01, .02]	.07		
IER Effectiveness	0.69**	[0.54, 0.88]	<.001	0.69	[0.52, 0.86]	.39	[.23, .55]	.76**		
									Adj. R^2 = .574**, p <.001 95% CI[.43,.69]	
(Intercept)	84.57*	[16.48, 161.15]	.014							
Relatedness	0.85	[-3.02, 4.72]	.65	0.04	[-0.15, 0.24]	.00	[-.01, .01]	.46**		
Age	-1.75	[-5.22, 1.26]	.26	-0.09	[-0.24, 0.06]	.01	[-.02, .03]	-.13		
Gender	2.89	[-6.37, 13.30]	.54	0.05	[-0.10, 0.20]	.00	[-.01, .02]	.07		
IER Effectiveness	0.60**	[0.43, 0.81]	<.001	0.61	[0.42, 0.79]	.24	[.10, .37]	.76**		
Autonomy Support	5.50*	[0.15, 10.31]	.025	0.22	[0.01, 0.44]	.02	[-.02, .07]	.62**		
									Adj. R^2 = .599**, p < .001 95% CI[.46,.71]	ΔR^2 = .025* 95% CI[-.02, .07]

Note. Step 1 included only covariates and step 2 added the variable of interest. Relatedness refers to father-child relatedness; Gender and Age refer to the participant; IER Effectiveness refers to youths' perception of father-provided IER effectiveness; Autonomy Support refers to paternal autonomy support. * indicates $p < .05$. ** indicates $p < .01$.

Table 9a: Multiple regression relating desire for subsequent mother-provided IER to emotion dysregulation

Predictor	*b*	*b* 95% CI	*p*	*beta*	*beta* 95% CI	sr^2	sr^2 95% CI	*r*	Fit	Difference
(Intercept)	26.69	[-31.74, 87.71]	.34							
Relatedness	6.73**	[3.66, 9.89]	<.001	0.36	[0.20, 0.53]	.10	[.01, .19]	.61**		
Age	-2.58*	[-5.39, 0.07]	.046	-0.14	[-0.29, 0.00]	.02	[-.02, .06]	-.22		
Gender	10.66*	[2.46, 19.53]	.007	0.19	[0.04, 0.33]	.04	[-.02, .09]	.22		
IER Effectiveness	0.53**	[0.34, 0.71]	<.001	0.47	[0.31, 0.64]	.17	[.06, .29]	.67**		
									Adj. R^2 = .612**, p < .001 95% CI[.45,.69]	
(Intercept)	4.89	[-60.71, 71.14]	.87							
Relatedness	7.63**	[1.55, 18.62]	<.001	0.17	[0.03, 0.32]	.03	[-.02, .08]	.22		
Age	-2.29	[-5.10, 0.35]	.075	-0.13	[-0.27, 0.02]	.02	[-.02, .05]	-.22		
Gender	9.79**	[4.42, 11.07]	.013	0.41	[0.24, 0.59]	.11	[.02, .21]	.61**		
IER Effectiveness	0.54**	[0.35, 0.72]	<.001	0.48	[0.31, 0.64]	.17	[.06, .29]	.67**		
Emotion Dysregulation	0.81	[-0.23, 1.92]	.11	0.13	[-0.03, 0.29]	.01	[-.02, .04]	-.13		
									Adj. R^2 = .612**, p < .001 95% CI[.45,.70]	ΔR^2 < .001 95% CI[-.02, .04]

Note. Step 1 included only covariates and step 2 added the variable of interest. Relatedness refers to mother-child relatedness; Gender and Age refer to the participant; IER Effectiveness refers to youths' perception of mother-provided IER effectiveness; Emotion Dysregulation refers to participants total difficulties regulating emotions. * indicates $p < .05$. ** indicates $p < .01$.

