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FROM WOMB TO SELF: EXPLORING THE ASSOCIATION OF
INTRAUTERINE AND BIRTH-RELATED EXPERIENCES WITH
SEPARATION-INDIVIDUATION ISSUES IN ADULthood

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From Womb to Self: Exploring the Association of Intrauterine and Birth-related
Experiences with Separation-Individuation Issues in Adulthood

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ABSTRACT

Pre- and perinatal psychology (PPN) emphasizes the significant impact of early experiences on lifelong emotional and mental health, suggesting these experiences can shape life patterns, relational issues, and personality development. In psychoanalysis, some argue that an infant's mental life begins at birth, while others believe it starts much earlier in the intrauterine environment. Despite many clinical examples linking intrauterine experiences with personality development, empirical research is limited. This study investigates the associations between prenatal experiences and separation-individuation dynamics using psychoanalytic perspectives and quantitative methods to address research gaps. Data collection involved 60 mother-adult child pairs who completed an online survey. The instruments used include the Separation-Individuation Inventory, Demographic Information and Pregnancy-Related Information Form for Children, and the Demographic and Pregnancy-Related Information Form for Mothers. Findings show a significant association between some of the prenatal factors and separation-individuation outcomes. Negative maternal attitudes during pregnancy, adverse intrauterine conditions, and traumatic birth experiences are significantly associated with separation-individuation issues. The cumulative number of negative events, such as birth difficulties, correlates with increased separation-individuation challenges. The mother's emotional state, particularly guilt, shame and anger related to pregnancy, and the child's perception of the mother's emotional narratives are significantly associated with separation-individuation difficulties. However, the results' generalizability is limited due to the small and non-diverse sample. Notably, discrepancies between maternal and participant reports highlight the importance of considering both objective and subjective data in understanding these dynamics. The study discusses these findings in relation to existing literature, outlines clinical implications, and suggests future research directions.

Keywords: Intrauterine Life, Pregnancy, Personality Development, Biological Birth, Separation-Individuation.

ÖZET

Doğum öncesi ve doğumla ilgili psikoloji (PPN), erken deneyimlerin yaşam boyu duygusal ve zihinsel sağlık üzerindeki önemli etkisini vurgular ve bu deneyimlerin yaşam kalıplarını, ilişkisel sorunları ve kişilik gelişimini şekillendirebileceğini öne sürer. Psikanalizde, bazıları bebeklerin zihinsel yaşamının doğumda başladığını, bazıları ise bunun intrauterin çevrede çok daha önce başladığını savunmaktadır. Doğum öncesi deneyimlerin kişilik gelişimi ile ilişkisini gösteren birçok klinik örnek bulunmasına rağmen, ampirik araştırmalar sınırlıdır. Bu çalışma, psikanalitik perspektifler ve nicel yöntemler kullanarak, prenatal deneyimlerle ayrışma-bireyleşme dinamikleri arasındaki ilişkileri araştırmayı amaçlamaktadır. Veri toplama, 60 anne-yetişkin çocuk çiftini içeren bir çevrimiçi anketle gerçekleştirilmiştir. Kullanılan araçlar arasında Ayrışma-Bireyleşme Envanteri, Çocuklar için Demografik Bilgiler ve Hamilelik İle İlgili Bilgi Formu ve Anneler için Demografik ve Hamilelik İle İlgili Bilgi Formu yer almaktadır. Bulgular, bazı doğum öncesi faktörler ile ayrışma-bireyleşme sonuçları arasında önemli bir ilişki olduğunu göstermektedir. Hamilelik sırasında olumsuz anne tutumları, olumsuz anne karnı koşulları ve travmatik doğum deneyimleri, ayrışma-bireyleşme sorunlarıyla anlamlı derecede ilişkilidir. Doğum zorlukları gibi olumsuz olayların birikimli sayısı, artan ayrışma-bireyleşme zorlukları ile korelasyon göstermektedir. Annenin duygusal durumu, özellikle hamilelikle ilgili suçluluk, utanç ve öfke ve çocuğun annenin duygusal anlatılarını algılayışı, ayrışma-bireyleşme zorluklarıyla anlamlı derecede ilişkilidir. Bununla birlikte, sonuçların genellenebilirliği, küçük ve çeşitlilik göstermeyen örneklem nedeniyle sınırlıdır. Özellikle anne ve katılımcı raporları arasındaki farklılıklar, bu dinamikleri anlamada hem objektif hem de subjektif verilerin dikkate alınmasının önemini vurgulamaktadır. Çalışma, bu bulguları mevcut literatürle ilişkilendirerek tartışmakta, klinik sonuçları özetlemekte ve gelecekteki araştırmalar için öneriler sunmaktadır.

Anahtar Kelimeler: İntrauterine Yaşam, Gebelik, Kişilik Gelişimi, Biyolojik Doğum, Ayrılma-Bireyleşme.

INTRODUCTION

Pre- and perinatal psychology (PPN) explores how early experiences impact lifelong emotional and mental functioning. Recent research in "prenatal psychology" examines how in utero experiences affect individuals from infancy to adulthood. PPN studies various aspects, including family environment, intergenerational influences, epigenetic effects, conception, prenatal period, birth, and the first postnatal year.

Studies focus on infant health, the impact of pregnancy on the mother and child relationship, and the cognitive and physical development of the child (Golombok et al., 2001; Korja, 2017; Lin Y, 2017; Nelson & O'Brien, 2015; Verny, 1982). One of the pioneering works have paved the way for understanding that a child's feelings and perceptions in the womb and during birth shape attitudes and expectations about themselves and the world (Verny, 1982, 2018, 2021). Positive emotions, such as love, and negative emotions, like rejection, impact the child's subsequent sense of self, security, and esteem.

The earliest experiences, both inside and outside the womb, have significant psychological effects, though they are not fully understood. Most research on womb experiences has been from psychiatric or pediatric perspectives, with few empirical studies linking these experiences to personality development from a psychoanalytic viewpoint. Psychoanalytic case studies suggest that challenges faced by embryos and fetuses in utero can shape character structures and form conflicts, highlighting the complex relationship between prenatal development and psychological outcomes (Merchant, 2015; Segui, 1995; Sonne, 1996, 2002).

The history of PPN dates back to Otto Rank's "The Trauma of Birth" (1924) and Gustav Hans Graber's "The Ambivalence of the Child." Freud's psychoanalytic method laid early foundations for PPN, despite his conflicting views on birth, considering it both a primary anxiety and a non-subjective experience for the infant. Melanie Klein (1928) further developed these ideas, exploring early child curiosity about womb-life. Fodor (1956) speculated on prenatal traumatic shocks and the resistance to Rank's idea of birth trauma affecting neurotic development. These

early theories set the stage for later PPN theories, which expanded to include broader psychological perspectives on the significance of prenatal experiences.

After Rank and Graber, scientific patriarchal perspectives dominated, pausing PPN theoretical developments. Winnicott's paper (1958a) distinguished between 'birth trauma' and 'birth experience,' laying modern foundations for psychodynamic-psychoanalytic PPN theory. He emphasized the significance of abnormal birth experiences as birth trauma. Contributions from figures like Elizabeth Fehr, R.D. Laing, Arthur Janov, and Frank Lake further shaped the field. Modern psychotherapists such as William Emerson and David Chamberlain have refined PPN theories into the 21st century.

An intense debate still exists in psychoanalysis concerning the psychological birth of infants and their capacity for mental and emotional engagement with the external world after leaving the womb. Some analysts, like Freud and Mahler, believe infants aren't psychologically born until months after birth, remaining egoless within a post-natal 'womb', while others, like Rank and Graber, argue mental life starts at birth. There is limited discussion on fetal mental life and its impact on development (Piontelli, 1992).

On the other hand, some researchers believe early relationships begin before birth and study maternal-fetal attachment (Alhusen, 2008; Bibring, 1959; Cranley, 1981; Deutsch, 1945; DiPietro, 2010; Jakel, 2008; Winnicott, 1956). DiPietro (2010) particularly emphasizes that the earliest relationship starts as the pregnant woman constructs a mental representation of the fetus, with maternal-fetal attachment typically increasing throughout gestation.

Early social experiences, including prenatal and birth history, play a significant role in personality development and the formation of core experiences, object relations, and attachment (Carlis, 2015; Patrick, 1994; Segui, 1995; Sonne, 1996). Under what conditions were the parents attempting to conceive the baby? Were there any abortions or miscarriages in the family? Were the parents anticipating the baby? What were the conditions during the baby's delivery? The negative birth experience can give rise to the development of certain symptom complexes, inhibiting an individual's ability to reach their full potential, which may

result in dissatisfaction in close relationships, feelings of insecurity, depression, and anxiety (Barnett, 1987).

In human development, the biological birth of an infant and their psychological birth as an individual do not occur simultaneously. The journey of separation-individuation, as described by Mahler and her colleagues (1975), involves the infant gradually establishing a sense of separateness and a distinct identity. This process is mainly facilitated through interactions with the mother, who is typically the infant's primary love object. Processes related to pregnancy and biological birth may mirror those related to psychological birth. Therefore, separation-individuation, as proposed by Mahler and colleagues (1975), is a relevant concept to investigate in relation to intrauterine experiences.

Jakel (2008) explores existential ambivalence during birth, highlighting the emotional complexities of transitioning from the prenatal environment to the outside world. This ambivalence involves a desire for dual unity, symbolizing a longing for the familiar safety of the womb and the need for individual growth through separation. Jakel's work addresses the psychological conflicts inherent in birth, reflecting Mahler's theory on the efforts of separating from others and developing a distinct identity (Mahler et al., 1975). The idea of existential ambivalence during birth resonates with Mahler's distinction between the biological birth of a human and the psychological birth of an individual. While biological birth marks the physical separation from the womb, psychological birth is an ongoing process of developing a distinct sense of self and autonomy. Both types of birth represent transitions, one from dependency to autonomy and the other from one state of existence to another.

Given the importance of early experiences, this study aims to systematically investigate the associations between pre-conception, conception, pregnancy, and birth history with adulthood dynamics. The literature as well as clinical observations point to separation-individuation as a fertile area of exploration, as the process offers an analogy of psychological birth and as it covers foundational developmental attainments. Since there has been limited research investigating womb experiences from a psychoanalytic perspective using quantitative methods,

and no study found in the literature review investigating the association between intrauterine and birth experiences and the variable of separation-individuation, the findings of this study would serve as a preliminary basis for future research.

This study adopts a retrospective approach, adult participants are asked to respond to various questions regarding their earliest experiences and circumstances, even preceding their existence. However, usually people lack access to their mothers' internal experiences or precise information regarding their intrauterine and post-birth earliest experiences. Even if they possess knowledge to a certain degree, memory is susceptible to various biases, and their mother's perception could influence the experiences of adult children. Hence, data on conception, birth, and postpartum experiences were independently obtained from both the mother and the individual. This facilitates the presentation of observations on how an individual's knowledge, misconceptions, or lack of knowledge regarding their earliest experiences might have affected their separation-individuation processes. By doing so, the study aims to contribute to theory and provide observations that could guide clinical work.

CHAPTER 1

LITERATURE REVIEW

1.1. PRE-BIRTH, BIRTH, AND POST-BIRTH EXPERIENCES

In this section, literature review on pre-birth, birth and post-birth experiences as the main focus of the study will be presented. An overview of the burgeoning field of prenatal psychology and its impact on individual development will be presented. The significance of the intrauterine environment in shaping personality traits and emotional patterns by exploring psychoanalytic perspectives and research findings will be discussed below.

1.1.1. Pre-conception

Preconception refers to the period before conception when the parents' mental and emotional states, expectations, and fantasies about the future child may already start to take shape. This concept is crucial in both prenatal psychology and psychoanalytic theory as it lays the foundation for the unborn child's future development and the parent-child relationship.

A baby's existence, according to Verny (1981) and Winnicott (1965), begins not at birth but from the time they are conceived in the parents' minds. Psychoanalytic theorists, such as Bibring (1959) and Bollas (1987), argue that this existence starts even earlier when parents begin to envision their future child. Circumstances that may affect the baby, even before their life in the womb begins, already start to unfold in the mind of the mother. Key questions include: What are the parental expectations and projections? Were there any abortions, miscarriages, or deceased children in the family? Did the mother have any mental or physical health issues she struggled with before getting pregnant?

Parental expectations and fantasies, both conscious and unconscious, shape the mental representation of the infant. Experiencing miscarriage, abortion, or the loss of a child significantly influences a mother's perceptions, projections, hopes,

and emotions regarding her subsequent child (Coleman, 2009). For instance, miscarriage or the death of a child significantly impacts maternal mental health and attachment dynamics with the subsequent child. For example, unresolved grief from previous losses can lead to heightened emotional responses and protective behaviors towards the subsequent child (Robertson & Kavanaugh, 1998). The concept of "replacement child syndrome" describes how parents might project their lost child's unfulfilled dreams onto a new child, potentially causing identity issues for the latter. Similarly, "vulnerable child syndrome" involves overprotectiveness due to fear of loss, which can hinder a child's individualization process (Cote-Arsenault, 2003; Davis et al., 1989).

Both parents hold conscious and unconscious expectations and fantasies about their infant, shaped by their relationships, parental figures, and personal childhood experiences, often not aligned with reality (Lebovici, 1988). The mother's emotional tone in her mental representation of her infant significantly impacts the attachment quality between mother and child. Existing literature discusses the impact of maternal mental representations and parental fantasies during pregnancy on later infant-parent relationships and the psychic development of the infant (Blum, 2016; Priel & Besser, 2001; Raphael-Leff, 1982, 2005; Stern, 1998; Winnicott, 1965). However, less attention is given to pre-pregnancy hopes, fantasies, and projections and their later effects on infant development. Case reports in psychoanalytic literature suggest that the mother's mental representation of her infant forms before pregnancy and evolves throughout and after it (Blum, 2016).

Considering the significance of the primary object relationship for attachment and separation-individuation (Blum, 2016; Kohut, 1982; Stern, 1989), it is reasonable to consider that emotions, fantasies, thoughts, hopes, and projections even before pregnancy may also influence separation-individuation processes later in development. This aspect, though beyond the scope of this research, provides a rich area for further exploration.

1.1.1.1. Findings on the Effects of Preconception Circumstances

This section focuses on empirical studies and clinical observations that support the theoretical perspectives on preconception. These findings illustrate how preconception circumstances affect both parents and children.

Clinical observations, such as those by Agger (1988), show that grieving parents often idealize their deceased child, viewing their other children as replacements. This can create complex family dynamics, where subsequent children may feel guilty, believing they caused their siblings' death, or envious, feeling neglected as the deceased sibling is idealized (Beaumont, 2012). These hidden feelings contribute to a complex emotional environment, leading to attachment and separation-individuation problems.

Research by Armstrong and Hutti (1998) highlights those women with a history of pregnancy loss often experience heightened anxiety, affecting their ability to bond with new infants. A study in Türkiye found that such women exhibited higher depressive symptoms, although prenatal attachment did not significantly differ from those without such a history (Yılmaz & Beji, 2003). The ramifications of perinatal loss extend to subsequent children, who are often viewed as fragile by their parents. This can lead to the "vulnerable child syndrome" and increased protective behaviors from parents (Pantke & Slade, 2006; Turton et al., 2009). These children may struggle to form secure attachments, exhibiting disorganized attachment patterns (Heller & Zeanah, 1999). Although not consciously aware of the loss, they may absorb parental grief, leading to unconscious fears of growing up and leaving the family (Kempson & Murdock, 2010). In summary, unresolved traumas or mental states of the mother may pass down to the unborn child and later affect how they perceive themselves and their relational patterns.

Children aware of their mother's pregnancy termination often face existential conflicts, wondering why they survived while their siblings did not. This can lead to feelings of guilt and existential neurosis (Krell & Rabkin, 1979; Ney, 1998). They may strive to please their parents, seeing their worth as tied to being

wanted, which can result in overanxious behavior and self-blame for family issues (Ney, 1998). Over time, these internal conflicts can manifest as self-blame, depression, or hostility.

In summary, the preconception period plays a crucial role in shaping parental expectations, projections, and the emotional and mental states of parents, as well as their mental representations of the future child. Factors such as past abortions, miscarriages, perinatal loss, and physical or psychological problems can significantly influence parental emotions and attitudes towards subsequent children, as well as the relational dynamics between parent and child. These preconception circumstances may have lasting effects on attachment, emotional well-being, and psychological development in children. Since there is a gap in the literature regarding the impacts of preconception experiences on personality development, this study will investigate whether the mother has previously experienced miscarriage, abortion, or the loss of a child, as well as any past psychological and physiological difficulties she may have encountered.

1.1.2. Conception

Conception refers to the moment when the intrauterine experience of the baby begins, shaped by various factors such as whether the child was planned, the use of assisted reproductive techniques, and the emotional context surrounding conception attempts. Key questions include: Under what conditions were the parents trying to conceive the baby? How long did the mother attempt to conceive? Was it a loving or a traumatic experience for the mother?

According to Winnicott (1958), the body and psyche develop together from conception, initially fused and gradually becoming distinct. This suggests a form of consciousness from conception onwards. In his clinical practice, Winnicott observes that personal birth experiences can be retained as memory material if they hold significance for the individual before birth. Verny (2021) emphasizes that memory extends throughout the body, implying that experiences leave an imprint on our cells and tissues, regardless of our awareness. Memories, including

experiences from conception onwards, are imprinted within our bodies, exerting profound but unconscious influence. Emerson (2002) argues that the mind exists before the nervous system, allowing for awareness of crucial emotional aspects during inception. These experiences, including struggles for survival during implantation, gestation, and birth, might be recorded at a cellular level.

Graham Farrant, an Australian psychiatrist, states that: “The conception is not duality, but a trilogy: the sperm cell, the egg cell and the soul meet” (Farrant, 1988, p.6). The emotional context of conception marked by love is significantly different from one marked by trauma or violation. Conception can be seen as a blend of the parents' conscious embodiment and the biological needs of the sperm and egg, influenced by the emotional dynamics between them (Appleton, 2020). The parents' relational context introduces additional elements, which could range from love, anger, or fear to the potential influence of substances like alcohol and drugs. Therefore, the emotional and the physical context of conception may significantly impact the developing child.

In natural conception, the fusion of sperm and egg is a dynamic process, often described as a dance between the egg and sperm cells (Van der Wal, 2002). Artificial reproduction methods like IVF and ICSI can be considered biological and psychological violence, as the egg cell is subjected to the invasive procedure of the needle. Unlike the natural process, which is akin to a dance filled with emotions of love and connectedness, IVF and ICSI are highly organized and precisely timed processes (Van der Wal, 2002). The emotional 'music' is turned off, replaced by the stress of decisions such as how many eggs to fertilize, the fate of remaining embryos, the possibility of multiple pregnancies, and the duration of treatment. The 'ballroom' is illuminated by the harsh lights of a laboratory, starkly contrasting the natural environment. This shift can influence the emotional and psychological experiences of both parents and the developing child (Appleton, 2020).

Verdult's theory, based on clinical experiences and case examples rather than empirical research, outlines eight stages of prenatal development: preconception, conception, implantation, discovery, umbilical affect, birth, imprinting, and psychological birth (Verdult, 2014a, 2014b; Verdult & Stroecken,

2010). During the conception stage, the developmental crisis for the unborn baby is trust in life versus obstruction to life. As cells, including sperm, egg cells, and zygotes, are highly sensitive to their environment, emotional messages significantly impact cell development. Verdult (2014a) suggests that the circumstances of conception profoundly affect emotional development. Loving conception fosters trust and secure attachment as cells primed for connection, while traumatic experiences such as rape can induce defensive behaviors and avoidant attachment patterns, as cells become defensive. In summary, each stage of prenatal development influences subsequent emotional outcomes, relationship patterns, and physical sensations (Verdult, 2014b). The general assumption of the Verdult (2021) is that experiences that differ from natural processes can be potentially stressful, traumatizing and shocking in different degrees on a spectrum for.