Table 9b: Multiple regression relating desire for subsequent father-provided IER to emotion dysregulation

Predictor	*b*	*b* 95% CI	*p*	*beta*	*beta* 95% CI	sr^2	sr^2 95% CI	*r*	Fit	Difference
(Intercept)	28.59	[-39.81, 104.72]	.41							
Relatedness	3.07	[-0.41, 6.32]	.062	0.15	[-0.02, 0.32]	.02	[-.02, .06]	.46**		
Age	-1.66	[-5.22, 1.42]	.30	-0.09	[-0.24, 0.07]	.01	[-.02, .03]	-.13		
Gender	2.69	[-6.77, 13.35]	.58	0.05	[-0.10, 0.20]	.00	[-.01, .02]	.07		
IER Effectiveness	0.69**	[0.54, 0.88]	<.001	0.69	[0.52, 0.86]	.39	[.23, .55]	.76**		
									Adj. R^2 = .574**, p <.001 95% CI[.43,.69]	
(Intercept)	40.95	[-35.28, 123.26]	.28							
Relatedness	2.83	[-0.74, 6.16]	.09	0.14	[-0.04, 0.31]	.01	[-.02, .05]	.46**		
Age	-1.88	[-5.46, 1.28]	.24	-0.10	[-0.25, 0.06]	.01	[-.02, .04]	-.13		
Gender	3.08	[-6.51, 13.78]	.52	0.05	[-0.10, 0.21]	.00	[-.01, .02]	.07		
IER Effectiveness	0.69**	[0.53, 0.88]	<.001	0.69	[0.52, 0.86]	.38	[.22, .55]	.76**		
Emotion Dysregulation	-0.48	[-1.71, 0.81]	.42	-0.06	[-0.22, 0.10]	.00	[-.01, .02]	-.18		
									Adj. R^2 = .571***, p < .001 95% CI[.43,.69]	ΔR^2 = .003 95% CI[-.01, .02]

Note. Step 1 included only covariates and step 2 added the variable of interest. Relatedness refers to father-child relatedness; Gender and Age refer to the participant; IER Effectiveness refers to youths' perception of father-provided IER effectiveness; Emotion Dysregulation refers to participants total difficulties regulating emotions. * indicates $p < .05$. ** indicates $p < .01$.

Table 10a: Multiple regression relating perceived mother-provided IER effectiveness to autonomy support

Predictor	*b*	*b* 95% CI	*p*	sr^2	sr^2 95% CI	Fit	Difference
(Intercept)	21.49	[-40.99, 104.59]	.55				
Age	-0.19	[-3.78, 3.04]	.91	.00	[-.01, .01]		
Gender	3.86	[-7.12, 14.16]	.45	.00	[-.02, .03]		
Relatedness	8.04**	[4.62, 11.46]	<.001	.23	[.06, .39]		
						Adj. R^2 = .228**, p < .001 95% CI[.07,.37]	
(Intercept)	21.01	[-40.40, 102.11]	.54				
Age	-0.49	[-3.97, 2.73]	.76	.00	[-.01, .02]		
Gender	4.61	[-6.12, 14.77]	.35	.01	[-.02, .04]		
Relatedness	5.10*	[0.47, 9.44]	.017	.05	[-.03, .13]		
Autonomy Support	5.16*	[0.17, 9.66]	.023	.04	[-.03, .12]		
						Adj. R^2 = .265**, p < .001 95% CI[.09,.40]	ΔR^2 = .037* 95% CI[-.03, .12]

Note. Step 1 included only covariates and step 2 added the variable of interest. Relatedness refers to mother-child relatedness; Gender and Age refer to the participant; Autonomy Support refers to maternal autonomy support. * indicates p < .05. ** indicates p < .01.

Table 10b: Multiple regression relating perceived father-provided IER effectiveness to autonomy support

Predictor	*b*	*b* 95% CI	*p*	sr^2	sr^2 95% CI	Fit	Difference
(Intercept)	-3.78	[-99.37, 98.38]	.94				
Age	1.20	[-3.58, 5.71]	.59	.00	[-.02, .02]		
Gender	0.07	[-13.63, 14.58]	.99	.00	[-.00, .00]		
Relatedness	8.59**	[4.17, 12.69]	<.001	.18	[.02, .34]		
						Adj. R^2 = .158**, p < .001 95% CI[.03,.32]	
(Intercept)	-18.52	[-103.51, 74.37]	.67				
Age	0.82	[-3.51, 4.83]	.68	.00	[-.01, .01]		
Gender	0.47	[-11.87, 13.44]	.94	.00	[-.00, .00]		
Relatedness	1.85	[-3.23, 6.70]	.44	.00	[-.02, .03]		
Autonomy Support	12.30**	[6.49, 18.13]	<.001	.17	[.03, .31]		
						Adj. R^2 = .329**, p < .001 95% CI[.15,.47]	ΔR^2 = .171** 95% CI[.03, .31]

Note. Step 1 included only covariates and step 2 added the variable of interest. Relatedness refers to father-child relatedness; Gender and Age refer to the participant; Autonomy Support refers to paternal autonomy support. * indicates p < .05. ** indicates p < .01.

Table 11a: Multiple regression relating perceived mother-provided IER effectiveness to IER tendencies

Predictor	*b*	*b* 95% CI	*p*	*beta*	*beta* 95% CI	sr^2	sr^2 95% CI	*r*	Fit	Difference
(Intercept)	21.49	[-40.99, 104.59]	.55							
Age	-0.19	[-3.78, 3.04]	.91	-0.02	[-0.23, 0.18]	.00	[-.01, .01]	-.08		
Gender	3.86	[-7.12, 14.16]	.45	0.07	[-0.14, 0.27]	.00	[-.02, .03]	.07		
Relatedness	8.04**	[4.62, 11.46]	<.001	0.48	[0.28, 0.68]	.23	[.06, .39]	.48**		
									Adj. R^2 = .228**, p < .001 95% CI[.07,.37]	
(Intercept)	27.73	[-38.36, 104.24]	.41							
Age	-0.61	[-3.98, 2.56]	.70	-0.04	[-0.24, 0.15]	.00	[-.01, .02]	-.08		
Gender	2.83	[-8.00, 12.46]	.56	0.04	[-0.15, 0.24]	.00	[-.01, .02]	.07		
Relatedness	6.63**	[2.97, 9.91]	<.001	0.38	[0.18, 0.59]	.13	[.00, .26]	.48**		
Tendency to Seek IER	5.59**	[1.53, 9.24]	<.001	0.29	[0.08, 0.49]	.07	[-.02, .17]	.41**		
									Adj. R^2 = .298**, p < .001 95% CI[.12,.43]	ΔR^2 = .07** 95% CI[-.02, .17]
(Intercept)	0.53	[-74.69, 91.67]	.99							
Age	0.31	[-3.42, 3.69]	.85	0.01	[-0.20, 0.22]	.00	[-.00, .00]	-.08		
Gender	-1.34	[-13.34, 10.41]	.81	-0.03	[-0.25, 0.20]	.00	[-.01, .01]	.07		
Relatedness	6.11**	[2.32, 9.65]	<.001	0.36	[0.14, 0.57]	.10	[-.01, .21]	.48**		
Tendency to Seek IER	5.90**	[1.74, 9.64]	<.001	0.30	[0.09, 0.52]	.08	[-.02, .18]	.41**		
IER Enhancing	0.88	[-0.62, 2.15]	.17	0.14	[-0.12, 0.40]	.01	[-.03, .05]	.24*		
IER Soothing	0.10	[-0.89, 1.35]	.84	0.06	[-0.21, 0.32]	.00	[-.01, .02]	.12		
IER Perspective	0.28	[-1.00, 1.33]	.60	0.04	[-0.22, 0.29]	.00	[-.01, .01]	.00		
IER Social Modeling	-0.20	[-1.38, 0.89]	.70	-0.05	[-0.29, 0.19]	.00	[-.01, .02]	.06		
									Adj. R^2 = .288**, p < .001 95% CI[.09,.42]	ΔR^2 = .010 95% CI[-.03, .08]

Note. Step 1 included covariates, step 2 added youths' tendency to seek mother-provided IER, and step 3 added youths' general IER tendencies. Relatedness refers to mother-child relatedness; Gender and Age refer to the participant; * indicates p < .05. ** indicates p < .01.

Table 11b: Multiple regression relating perceived father-provided IER effectiveness to IER tendencies