Factors such as the duration of attempts to conceive, unsuccessful pregnancy experiences, and the mother's perception of this process, along with the age at conception, can influence her experience, emotional state, and the meaning attributed to the baby. For a woman becoming a mother for the first time, it may evoke significantly more negative and anxious emotions, whereas for a woman who has already experienced motherhood, the intensity of these feelings may be lessened (Nelson & O'Brien, 2012). Furthermore, the planned or unplanned nature of pregnancy can elicit different emotional responses from mothers. Beyond the distinction between planned and unplanned pregnancies, it should be noted that the reactions of parents after learning about the pregnancy are also crucial. An unplanned pregnancy may lead to the birth of desired babies, highlighting the distinction between pregnancy planning and the desire for parenthood.

1.1.2.1 Findings on the Effects of Conception Factors

Assisted Reproductive Techniques (ART) bring new hope but also emotional strain, particularly after repeated failures, leading to depressive reactions in parents. Even successful ART pregnancies are high-risk, fostering fears of miscarriage, which make it emotionally challenging for parents to fully engage and

connect with the baby and lead to insecure-avoidant attachment issues in babies (Brisch, 2003).

In IVF procedures, the natural rhythm of ovulation is controlled, disrupting the body's connection to itself, which is stored in the cellular memory of the egg (Verdult, 2021). These experiences can impact the baby's psyche, observable through behaviors such as restless movements, muscle contracture, avoidance of contact with the caregiver and avoidance of eye contact. Based on the treatment of about 40 IVF/ICSI babies, Verdult and his colleagues (2021) note that IVF babies show various symptoms due to these disruptions, including shock patterns, physical symptoms and avoidant attachment patterns.

Terry (2004) also noted that IVF/ICSI babies struggle to establish a connection with their bodies, referring to this as embodiment trauma, where the soul struggles to fully integrate into the body. In natural conception, sperm swim through the hostile environment of the vagina, resulting in many sperm cell deaths. The surviving sperm recover and continue their journey, ultimately allowing one to reach the egg. In ICSI, this natural process is disrupted by a controlled laboratory procedure. The lack of natural processes might be reflected in the psychomotor and bodily expressions of the babies as suggested by Verdult (2021) and Terry (2004) based on their observations.

The nature of pregnancy, whether planned or unplanned, affects prenatal attachment levels. Studies indicate that planned pregnancies are associated with higher levels of prenatal attachment and better emotional outcomes for both mothers and children (Boden et al., 2014; Çoşkun et al., 2019). Unplanned pregnancies, especially for first-time mothers, often result in higher maternal depressive symptoms and more significant parent-child conflicts (Nelson & O'Brien, 2012). Additionally, individuals born of unplanned pregnancies report lower self-esteem in early adulthood (Axinn et al., 1998).

In the literature, the focus on the effects of the mother's age at conception is primarily on its relation to the physical health of both the mother and the child, as well as potential complications during childbirth (Jacobsson et al., 2004; Mikundová, 2022). However, there is less emphasis on its association with various

psychological factors (Ahmad et al., 2024; McMahon et al., 2011). Observational studies on mother-infant attachment, which begins prenatally and continues after birth, indicate that adolescent mothers show fewer attachment behaviors with their infants than adults, and younger adolescent mothers exhibit less attachment behavior than older ones (Norr & Roberts, 1991). Some studies suggest that older first-time mothers have increased resilience, lower levels of depression, better parenting outcomes, and potential benefits such as improved emotional maturity and better readiness for motherhood (Ahmad et al., 2024). These advantages may shield and facilitate children's behavioral, social, and emotional development.

While there is extensive research on the experiences of mothers who achieve pregnancy after a prolonged period using assisted reproductive techniques and its impact on infant development (Brisch, 2003; Verdult, 2021), there is a noticeable gap in the literature regarding the experiences of mothers attempting to conceive naturally over an extended period. Additionally, there is insufficient exploration of how the duration and perceived difficulty of conception influence both the child's development and the mother-child relationship within the researcher's scope of knowledge.

In summary, the conception period marks the beginning of the intrauterine experience for the baby, influenced by factors such as the planned nature of the pregnancy, the use of assisted reproductive techniques, and the emotional context surrounding conception. These factors can have lasting effects on the parent-child relationship and the child's psychological development. This study explores various aspects of conception, including the method of conception, the duration and perceived difficulty of conception, whether the pregnancy was planned, the age at conception, and the relationship between the parents during the conception period.

1.1.3. Pregnancy

The study of pregnancy from both psychoanalytic and prenatal perspectives offers a rich field for understanding the complex interplay between intrauterine life and extrauterine life. This review aims to explore key psychoanalytic theories and

prenatal thoughts, providing a foundation for examining empirical and clinical case studies in subsequent sections.

Psychoanalyst Alice F. Sorel highlights the elements the infant brings to the mother-infant relationship as "inherited traits, temperament, reflexes, and intrauterine experiences" (1992, p. 21). These intrauterine experiences are influenced by whether unsettling events occurred during pregnancy, parental reactions and emotions upon discovering pregnancy and during pregnancy, physical or mental health problems of the mother during pregnancy, how parents envisioned the child while awaiting its birth, as well as any thoughts of abortion or risks of miscarriage. These initial womb experiences can leave lasting imprints on the baby, influencing subsequent life events in a profound and enduring manner (Verdult, 2020). It was Freud (1926) who wrote:

There is much more continuity between intra-uterine life and earliest infancy than the impressive caesura of the act of birth would have us believe. What happens is that the child's biological situation as a fetus is replaced for it by a psychical object-relation to its mother. (p. 138)

The unborn are conscious of their surroundings and influenced by prenatal interactions (Bollas, 1987; Chamberlain, 1998; Sonne, 2002; Verry, 1982; Winnicott, 1949). The body of research posits that the unborn exhibits perceptiveness, sensitivity, mental capacity, responsiveness, and susceptibility to psychic trauma. Due to this early capacity to register their prenatal experiences, these memories become ingrained in their unconscious, as described by Bollas (1987) as the "unthought known," thereby influencing their postnatal reactions, personality, behaviors, relational patterns, self-object representations, and psychosocial conflicts. The emotional response of parents upon discovering pregnancy, whether positive or negative, influences the prenat's experience through cellular consciousness, potentially leaving lasting imprints (Appleton 2020; Verdult 2021a).

Object relations theory suggests that our perception of the world is shaped by our earliest relationships, particularly with primary caregivers (Winnicott, 1958). These interactions create internalized "objects" or mental images that

influence our future relationships. Expanding this idea, our understanding of the world may also be influenced, even earlier, by prenatal experiences. From birth, we might seek the familiarity of the womb in our new environment, using prenatal emotions to navigate the alien postnatal world. This search for a lost prenatal home through projections and re-enactments of these early emotions and needs may play crucial roles in shaping how we perceive and interact with the world and the people

Winnicott's perspective suggests a continuity between intrauterine and extrauterine life, proposing that experiences in the womb can leave lasting impressions on the psyche, resurfacing later in life (1958). Winnicott particularly emphasizes the significance of intrauterine experiences in emotional development, highlighting the potential for unhealthy emotional trajectories resulting from disturbing impingements during gestation including maternal unconscious dynamics, negative emotions, or potential abortion attempts, leading to the emergence of a false self (1958). While the womb of a mother who desires the baby is experienced as loving and secure, the womb of an anxious mother, predominantly laden with negative emotions towards the baby may evoke feelings of danger, suffocation, and fear of abandonment (Sonne, 2002).

The belief that life in the womb is naturally safe, warm, nurturing, and protective (Guntrip, 1968) may only apply to certain embryos. Psychoanalytic theory typically accepts positive intrauterine memories, depicted through images of peaceful watery environments and a sense of blissful unity, while negative experiences are seldom addressed (Ploye, 1973). Klein (1957) proposes that the portrayal of prenatal life as entirely harmonious might stem from a desire to idealize early experiences. She observes that insecurities and anxieties from intrauterine life, such as feelings of persecution and envy, become significant at birth and predict the dual (good and bad) aspects of the infant's postnatal relationship with their mother.

This intrauterine experience may later have reverberations on external experiences by shaping the initial perception of the outside world. A nurturing environment promotes exploration and cooperation, while a hostile one leads to the specialization in dealing with emotions associated with fear and abandonment. For instance, babies who survive abortion attempts may perceive birth as annihilative,

while those experiencing near-death during implantation might view birth as a near-death experience (Ney, 1998; Sonne, 1996). Additionally, babies exposed to aggression, rejection, and depressive feelings, in the womb may interpret birth interventions as aggressive and violent, despite no such intent from health professionals or caregivers.

For instance, as cited in Janus (2006), early psychoanalysts acknowledged that prenatal experiences form the basis of feelings of power. Ferenczi (1952) suggested that adequate nutrition and protection could make a prenatal child feel omnipotent, while Adler (1907/1965) linked prenatal deprivation to feelings of helplessness and an inferiority complex. Searles (1960) argued that infants interact with both inanimate and human surroundings from birth, retaining these impressions, which may originate in fetal experiences in the womb. The initial relationship in life may be with the emotional and physiological environment of the mother's inner body rather than with the mother as an individual. According to this view, the initial "holding environment" (Winnicott, 1960) is not the interpersonal aspects of the mother-infant relationship but the mother's internal space as a habitat for the developing self. Inborn traits may not necessarily be genetic, temperament may not be constitutional, and relational experiences do not always involve the mother as a person (Rucker, 1994).

Attachment, a term introduced by Bowlby (1969), denotes the bond between a child and caregiver, providing a secure base for exploration and comfort during stress (Ainsworth, 1979; Bowlby, 1969). Attachment theory emphasizes the bonding processes occurring after birth, underlining the caregiver-infant relationship's significance in shaping the child's socio-emotional development. However, DiPietro (2010) states that the earliest relationship does not begin with birth but starts as the pregnant woman constructs a mental representation of the fetus. Feelings of maternal-fetal attachment generally increase throughout gestation.

Prenatal attachment refers to the unique bond that develops between a mother and her fetus throughout the duration of pregnancy (Salehi and Kohan, 2017). Recent studies underscore the profound impact of maternal-fetal attachment,

suggesting the bond begins as early as the prenatal period (Hagglöf, 2000; Muller, 1993; Verdult, 2014; Verny, 1982). The quality of this bond establishes the foundation for subsequent attachments and interactions (Benoit, 2004; Nelson & O'Brien, 2015). This bond is characterized by the mother's acceptance of the physical changes her body undergoes during gestation and her capacity to convey positive emotions to her unborn child. This attachment lays the groundwork for expectant mothers to transition into the role of motherhood and cultivate a nurturing connection with their baby following childbirth (Abazari et al., 2017; Wada et al., 2020).

Therefore, maternal communication during prenatal stages is significant in shaping the subsequent developmental trajectory of the child, aligning with object relations theory (Winnicott, 1965). Winnicott emphasized the concept of primary maternal preoccupation, wherein mothers develop a heightened sensitivity to the experiences and needs of the unborn child. This quality of engagement fosters a sense of security and trust and contributes to the formation of a coherent sense of self in the infant. Establishing basic trust, mirroring, and nurturing early object relationships are vital for infants' normal development within a secure environment. Self and object representations of parents and fetus, and later of the infant, constitute critical aspects of pregnancy and parenthood psychology (Raphael-Leff, 2005). Some expectant mothers' fantasies during pregnancy may involve a self-representation that encompasses the fetus. The actual symbiosis experienced during intrauterine fetal life has led to maternal fantasies of continued symbiosis after birth. These elements are crucial for both attachment and separation-individuation (Blum, 2016; Erikson, 1975; Kohut, 1982).

Jakel's (2001) concept of prenatal resonance processes refers to the maternal representation's ability to resonate with the attachment needs of the unborn child, serving as an unconscious psychological resource for the child's acceptance of its existence. Failure to fulfill this maternal representation results in a failed psychic birth of the baby, limiting the capacity for object relations and leading to strong ambivalence between self and object relations. Jakel argues that mother's failure at

serving her mental representation might bring about strong ambivalence between separateness and relatedness.

Verdult (2014b) proposes a stage theory for prenatal attachment development, emphasizing the crucial role of maternal care in the emotional and physical survival of the prenatal child since the prenatal child lives in a totally dependent relationship to the mother's body and her psyche. Drawing from Erikson's psychosocial development theory and combining it with Emerson's model of prenatal development, Verdult expands it to the prenatal period, suggesting that each biological developmental step in the womb has a psychological counterpart constituting an attachment relationship (Erikson, 1963; Emerson, 1998a). According to Erikson (1963), psychosocial development has eight stages in which each developmental stage influences the outcome of the subsequent stage, leaving a lasting impact throughout life. Each stage involves a crisis experienced on a spectrum from positive to negative poles. For instance, one of the developmental crises for the baby is trust vs. mistrust. Children who develop a sense of trust in their caregivers during infancy are likely to build trusting relationships throughout their lives, fostering a sense of safety and security in the world. As a result of unreliable and unpredictable caregivers who consistently fail to meet a child's basic needs; mistrust, anxiety, and suspicion may develop. Children and adults with low levels of trust may become fearful and anxious, resulting in difficulties in the ability to develop positive and healthy relationships (Murphy et al., 2015).

Buchholz (1999) highlights the significance of the sense of aloneness originating from womb experiences, emphasizing its importance as a developmental need. Similarly, Winnicott's concept of the "capacity to be alone" underscores the importance of solitude in infant development (Winnicott, 1958). Buchholz's exploration of "going-on-being" describes the peaceful state infants experience, originating from womb memories, highlighting alone time as crucial for developing a coherent sense of self. The experience of aloneness can create both negative and positive conditions, depending on the intrauterine experience.

Piontelli (1992) challenges the prevailing belief among most psychoanalysts that an infant's mental life starts at or after birth. Instead, he highlights how characteristic individual behaviors emerge in relation to the intrauterine environment before birth. This leads to speculation about the possible existence of rudimentary self-awareness prenatally, which challenges traditional views on when infants' mental lives begin. He emphasized that the interplay between nature and nurture starts earlier than commonly believed, with prenatal experiences potentially impacting a child's emotional well-being, especially when reinforced by postnatal events. Drawing from her expertise as a child psychotherapist and psychoanalyst, she explores themes of individuality, psychological birth, and the influence of maternal emotions during pregnancy. Her findings highlight the significant behavioral and psychological connections between prenatal and postnatal life, enriching observational data with psychoanalytical evidence.

Pionelli's observations (1992) suggest the potential for rudimentary self-other differentiation in the womb, despite the limitations of relying solely on ultrasonographic scans. Spontaneous fetal movements at six- or seven-weeks hint at early independent behavior, raising questions about volition and sentience, and hinting at the beginnings of me-not me differentiation. These processes may mirror Mahler's stages of normal symbiosis and practicing, where infants gradually distinguish themselves from caregivers, initially through bodily sensations and later through increased mobility and awareness of boundaries, ultimately leading to a sense of "being one's own agent." Therefore, it might be reasonable to think that Mahler's post-birth stages could reflect the early onset of separation-individuation processes in the womb.

1.1.3.1 Findings on the Effects of Circumstances during Pregnancy

Empirical research and clinical case studies provide concrete examples of how theoretical perspectives on pregnancy manifest in real-life scenarios. Previous studies illustrate that prenatal experiences can impact an individual's psychological development, manifesting in various emotional and behavioral outcomes and the

attachment relationship between mother and child, which can significantly affect postnatal bonding, long-term emotional well-being, and relational patterns.

Early experiences in the womb can serve as both strengthening and potentially shocking elements for the prenatal baby (Verdult, 2020). Analysts suggest that emotional memories imprinted during prenatal development can manifest later in life through imagery, words, or relationships including transference relationships during therapy (Merchant, 2015; Sonne, 2002). Traumatic experiences during gestation, such as abortion attempts or maternal emotional states, may impact the individual's psychological well-being. Based on their clinical observations and case reports of Winnicott, Merchant (2015) suggests that intense affects like fear, fear of rejection, and emotional abandonment might be related to traumatic fetal experiences

Based on the prenatal experiences of 14 psychotherapy patients, Segui (1995) identifies various intrauterine difficulties, such as schizoid, oral, symbiotic, psychopathic, masochistic, phallic, and hysteric traits, and their potential influence on character development and conflict resolution. Based on the clinical experiences, Ward (2018) highlights that schizoid personality reactions, originating in infancy, involve a split between extraversion and introversion due to inadequate bonding in the first trimester, leading to detachment, emotional trauma, and a sense of non-being. This results in withdrawal, isolation, and difficulties in forming relationships, culminating in a painful and lonely existence.

Frank Lake (2005) expanded the concept of umbilical affect, referring to the emotional interaction between mother and fetus through the umbilical cord. This interaction, influenced by the mother's attitudes towards pregnancy, shapes the fetus's response from ideal nurturing to coping with mixed emotions (Maret, 1997). This aligns with stress research emphasizing the importance of moderate stress levels for normal development, underscoring the need for a supportive environment for recovery and growth (Weinstein, 2016). "Coping" responses, common among prenatals, involve experiencing a mixture of negative and positive emotions within the womb, where trust between mother and child is maintained and distress is manageable. Maret (1997) suggests that this condition serves as a form of

preparation for challenges outside the womb. This concept echoes stress research emphasizing the management of specific neurohormones like cortisol for healthy functioning, underscoring the importance of a nurturing environment for the stressed infant's recovery (Weinstein, 2016). Based on the clinical experiences and observations of Sills (2009), intense negative affect undermining trust between mother and prenaté might trigger oppositional strategies, potentially leading the prenaté to harbor wishes of harm towards the mother, which are suppressed and result in deep wounding at the level of being.

The recognition and acceptance of the fetus by the mother significantly shape the child's sense of being and self-worth, while denial or unwantedness can lead to discovery trauma with lasting imprints into adulthood (Emerson, 1996; Appleton, 2020). In severe instances, excessive negative umbilical affect may compel the prenaté to desire self-harm, inducing shock responses and an existential crisis characterized by detachment, dissociation, and alienation strategies. The rejection of a pregnancy on a psychological level can manifest as negative umbilical affect for the prenaté, influencing postnatal behaviors. Verny and Kelly (2010) illustrate that negative umbilical affect can influence postnatal behaviors, such as a newborn's reluctance to bond with the mother while bonding well with a nurse. Kafkalides (2017) developed the concept of "rejecting" or "accepting" wombs, highlighting how family dynamics contribute to the fetus's subjective experience during embryonic life. Even when a child is wanted by the mother, other relational factors can contribute to the perception of a rejecting womb.

Rucker (1994) illustrates how traumatic intrauterine experiences affected a patient named Jill later in life. Jill's mother was unaware of her pregnancy until the fourth month, mirroring Jill's feelings of isolation and lack of acknowledgment. Additionally, Jill lived in a dry uterus for four days before a difficult and premature delivery, reflecting her sense of being not fully formed. Rucker asserts that such fetal experiences play a crucial role in shaping personality development and lifelong connectedness with others.

Longitudinal studies indicate that high prenatal maternal anxiety has long-term consequences on children's emotional, cognitive, and behavioral development.