Predictor	*b*	*b* 95% CI	*p*	*beta*	*beta* 95% CI	sr^2	sr^2 95% CI	*r*	Fit	Difference
(Intercept)	-3.78	[-99.37, 98.38]	.94							
Age	1.20	[-3.58, 5.71]	.59	0.05	[-0.17, 0.27]	.00	[-.02, .02]	-.03		
Gender	0.07	[-13.63, 14.58]	.99	0.01	[-0.21, 0.23]	.00	[-.00, .00]	.02		
Relatedness	8.59**	[4.17, 12.69]	<.001	0.43	[0.21, 0.66]	.18	[.02, .34]	.42**		
									Adj. R^2 = .158**, p < .001 95% CI[.03,.32]	
(Intercept)	1.33	[-100.28, 104.26]	.98							
Age	0.92	[-3.77, 5.57]	.68	0.04	[-0.18, 0.26]	.00	[-.02, .02]	-.03		
Gender	-1.43	[-15.44, 12.95]	.83	-0.02	[-0.24, 0.20]	.00	[-.01, .01]	.02		
Relatedness	7.30**	[2.72, 11.73]	.001	0.37	[0.14, 0.60]	.12	[-.01, .25]	.42**		
Tendency to Seek IER	5.32	[-0.86, 11.23]	.064	0.20	[-0.03, 0.43]	.03	[-.04, .11]	.31**		
									Adj. R^2 = .181**, p = .002 95% CI[.04,.34]	ΔR^2 = .023 95% CI[-.04, .11]
(Intercept)	3.78	[-106.23, 123.64]	.94							
Age	0.84	[-4.35, 5.72]	.72	0.03	[-0.21, 0.27]	.00	[-.01, .01]	-.03		
Gender	-2.22	[-18.74, 16.33]	.78	-0.02	[-0.29, 0.25]	.00	[-.01, .01]	.02		
Relatedness	6.87**	[1.78, 11.81]	.003	0.35	[0.09, 0.61]	.09	[-.03, .21]	.42**		
Tendency to Seek IER	5.39	[-1.06, 11.56]	.062	0.20	[-0.04, 0.44]	.03	[-.04, .11]	.31**		
IER Enhancing	0.39	[-1.78, 2.33]	.68	0.04	[-0.28, 0.36]	.00	[-.01, .01]	.09		
IER Soothing	-0.36	[-2.02, 1.29]	.63	-0.07	[-0.39, 0.25]	.00	[-.02, .02]	-.04		
IER Perspective	0.53	[-1.13, 2.10]	.47	0.09	[-0.20, 0.38]	.00	[-.02, .03]	.06		
IER Social Modeling	-0.38	[-2.02, 1.23]	.61	-0.07	[-0.34, 0.21]	.00	[-.02, .02]	-.04		
									Adj. R^2 = .149*, p = .033 95% CI[.00,.31]	ΔR^2 = -.032 95% CI[-.03, .04]

Note. Step 1 included covariates, step 2 added youths' tendency to seek father-provided IER, and step 3 added youths' general IER tendencies. Relatedness refers to father-child relatedness; Gender and Age refer to the participant; * indicates p < .05. ** indicates p < .01.

Table 12a: Multiple regression relating perceived mother-provided IER effectiveness to IER seeking

Predictor	*b*	*b* 95% CI	*p*	*beta*	*beta* 95% CI	sr^2	sr^2 95% CI	*r*	Fit	Difference
(Intercept)	21.49	[-40.99, 104.59]	.55							
Age	-0.19	[-3.78, 3.04]	.91	-0.02	[-0.23, 0.18]	.00	[-.01, .01]	-.08		
Gender	3.86	[-7.12, 14.16]	.45	0.07	[-0.14, 0.27]	.00	[-.02, .03]	.07		
Relatedness	8.04**	[4.62, 11.46]	<.001	0.48	[0.28, 0.68]	.23	[.06, .39]	.48**		
									Adj. R^2 = .228**, *p* <.001 95% CI[.07,.37]	
(Intercept)	27.73	[-38.36, 104.24]	.41							
Age	-0.61	[-3.98, 2.56]	.70	-0.04	[-0.24, 0.15]	.00	[-.01, .02]	-.08		
Gender	2.83	[-8.00, 12.46]	.56	0.04	[-0.15, 0.24]	.00	[-.01, .02]	.07		
Relatedness	6.63**	[2.97, 9.91]	<.001	0.38	[0.18, 0.59]	.13	[.00, .26]	.48**		
Tendency to Seek IER	5.59**	[1.53, 9.24]	<.001	0.29	[0.08, 0.49]	.07	[-.02, .17]	.41**		
									Adj. R^2 = .298**, *p* <.001 95% CI[.12,.43]	ΔR^2 = .07** 95% CI[-.02, .17]
(Intercept)	55.84	[-15.08, 133.62]	.11							
Age	-0.75	[-4.12, 2.45]	.62	-0.05	[-0.25, 0.15]	.00	[-.02, .02]	-.09		
Gender	3.60	[-7.20, 13.30]	.45	0.06	[-0.14, 0.25]	.00	[-.02, .02]	.07		
Relatedness	4.26*	[-0.23, 8.60]	.042	0.25	[-0.01, 0.51]	.03	[-.03, .10]	.48**		
Tendency to Seek IER	4.98**	[0.90, 8.75]	.007	0.26	[0.05, 0.46]	.06	[-.03, .14]	.41**		
Autonomy Support	4.05	[-0.85, 8.63]	.071	0.22	[-0.05, 0.48]	.03	[-.03, .08]	.46**		
									Adj. R^2 = .313**, *p* <.001 95% CI[.12,.44]	ΔR^2 = .015 95% CI[-.03, .08]
(Intercept)	52.05	[-18.58, 126.60]	.13							
Age	-0.46	[-3.72, 2.71]	.75	-0.03	[-0.22, 0.16]	.00	[-.01, .01]	-.09		
Gender	4.58	[-5.90, 14.16]	.31	0.08	[-0.11, 0.27]	.01	[-.02, .03]	.07		
Relatedness	3.92	[-0.40, 8.21]	.052	0.23	[-0.02, 0.49]	.03	[-.03, .09]	.48**		
Tendency to Seek IER	4.02	[1.47, 9.18]	.063	0.28	[0.08, 0.49]	.07	[-.02, .16]	.41**		
Autonomy Support	5.40**	[-0.67, 8.56]	.003	0.22	[-0.04, 0.47]	.03	[-.03, .08]	.46**		
Seek IER X Aut. Support	-3.51*	[-6.46, -0.32]	.013	-0.21	[-0.40, -0.02]	.04	[-.03, .12]			
									Adj. R^2 = .353**, *p* <.001 95% CI[.15,.48]	ΔR^2 = .04* 95% CI[-.03, .12]