Prospective studies link maternal anxiety, depression, and perceived stress during pregnancy with later emotional and behavioral issues in children (Davis et al., 2004; O'Connor et al., 2002). Specifically, girls are more prone to mood disorders, while boys exhibit externalizing behaviors (Van den Bergh & Marcoen, 2004). Prenatal maternal anxiety could adversely affect the mother-fetal relationship, as the fetus might perceive anxiety as emotional rejection (Brisch, 2003). Kita and colleagues (2019) found that intimate partner violence towards a pregnant woman led to bonding difficulties after birth.

Developmental research suggests that emotional bonding with the fetus during pregnancy indicates the quality of mother-infant relationships post-birth (Benoit & Parker, 1994; Fonagy et al., 1991). Muller (1993) found a modest correlation between prenatal and postnatal attachment, and Siddiqui and Haggblöf (2000) observed that prenatal attachment predicts early mother-infant interactions. Maternal pre- and postnatal anxiety predicts various temperamental challenges in infants, such as heightened activity levels, increased distress, negative affectivity and greater expressions of sadness and fearfulness (Henrichs et al., 2009). Failures in intrauterine attachment and prenatal maternal stress may lead to regulatory problems in infancy, including sleeping difficulties, excessive crying, hyperalertness, or eating issues (Van den Bergh, 1992; Verdult, 2014b).

The Prague Study (David, 2006) examined the long-term impacts of being born from an unwanted pregnancy on adult psychosocial development and mental health. Those from unwanted pregnancies were more prone to psychiatric issues and difficulties in establishing stable family structures. They experienced more romantic disappointments and workplace conflicts, indicating higher risks of negative psychosocial outcomes and poorer mental health up to age 35.

In a study by Gillath and colleagues (2018), researchers found that being unwanted or unplanned is associated with attachment insecurity, including anxiety and avoidance. This status might affect both parents and children in different ways, shaping their attachment and mental perceptions into adulthood. Feeling unwanted or unplanned might heightens concerns about trust, closeness, and dependence, which, in turn, might increase sensitivity to rejection, the likelihood of relationship

failures and dissatisfaction with employment (David et al., 2003; Dytrych, & Matejcek, 2003). Other outcomes of unwanted pregnancy include decreased cognitive and socio-emotional development (Feldman & Eidelman, 2009), low-quality mother-child bonding (Moehler et al., 2006), and hostile behaviors in children (Lyons-Ruth et al., 1993). Several studies suggest a consistent link between being desired during pregnancy and attachment security (Miller et al., 2002; Gillath et al., 2018)

When an unborn baby is perceived as a burden, they absorb aggressive energies and may replicate these experiences in their adult life (Kitzinger et al., 2002). A child whose mother contemplated abortion or hesitated about keeping the baby may grapple with substantial conflicts regarding their existence, as they were chosen to survive (Ney, 1998). Due to the dependence of their lives on being wanted, they may develop an obsessive determination to please or feel a profound sense of obligation to their parents. These findings collectively indicate that being born from an unwanted pregnancy may result in significant negative outcomes that endure into adulthood.

The study by Carlis (2015) underscores the impact of prenatal experiences on the psychological well-being of adult adoptees. Despite being raised in supportive adoptive families, some adoptees grapple with internal conflicts, relational challenges, depression, anxiety, mistrust, and fearfulness. When envisioning reunions with their birth mothers, some fear rejection, while others anticipate positive outcomes, often finding their expectations validated. Despite the love received in their adoptive homes, adoptees' ability to form close relationships is affected by the primal wound. These early experiences in the womb contribute to feelings of alienation within their families and society. Such feelings, present since childhood, can foster ongoing insecurities, suspicion, and sadness, hindering the fulfillment of critical developmental tasks like establishing trust, autonomy, and individuality (Erickson, 1963).

Piontelli (1992) conducted detailed observational studies using ultrasound scans to monitor eleven fetuses from the sixteenth week of pregnancy until birth, followed by infant/mother observations, continuing these observations postnatally

until the children were four years old. These studies enabled her to gather and document evidence on individuality, psychological birth, and the influence of the maternal mind during pregnancy. Piontelli suggested that fetuses were aware of and interact with their intrauterine environment in ways that influence their subsequent interpersonal relationships, meaning that the capacity to register and react to experiences begins by the latter half of gestation, if not earlier. These early experiences, such as floating in the amniotic fluid and interacting with various objects like placenta, a twin, and a uterine wall, might shape subsequent dynamics. The following cases observed by Piontelli illustrate these findings in more detail.

Jacob, observed by Piontelli at 18 months, exhibited restless behavior and sleep disturbances since birth, and seemed obsessed with searching for something he could never find, reflecting a fear of loss. Moreover, Piontelli noted that Jacob's attempts to shake objects to life suggested an underlying fear of death. This fear was traced back to a traumatic prenatal experience where he spent time with his deceased co-twin. Therefore, the imprint of these early intrauterine experiences can be observed in his later behavioral and interactional patterns.

Drawing from another case study by Piontelli (1992), Pina's prenatal hyperactivity raised concerns of placental detachment, leading to a fear of miscarriage and necessitating a Caesarean birth with subsequent complications. Postnatally, she exhibited fears and anxieties mirroring her intrauterine struggles, such as claustrophobia and fear of drowning. Despite showing intelligence and adventurousness in early years, she also experienced nightmares and anxieties, suggesting lasting effects of prenatal experiences. Additionally, Pina feared falling and being alone in silence, seeking constant background noise for comfort, possibly driven by a desire to mature quickly to avoid perceived dangers. Pina's early independence such as beginning to talk and crawl early seemed to alleviate her fears of being dropped or 'washed away'.

Lastly, the case of Giulia (Piontelli, 1992) illustrates the profound impact of intrauterine experiences on the postnatal development and separation-individuation process of the child. Giulia's intrauterine minimal activity reflected her comfort in a state of oneness with her mother's breathing rhythm. Her reluctance to leave this

state was evident during her slightly overdue and traumatic birth. Postnatally, she exhibited strong attachment to sensory gratification and reluctance to engage with the external world. The birth of her brother catalyzed her journey towards psychological birth, achieving independence. Gianni's prenatal clinging to the umbilical cord and immobility persisted postnatally, necessitating a Caesarean section due to "tight immobility." His obsessive rigidity post-birth such as clinging to routines and individuals much like he clung to the cord in the womb mirrored his prenatal behavior

In summary, psychoanalytic literature suggests that unborn babies are conscious of their surroundings and influenced by prenatal interactions. Maternal emotional states, trauma, desires for parenthood, and abortion considerations significantly impact a child's emotional and cognitive development and their ability to form relationships in adulthood. Since there is a gap in the literature regarding the understanding of the effects of pregnancy experiences on separation-individuation processes, this study aims to explore the effects of pregnancy experiences on separation-individuation processes, including maternal thoughts about abortion, miscarriage risks, emotional states during pregnancy, trauma experiences, and any past psychological and physiological difficulties.

1.1.4. Birth

Freud (1926) proposed that the birth experience is a fundamental catalyst for anxiety, emphasizing the initial separation from the mother's body as the root cause of human anxiety. Otto Rank (1924/1952) expanded on this idea, suggesting that all anxiety stems from the anxiety associated with birth, particularly the separation from the mother, which he considered the most distressing human experience. Rank argued that failure to resolve this trauma during childhood could lead to various psychological issues later in life, including fears, phobias, neuroses, and psychoses. Piontelli (1987) mentions that the unrestricted movement that fetuses experience in the amniotic fluid was contrasted with the limited movement

they have after birth due to the influence of gravity. As a result, newborns may initially appear to be much more impotent compared to their earlier state.

Winnicott (2016) connects birth trauma to various psychological and life experiences, highlighting its profound impact. He explains that psychosomatic symptoms like headaches and chest constriction often stem from perinatal trauma. Severe birth trauma can lead to paranoid tendencies, where individuals feel persecuted. Additionally, such trauma disrupts emotional development, hindering a stable sense of self and resilience. Winnicott emphasizes that re-experiencing and addressing birth trauma in therapy is essential for healing, helping individuals understand and integrate these early experiences to facilitate emotional development and well-being. Moreover, he suggests that normal birth experiences can promote ego strength and stability, indicating that a non-traumatic birth process contributes positively to an individual's psychological development.

Early psychoanalysts like Rank and Winnicott were interested in how birth affects our psyche. Over time, the field of Prenatal and Perinatal Psychology (PPN) has combined scientific and psychodynamic ideas to understand the physical and emotional effects of birth, especially negative ones. PPN considers different types of birth, such as 'natural,' 'normal,' and 'medically assisted,' and how they can lead to traumatic experiences for babies. Wilks (2017) distinguishes 'natural' childbirth as minimally intervened, 'normal' birth as potentially involving interventions like pain relief, and 'medically assisted births' involving interventions like forceps or cesareans.

Birth trauma, as defined by Castellino (2000), includes both physical injury during birth and the psychological shock felt by infants during the process. Traumatic birth experiences can include complications such as emergency C-sections, umbilical cord entanglement, birthing canal obstructions, and timing-related issues.

Jakel (2008) explores existential ambivalence during birth, addressing the emotional complexities of transitioning between two states of existence. This involves a deep desire for the protective prenatal environment and a harmonious connection with the womb. Jakel discusses the psychological conflicts inherent in

birth, highlighting the tension between the comfort of the prenatal environment and the necessary separation for individual growth. This conflict is a precursor to lifelong efforts of separation and developing one's identity. This idea aligns with Mahler's theory on the process of individuation and forming a unique identity. While physical birth signifies the separation of the fetus from the womb, psychological birth is a continuous process characterized by developing a unique identity and independence.

In summary, when discussing the start of someone's life, there's often a tendency to separate physical reality from personal experience. This division leads to viewing the beginning of the individual, both literally and metaphorically, in two distinct ways: one focusing on the physical birth and the other on the psychological birth (Mahler, 1975). Rooted in Freudian theory, the separation from the mother's body during birth is posited as a fundamental source of human anxiety, with Otto Rank further emphasizing the distress associated with this event. However, traditional psychoanalytic theories are deemed insufficient to fully explain the relationship between the physical birth and psychological birth of the individual. While it's common to consider both birth processes separately, it's also important to examine how the physical birth, as the beginning of separation from the psychological and physiological unity with the mother, influences psychological birth.

This thesis investigates separation-individuation processes, exploring the potential link between psychological birth and the physical birth experience. It posits that the stages of separating from the primary caregiver and developing individuality may symbolically parallel the physical act of birth, encompassing the separation from the womb and the termination of dual unity.

1.1.4.1. Findings on the Effects of Birth Experiences

Birth traumas, including induced labor, epidural anesthesia, and c-sections, can disrupt natural rhythms, creating a disconnect between the baby and mother, and hindering both physiological and emotional development (Kalef, 2018). For

example, babies born via cesarean section miss out on the natural stimulation of uterine contractions and the experience of navigating the birth canal, affecting their adaptation post-birth (Kalef, 2018). Consequently, the mother-baby pair loses the opportunity to experience the sensation of cooperating with the natural forces of the world.

Epidurals, used to numb the mother's lower body during birth, sever the physical connection between the baby and mother, potentially leaving the baby with feelings of isolation and loneliness. Research by Heinze and Sleigh (2003) indicates that babies born under epidural anesthesia may exhibit reduced breastfeeding-related behaviors, such as touching and licking the nipple, suckling, and self-soothing actions like putting their hands in their mouths.

Emerson (1998a) stated that prenatal life events act as "tinctures," shaping later experiences and leading to a perception of life events through the lens of unresolved traumas, especially when they are followed by reinforcing conditions. He provides an example with one of his patients. For instance, being stuck during birth does not necessarily result in claustrophobia in adulthood. However, the baby will probably perceive subsequent events as trapping or unconsciously influence and select life situations that result in entrapment as it happened in his patient. Furthermore, Emerson (1998) emphasizes the lasting impact of birth traumas resulting from obstetrical interventions on the psychological well-being of infants, leading to deficiencies in bonding, chronic shock, and an invasion control complex. These consequences often manifest in immediate symptomatic responses such as nocturnal awakenings, heightened alertness, feeding problems, prolonged crying, and tactile defensiveness.

Cesarean delivery often leads to bonding deficiencies in infants, resulting in tactile defensiveness (Emerson, 1998a; Verdult, 2021). The cold, hurried, and painful nature of touch during cesarean surgery can instill anxiety in infants, associating subsequent physical contact with intrusiveness and anxiety, leading to aversion to touch, hugging, or eye contact. Cesareans disrupt the natural progression of labor, intensifying the sense of separation experienced by infants and

resulting in physical tension and a lack of relaxation typically observed after vaginal birth (Emerson, 1998; Verdult, 2021).

Mothers undergoing Caesarean sections may experience a sense of detachment or 'unreality' upon meeting their child due to not experiencing the natural birth process, which can affect their sense of parental belonging (Piontelli, 1992). Additionally, babies born via cesarean section may struggle to develop self-empowerment and self-worth, perceiving their achievements as unearned and facing challenges in establishing independence and boundaries with parents according to the cases observed in their clinic (Emerson, 1998).

Ward (1999) states that premature infants may exhibit anxiety and irrational aggression due to feeling rushed and unprepared for tasks, while late or postmaturity babies may struggle with taking initiative, feeling anxious about being late but often leaving tasks until the last minute. Several studies suggest that individuals born very preterm (VPT) often exhibit traits such as heightened neuroticism, reduced extraversion, and heightened agreeableness, which are associated with psychopathological vulnerability and an increased likelihood of experiencing anxiety, anger, guilt, clinical depression, and shyness. These characteristics contribute to a higher incidence of psychiatric disorders in VPT adults (Hertz et al., 2013; Mathiasen et al., 2011; Pesonen et al., 2008).

A study by Scharf and Cohen (2013) investigates the long-term impact of preterm birth on adult relationships and individuation. It reveals that individuals born preterm struggle with differentiation and exhibit higher emotional reactivity and fusion in relationships, as well as increased death anxiety. These early separation experiences contribute to long-term elevated anxiety levels, complicating the individuation process and leading to challenges in achieving independence in relationships, resulting in a tendency to merge with others. Additionally, participants' death anxiety was measured using the Death Anxiety Test and a projective assessment of death anxiety to determine how much this relationship was mediated. The researchers highlight that death anxiety mediates the relationship between preterm birth and individuation difficulties, underscoring the significant psychosocial effects of preterm birth in adulthood.

Tideman and colleagues (2002) conducted a longitudinal study on attachment models in children and their mothers at ages 9 and 19. While self-reported perception of attachment quality showed no differences between preterm and full-term participants, unconscious measures revealed significant differences. Preterm participants had higher scores on projective tests, indicating more emotionally intense relationships with their mothers. By age 19, they exhibited greater vulnerability in attachment and separation issues. The study concluded that the emotional effects of prematurity become more pronounced over time, particularly in unconscious assessments.

In summary, the literature does not adequately address the complex relationship between the physical separation experienced during birth and the subsequent psychological experiences of separation during individual development. Extending beyond immediate effects, current research explores potential long-term difficulties as children mature, an area still relatively unexplored, indicating a significant research gap. Therefore, this study aims to investigate the effects of factors such as delivery method, birth complications, timing-related issues, and maternal perceptions of their impact on parent-child relationships on separation-individuation processes.

In the light of the previous literature, recent studies have shed light on the profound influence of prenatal experiences on various aspects of human development, spanning from infancy to adulthood. These experiences encompass a wide array of factors, including pre-pregnancy circumstances, events during pregnancy, birth, and perinatal events (Easterbrooks et al., 2000; Sugarman, 1977). This is not to say that later experiences are insignificant, but certain early experiences may create a domino effect, resulting in long-range effects on personality development. However, sensitive and responsive high-touch care, along with positive infant-caregiver attachment, can mitigate negative outcomes (Korja et al., 2017)

1.2. SEPARATION-INDIVIDUATION THEORY

From infancy onward, individuals strive to gain independence from the mother and to recognize their own identity, encountering struggles of separation and reunion along the way. According to Mahler (1975), these conflicts manifest in various stages of life as individuals navigate relationships, with earlier conflicts shaping subsequent experiences. Upon revisiting Mahler's theory and considering prenatal experiences in the womb, as well as the initial separation at birth following the nine-month life in the womb, it may be possible that these foundational experiences may also play a role in shaping the separation-individuation conflicts encountered in adulthood. Therefore, it is important to consider biological birth processes in relation to challenges encountered during the separation-individuation period and the specific developmental tasks associated with this phase. In this section, a concise overview of Mahler's developmental theory of separation-individuation will be described. Then, the association between separation-individuation and intrauterine experiences will be discussed.

Mahler's Separation-Individuation Theory focuses on the early stages of an infant's psychological and emotional development, particularly the process of moving from a state of fusion with the mother to achieve a more separate and individualized sense of self (Mahler et al, 1975). It underscores the significance of early interactions in nurturing the infant's evolving sense of self, progressing from an undifferentiated autistic state to autonomous identity formation through stages like symbiosis, separation, and individuation. Mahler proposed that physiological birth and psychological birth are distinct occurrences, with the latter unfolding gradually after the former. She suggested that psychological birth spans from the fourth/fifth to the thirtieth/thirty-sixth months of age, encompassing three developmental phases, which are normal autism, normal symbiosis, and separation and individuation. These initial phases pave the way for the separation-individuation process, during which infants transition from a symbiotic bond with their mother to establishing a separate sense of self and identity, signifying both physical and mental maturation away from maternal dependence.

In the phase of *normal autism*, occurring within the first month of life, Mahler likened the infant's state to that of an egg as the infant is largely unresponsive and lacks awareness of its surroundings. Living in an autistic shell, the infant experiences a complete physical existence and psychological fusion with the caregiver, aimed at maintaining homeostatic equilibrium (Mahler et al., 1975). The infant's inability to distinguish between the inner and outer worlds leads to a primitive hallucination disorientation, as noted by Mahler (1967). Consequently, the satisfaction of physiological needs by external sources, such as the mother, is indistinguishable from internal processes, fostering a sense of omnipotence and self-sufficiency in the infant.

During the first month of a baby's life, this protective shell shields the infant from the intensity of external stimuli, with the presence and care of the mother serving as essential components, safeguarding the still-developing psyche of the infant. Mahler refers to this shield as crucial, and in its absence, she discusses organismic distress, where babies remain unsettled, sleepless, and excessively crying, potentially leading to anxiety disorders in adulthood. Due to the mother's own depression or issues caused by the baby, the protective shield may become inactive during the early months, leading to a stressful period for the baby that should ideally be calm before experiencing the world, which can result in future detrimental effects. According to Kernberg, in such extreme stress situations, negative images within the inner world increase, along with associated irritation and agitation, making it challenging to cope with future negative experiences. During this initial period, the mother's calmness and moderation are crucial for the baby's ability to integrate both positive and negative experiences. Instead of serving as a shield from stimuli, the mother may inadvertently expose the baby to more stimulation.

In the second phase, known as normal symbiosis, the infant's recognition of the caretaker as a separate source of gratification distinct from itself gradually increases, causing the autistic shell to begin to crack. The infant's sensory awareness expands from internal organs to the body's periphery (Mahler et al., 1975). During this stage, the infant experiences an omnipotent fusion with the mother, perceiving

her as a dual unity, without clear differentiation between the self (I) and the other (not-I). A consistent caregiver supports the gradual distinction between the self and others, aiding in the formation of body image and the foundation of self-identity (Mahler et al., 1975). Physical contact and perceptual experiences are pivotal in shaping a sense of self, initially centered on bodily sensations, which later evolves into a broader sense of identity. With time, the infant physically distinguishes itself from the caregiver, developing a sense of interiority and exteriority.

This stage provides a container, facilitated by unwavering trust in the mother, capable of holding all potential negative elements that may arise in subsequent stages, including aggression and anger towards the mother, thereby enabling object constancy in the future. Warmth, nurturance, and positive interaction, including physical touch, eye contact, and smiling, are crucial for fostering healthy symbiosis, allowing the infant to bond with the caregiver and recognize them as a distinct entity (Mahler et al., 1975). Without such warmth and nurturing, the infant may struggle to engage in symbiotic interactions. Achieving optimal symbiotic unity with the mother sets the stage for healthy progression to the subsequent phase of separation-individuation.

From the sixth month onward, the infant initiates the separation-individuation phase according to Mahler's theory. Individuation and separation are delineated as intertwined yet distinct developmental trajectories (Mahler et al., 1975). Individuation refers to the development of intrapsychic autonomy, while separation involves the processes of differentiation, boundary formation, and distancing from the primary caregiver. Mahler categorizes the separation-individuation phase into four sub-phases: (1) differentiation/hatching, (2) practicing, (3) rapprochement, and (4) consolidation of individuality and emotional object constancy.

During the initial stage of hatching, the child begins to shift their focus outward, moving away from the symbiotic connection with the caregiver towards objects in the environment (Mahler et al., 1975). As locomotor functions develop, the infant becomes capable of physically separating from the mother while remaining in close proximity (Mahler & Perriere, 1965). This allows them to

differentiate between familiar and unfamiliar stimuli. The quality of the previous symbiotic phase significantly influences the timing and progression of hatching; inadequate symbiotic bonding such as maternal indifference or unpredictability may delay this process, while excessive caregiver intrusiveness or maternal clinginess may prompt early distancing by the child.

Around the age of one, infants enter the second subphase known as practicing, characterized by increased mobility such as transitioning from crawling to taking their first steps, and a burgeoning curiosity about their surroundings. The baby completes the process of separating their own body from the mother and begins to become aware of body boundaries. Despite the mother's holding efforts, the baby is now physically detached from the mother and begins to move autonomously. At this stage, the sense of "being one's own agent" emerges as desire, goal, and movement follow one another. The baby directs themselves towards their desires and goals with their own wishes and actions, persisting determinedly even in the face of obstacles.

During this phase, infants develop a narcissistic investment in both the environment and their emerging capabilities, as their sense of omnipotence intensifies with the onset of walking, expanding autonomy, and exploration of the world as if acquiring the mother's superpowers. While experiencing what Mahler and colleagues (1975, p.70) terms a "love affair with the world," infants still require emotional reassurance from the mother, seeking occasional emotional refueling by turning back to her. The caregiver's response to the infant's initial attempts at separation and independence becomes crucial during this phase, influencing the child's feelings of encouragement and joy in their nascent autonomy. Some caregivers may treat the child as if they are already mature, while others may struggle to allow the child to distance themselves, resulting in challenges in striking a balance between intervention and permitting the child's autonomy to unfold naturally. The process of escaping and being found by the mother serves as a mechanism for the child to navigate its emerging autonomy and seek reassurance of the mother's care and presence.

During the rapprochement phase of the separation-individuation period, typically occurring in the latter part of the second year of life, advances in cognitive skills and emotional differentiation enable the child to recognize their separateness while still acknowledging the ongoing dependency on the mother's presence (Mahler, 1971). The child's negativism intensifies as a defense mechanism to preserve a sense of autonomy amidst the growing recognition of the need for maternal love. The child grapples with conflicting emotions and needs in relation to the mother. On one hand, there is a heightened need for closeness and proximity to the mother, while on the other hand, there is a fear of being engulfed by her when the mother becomes overly present. This conflict often results in clinging behavior and heightened reactions to the mother's departures, as the child navigates between the fear of being engulfed and the fear of abandonment.

During the rapprochement phase, children display intense, alternating reactions toward their mothers, viewing them as either "good" or "bad" depending on circumstances (Mahler et al., 1975). Disappointment is more frequent compared to earlier stages because the child has come to understand that their mother is a separate individual and may not always be readily available to help. These experiences have the capacity to generate dual realms within the child's psyche: one marked by positivity and the other by negativity. During this developmental phase, the child grapples with merging these contrasting experiences, leading to the emergence of distinct psychological realms. In the "good" realm, the child perceives the presence of a nurturing mother, whereas in the "bad" realm, the mother exists as well, albeit within a context of disappointment or distress. They struggle to distinguish their own feelings from those of their mothers, often reacting with disappointment and anger when their needs go unmet. This difficulty in differentiation complicates the child's desire for autonomy, potentially perceiving it as maternal abandonment, intensifying the inherent conflict. Borderline conditions are associated with characteristics such as splitting, a lack of self-other differentiation, and acting out, with separation anxiety and fear of losing object love linked to this developmental phase, indicating fixation in the rapprochement stage

(Mahler, 1971). The mother's presence, responsiveness, and acceptance of the child's ambivalence are crucial for nurturing their confidence and self-esteem.

In the fourth subphase of emotional object constancy and individuality, which commences in the third year, the child achieves object constancy by internalizing a positive maternal image. Object constancy enables the child to internalize both positive and negative aspects of the mother even in her physical absence (Mahler, 1975). The child begins to integrate the "good" and "bad" aspects of the mother into a unified representation, moving away from reliance on splitting mechanisms. Rapid ego development, cognitive functions, and affect regulation occur alongside the acquisition of verbal communication. As the child internalizes the good object and integrates its good and bad aspects, self-representations become distinct from object representations, fostering a more integrated self-identity. Additionally, the internalization of parental demands signals the emergence of superego precursors (Mahler, 1975).

As mentioned, object constancy involves recognizing that the same person remains consistent despite varying circumstances or behaviors, encompassing both positive and negative aspects of the individual, such as being nurturing or frustrating. However, while object constancy may seem like a static concept, it possesses a dynamic aspect as well. Individuals may experience fluctuations in object constancy at times, influenced by traumatic events, physiological changes, aging-related factors, or significant relational impacts such as abandonment or loss. When there are fluctuations in object constancy, there is a predominant loss of consistency, continuity, and flexibility in both the perception of others and one's self-image.

The process of separation-individuation, once thought to conclude by the end of the third year, is now understood to extend into adolescence and young adulthood (Blos, 1967; Colarusso, 1990). This concept of individuation encompasses three distinct phases, with failures in any phase potentially leading to specific deviant developments. As mentioned above, in infancy, achieving object constancy involves breaking symbiotic bonds with the mother, establishing a stable sense of self and relational capacity. Adolescence represents the second phase,

characterized by revisiting issues of identity and independence, particularly in late adolescence where identity consolidation and increased independence from parents occur (Blos, 1967). Adolescents disengage from internalized objects, fostering stable self-esteem and mood essential for forming new relationships. Transitioning to the third individuation typically happens in late adolescence and young adulthood, marked by increased intrapsychic separation from infantile objects and engagement in adult developmental tasks (Colarusso, 1990). Young adults often function independently, experiencing normative loneliness as they navigate emotional independence from parental figures. Parenthood becomes central in this phase, allowing adults to rework infantile themes while confronting aging and mortality. Ultimately, the third individuation synthesizes infantile and adult experiences, shaping relationships in adulthood (Colarusso, 1990).

When examining the reverberations of separation-individuation processes from different periods on subsequent periods, it is conceivable to consider the biological process of birth, where the initial fusion unity with the mother develops, followed by the first physiological separation from this unity, as a precursor to later separation-individuation processes.

1.2.1. Factors Influencing Separation-Individuation

The separation-individuation process is influenced by various factors, including parental responses to children's growing independence, which can be influenced by parental separation anxiety (Kins et al., 2011). Parental anxiety about distancing can impede self-other differentiation and identity development (Bartle-Haring et al., 2002; Soenens et al., 2006). Additionally, parental attachment representations shape responses to separation events and children's autonomy (Bloom-Feshbach & Bloom-Feshbach, 1987). Children experience less guilt when encouraged by parents, particularly mothers, fostering autonomy (Ziv & Hermel, 2016).

Parental resolution of separation-individuation influences adolescent separation-individuation, showing intergenerational effects (Bartle & Anderson,

1992; Hock & Schirtzinger, 1992). Mothers with a strong sense of self are more likely to encourage infant autonomy and separation-individuation, fostering exploration and development in infants. Conversely, mothers with unresolved separation-individuation may see the infant as an extension of themselves and discourage separation-individuation. Thus, infant development is influenced by the mother's support for infant autonomy, linked to her own level of separation-individuation and sense of self, rather than solely by maternal separation anxiety.

Ziv and Hermel's (2016) study shows the separation-individuation process follows an inverse U-shaped pattern relative to birth order. Middleborns show the most advanced individuation due to resource distribution favoring firstborns and lastborns (Keller & Chasiotic, 2008, as cited in Ziv & Hermel, 2016). Despite resource disadvantages, middleborns engage in nonfamilial social activities, fostering integration into society (Salmon, 2003).

1.2.2. Separation-Individuation Pathology

Separation-individuation pathologies, as explained by several authors (Kernberg, 1980; Mahler, 1971; Pine, 1979), are categorized into three main types based on the level of differentiation achieved by the individual. Pine distinguishes between lower and higher order disturbances depending on the degree of self-differentiation. Lower order disturbances primarily stem from a lack of well-defined boundaries between the self and others, often resulting in a feeling of merging with others or an unhealthy acceptance of self-other unity. Conversely, higher order disturbances are characterized by disrupted relationships associated with the self-differentiation process, despite some level of differentiation from others. These disruptions may manifest as difficulties in solitude, attempts to control others as extensions of oneself, and challenges in maintaining consistent perceptions of others within relationships. Mahler (1971) and Kernberg (1980) have emphasized the relationship between disruptions during the rapprochement stage of separation-individuation and the defense mechanism known as splitting. This association implies that challenges in separation-individuation frequently result in

struggles to differentiate between oneself and others, as well as a tendency to categorize internal perceptions of oneself and others in rigid terms of "good" or "bad."

These disturbances, often characterized by extreme thinking patterns, contribute to unstable relationships, identity confusion, and severe mood fluctuations. Such disruptions have been associated with negative outcomes like insecure attachment, difficulties in college adjustment, and the emergence of personality disorders such as borderline personality disorder (Dolan et al., 1992; Lapsley et al., 2001;). Considering the adverse effects on well-being linked with pathological separation, it becomes crucial to examine potential factors that precede disturbances in the separation-individuation process.

Lastly, achieving a healthy separation-individuation process means finding the right balance between closeness and distance in relationships. Disturbances in this process can lead to difficulties in either gaining independence or maintaining connections with others. Failing to achieve independence may result in a dependent orientation, requiring constant proximity for well-being. Conversely, failure to maintain connections may lead to an independent orientation, where individuals resist outside intervention, experienced them as intrusions (Grotevant & Cooper, 1986).

1.3. THE PRESENT STUDY

Research about the effects of pre-pregnancy, conception, pregnancy, and birth circumstances such as being an unplanned baby, IVF baby, or experiencing birth trauma is limited (Jakel, 2001; Sonne, 1996). There isn't much information on how these factors affect the process of separating from the primary caregiver and developing individuality, called separation-individuation.

This study aims to contribute to this field by exploring potential associations between intrauterine and birth circumstances and potential difficulties experienced regarding separation-individuation. The focus is on separation-individuation dynamics, suggesting a possible resonance between the psychological and

biological aspects of birth. The selection of this focus implies that the steps involved in separating from the primary caregiver and developing individuality symbolically parallel the physical separation at birth.

The study is exploratory and does not have specific hypotheses. The objective is to delve into possible associations among different conception types, in-utero experiences, birth circumstances, and their later effects on intrapsychic development as a child grows older, with a particular focus on separation-individuation processes.

As the study adopts a retrospective approach in assessing pregnancy and birth-related information, adult children are asked about their earliest experiences, which may be influenced by memory biases and their mothers' perceptions. Information about conception, birth, and postpartum experiences is gathered from both the mother and the adult child to get a complete picture. By conducting research with mother-adult child pairs, a more comprehensive understanding of the conditions during the nine-month life in the womb can be obtained. Additionally, it enables the control of factors such as memory bias and misconception among the participants, the adult children and allows for an examination of how individuals' knowledge and perceptions of their earliest experiences may have impacted their separation-individuation processes.

Examining the connection between intrauterine experiences and separation-individuation can help psychotherapists understand how womb experiences affect individuals. This research aims to highlight the significance of fetal development and explore if separation-individuation conflicts originate in prenatal periods. The primary aim of studying this topic is to enhance psychotherapists' comprehension of the significance of the nine months of fetal development in the mother's womb and to explore whether separation-individuation conflicts have early origins during prenatal and perinatal periods. Despite lacking conscious memories, individuals may carry pre-birth and birth imprints, impacting their implicit memory and potentially emerging in both the relationship patterns of the patient and the therapy relationship itself. Finally, due to limited research, this study can guide future investigations by identifying key focus areas.

CHAPTER 2

METHOD

This retrospective, descriptive, exploratory study aims to explore the relationship between intrauterine experiences and separation-individuation. The separation-individuation-related measures were taken from the adult children as participants of the study. Since participants may have no information or partial / inaccurate information on pre-pregnancy, pregnancy, and birth circumstances, these measures were taken from both from the adult children themselves and their mothers. This approach allows for the use of data from mothers as well as any mismatch between the knowledge of the mother and the adult child as to their association with separation-individuation.

2.1. PARTICIPANTS

A total of 150 participants were involved in the study, consisting of 76 adult children and 74 mothers. However, for 16 participants, data of their mother was missing while for 14 participants, data of their child was missing. Only 60 mother-adult child pairs participated in the survey together. Consequently, 30 participants who did not attend with their respective pair were excluded from the dataset. The final sample for the study consisted of the remaining 60 mother-adult child pairs.

The demographic characteristics of the adult children are presented in Table 2.1. The age range of the adult children was between 18 and 42 years, with a mean age of 26.53 years ($SD = 5.52$). In terms of gender, 40 participants identified themselves as female (66.7%), and 20 as male (33.3%).

In terms of employment among the adult children, 23 of them were currently not working (38.3%), while 37 were employed (61.7%). As for their professions, 9 identified their line of work as "healthcare/mental health" (25.7%), 7 as "teaching and education" (20%), and 19 as "private sector" (54.3%). Regarding income level, 17 participants defined their income as low (29.3%), 29 as middle (50%), and 12 as high (20.7%).

Table 2.1. Demographic Characteristics of Adult Children

		<i>n</i>	%
Gender	Female	40	66.7
	Male	20	33.3
Educational Level	High school degree	5	8.3
	College student	15	25
	College degree	19	31.7
	Postgraduate student	11	18.3
	Postgraduate degree	10	16.7
Employment Status	Employed	37	61.7
	Not employed	23	38.3
Profession	Healthcare/Mental Health	9	25.7
	Teaching and education	7	20
	Private sector	19	54.3
Income Level	Low	17	29.3
	Middle	29	50
	High	12	20.7
Relationship Status	Married	6	10
	Not married - Not in a relationship	31	51.7
	Not married - In a relationship	23	38.3
Current Living Arrangements	Spouse/Children	8	13.8
	Mother/Father/Sibling	32	55.2
	Alone	12	20.7
	Friends/Relatives	6	10.3
Presence of Children	Yes	2	3.3
	No	58	96.7

Note. *N* = 60

In terms of relationship status among the adult children, 6 identified themselves as "married" (10%), 31 as "not married/not in a relationship" (51.7%), and 23 as "not married/in a relationship" (38.3%). Regarding their current living

arrangements, 8 participants indicated that they live with their spouse and children (13.8%), while 32 reported living with their mother, father, or sibling (55.2%). Additionally, 12 participants stated that they live alone (20.7%), and 6 reported living with friends or relatives (10.3%). Among the adult children, only 2 participants had children (3.3%), while the remaining 58 participants did not have children (96.7%).

The overall demographic profile of the adult children sample can be described as predominantly female (66.7%), highly educated (66.7%), currently employed (61.7%), middle SES (50%).

Table 2.2. displays the demographic characteristics of the mothers of the participants. The age range of the mothers was between 41 and 72 years, with a mean age of 53.03 years ($SD = 6.42$). The range of ages of the mothers at the time of conception ranged from a minimum of 16 to a maximum of 37, with the mean of 26.13 ($SD = 4.87$). Among the mothers, 38 reported having 2 children (63.3%), while 14 reported having only one child (23.3%), and 8 reported having more than 2 children (13.3%).

In terms of the level of education among the mothers, 12 participants had an elementary education or lower degree (24.1%), 18 had a high school degree (31%), 22 had a college degree (37.9%), and 4 had a postgraduate degree (6.9%). In terms of employment of the mothers, 41 participants were currently not employed (68.3%), while 19 were employed (31.7%). Regarding their professions, 7 identified themselves as working in healthcare (29.2%), 3 in teaching and education (12.5%), 11 in the private sector (45.8%), and 3 as retired (12.5%). Concerning the income level of the mothers, 18 participants defined their income as low (30%), 35 as middle (58.3%), and 7 as high (11.7%).

Table 2.2. Demographic Characteristics of the Mothers of the Participants

		<i>N</i>	%
Education Level	Elementary or less	14	24.1
	High school degree	18	31
	College degree	22	37.9
	Postgraduate degree	4	6.9
Employment Status	Employed	19	31.7
	Not employed	41	68.3
Profession	Healthcare profession	7	29.2
	Teaching and education	3	12.5
	Private sector	11	45.8
	Retired	3	12.5
Income Level	Low	18	30
	Middle	35	58.3
	High	7	11.7
Relationship Status	Married	44	73.3
	Not married - Not in a relationship	8	13.3
	Widowed	5	8.3
	Not married - In a relationship	3	5
Current Living Arrangements	Spouse/Children	52	86.7
	Mother/Father/Sibling	2	3.3
	Alone	6	10

Note. *N* = 60

In terms of relationship status of the mothers, 44 of the participants identified themselves as "married" (73.3%), 8 identified as "not married/not in a relationship" (13.3%), 5 identified as "widowed" (8.3%), and 3 identified as "not married/in a relationship" (5%). In terms of their current living arrangements, 52 mothers indicated that they live with their spouse and children (86.7%), while 2 mothers reported living with their mother, father, or sibling (3.3%). Additionally, 6 mothers stated that they live alone (10%).

The overall demographic profile of the mothers of the participants can be described as poorly educated (55.1%), currently not working (68.3%), low to middle SES (88.3%).

Apart from these demographic questions, the mothers of the participants were asked whether they experienced any physical or psychological discomfort before, during, or immediately after pregnancy. Among the mothers, 2 (3.3%) reported having a pre-existing health condition before pregnancy, while 7 (11.7%) reported experiencing a health condition during pregnancy. Only 1 mother reported having a mental health condition during pregnancy (1.7%), and similarly, 1 mother reported having a mental health condition after pregnancy (1.7%). Additionally, 9 mothers reported experiencing a traumatic event during their pregnancy (15%).

2.2. INSTRUMENTS

Study instruments include Separation-Individuation Inventory, Demographic Information and Pregnancy-Related Information Form for Children, and Demographic and Pregnancy-Related Information Form for Mothers.