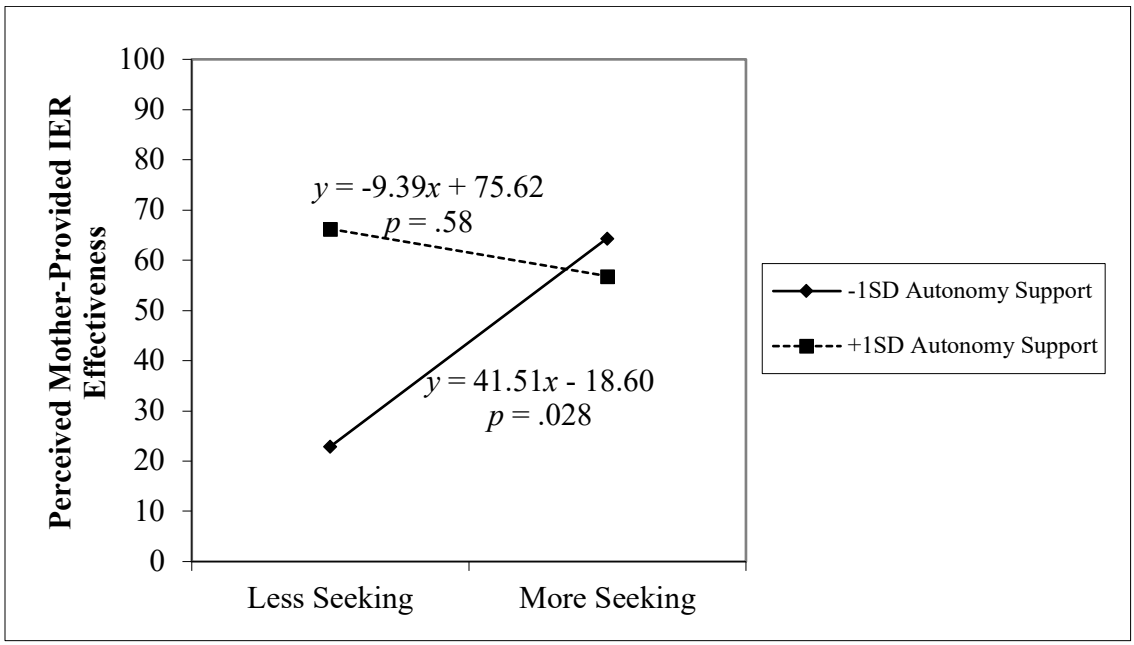
Note. Support refers to maternal autonomy support. Tendency to Seek IER refers to youths' tendency to seek mother-provided IER. Seek IER X Aut. Support refers to the interaction term. * indicates $p < .05$. ** indicates $p < .01$.