2.2.1. Separation-Individuation Inventory (SII)

The Separation-Individuation Inventory (See Appendix B) was initially developed by Christenson and Wilson in 1985 to measure issues related to separation-individuation based on Mahler's psychoanalytic developmental theory from 1975. This inventory includes 39 items presented in the form of 10-point Likert scale questions (1 = totally disagree, 10 = totally agree), demonstrating a high internal consistency of .92. The scale has three subscales targeting Differentiation Difficulties, Splitting, and Relationship Problems associated with separation-individuation. The first subscale, labeled Differentiation Difficulties, signifies either becoming enmeshed or fused with others, or encountering challenges in establishing boundaries between oneself and others. The second subscale, referred to as the Splitting defense mechanism, entails firmly partitioning

aspects of oneself and others into either good or bad components within relationships. The third subscale, termed Relationship Problems, encompasses issues of trust and control within relationships, as well as intolerance of being alone. Items 7, 15, and 18 are reverse scored. The scale scores are determined through summation, yielding a potential score range from 39 to 390.

The Turkish adaptation of the inventory was conducted by Göral Alkan in 2010 (See Appendix B), reported strong internal consistency with values of .90 for the total scale. Cronbach's alpha scores for three subscales are reported as follows: .80 for the Differentiation Difficulty, .78 for the Splitting subscale, and .65 for the Relationship Problems associated with separation-individuation. Despite being constructed from three domains of separation-individuation pathology, authors of the original scale noted that the scale exhibits a unified factor structure, accounting for 49% of the variance. A score above 190 is said to indicate a separation-individuation pathology.

The Cronbach's alpha coefficient of .87 obtained from the data collected from 60 participants indicates strong internal consistency in the present study. Cronbach's alpha scores for three subscales are reported as follows: .77 for the Differentiation Difficulty, .80 for the Splitting subscale, and .47 for the Relationship Problems associated with separation-individuation. In the original study, the Relationship Problems subscale exhibited a lower Cronbach's alpha compared to the other subscales. In the current sample, its Cronbach's alpha was even lower, falling within an unacceptable range. Consequently, this subscale was excluded from further separate analyses.

2.2.2. Demographic Information and Pregnancy-Related Information Form for Adult Children

The form (See Appendix C) was developed by the researchers which included questions as regards to participants' age, gender, level of education, working status, perceived socioeconomic level, current living arrangements,

marital/relationship status, psychiatric/psychological history, general health, and conditions.

Participants were asked various questions regarding their knowledge about their own prenatal and perinatal history, as well as about their mother's experience during that pregnancy, including the status of the birth (whether it was wanted, unplanned, or neither), methods of reproduction (whether spontaneous or through assisted reproductive technologies (ART)), mode of delivery (such as spontaneous vaginal birth or C-section), birth complications (such as shoulder dystocia or abnormal fetal heart rate), and history of miscarriage and abortion.

2.2.3. Demographic Information and Pregnancy-Related Information Form for the Mothers of the Participants

The form (See Appendix D) was developed by the researchers which included questions as regards to participants' age, gender, level of education, working status, perceived socioeconomic level, current living arrangements, marital/relationship status, psychiatric/psychological history, general health, and conditions.

Information regarding the participants' age at the time of giving birth, the status of the birth (whether it was wanted, unplanned, or neither), the duration of time it took to conceive, the mother's attitudes and emotions related to the pregnancy, methods of reproduction (whether spontaneous or through assisted reproductive technologies (ART)), mode of delivery (such as spontaneous vaginal birth or C-section), birth complications (such as shoulder dystocia or abnormal fetal heart rate), and history of miscarriage and abortion were collected to gain insights into the intrauterine experiences of the child. Furthermore, mothers rated on a scale from 0 to 10 how they think the reproduction method, birth method, and, if applicable, birth complications affected their relationship with their babies in their very first days.

2.3. PROCEDURE

Once the study received approval from the Istanbul Bilgi University's Ethics Committee, study materials were disseminated through the online survey platform SurveyMonkey. The announcement of the study was shared in email groups and social media accounts. Upon the approval of an informed consent form (See Appendix A), the participants were instructed to click either the mother survey link or the child survey link. The Demographic Information Forms was presented. It included information regarding the nickname and initials to be able to match the mother-child data. There was a warning for the dyad to complete their surveys independently and without talking to each other during the study.

The Demographic Information Form for Adult Children (only for adult children), The Demographic Information Form for the Mothers of the Participants (only for mothers), The Separation Individuation Inventory (only for children) were presented in the above order. It took approximately 17 minutes to complete all the scales. Participants were provided the option of withdrawal at any time. Participants were encouraged to contact the researcher in case of questions or concerns.

2.4. DATA ANALYSIS

All variables were examined in terms of their accuracy for the analysis, including checks for missing data and outliers. Data from 16 participants were excluded due to missing information from their mothers.

For the analysis, the widely used Statistical Package for the Social Sciences (SPSS) version 29.0.2.0 was employed. Prior to conducting the main analyses, reliability analyses were performed on all scales and their subscales. In the current study, the independent variables consist of categorical and continuous pre-conception, conception, pregnancy, and birth variables, while the dependent variables are the subscale scores of the Separation Individuation Inventory (SII).

The association of each pre-pregnancy-, conception-, pregnancy- and birth-related factor with the Differentiation and Splitting subscales as well as the total

score of Separation-Individuation Inventory were analyzed. As mentioned above, the Cronbach's alpha of the Relationship Problems subscale was at an unacceptable level, therefore it was not included in the separate analyses like the other subscale scores.

Due to the small sample size, the equality of variances assumption was violated for several group comparisons. Additionally, some pre-pregnancy-, pregnancy- and birth-related factors were measured on rating scales. Given these constraints, a conservative approach to data analysis was adopted and non-parametric tests were preferred for statistical analyses. Since they are less sensitive to non-normal distributions, Mann-Whitney U and Kruskal-Wallis tests were utilized for group comparisons and Spearman correlations were calculated for the monotonic relationship between scores.

CHAPTER 3

RESULTS

The exploratory findings of this study will be presented in five subsections, the first four addressing the associations of pre-pregnancy, conception, pregnancy, and birth experiences with separation-individuation difficulties, and the final section analyzing the association of overall adversity of these experiences with separation-individuation difficulties via a composite score.

Before moving on the findings regarding the association of each pregnancy- and birth-related experience with separation-individuation issues, the descriptive statistics for the scores of Separation-Individuation Inventory (SII) were checked. The mean level for the total SII difficulty score was 150 ($SD = 39.64$), ranging from a minimum of 77 and a maximum of 232. In terms of the subscales, the mean score for the Splitting subscale was 47.43 ($SD = 16.68$), ranging from a minimum of 16 and a maximum of 89. The mean score for the Differentiation subscale was 50.80 ($SD = 17.20$), ranging from a minimum of 14 and a maximum of 91.

3.1. PRE-PREGNANCY FACTORS AND SEPARATION-INDIVIDUATION

Participants' mothers were asked questions pertaining to their health conditions, psychiatric status, history of previous miscarriages, abortions, child loss, and twin loss before they became pregnant with the participant of this study.

Answers gathered from the mothers showed that only 2 (3.3%) of them had a health condition before pregnancy and none of them had any psychiatric condition before pregnancy. Due to insufficient numbers of individuals in the subcategories, the presence of any psychological/psychiatric problems or health issues before pregnancy was not included in the data analysis. Pre-pregnancy loss history was further investigated and reported below.

3.1.1. Pre-pregnancy Loss History

Regarding the loss history, the answers of the mothers indicated that 6 of them (10%) had abortion before the pregnancy, 6 of them (10%) had miscarriage, 3 of them (5%) had child loss and 3 of them (10%) had twin pregnancy loss. Due to the highly imbalanced distribution of participants across groups based on pre-pregnancy loss history variables (abortion, miscarriage, twin loss, deceased child) obtained from participants' mothers, separate analyses for each variable were not feasible. Instead, a new binary variable indicating any pre-pregnancy loss history was created. Participants were categorized into two groups based on their mothers' responses to these two situations: those whose mothers experienced any loss or negative condition before becoming pregnant, and those whose mothers did not. A total of 17 participants' mothers (28.3%) reported experiencing a loss before the pregnancies. Mean differences of participants' separation-individuation difficulties by mother-reported pre-pregnancy loss history are reported in Table 3.1.

Table 3.1. Mean and Standard Deviation Scores of Separation-Individuation Difficulties by Mother-Reported Pre-Pregnancy Loss History

	Splitting		Differentiation		Total SII Score	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Pre-pregnancy child loss (<i>n</i> = 17)	50.88	16.03	54.24	13.48	159.94	33.27
No pre-pregnancy child loss (<i>n</i> = 43)	46.07	16.92	49.44	18.43	146.07	41.59

When participants were grouped based on their mothers' pre-pregnancy loss history as reported by the mother, those with a history showed higher mean scores in separation-individuation subscales and overall separation-individuation score (see Table 3.1.), however, the observed mean differences were not statistically significant. The Mann-Whitney U tests were used to compare separation-individuation difficulties of participants whose mothers did or did not experience a

loss before their pregnancy. There were no significant differences for the total SII score, $U = 278.5$, $Z = -1.428$, $p = .153$, or the subscales of Splitting, $U = 291.5$, $Z = -1.215$, $p = .225$, and Differentiation, $U = 278$, $Z = -1.436$, $p = .151$.

Participants were also asked about their mothers' previous abortion and miscarriage history. Regarding the pre-pregnancy abortion history of their mothers as to their knowledge, 4 of them (6.7%) reported that their mother had abortion history while 10 of them (16.7%) reported that they did not know. Regarding the pre-pregnancy miscarriage history of their mothers as to their knowledge, 9 of them (15%) reported that their mothers had a history of miscarriage while 6 of them (10%) stated that they did not know.

Similarly, due to the imbalanced distribution and insufficient number of participants regarding mothers' pre-pregnancy loss history variables obtained from child participants, separate analyses for each variable were deemed inappropriate. Instead, a new variable indicating pre-pregnancy loss history reported by children was also created. Combined, 13 of the participants (21.7%) reported that their mother experienced a loss before their pregnancies. Mean differences of participants' separation-individuation difficulties by participant-reported pre-pregnancy loss history are reported in Table 3.2.

Table 3.2. Mean and Standard Deviation Scores of Separation-Individuation by Participant-Reported Pre-pregnancy Loss

	Splitting		Differentiation		Total SII Score	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Pre-pregnancy child loss ($n = 13$)	53.92	16.91	55.08	15.08	165.46	36.14
No pre-pregnancy child loss ($n = 47$)	45.64	16.35	49.62	17.71	145.72	39.85

If the child knew that the mother had a pre-pregnancy loss, higher mean scores for separation-individuation scale and subscales were observed (see Table 3.2.); however, the observed mean differences were not statistically significant. A

Mann-Whitney U tests were performed to evaluate whether separation-individuation difficulties of participants differed by their perception of pre-pregnancy loss experienced by their mothers. There were no significant differences for the total SII score, $U = 214.5$, $Z = -1.634$, $p = .102$, or the subscales of Splitting, $U = 219.5$, $Z = -1.544$, $p = .123$, and Differentiation, $U = 231.5$, $Z = -1.328$, $p = .184$.

In sum, although the mean level of separation-individuation difficulties experienced by participants whose mother experienced a loss of a child prior to their pregnancy with them was higher than those whose mothers did not, the difference was not statistically significant neither for mother-reported nor for adult child-reported history. The numbers were not sufficient to analyze the mismatch of knowledge between mother and child reports. This issue will be addressed in the discussion.

3.2. CONCEPTION RELATED FACTORS AND SEPARATION-INDIVIDUATION

Participants' mothers were asked to answer questions regarding pregnancy-planning and conception including whether the pregnancy was planned, if so, how long they tried to conceive, and the method used to conceive, as well as mother's age and relationship to the father at the time of conception. Only 2 mothers (3.3%) became pregnant using assisted reproductive techniques, while the rest of the participants' mothers became pregnant naturally. Thus, conception method was not further analyzed; the intentionality of conception, duration of conception attempts, and mother's pre-pregnancy desire were included in the analyses as to their association with separation-individuation and the findings are reported below. As to the age and relational status at the time of conception, all the participants' mothers were married to the father; thus, only age of conception was analyzed for its association with separation-individuation and the findings are reported below.

3.2.1. Intentionality of Pregnancy and Duration of Conception

Of the participants' mothers, 33 (55%) reported their pregnancies as planned and 27 (45%) as unplanned. The 33 mothers with planned pregnancies were asked how long they tried to conceive, and 19 of them (63%) reported conceiving in less than 6 months, 5 (17%) conceiving between 6 months to 1 year, and 6 (20%) conceiving in over 1 year, while three mothers did not specify. They were also asked to rate the difficulty they experienced while trying to conceive.

Descriptive statistics of the separation-individuation scores for the two groups of intentionality (planned, unplanned) as well as the three groups of conception duration (< 6 months, 6 – 12 months, >12 months) are presented in Table 3.3.

Table 3.3. Mean and Standard Deviation Scores of Separation-Individuation by Mother-reported Conception Related Variables

		Splitting		Differentiation		Total SII Score	
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Intentionality of Pregnancy (<i>N</i> = 60)	Planned (<i>n</i> = 33)	49.4	13.24	51.9	13.6	154.6	30.34
	Unplanned (<i>n</i> = 27)	45.0	20.13	49.5	21.0	144.3	48.70
Duration of Conception in Months (<i>N</i> = 30)	< 6 (<i>n</i> = 19)	47.7	13.15	53.2	14.2	153.7	33.15
	6 – 12 (<i>n</i> = 5)	51.0	4.53	50.2	15.0	152.8	22.32
	>12 (<i>n</i> = 6)	49.7	18.23	53.0	11.0	156.2	24.03

The intentionality of pregnancy as reported by the mother was not significantly associated with the total SII score, $U = 340$, $Z = -1.568$, $p = .117$, or the subscales of Splitting, $U = 355$, $Z = -1.345$, $p = .178$, and Differentiation, $U = 372$, $Z = -1.093$, $p = .275$.

The duration of conception as reported by the mother was also not significantly associated with the total SII score, $H(2) = .043$, $p = .979$, or the subscales of Splitting, $H(2) = 1.075$, $p = .584$, and Differentiation, $H(2) = .197$, $p = .906$.

As mentioned above, 33 mothers who reported having planned pregnancies were asked to rate the difficulty of their conception process on a scale from 0 to 10, where 0 indicated no difficulty and 10 indicated extreme difficulty. The mean score was 2.27 ($SD = 3.94$). A Spearman's rank-order correlation tests were conducted to determine the relationship between mothers' scores on difficulty of conception and the child participants' separation-individuation difficulties. There was no significant correlation between difficulty of conception and total SII score, $r_s(33) = .164$, $p = .361$, or the subscales of Splitting, $r_s(33) = .050$, $p = .781$, and Differentiation $r_s(33) = .205$, $p = .253$.

The intentionality of the pregnancy was also asked to the participants to see whether the perception of children on this was associated with separation-individuation. Among the participants, 26 (43.33%) indicated that they were born as a result of a planned pregnancy, 19 (31.67%) indicated they were born as a result of unplanned pregnancy, and 15 (25%) stated that they did not know. Descriptive statistics of the separation-individuation scores for the three groups of intentionality (planned, unplanned, don't know) are presented in Table 3.4.

Table 3.4. Mean and Standard Deviation Scores of Separation-Individuation by Participant-reported Conception Related Variables

		Splitting		Differentiation		Total SII Score	
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Intentionality of Pregnancy (<i>N</i> = 60)	Planned (<i>n</i> = 26)	47.81	13.261	50.46	14.143	150.38	30.787
	Unplanned (<i>n</i> = 19)	50.21	19.623	54.05	21.732	155.37	48.115
	Do not know (<i>n</i> = 15)	43.27	18.293	47.27	15.948	142.53	43.041

Independent-Samples Kruskal-Wallis Tests were performed to evaluate whether separation-individuation difficulties of participants differed by their knowledge or perception of the intentionality of pregnancy. The intentionality of pregnancy as reported by participants was also not significantly associated with the total SII score, $H(2) = .759$, $p = .684$, or the subscales of Splitting, $H(2) = 1.855$, $p = .395$, and Differentiation, $H(2) = 1.133$, $p = .568$.

Regarding whether the knowledge of the intentionality matched for the mother-participant dyad, only 5 participants had a mismatch. Further, those who did not know were also low in number and equal represented in the mother-reported planned or unplanned groups and were not significantly different from the others in terms of their separation-individuation difficulties. In sum, separation-individuation related issues were not found to be associated with the intentionality of pregnancy and duration of conception as reported by the mother or as known by the adult child.

3.2.2. Pre-Pregnancy Desire of the Mother

Mothers were asked to rate their desire to have a baby before becoming pregnant on a scale from 0 to 10, where 0 indicated not wanting a baby at all and

10 indicated a strong desire for a baby. The mean desire for having a baby before becoming pregnant was 6.8 with a standard deviation of 3.45. A Spearman's rank-order correlation tests were conducted to determine the relationship between mothers' scores on desire to have a baby and the participants' separation-individuation difficulties. There was no significant correlation between the desire to have a baby and total SII score, $r_s(60) = -.028, p = .832$, or the subscales of Splitting, $r_s(60) = -.089, p = .501.$, and Differentiation, $r_s(60) = -.053, p = .689$. As reported in the previous chapter, this measure was taken only from the mothers, not from the participants.

3.2.3. Age at Conception

Age of conception was asked to the mothers, and not the participants. Six of the mothers (10%) reported being 20 years old or younger when they became pregnant, while 15 participants' mothers (25%) indicated being 30 years old or older at the time of conception. The remaining 39 participants' mothers (65%), constituting the majority, reported becoming pregnant between the ages of 21 and 29. The mean scores of separation-individuation for the three age groups are shown in Table 3.5.

Table 3.5. Mean and Standard Deviation Scores of Separation-Individuation by Mothers-reported Age at Conception

		Splitting		Differentiation		Total SII Score	
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Age at Conception (<i>N</i> = 60)	< 20 (<i>n</i> = 6)	53.8	19.87	54.3	25.3	160.0	53.79
	21 – 29 (<i>n</i> = 39)	46.2	17.39	50.5	17.3	148.2	41.34
	> 30 (<i>n</i> = 15)	48.1	13.75	50.2	14.1	150.7	29.94

Although the means of separation-individuation scores of participants whose mothers conceived before the age of 20 were noted to be noticeably higher, the non-parametric tests conducted did not yield a statistically significant difference. The Independent-Samples Kruskal-Wallis Tests were performed to evaluate whether separation-individuation difficulties of participants differed by the conception age of their mothers. The age at conception as reported by mothers was also not significantly associated with the total SII score, $H(2) = .463$, $p = .793$, or the subscales of Splitting, $H(2) = 1.044$, $p = .593$, and Differentiation, $H(2) = .748$, $p = .688$.

3.3. PREGNANCY RELATED FACTORS

Participants' mothers were asked to respond to questions regarding their experiences during the pregnancy. These questions aimed to measure the mother's physical or psychiatric issues during pregnancy, her emotional reactions upon learning about the pregnancy and throughout, her desire to have the baby after she learned about the pregnancy, whether she experienced any traumatic events, and whether there were any risks of miscarriage or thoughts of abortion.

There was only one mother (1.67%) who answered 'yes' to each category regarding psychiatric/psychological challenges during pregnancy and attempting abortion during pregnancy, thus was not inspected any further. In terms of physical health, 7 of the participants' mothers (11.7%) reported having a health problem during pregnancy, while the remaining 53 individuals stated they did not experience any issues. Due to the low number of participants in the categories, they were not analyzed further.