Table 12b: Multiple regression relating perceived father-provided IER effectiveness to IER seeking

Predictor	*b*	*b* 95% CI	*p*	*beta*	*beta* 95% CI	sr^2	sr^2 95% CI	*r*	Fit	Difference
(Intercept)	-3.78	[-99.37, 98.38]	.94							
Age	1.20	[-3.58, 5.71]	.59	0.05	[-0.17, 0.27]	.00	[-.02, .02]	-.03		
Gender	0.07	[-13.63, 14.58]	.99	0.01	[-0.21, 0.23]	.00	[-.00, .00]	.02		
Relatedness	8.59**	[4.17, 12.69]	<.001	0.43	[0.21, 0.66]	.18	[.02, .34]	.42**		
									Adj. R^2 = .158**, p < .001	
									95% CI[.03,.32]	
(Intercept)	10.90	[-92.07, 114.39]	.82							
Age	0.91	[-3.77, 5.57]	.68	0.04	[-0.18, 0.26]	.00	[-.02, .02]	-.03		
Gender	-1.43	[-15.44, 12.95]	.83	-0.02	[-0.24, 0.20]	.00	[-.01, .01]	.02		
Relatedness	7.30**	[2.72, 11.73]	.001	0.37	[0.14, 0.60]	.12	[-.01, .25]	.42**		
Tendency to Seek IER	5.25	[-0.86, 11.23]	.064	0.20	[-0.03, 0.43]	.03	[-.04, .11]	.31**		
									Adj. R^2 = .183**, p < .001	ΔR^2 = .025
									95% CI[.04,.34]	95% CI[-.04, .11]
(Intercept)	40.97	[-54.26, 136.91]	.35							
Age	0.68	[-3.61, 4.93]	.73	0.03	[-0.17, 0.23]	.00	[-.01, .01]	-.03		
Gender	-0.06	[-12.82, 13.15]	.99	0.00	[-0.20, 0.20]	.00	[-.00, .00]	.02		
Relatedness	1.69	[-3.42, 6.69]	.48	0.08	[-0.18, 0.34]	.00	[-.02, .03]	.42**		
Tendency to Seek IER	2.14	[-3.76, 7.77]	.43	0.08	[-0.14, 0.30]	.00	[-.02, .03]	.31**		
Autonomy Support	11.65**	[5.54, 17.86]	<.001	0.51	[0.24, 0.77]	.14	[.01, .27]	.59**		
									Adj. R^2 = .325**, p < .001	ΔR^2 = .142**
									95% CI[.14,.47]	95% CI[.01, .27]
(Intercept)	38.41	[-58.56, 136.36]	.39							
Age	0.76	[-3.59, 5.06]	.70	0.03	[-0.17, 0.24]	.00	[-.01, .01]	-.03		
Gender	0.24	[-12.74, 13.69]	.97	0.01	[-0.20, 0.21]	.00	[-.00, .00]	.02		
Relatedness	1.88	[-3.39, 6.98]	.44	0.09	[-0.17, 0.36]	.00	[-.02, .03]	.42**		
Tendency to Seek IER	2.57	[-3.88, 8.65]	.37	0.09	[-0.15, 0.33]	.01	[-.02, .03]	.31**		
Autonomy Support	11.56**	[5.40, 17.84]	<.001	0.50	[0.23, 0.77]	.14	[.01, .27]	.59**		
Seek IER X Aut. Support	-0.82	[-5.10, 3.69]	.69	-0.04	[-0.26, 0.19]	.00	[-.01, .01]			
									Adj. R^2 = .318**, p < .001	ΔR^2 = .007
									95% CI[.12,.46]	95% CI[-.00, .01]

Note. Support refers to paternal autonomy support. Tendency to Seek IER refers to youths' tendency to seek father-provided IER. Seek IER X Aut. Support refers to the interaction term. * indicates p < .05. ** indicates p < .01.

Figure 2: Simple slopes of maternal autonomy support moderating youths' tendency to seek mother-provided IER on mother-provided IER effectiveness



Note. Autonomy Support refers to maternal autonomy support, and Seeking refers to youths' tendency to seek mother-provided IER.