The next set of questions included abortion thoughts or attempts as well as the risk of miscarriage. The number of mothers who reported such experiences were low and the number of their adult children who reported their mothers went through such experiences was even lower. However, since these experiences were noted as crucial and the literature suggested that they collectively could have a traumatic impact on the fetus (Soref, 1992), they were combined into a categorization

indicating presence or absence of Fetal Threat and analyzed in relation to separation-individuation as reported below.

Next, associations of Trauma Presence, Pregnancy-related Emotions, and Desire for the Baby after Learning about the Pregnancy with separation-individuation are reported in the following sections, respectively.

3.3.1. Fetal Threat During Pregnancy

As briefly outlined above, mothers were asked to report their thoughts for and attempts at abortion as well as risk of miscarriage during their pregnancy for the participant of this study. Eight mothers reported that they considered abortion, yet only 1 reported to have attempted it. Again 8 mothers experienced risk of miscarriage. Despite the low numbers, descriptive statistics are provided in Table 3.6. for exploratory purposes.

Table 3.6. Mean and Standard Deviation Scores of Separation-Individuation by Across Mother-reported Pregnancy Related Factors

		Splitting		Differentiation		Total SII Score	
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Abortion	Present (<i>n</i> = 8)	50.38	16.61	56.13	22.91	158.13	50.60
Considerations	Absent (<i>n</i> = 52)	46.98	16.81	49.98	16.28	148.75	38.13
Miscarriage	Present (<i>n</i> = 8)	40.75	16.79	49.63	16.12	138.38	34.23
Risk	Absent (<i>n</i> = 52)	48.46	16.59	50.98	17.50	151.79	40.40

From the perspective of their children, 5 mothers considered abortion during pregnancy and 4 mothers had attempted an abortion, while 11 and 10, respectively, did not know. It was noted that 3 participants claimed that their mother attempted at aborting them while their mothers did not do so. As to miscarriage, 4 participants

reported that their mother had a miscarriage risk, while 14 were uncertain. Despite the low numbers, descriptive statistics as comparable to the maternal reports are provided in Table 3.7. for exploratory purposes.

Table 3.7. Mean and Standard Deviation Scores of Separation-Individuation by Participant-reported Pregnancy Related Factors

		Splitting		Differentiation		Total SII Score	
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Abortion Considerations	Present (<i>n</i> = 5)	60.20	18.43	64.20	24.19	181.00	51.50
	Absent (<i>n</i> = 44)	46.98	17.36	50.73	16.76	149.25	39.42
	Uncertain (<i>n</i> = 11)	43.45	10.50	45.00	13.32	138.91	30.11
Miscarriage Risk	Present (<i>n</i> = 4)	51.75	20.53	53.25	18.36	156.75	32.50
	Absent (<i>n</i> = 42)	46.31	16.49	49.88	18.00	146.93	40.79
	Uncertain (<i>n</i> = 14)	49.57	17.14	52.86	15.28	157.29	39.21

As outlined above, statistical comparisons were not possible. Thus, the responses to the questions regarding abortion and miscarriage were combined into a binary variable as presence or absence of Fetal Threat. With this composition, 15 (25%) mothers were identified as reporting presence at least one type of fetal threat, while the remaining 45 (75%) mothers reported none. The separation-individuation scores of the children of these groups are shown in Table 3.8.

Table 3.8. Mean and Standard Deviation Scores of Separation-Individuation by Mother-reported Fetal Threat during Pregnancy for the Baby

		Splitting		Differentiation		Total SII Score	
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Presence of Fetal Threat	Present (<i>n</i> = 15)	44.87	17.24	52.4	20.01	146.87	44.10
	Absent (<i>n</i> = 45)	48.29	16.61	50.27	16.37	151.04	38.52

The Mann-Whitney U tests were used to compare the separation-individuation difficulties of participants whose mothers did or did not report any fetal threat. There were no significant differences for the total SII score, $U = 316.5$, $Z = -.359$, $p = .720$, or the subscales of Splitting, $U = 308$, $Z = -.504$, $p = .614$, and Differentiation, $U = 322.5$, $Z = -.256$, $p = .798$.

When the same procedure was applied to the responses of the participants, 8 (13.33%) were identified as reporting presence of fetal threat whereas 52 (86.67%) as not. The separation-individuation scores of these groups are shown in Table 3.9.

Table 3.9. Mean and Standard Deviation Scores of Separation-Individuation by Participant-reported Fetal Threat during Pregnancy for the Baby

		Splitting		Differentiation		Total SII Score	
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Presence of Fetal Threat	Present (<i>n</i> = 8)	56.50	19.94	59.25	22.73	170.38	46.42
	Absent (<i>n</i> = 52)	46.04	15.90	49.50	16.06	146.87	38.03

Noting that even with the combined binary variable, the number of participants was disparate, although a non-parametric test was used for analysis, the

results should be cautiously interpreted. The Mann-Whitney U tests were used to compare separation-individuation difficulties of participants who reported any fetal threat during pregnancy as present. There were no significant differences for the total SII score, $U = 146.5$, $Z = -1.338$, $p = .181$, or the subscales of Splitting, $U = 148$, $Z = -1.305$, $p = .192$, and Differentiation, $U = 141.5$, $Z = -1.447$, $p = .148$. Yet, although the difference was not statistically significant, it was observed that the mean separation-individuation scores of participants who reported fetal threat were noticeably higher ($M = 170.38$) than who did not ($M = 146.87$).

Numbers were not sufficient to analyze the mismatch of knowledge between mother and child reports.

3.3.2. Presence of Trauma

Mothers were asked whether they experienced a traumatic event or experience during their pregnancy and 9 (15%) mothers responded yes. Mean scores of separation-individuation for the two groups are presented in Table 3.10.

Table 3.10. Mean and Standard Deviation Scores of Separation-Individuation by Mother-reported Trauma Presence

		Splitting		Differentiation		Total SII Score	
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Trauma Presence	Present ($n = 9$)	39.78	24.50	53.44	22.98	140.00	60.05
	Absent ($n = 51$)	48.78	14.83	50.33	16.22	151.76	35.44

The Mann-Whitney U tests were used to compare separation-individuation difficulties of participants whose mothers did or did not experience a traumatic event during their pregnancy. There were no significant differences for the total SII

score, $U = 176$, $Z = -1.108$, $p = .268$, or the subscales of Splitting, $U = 141$, $Z = -1.833$, $p = .067$, and Differentiation, $U = 216.5$, $Z = -.269$, $p = .788$.

Seven of the participants (11.67%) reported that their mother had a traumatic experience during pregnancy, while 29 (48.33%) stated she did not. The remaining 24 (40%) reported that they did not know. Mean scores of separation-individuation for the three categories are presented in Table 3.11.

Table 3.11. Mean and Standard Deviation Scores of Separation-Individuation by Participant-reported Trauma Presence

		Splitting		Differentiation		Total SII Score	
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Trauma Presence	Present ($n = 7$)	65.00	17.48	63.71	24.61	186.71	46.55
	Absent ($n = 29$)	43.59	18.45	49.66	18.66	143.38	43.07
	Do not know ($n = 24$)	46.96	10.34	48.42	10.90	147.29	27.09

The Independent-Samples Kruskal-Wallis Tests were performed to evaluate whether separation-individuation difficulties of participants differed by the trauma presence during their pregnancy. Presence of mothers' trauma experience as reported by participants was significantly associated with the total SII score, $H(2) = 6.162$, $p < .05$, and the subscale of Splitting, $H(2) = 8.359$, $p < .05$. However, there was no significant difference for the subscale of Differentiation, $H(2) = 5.386$, $p = .068$.

The medians of overall SII were 192 for the 'present' group, 132 for the 'absent' group and 151 for 'don't know' group. Post-hoc comparisons using Dunn's method with Bonferroni correction indicated that the median overall SII of the child participants who reported maternal trauma as present was significantly higher than those who reported it as absent, $p < .05$. The medians of Splitting scores were 67 for the 'present' group, 38 for the 'absent' group and 47 for 'don't know' group. Post-hoc comparisons using Dunn's method with Bonferroni correction for multiple tests

indicated that the median Splitting score of the child participants reported maternal trauma experience as present were significantly higher than those reported as 'absent', $p < .05$. Yet, it was noted that the adult children who 'did not know' were not significantly different from those who did.

In sum, while maternal reports of trauma during pregnancy were not significantly linked to children's current separation-individuation difficulties, the children's perception and retrospective reporting of their mothers' trauma experiences were significantly associated with these difficulties. This suggests that the child's view of the mother as traumatized, rather than the trauma itself, is more closely related to their present separation-individuation related difficulties.

3.3.3. Pregnancy-related Emotions

Mothers of the participants were asked to rate a list of emotions on a scale of 0 to 10 (with 0 being the lowest and 10 being the highest) twice: once for their emotions at the time "they first learned of their pregnancy" and once more for their emotions "throughout their pregnancy." The distributions of the emotion ratings were overly skewed; there were very few high ratings for negative emotions, while there were almost no low ratings for positive emotions. Given the rarity of mothers not experiencing positive emotions, positive emotions were excluded from the analysis.

Considering that the presence of any negative might be a crucial factor at any stage of pregnancy, negative emotions were not excluded; instead, negative emotions reported during two different periods were considered together. But, due to the skewness issue, all negative emotions were converted into binary variables, indicating their presence or absence at any point.

For guilt, 14 mothers (23.33%) reported its presence, while 46 mothers (76.67%) reported its absence. Shame was present in 11 mothers (18.33%) and absent in 49 mothers (81.67%). Disappointment was reported by 16 mothers (26.67%) and not reported by 44 mothers (73.33%). Sadness was present in 22 mothers (36.67%) and absent in 38 mothers (63.33%). Anxiety or fear was

experienced by 37 mothers (61.67%) and not experienced by 23 mothers (38.33%). Finally, anger was present in 20 mothers (33.33%) and absent in 40 mothers (66.67%). For each negative emotion, mean scores of the participants' separation-individuation for the two groups are presented in Table 3.12.

Table 3.12. Mean and Standard Deviation Scores of Separation-Individuation by Mother-reported Negative Emotions

		Splitting		Differentiation		Total SII Score	
Presence		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
guilt	Present (<i>n</i> = 14)	59.43	15.65	62.86	18.92	180.14	41.48
	Absent (<i>n</i> = 46)	43.78	15.36	47.13	15.02	140.83	34.56
shame	Present (<i>n</i> = 11)	56.27	12.54	61.91	19.37	176.45	40.28
	Absent (<i>n</i> = 49)	45.45	16.96	48.31	15.84	144.06	37.37
disappointment	Present (<i>n</i> = 16)	52.25	16.04	55.69	19.78	163.75	43.65
	Absent (<i>n</i> = 44)	45.68	16.75	49.02	16.04	145.00	37.35
sadness	Present (<i>n</i> = 22)	53.41	19.05	56.00	21.61	163.14	48.32
	Absent (<i>n</i> = 38)	43.97	14.30	47.79	13.46	142.39	31.91
anxiety/fear	Present (<i>n</i> = 37)	49.32	17.73	53.03	19.43	153.65	43.82
	Absent (<i>n</i> = 23)	44.39	14.72	47.22	12.41	144.13	31.81
anger	Present (<i>n</i> = 20)	54.15	17.44	55.20	21.14	165.40	47.40
	Absent (<i>n</i> = 40)	44.08	15.43	48.60	14.66	142.30	33.16

Note. *N* = 60.

As previously stated, when all emotions were transformed into binary variables denoting whether they were reported by the mother at any stage during pregnancy, an observable difference in the separation-individuation scores of

participants became evident. For each emotion, the Mann-Whitney U test was chosen to assess the association between the presence of that negative emotion and participants' separation-individuation difficulties.

The Mann-Whitney U tests were used to assess the relationship between separation-individuation difficulties of participants and the presence of guilt during pregnancy retrospectively reported by the mother. There were significant differences for the total SII score, $U = 153.5$, $Z = -2.946$, $p < .01$, and the subscales of Splitting, $U = 145.5$, $Z = -3.086$, $p < .01$; Differentiation, $U = 183.5$, $Z = -2.422$, $p < .05$. The results indicated that participants whose mothers reported feelings of guilt during pregnancy had significantly greater separation-individuation difficulties than participants whose mothers did not report guilt.

The Mann-Whitney U tests were used to assess the relationship between separation-individuation difficulties of participants and the presence of shame during pregnancy, retrospectively reported by the mother. There were significant differences for the total SII score, $U = 151$, $Z = -2.265$, $p < .05$, and the subscale of Splitting, $U = 149$, $Z = -2.303$, $p < .05$. However, there was no significant difference for the subscale of Differentiation, $U = 174$, $Z = -1.825$, $p = .068$. The results indicated that participants whose mothers reported feelings of shame during pregnancy had significantly greater separation-individuation difficulties, except in the subscale of Differentiation, which was again greater but statistically insignificant, than participants whose mothers did not report shame.

The Mann-Whitney U tests were used to assess the relationship between separation-individuation difficulties of participants and the presence of disappointment during pregnancy, retrospectively reported by the mother. There were no significant differences for the total SII score, $U = 269$, $Z = -1.388$, $p = .165$, or the subscales of Splitting, $U = 271$, $Z = -1.355$, $p = .176$; Differentiation, $U = 280$, $Z = -1.204$, $p = .229$.

The Mann-Whitney U tests were used to assess the relationship between separation-individuation difficulties of participants and the presence of anger during pregnancy, retrospectively reported by the mother. There were no significant differences for the total SII score, $U = 289.000$, $Z = -1.741$, $p = .082$, or the subscale

of Differentiation, $U = 329.500$, $Z = -1.106$, $p = .269$. However, there was a significant difference for the subscale of Splitting, $U = 256.500$, $Z = -2.251$, $p < .05$. The results revealed that participants whose mothers reported feelings of anger during pregnancy had significantly greater Splitting scores than participants whose mothers did not report anger.

The Mann-Whitney U tests were used to assess the relationship between separation-individuation difficulties of participants and the presence of sadness during pregnancy, retrospectively reported by the mother. There were no significant differences for the total SII score, $U = 323.000$, $Z = -1.458$, $p = .145$, or the subscales of Splitting, $U = 295.000$, $Z = -1.888$, $p = .059$, and Differentiation, $U = 330.000$, $Z = -1.351$, $p = .177$.

The Mann-Whitney U tests were used to assess the relationship between separation-individuation difficulties of participants and the presence of anxiety/fear during pregnancy, retrospectively reported by the mother. There were no significant differences for the total SII score, $U = 378.000$, $Z = -.723$, $p = .470$, or the subscales of Splitting, $U = 344.500$, $Z = -1.232$, $p = .218$, and Differentiation, $U = 356.500$, $Z = -1.050$, $p = .294$.

In sum, the analysis revealed that maternal emotions of guilt, shame, and anger during pregnancy were significantly associated with greater separation-individuation difficulties in participants. Specifically, feelings of guilt and shame reported by mothers were linked to higher Overall difficulties, particularly in the aspects of Splitting. Anger during pregnancy was also related to higher scores on the Splitting. In contrast, emotions such as disappointment, sadness, and anxiety/fear reported by mothers did not show a significant relationship with the separation-individuation difficulties in their children.

Since the above analyses addressed the presence or absence of each emotion, yet their distribution did not allow for the level of the emotion felt, a negative emotion count was calculated based on how many of the six negative emotions were experienced during the pregnancy in order to capture a sense complexity of the negativity felt. The negative emotion count ranged from 0 to 12, with 12 representing the maximum and 0 the minimum possible score. The mean

total instance of negative emotions experienced by mothers was 3.27 ($SD = 3.83$), ranging from a minimum of 0 to a maximum of 12.

The Spearman correlation analyses were conducted to explore the association between the negative emotion count and separation-individuation scores. The analysis revealed a significant positive correlation between participants' Splitting scores and the negative emotions experienced by their mothers during pregnancy ($r_s(58) = .282, p < .05$). However, no correlation was found for the other scores. This indicates that higher count of negative emotions experienced by mothers are associated with higher Splitting scores in their children (see Table 3.13).

Table 3.13. Association of Mother-reported Negative Emotion Count with Separation Individuation Difficulty

	Splitting	Differentiation	Total SII Score
Negative Emotion Count ($N = 60$)	.282*	.220	.231

Note. * Correlation is significant at the 0.05 level (2-tailed).

Emotions were only asked to mothers, while child participants were asked to rate their perception of their mothers' description of pregnancy as either negative or positive on a scale from 0 (very negative) to 10 (very positive). Based on the child participants' responses, the average perception of their mothers' pregnancy experience was 6.33 ($SD = 2.30$). A Spearman correlation analyses were conducted to explore the association between participant-reported maternal narratives of pregnancy and separation-individuation scores. The coefficients are presented in Table 3.14. The analysis revealed a significant negative association with the total SII score, $r_s(58) = -.307, p < .05$, and with the subscales of Splitting, $r_s(58) = -.342, p < .01$, Differentiation, $r_s(58) = -.322, p < .05$.

Table 3.14. Association of Participant-reported Maternal Narratives regarding Pregnancy with Separation Individuation Difficulty

	Splitting	Differentiation	Total SII Score
Perception of Maternal Narratives regarding Pregnancy (<i>N</i> = 60)	-.342**	-.322*	-.307*

Note. ** Correlation is significant at the 0.01 level (2-tailed).

*Correlation is significant at the 0.05 level (2-tailed).

Once more, it was not merely the emotions reported by the mother during pregnancy that was most strongly associated with the separation-individuation difficulties of the participants. Rather, it appeared that what child perceived and retrospectively reported was more associated with their current separation-individuation difficulties.

3.3.4. Desire for the Baby after Learning about the Pregnancy

Mothers were asked about their desire to have a baby both before becoming pregnant and after learning about the pregnancy. After learning about the pregnancy, the mean desire for having a baby was 8.55, with a standard deviation of 2.59. A Wilcoxon test indicated that the desire for the baby as rated by the mother after they have learned about their pregnancy is significantly higher than their desire before the pregnancy, $z = -4.721$, $p < .001$. Specifically, the desire scores for the baby after learning about the pregnancy ($M = 8.55$, $SD = 2.59$) were statistically higher than the scores before the pregnancy ($M = 6.80$, $SD = 3.45$).

Child participants were only asked about how much they were desired as a baby after their mothers learned about the pregnancy, and the mean score was 7.76 with a standard deviation of 3.30. The desire score reported by the mother and child participants was compared by a Wilcoxon test, and it was observed that there was a significant difference between mother-rated maternal desire for the Baby and

participant-rated maternal desire for the baby, $z = -2.422$, $p < .05$. Specifically, mother-rated maternal desire scores ($M = 8.88$, $SD = 2.59$) were higher than the participant-rated maternal desire scores ($M = 7.76$, $SD = 2.90$).

The association of both the mother-rated and participant-rated maternal desire with separation-individuation scores was inspected via Spearman correlations as shown in Table 3.15. Similar to the pre-pregnancy desire ratings reported in the previous section, for post-pregnancy desire retrospectively reported by the mother, correlations were not significant for Splitting scores, $r_s = -.251$, $p = .053$; Differentiation scores, $r_s = -.125$, $p = .343$, and overall SII scores, $r_s = -.188$, $p = .150$. The correlations of separation-individuation scores and participant-rated maternal desire were also not significant for Splitting scores, $r_s = -.181$, $p = .204$; Differentiation scores, $r_s = -.191$, $p = .180$, and Total SII scores, $r_s = -.121$, $p = .397$.