Table 13: Multiple regression relating perceived mother-provided EMA IER effectiveness to autonomy support

Predictor	*b*	*b* 95% CI	*p*	sr^2	sr^2 95% CI	Fit	Difference
(Intercept)	12.42	[-35.36, 50.56]	.53				
Age	0.57	[-1.43, 2.71]	.56	.01	[-.04, .06]		
Gender	-5.60	[-13.06, 1.48]	.10	.06	[-.07, .20]		
Relatedness	2.96**	[0.69, 4.63]	.001	.17	[-.04, .39]		
						Adj. R^2 = .279*, *p* = 027. 95% CI[.00,.41]	
(Intercept)	9.22	[-32.57, 42.05]	.59				
Age	0.41	[-1.33, 2.27]	.50	.00	[-.03, .04]		
Gender	-5.15	[-11.64, 0.99]	.078	.05	[-.06, .16]		
Relatedness	0.99	[-1.21, 2.84]	.28	.01	[-.04, .06]		
Autonomy Support	3.61**	[1.44, 5.57]	<.001	.21	[.00, .41]		
						Adj. R^2 = .485**, *p* < .001 95% CI[.12,.58]	ΔR^2 = .206** 95% CI[.00, .41]

Note. Step 1 included only covariates and step 2 added the variable of interest. Relatedness refers to mother-child relatedness; Gender and Age refer to the participant; Autonomy Support refers to maternal autonomy support. * indicates $p < .05$. ** indicates $p < .01$.

Table 14a: Multiple regression relating perceived mother-provided EMA IER frequency to autonomy support

Predictor	*b*	*b* 95% CI	*p*	sr^2	sr^2 95% CI	Fit	Difference
(Intercept)	3.20	[-1.00, 7.41]	.13				
Age	-0.15	[-0.35, 0.04]	.13	.03	[-.04, .10]		
Gender	0.25	[-0.37, 0.88]	.43	.01	[-.03, .05]		
Relatedness	0.09	[-0.10, 0.29]	.34	.01	[-.03, .06]		
						Adj. $R^2 = .014$, $p = .25$ 95% CI[.00,.14]	
(Intercept)	3.20	[-1.03, 7.44]	.14				
Age	-0.15	[-0.35, 0.05]	.13	.03	[-.04, .10]		
Gender	0.25	[-0.38, 0.88]	.44	.01	[-.03, .05]		
Relatedness	0.10	[-0.17, 0.37]	.46	.01	[-.03, .04]		
Autonomy Support	-0.01	[-0.30, 0.27]	.93	.00	[-.00, .00]		
						Adj. $R^2 = .001$, $p = .40$ 95% CI[.00,.13]	$\Delta R^2 = .000$ 95% CI[-.00, .00]

Note. Step 1 included only covariates and step 2 added the variable of interest. Relatedness refers to mother-child relatedness; Gender and Age refer to the participant; Autonomy Support refers to maternal autonomy support. * indicates $p < .05$. ** indicates $p < .01$.

Table 14b: Multiple regression relating perceived father-provided EMA IER frequency to autonomy support

Predictor	*b*	*b* 95% CI	*p*	sr^2	sr^2 95% CI	Fit	Difference
(Intercept)	-2.23	[-4.60, 0.15]	.07				
Age	0.07	[-0.04, 0.19]	.20	.02	[-.04, .08]		
Gender	0.31	[-0.03, 0.65]	.07	.04	[-.04, .12]		
Relatedness	0.17**	[0.07, 0.27]	.002	.13	[-.01, .26]		
						Adj. R^2 = .140**, *p* =.004 95% CI[.02,.30]	
(Intercept)	-2.30	[-4.68, 0.07]	.057				
Age	0.07	[-0.04, 0.18]	.22	.02	[-.04, .07]		
Gender	0.31	[-0.02, 0.65]	.069	.04	[-.04, .12]		
Relatedness	0.12	[-0.01, 0.25]	.08	.04	[-.04, .12]		
Autonomy Support	0.08	[-0.07, 0.24]	.29	.01	[-.03, .06]		
						Adj. R^2 = .141**, *p* = .006 95% CI[.02,.31]	ΔR^2 = .001 95% CI[-.03, .06]

Note. Step 1 included only covariates and step 2 added the variable of interest. Relatedness refers to father-child relatedness; Gender and Age refer to the participant; Autonomy Support refers to paternal autonomy support. * indicates $p < .05$. ** indicates $p < .01$.