Table 3.15. Association of both Post-Pregnancy Mother-rated and Participant-rated Maternal Desires with Separation Individuation Difficulty

	Splitting	Differentiation	Total SII Score
Mother-rated Maternal Desire for the Baby ($N = 60$)	-.251	-.125	-.188
Participant-rated Maternal Desire for the Baby ($N = 51$)	-.181	-.191	-.121

Considering that mothers' and adult children's reports of desire as well as their associations with separation-individuation demonstrated different patterns, their discrepancy was inspected further. A perceived desire discrepancy variable was created by subtracting the children's desire ratings from their mothers' ratings. Then the scores were categorized into three: those who perceive being desired less than their mother did, those who rate similarly to their mother, and those who perceive being desired more than their mother did. As a result, 7 (13.7%) of participants were categorized as being desired more than they actually were, 22

(43.1%) as being desired less than they actually were, while 22 (43.2%) as having matching levels of desire to their mothers. Among the participants, 9 individuals who reported as 'don't know' were not included in these analyses. The separation-individuation scores for these groups are presented in Table 3.16.

Table 3.16. Mean and Standard Deviation Scores of Separation-Individuation by Groups by Desire-Discrepancy Status

		Splitting		Differentiation		Total SII Score	
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Perceived Desire Discrepancy	Perceived higher desire (<i>n</i> = 7)	59.00	23.29	58.14	21.74	163.57	53.65
	Matched desire (<i>n</i> = 22)	41.68	13.69	47.14	15.04	141.64	33.89
	Perceived lower desire (<i>n</i> = 22)	47.32	16.49	52.09	19.57	149.50	42.98

The Independent-Samples Kruskal-Wallis Tests were performed to evaluate whether separation-individuation difficulties of participants differed by the perceived desire discrepancy. Although the mean separation-individuation scores of participants who perceived higher desire than what was retrospectively reported by their mothers were noticeably higher than those of participants who reported matched or lower desire, the non-parametric tests conducted did not yield a statistically significant difference. The perceived desire discrepancy was not significantly associated with the total SII score, $H(2) = 0.687$, $p = .709$, or the subscales of Splitting, $H(2) = 3.807$, $p = .149$, and Differentiation, $H(2) = 1.637$, $p = .441$. It is concluded that there is no difference in separation-individuation scores among participants grouped according to whether their perception of desire matched their mothers' reports or not.

In sum, separation-individuation related issues were not found to be associated with post-pregnancy mother-rated and participant-rated maternal desires. Lastly, no relationship was found between separation-individuation related difficulties and whether participants' perception of desire matched their mothers' reports or not.

3.4. BIRTH RELATED FACTORS AND SEPARATION INDIVIDUATION

Participants' mothers were asked to respond to questions regarding child participants' birth processes. These questions aimed to measure the mother's psychiatric issues after birth, birth timing, method of birth, whether there were any complications during birth and perception of mothers regarding the effects of birth method and complications on the relationship with their children.

Due to insufficient numbers of individuals in the subcategories, the presence of any psychiatric problems immediately after pregnancy was not included in the data analysis. There was only one mother who answered 'yes' to this question. Birth timing, birth method, birth complications were included in the analyses as to their association with separation-individuation.

Considering that abnormal birth timing, birth methods, and birth complications are noted in the literature as traumatic birth experiences for the baby (Castellino, 2000), a birth related difficulty count was calculated based on many of these three conditions were experienced during birth for further investigation.

Further analyses will be presented in the order mentioned here.

3.4.1. Birth Timing

Mothers were inquired as to the 12 of the participants' mothers (20%) reported that their children were born early, 8 (13.3%) reported that their children were born late, and the remaining 40 (66.7%) reported that their children were born on time. The mean scores of separation-individuation for the categories of mother-reported birth timing are presented in Table 3.17.

Table 3. 17. Mean and Standard Deviation Scores of Separation-Individuation by Mother-reported Birth Timing

	Splitting		Differentiation		Total SII Score	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Early (<i>n</i> = 12)	44.17	17.74	47.58	16.72	136.25	38.61
Birth Timing On time (<i>n</i> = 40)	49.90	17.07	53.48	16.58	157.53	39.47
Late (<i>n</i> = 8)	40.00	10.62	42.25	19.52	133.00	35.25

Note. *N* = 60.

The Independent-Samples Kruskal-Wallis Tests were performed to evaluate whether separation-individuation difficulties of participants differed by mother-reported birth timing. The birth timing as reported by mothers was not significantly associated with the total SII score, $H(2) = 4.117$, $p = .128$, or the subscales of Splitting, $H(2) = 3.127$, $p = .209$; Differentiation, $H(2) = 2.615$, $p = .270$.

According to the self-reported data from the participants, 14 of the participants (23.3%) reported that they were born early, 7 (11.7%) reported that they were born late, and the remaining 39 (65%) reported that they were born on time. The mean scores of separation-individuation for the categories of participant-reported birth timing are presented in Table 3.18.

Table 3.18. Mean and Standard Deviation Scores of Separation-Individuation by Participant-reported Birth Timing

		Splitting		Differentiation		Total SII Score	
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Birth Timing	Early (<i>n</i> = 14)	49.21	18.53	53.21	17.18	151.36	40.97
	On time (<i>n</i> = 39)	47.31	17.05	50.90	16.98	150.49	40.62
	Late (<i>n</i> = 7)	44.57	11.60	45.43	19.91	144.57	36.36

Note. *N* = 60.

The Independent-Samples Kruskal-Wallis Tests were performed to evaluate whether separation-individuation difficulties of participants differed by participant-reported birth timing. The birth timing as reported by participants was also not significantly associated with the total SII score, $H(2) = 0.113$, $p = .945$, or the subscales of Splitting, $H(2) = 0.204$, $p = .903$, and Differentiation, $H(2) = 0.800$, $p = .670$.

In sum, the difference in the mean level of separation- individuation related issues were not statistically significant neither for mother-reported nor for adult child-reported birth-timing.

3.4.2. Birth Method

Among the mothers of the participants, 28 (46.7%) stated that the birth was natural and unmedicated, while 11 (18.3%) indicated that the birth was natural but medicated. The remaining 21 of the participants' mothers reported that the birth was via cesarean section, with 12 of them (20%) being planned and 9 (15%) being unplanned emergency cesareans. Due to the uneven distribution of participants across the four categories of the variable, with some categories having as many as 29 individuals and others as few as 9, the variable was reduced from four categories

to two: natural birth and cesarean birth, to ensure balance in sample sizes between the groups. In the final analysis, there were 39 individuals in the natural birth group (65%) and 21 individuals in the cesarean birth group (35%). Despite the low numbers and uneven distribution, descriptive statistics of the separation-individuation scores for the mother-reported four categories are provided in Table 3.19. for exploratory purposes. Those born via unplanned c-section showed higher mean scores in the Total SII score and the subscales of Splitting and Differentiation, while those born through medicated natural birth showed the lowest mean scores in the overall SII score and the subscales of Splitting, and Differentiation.

The Mann-Whitney U tests were conducted to examine the relationship between participants' separation-individuation related difficulties and mother-reported birth methods. There were no significant differences for the total SII score, $U = 301.500$, $Z = -1.675$, $p = .094$, or the subscale of Splitting, $U = 346.500$, $Z = -.977$, $p = .329$. However, there was a significant difference for the subscale of Differentiation, $U = 282.500$, $Z = -1.969$, $p < .05$. This indicates that participants whose mothers reported they were born via cesarean section had higher Differentiation scores.

Table 3.19. Mean and Standard Deviation Scores of Separation-Individuation by Mother-reported Birth Method

		Splitting		Differentiation		Total SII Score	
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Birth Method	<i>Natural</i>	45.97	16.76	47.62	17.14	144.64	41.42
	Unmedicated (<i>n</i> = 28)	47.04	17.40	49.96	17.34	149.61	43.02
	Medicated (<i>n</i> = 11)	43.27	15.45	41.64	15.81	132.00	35.73
	<i>C-section</i>	50.14	16.60	56.71	16.06	159.96	34.86
	Planned (<i>n</i> = 12)	46.67	20.42	58.08	18.31	157.33	42.97
	Unplanned (<i>n</i> = 9)	54.78	8.54	54.89	13.32	163.44	21.80

Note. *N* = 60.

Among the participants, 28 (46.67%) stated their birth as natural and unmedicated, while 4 (6.67%) indicated their birth as natural but medicated. The remaining 22 of the participants reported that their births were via cesarean section, with 16 of them (26.67%) being planned and 6 (10%) being unplanned emergency cesareans. The remaining 6 (10%) stated that they did not know. Similarly, due to the uneven distribution of participants across the four categories of the variable, with some categories having as many as 28 individuals and others as few as 4, the variable was reduced from four categories to three: 'normal', 'cesarean', and 'don't know'. Despite the low numbers and uneven distribution, descriptive statistics of the separation-individuation scores for the participant-reported four categories are provided in Table 3.20. for exploratory purposes. Those born via unplanned c-section showed the highest mean scores in the Total SII score and the subscales of Splitting and Differentiation, while those who did not know their birth method and

those who believed they were born via medicated natural birth showed lower mean scores.

In the final analysis, there were 32 (53.3%) individuals in the natural birth group and 22 (36.7%) individuals in the cesarean birth group. The remaining 6 (10%) reported that they did not know. However, the observed mean differences were again not statistically significant. The participant-reported birth method was not significantly associated with the total SII score, $H(2) = 4.023$, $p = .134$, or the subscales of Splitting, $H(2) = 3.626$, $p = .163$, and Differentiation, $H(2) = 3.390$, $p = .184$.

Table 3.20. Mean and Standard Deviation Scores of Separation-Individuation by Participant-reported Birth Method

		Splitting		Differentiation		Total SII Score	
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Birth Method	<i>Natural</i>	46.25	20.85	48.69	17.26	145.97	39.87
	Unmedicated (<i>n</i> = 28)	47.86	15.72	50.14	17.81	149.54	41.18
	Medicated (<i>n</i> = 4)	35.00	6.78	38.50	8.10	121.00	14.67
	<i>C-section</i>	52.09	16.39	55.86	17.13	160.68	35.78
	Planned (<i>n</i> = 16)	50.13	17.07	54.06	19.06	159.06	39.55
	Unplanned (<i>n</i> = 6)	57.33	14.43	60.67	10.27	165.00	25.58
	<i>Do not know</i> (<i>n</i> = 6)	36.67	20.86	43.50	14.36	132.33	48.22

Note. *N* = 60.

In sum, the findings suggest that it is the birth method reported by mothers that is most strongly associated with the current separation-individuation difficulties of the participants, rather than the participants' perception or knowledge regarding their birth.

3.4.3. Complication Presence

Among the mothers, 8 (13.29%) stated there was a complication during the birth, while 50 (86.71%) indicated there was not. The remaining 9 (15%) stated that they did not know. Two mothers who indicated that they did not know were excluded from the analyses. The mean scores of separation-individuation for the categories of the mother-reported complication presence are also shown in Table 3.21.

Table 3.21. Mean and Standard Deviation Scores of Separation-Individuation by Mother-reported Complication Presence

		Splitting		Differentiation		Total SII score	
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Complication Presence	Present (<i>n</i> = 8)	54.12	13.61	50.63	14.79	157.00	28.27
	Absent (<i>n</i> = 50)	46.36	17.30	50.56	17.82	148.74	41.81

Note. *N* = 58.

Although the mean separation-individuation related difficulties were higher for participants whose mothers reported complications during birth, the results were not statistically significant. There were no significant differences for the Total SII score, $U = 164.500$, $Z = -0.801$, $p = .423$, or the subscales of Splitting, $U = 134.500$, $Z = -1.478$, $p = .139$, and Differentiation, $U = 192.000$, $Z = -0.180$, $p = .857$.

Among the participants, 11 (18.33%) stated there was a complication during their birth, while 40 (66.67%) indicated there was not. The remaining 9 (15%) stated that they did not know. The mean scores of separation-individuation for the

categories of the participant-reported complication presence are also shown in Table 3.22.

Table 3.22. Mean and Standard Deviation Scores of Separation-Individuation by Participant-reported Complication Presence

		Splitting		Differentiation		Total SII score	
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Complication Presence	Present (<i>n</i> = 11)	54.09	18.50	56.18	19.73	167.18	39.15
	Absent (<i>n</i> = 40)	45.60	14.75	49.58	16.76	144.80	38.22
	Do not know (<i>n</i> = 9)	47.44	22.06	49.67	16.67	152.11	44.76

Note. *N* = 60.

Similarly, although the mean separation-individuation related difficulties were higher for participants who reported complications during their birth, the results were not statistically significant. A Kruskal-Wallis tests indicated that the participant-reported complications were also not significantly associated with the total SII score, $H(2) = 2.285$, $p = .319$, or the subscales of Splitting, $H(2) = 1.451$, $p = .484$, and Differentiation, $H(2) = 1.034$, $p = .596$.

In sum, despite observed mean differences, separation-individuation related issues were not found to be associated with the presence of complications during as reported by the mother or as known by the adult child.

3.4.4. Birth Related Difficulty Count

As mentioned above, a new variable, birth-related difficulty count, was created based on the responses of both the mothers and the participants. The association of the Mother-reported birth-related difficulty count with separation-individuation scores was inspected via Spearman correlations as shown in Table 3.23.

Significant correlations were found with participants' Differentiation scores, $r_s = .259$, $p < .05$ and Total SII scores, $r_s = .252$, $p < .05$, indicating higher separation-individuation related difficulty when there is higher number of birth related difficulty. However, the correlations with Splitting scores, $r_s = .192$, $p = .141$ was not statistically significant.

Similarly, the association of the Participant-reported birth-related difficulty count with separation-individuation scores was inspected via Spearman correlations as shown in Table 3.23. The analysis did not reveal any statistically significant correlations: Splitting scores, $r_s = .163$, $p = .214$; Differentiation scores, $r_s = .169$, $p = .198$; and total SII scores, $r_s = .187$, $p = .153$.

Table 3.23. Association of both Mother-reported and Participant-reported Birth-related Difficulty Count with Separation Individuation

	Splitting	Differentiation	Total SII Score
Mother-reported birth-related difficulty count ($N = 60$)	.192	.259*	.252*
Participant-reported birth-related difficulty count ($N = 60$)	.163	.169	.187

Note. * Correlation is significant at the 0.05 level (2-tailed).

In sum, as the number of birth-related difficulties reported by mothers increased, the children's separation-individuation related difficulties also increased. However, no such relationship was found with birth-related difficulty count reported by the children. Once again, it appears that the actual information reported by the mother about the birth processes is more closely related to the children's present difficulties than the information reported by the children themselves.

3.5. COMPOSITE ADVERSITY SCORE AND SEPARATION-INDIVIDUATION

Finally, composite adversity score was calculated based on how many negative circumstances for the fetus/baby happened throughout the entire pregnancy and birth processes. This variable was calculated including the occurrences of miscarriage risk, abortion attempt, abortion consideration, trauma presence, birth timing, birth method, and complication presence variables. The composite adversity score ranged from 0 to 7, with 7 representing the maximum and 0 the minimum possible score. The mean composite adversity score reported by mothers was 2.23 ($SD = 1.03$), ranging from a minimum of 1 to a maximum of 7. On the other hand, the composite adversity score reported by child participants was 1.33 ($SD = 1.27$), ranging from a minimum of 0 to a maximum of 6.

The association of the mother-reported composite adversity score with separation-individuation scores was inspected via Spearman correlations as shown in Table 3.27. The analysis did not reveal any statistically significant correlations: Splitting scores, $r_s = .025$, $p = .849$; Differentiation scores, $r_s = .169$, $p = .197$; and total SII scores, $r_s = .070$, $p = .597$.

On the other hand, when the association of the participant-reported composite adversity score with separation-individuation scores was inspected via Spearman correlations as shown in Table 3.24., a significant correlation was found with participants' total SII scores, $r_s = .288$, $p < .05$, and the subscales of Splitting, $r_s = .270$, $p < .05$; Differentiation, $r_s = .275$, $p < .05$.

Table 3.24. Association of both Mother-reported and Participant-reported Composite Adversity Score with Separation Individuation

	Splitting	Differentiation	Total SII Score
Mother-reported Negative Circumstance Count (<i>N</i> = 60)	.025	.169	.070
Participant-reported Negative Circumstance Count (<i>N</i> = 60)	.270*	.275*	.288*

Note. * Correlation is significant at the 0.05 level (2-tailed).

In sum, the adversities perceived and retrospectively reported by the child participants showed significant associations with their separation-individuation scores, including the total SII score and the subscales of Splitting and Differentiation. These findings suggest that the adversities as perceived and reported by the children themselves are more strongly associated with their current separation-individuation related issues than the adversities reported by their mothers.

CHAPTER 4

DISCUSSION

The purpose of this study is to explore the relationship between the intrauterine environment in which the baby begins to exist and the experiences during the biological birth, particularly with Mahler's theory of separation-individuation processes in personality development. The findings will be discussed under three main sections. In the first section, the factors included in the scope of the research will be divided into five subsections: pre-pregnancy, conception, pregnancy, birth, and general negative pregnancy-related conditions. In these subsections, findings regarding the associations between these factors and separation-individuation will be discussed. This will be followed by a discussion of the clinical implications of these findings, limitations of the present study, and recommendations for future research.

Before delving into the discussion of the findings, it's crucial to highlight that, as of the current study, there hasn't been any research quantitatively examining the association of intrauterine life and biological birth with personality development, particularly separation-individuation related difficulties, using a psychoanalytic perspective and psychoanalytic constructs. Hence, when discussing the findings alongside existing literature, we will refer to theories proposed by psychoanalytic authors and a few case reports that have explored the impact of prenatal experiences on personality development within a psychoanalytic framework. Moreover, we'll also incorporate empirical research from non-psychoanalytic sources concerning pregnancy-related factors and their long-term effects on shaping personality traits, emotional responses, and relational patterns, as the availability of empirical studies conducted within a psychoanalytic framework is quite limited. Lastly, due to the absence of any qualitative or quantitative research specifically examining the potential relationship between the biological process of birth and the individual's subsequent psychological birth journey, we will draw inspiration from closely related studies that have explored

the association of intrauterine experiences and birth related factors with subsequent life outcomes.

In this section, findings regarding the associations between separation-individuation and various prenatal factors in our sample will be discussed in relation to the existing literature on these subjects, including descriptive statistics and further analyses. This discussion will follow the sequence of factors as outlined in the results section: pre-pregnancy, conception, pregnancy, birth, and composite adversity score.

4.1. PRE-PREGNANCY FACTORS

One of the aims of this study was to explore the association of the pre-pregnancy related factors with the separation-individuation processes of the adult child born later. The findings revealed that maternal pre-pregnancy loss history did not statistically significantly relationship with the separation-individuation outcomes of the child participants.

Some quantitative studies indicate that subsequent infants born after a stillbirth might face issues such as attachment problems and replacement child syndrome (Kempson & Murdock, 2010; Ney, 1998; Robertson & Kavanaugh, 1998; Turton et al., 2009). However, some qualitative research offers a different view, suggesting that maintaining a connection with the deceased infant can be part of a healthy grieving process for the mother. This ongoing relationship with the deceased, alongside the bond with the subsequent infant, is seen as a normal part of healing (Klass, Silverman, & Nickman, 1996). In the current study, the relationship between pre-pregnancy loss history and the child's personality development, specifically separation-individuation related difficulties, was examined, but the relationships observed in previous literature were not found quantitatively in this research.

Despite the lack of statistical significance, it is noteworthy that the mean scores for separation-individuation, including Splitting and Differentiation, were higher among participants whose mothers had a history of pre-pregnancy loss

according to both mother-reported and adult child-reported history, meaning they experience more separation-individuation related difficulties. This trend suggests that maternal experiences before pregnancy might influence the child's separation-individuation processes, albeit not to a statistically significant degree in this sample.

The observed trend aligns with the existing literature, which posits that unresolved maternal trauma, such as miscarriage or the loss of a child, can influence subsequent attachment patterns with future children and may lead to identity formation issues and difficulties with individualization in the child (Armstrong & Hutti, 1998; Cote-Arsenault, 2003; Davis et al., 1989; Robertson, & Kavanaugh, 1998). This effect might begin much earlier, by changing the conditions of the baby's intrauterine environment, well before the mother-child relationship processes after birth. Factors mentioned in the literature such as the unconscious guilt of a mother who has previously had an abortion, the fear of loss of a mother who has experienced a miscarriage or loss, or the idealization of a previously lost baby leading to the subsequent baby in the womb not receiving adequate acknowledgment of their self, may start affecting the baby before birth, while still in the womb. The literature indicates that even if not consciously aware, babies can absorb parental grief through unconscious processes, leading to unconscious fears of growing up and leaving the family (Kempson & Murdock, 2010). These unconscious dynamics might begin to have an effect from the very moment life starts in the womb.

Although mean differences might be related to such situations, this relationship observed in case reports was not quantitatively replicated in this study. The small sample size and the imbalanced distribution of participants across groups might have limited the statistical power to detect significant differences. This highlights the need for larger, more balanced samples in future research. On the other hand, separation-individuation is influenced by a multitude of factors beyond pre-conception experiences and pregnancy-related factors, including early childhood experiences, parenting styles, and broader environmental influences. These multiple interacting variables may weaken the specific association of pre-conception factors with separation-individuation problems.

Interestingly, the data also showed that children's reports of their mothers' pre-pregnancy loss history were associated with higher mean scores in separation-individuation subscales compared to the reports provided by their mothers. This discrepancy highlights the importance of children's perceptions of their mothers' pre-pregnancy experiences for their own developmental outcomes, potentially leading to heightened separation-individuation challenges.

4.2. CONCEPTION-RELATED FACTORS

The present study investigated the association of conception-related factors with the separation-individuation process in adulthood, aiming to explore the relationship between prenatal experiences and later psychological development. The findings of this research suggest that factors such as maternal age at conception, planned versus unplanned pregnancy, and the duration of conception attempts were not found to be associated with the separation-individuation issues in adulthood. These results have provided a nuanced understanding of the complex interplay between prenatal conditions and personality development, challenging some established perspectives while supporting others.

The absence of significant differences in separation-individuation scores based on *maternal age at conception* contradicts the literature suggesting different developmental outcomes for children of younger and older mothers (Ahmad et al., 2024; Norr & Roberts, 1991). However, even though the potential association did not extend into statistically significant differences, the trends observed in the mean scores, which align with the literature, are notable. Studies often indicate that older mothers' psychological and emotional maturity benefits child development, while younger mothers face more significant challenges (Ahmad et al., 2024; Norr & Roberts, 1991). Our results showed that children whose mothers conceived at a younger age had slightly higher separation-individuation scores, albeit not statistically significant, aligning with findings that younger mothers experience more emotional and psychological challenges, potentially affecting their children's development (McMahon et al., 2011).

Similarly, *the intentionality of pregnancy* did not yield significant differences in separation-individuation scores. This contradicts previous findings that unplanned pregnancies have negative effects, as they are linked to increased maternal stress and adverse effects on child development and parent-child relationships (Nelson & O'Brien, 2012). In the current study, child participants from planned pregnancies had higher mean separation-individuation scores compared to those from unplanned pregnancies, though not significantly. This observation contradicts findings that planned pregnancies are associated with better prenatal attachment and lower maternal stress, fostering more secure attachment patterns in children (Boden et al., 2014; Çoşkun et al., 2019).

An unplanned pregnancy does not necessarily mean the baby is unwanted, which might be the reason for the finding contradicting previous studies. In this study, we found a statistically significant increase in mothers' desire for the baby after learning about an unplanned pregnancy. This suggests that emotional attitudes toward the pregnancy may be more important than whether it was planned. Growing in the womb of a mother who is happy with their existence might mitigate the negative effects of initial stressors. In this thesis, this aspect has not been thoroughly examined; therefore, future research should explore it in a more detailed manner by considering the distinction between being a desired baby and being a planned baby.

The duration of conception attempts was not significantly associated with separation-individuation scores. This might be due to the small percentage of the sample reporting a prolonged attempt to conceive. In the literature, emotional and psychological strains were found to be associated with prolonged attempts to conceive, especially with assisted reproductive techniques (Brisch, 2003; Verdult, 2021). To the researcher's knowledge, there is no prior research on how the duration and perceived difficulty of natural conception attempts influence the child's personality development, relational patterns, and the mother-child relationship. Unlike parents utilizing assisted reproductive techniques, those conceiving through natural methods may encounter different factors that allow them to cope with the strains of the process effectively, potentially leading to the absence of this association. Factors such as the absence of medical interventions, the absence of

financial and emotional burdens associated with assisted reproductive technologies, and the natural rhythm of conception attempts might contribute to this difference. Further investigation into the distinct experiences of these two groups could provide valuable insights into how different conception methods may impact various aspects of parent-child relationships and child development.

Similar to the pre-conception findings, the small sample size and the imbalanced distribution across groups might have limited the statistical power to detect significant differences. In addition to this, separation-individuation is influenced by a wide range of factors, including postnatal experiences, parenting styles, and broader environmental influences, which might overshadow the relationship between conception-related factors and separation-individuation related difficulties.

4.3. PREGNANCY-RELATED FACTORS

Results on pregnancy-related factors indicate several insights into separation-individuation difficulties, including the association of fetal threat, traumatic events, negative emotions, and desire for the baby after learning about the pregnancy with the separation-individuation. However, many of these findings did not reach statistical significance. Only mothers' negative emotional experiences, the presence of trauma reported by child participants and their perception of their mothers' narratives regarding pregnancy resulted in a significant association with separation-individuation related difficulties.

4.3.1. Fetal Threat

This study failed to document significant differences in separation-individuation scores related to fetal threat, although there was a trend towards higher mean scores for participants who reported experiencing fetal threat in the womb, even if not statistically significant in this study. This could be due to either the absence of a relationship or the small sample size, which may have prevented

the detection of an existing relationship. Previous case studies have documented the relationship between personality development and experiencing fetal threat in the womb (Piontelli, 1992; Sonne, 2002; Winnicott, 1958), suggesting that further research with larger sample sizes is needed to clarify these findings.

Splitting is a defense mechanism where individuals rigidly separate parts of the self and others into good and bad components (Göral, 2010). Therefore, higher mean scores reflect difficulties in integrating positive and negative aspects of self and others and forming healthy relationships. A desired baby might experience the womb as loving and secure, while an anxious mother, filled with negative emotions, might create feelings of danger, suffocation, and fear of abandonment (Barnett, 1987; Emerson, 1996; Sonne, 2002). This finding might be also supported by Klein's observations (1957), which noted that intrauterine anxieties and insecurities significantly influence the dual aspects of the infant's relationship with their mother at birth. Growing in a destructive and suffocating womb may exacerbate difficulties in integrating good and bad aspects of the self and others, as reflected in the higher Splitting scores observed in our study.

Verdult's prenatal attachment theory (2014b) further emphasizes that insufficient development of trust in the intrauterine environment can lead to future relational issues. This parallels Erikson's (1963) psychosocial development theory, which highlights those problems in developing trust can result in mistrust and a lack of security. Participants who experienced fetal threats, such as abortion considerations or miscarriage risks, likely face more issues like mistrust and anxiety, affecting their ability to form healthy relationships. This insufficiency in developing trust during the prenatal stage, caused by unreliable and unpredictable caregivers, might leave imprints that reverberate in later separation-individuation difficulties. Although not statistically significant, the observed higher mean scores may be related to the factors discussed here. It is important for future research to investigate the relationship between these factors more comprehensively.

A notable observation of this study was the discrepancy between the children's perceptions and the information provided by their mothers. Children who perceived higher instances of prenatal threats (such as abortion attempts and

miscarriage risks) showed higher separation-individuation scores compared to participants whose mother reported higher instances of fetal threats. In this thesis, the mismatch between mothers' and participants' responses could not be thoroughly investigated due to the inadequate sample size. However, this discrepancy can be explored in detail in future studies as the discrepancy may be due to the profound psychological effects of subjective interpretations over objective occurrences. This might be related to Bollas's (1987) concept of the 'unthought known,' where early unconscious memories influence postnatal reactions, fantasies, relational dynamics, and behaviors. The experiences and perceptions of the fetus in the womb, independent of actual external events, might have a long-lasting impact on the perception of the individuals.

This aligns with psychoanalytic theories which emphasize that mental representations, internal object relations, and fantasies about prenatal life, influenced by the intrauterine environment and early relationships, begin forming during the prenatal period (Klein, 1957; Piontelli, 1992; Searles, 1960; Winnicott, 1958). Therefore, unconscious prenatal experiences might shape an individual's later perceptions and thoughts, leading to biases about their prenatal history. Future research should look at these possible associations by reaching a larger sample size to extend the results and using qualitative methods to capture the unconscious fantasies or beliefs regarding prenatal life.

4.3.2. Trauma Presence

Our study unveiled two key findings regarding prenatal trauma and separation-individuation scores. According to mothers' reports, children whose mothers did not experience trauma during pregnancy exhibited higher separation-individuation scores. In contrast, children who reported maternal trauma during pregnancy had significantly higher separation-individuation scores, particularly Splitting scores. This means that the child's view of the mother as traumatized, rather than the trauma itself, is more closely related to their present separation-individuation related difficulties.

According to the object relations theorists (Klein, 1957; Winnicott, 1960), the internalized representations of primary caregivers (internal objects) are central to one's psychic reality. These internal objects, formed from early relational experiences, shape how individuals perceive themselves and others. Subjective perceptions are often rooted in these internalized objects, explaining why a child's perception of maternal trauma, rather than the trauma itself, might have a significant impact on their separation-individuation process. When a person experiences their mother as traumatized, it can be related to their internal object relations.

From a psychoanalytic perspective, the child's unconscious awareness or perception of maternal trauma during pregnancy could influence their internal object relations. This aligns with theories suggesting that children's development is profoundly influenced by their perceptions of the maternal emotional state, whether or not these perceptions are accurate or acknowledged. If the mother is perceived as traumatized, it can lead to feelings of insecurity and mistrust in relationships. This could lead to difficulties in the separation-individuation process, as the child might struggle to develop a secure and autonomous identity when their internalized object is perceived as unstable or traumatized. The child might struggle to rely on others for emotional support and may develop a defensive stance in interpersonal interactions. Moreover, a child who perceives their mother as traumatized might cling to her in an effort to heal her, making it more challenging to separate from such a mother. Similarly, such a child may be more likely to engage in enmeshed or overprotective relationships, hindering their autonomy and individuation. Lastly, internalization of a mother perceived traumatized might shape the individual's sense of identity and self-concept. As a result, the child might view themselves as inherently flawed or unworthy.

This aligns with Sonne (2002) and Ney (1998), who found that prenatal exposure to trauma and maternal emotional distress can lead to feelings of abandonment, rejection, and fear, manifesting as separation-individuation difficulties later in life. These early emotional disturbances might disrupt the formation of a secure base, essential for healthy psychological development and

relational patterns (Bollas, 1987; Merchant, 2015; Van den Bergh & Marcoen, 2004).

This finding highlights the complex relationship between perceived and actual prenatal experiences and their lasting psychological imprints. As discussed previously, this finding might be related to the idea that the fetus's intrauterine experiences, fantasies, and perceptions, independent of actual events just as in many case studies in which the relationship between prenatal experiences and certain postnatal behaviors, relationship dynamics, and fears were observed (Piontelli, 1992; Sonne, 2002). However, due to the methodology used in this research, establishing such a connection is not possible. Future studies should explore this in depth using qualitative case study methods to gain more insights into these unconscious dynamics.

4.3.3. Emotions

Significant associations were found between separation-individuation difficulties and *the presence of negative emotions (guilt, shame, anger)* during pregnancy, reported by mothers. Emotions like guilt, shame, and anger are intense and can disrupt the emotional attunement between mother and child because of heightened emotional stress for the fetus. These emotions might hinder the mother's ability to provide a secure base, which is crucial for the child's development of a healthy separation-individuation process.

Winnicott's notion of the holding environment emphasizes the critical role of the mother's emotional state in the development of the child's true self (1965). A mother burdened with guilt, shame, and anger may create a less stable holding environment, contributing to the child's later struggles with self-worth and relational stability, as the child may absorb these feelings of guilt, shame, and anger.

Guilt, which can be internalized by the fetus, (Sonne, 2002; Winnicott, 1965) might create a prenatal environment where the fetus may perceive itself as a source of distress and feel rejected. This perception can lead to feelings of unworthiness and relational difficulties postnatally, as reflected in higher splitting,

differentiation, and total SII scores. Similarly, when a mother experiences shame during pregnancy, these feelings might be communicated to the fetus, creating an environment where the developing child internalizes a sense of rejection and self-doubt. Shame-induced rejection during pregnancy create an emotional atmosphere where the fetus may internalize a sense of being unworthy of love and acceptance. The initial feelings of rejection and worthlessness experienced in the womb may echo in later relationships as a fear of abandonment, conflicts related to trust, and a need for enmeshment to feel loved. The child may develop a heightened need for enmeshment to feel loved, leading to relational difficulties characterized by dependency and a lack of healthy boundaries, as reflected in higher separation-individuation related difficulties. This finding aligns with Winnicott's concept that the negative emotions reported by mothers are significantly linked to difficulties in the personality development of the child, leading to development of false self (1965).

From a Winnicottian perspective, the "good enough mother" is one who can attune to the child's needs and provide a holding environment that allows the child to develop a coherent sense of self, reducing the need for splitting as a defense mechanism (1957). Maternal feelings of guilt, shame, and anger might interfere with the mother's capacity to be emotionally available and responsive, leading to a compromised holding environment. Winnicott (1965) emphasizes that a nurturing prenatal environment promotes exploration and cooperation, while a hostile one leads to specialization in dealing with fear and abandonment. This can contribute to the child's reliance on splitting as a defense mechanism, where they divide the world into good and bad to manage their anxieties. The significant association between these maternal emotions and the child's difficulties in splitting and differentiation underscores this point. This aligns with Klein's ideas (1957), suggesting that prenatal disturbances can lead to persecutory anxiety, where the fetus internalizes the mother's emotional state, which might include guilt, shame and anger. Klein also hinted at a possible good womb/bad womb dichotomy, indicating that early unpleasant experiences might foreshadow postnatal challenges

in object relations, influencing the infant's later ability to differentiate between good and bad objects.

Particularly, maternal anger can influence the prenatal environment, as noted in previous case studies (Sonne, 2002). Babies exposed to aggression, rejection, and depressive feelings in the womb might interpret birth interventions as aggressive and violent. This could further complicate difficulties in integrating good and bad aspects of the self and others (Klein, 1957), as reflected in the significantly higher Splitting scores of participants whose mothers reported anger. The child might unconsciously absorb the mother's anger, leading to increased splitting as a defense mechanism to manage internalized conflict and ambivalence. In this the study, we have specifically found the association between separation-individuation difficulties and the maternal negative emotions; future research should replicate this.

The significant correlation between the total number of negative emotions experienced by mothers and higher Splitting scores in children reinforces the idea that cumulative negative emotional experiences during pregnancy might have a higher association with separation-individuation related difficulties later in life. An anxious mother, laden with negative emotions, might create a prenatal environment experienced by the fetus as dangerous and suffocating (Sonne, 2002; Winnicott, 1958). Studies such as those by DiPietro (2010) and Verdult (2014) suggest that maternal stress and negative emotions might affect fetal development. The correlation between these negative emotions and separation-individuation difficulties suggests that such prenatal emotional climates might contribute to the child's later struggles with emotional independence and identity formation.

It is important to note that maternal representation ability is an unconscious psychological resource for the child's acceptance of its existence (Jakel, 2001). Such negative emotions could negatively affect the maternal ability to resonate with the prenatal attachment needs of the unborn child. Based on the case examples presented by Jakel (2001), the mother's failure to serve her mental representation was believed to lead to a strong ambivalence between separateness and relatedness in the fetus, limiting the capacity for object relations. From a psychoanalytic

viewpoint, shame, guilt, and anger in mothers can create an emotionally charged intrauterine environment that might impact the child's unconscious processes and internal object relations, influencing their later ability to navigate separation and individuation effectively (Winnicott, 1958). The mother's guilt, shame and anger may be unconsciously communicated to the fetus, affecting their emotional development in the symbiotic physical relationship in the womb. The child's internalization of the mother's emotional state might shape their internal object relations, potentially leading to internal conflicts and splitting as a defense mechanism to manage these conflicting feelings.

While a relationship was indeed found between mothers' negative emotions and their children's separation-individuation difficulties, a more significant association emerged between the children's perception of their mothers' narratives and their own separation-individuation difficulties. It is noteworthy that the participants' current separation-individuation difficulties were more closely linked to how they perceived and retrospectively reported their mothers' narratives, rather than solely to the emotions reported by the mothers during pregnancy.

Overall, these negative emotions might convey a sense of unmet expectations, creating an emotional disconnect between mother and fetus. The symbiotic relationship between mother and child begins in the womb, where the fetus can sense negative emotions, potentially affecting the initial symbiotic experience negatively (DiPietro, 2010; Jakel, 2001; Verdult, 2021a; Winnicott, 1957). This early disruption may, in turn, manifest in subsequent relationships, leading to difficulties in forming secure and healthy connections. The fetus might feel disturbed by ambivalence, wanting to separate from a bad womb where it is not wanted while also desiring to merge with the nurturing space of a good womb. The mother's mixed feelings towards the baby can intensify this disturbance. To manage the anxiety from this ambivalence, the fetus might tend to split the mental image of the womb into 'good' and 'bad'. This initial need for splitting, triggered by the mother's ambivalent feelings, might continue to manifest in later use of splitting defense mechanisms in relationships.

In summary, assuming there is a continuity between intrauterine and extrauterine life, the significant relationships between maternal experiences of guilt, shame, and anger during pregnancy and separation-individuation difficulties might be due to intrauterine environment laden with negative emotions, the internalization of maternal negative emotions, and disruption in prenatal bond between mother and fetus.

Interestingly, the study did not find significant results for maternal anxiety, disappointment, and sadness regarding separation-individuation scores. These emotions are common and may not impact the fetus as profoundly as guilt and shame unless they reach extreme levels. Research by Davis and colleagues (2004) and O'Connor and colleagues (2002) supports this, suggesting that while these emotions do affect prenatal development, their effects are less pronounced compared to more intense emotions like guilt and shame. Moreover, anxiety and sadness may be more easily shared within social networks, allowing for better emotional support, which can mitigate their negative impact.

4.3.4. Desire for the Baby

The study found a significant positive correlation between maternal desire for the baby before pregnancy and after learning about the pregnancy. This suggests that mothers who initially wanted to have a baby were more likely to continue desiring their child after becoming pregnant. This continuity is important as it reflects a stable and positive emotional environment for the developing fetus, which, according to DiPietro (2010) and Raphael-Leff (2005), contributes to healthier maternal-fetal attachment and better psychological outcomes for the child.

Interestingly, children often perceived themselves as less desired than their mothers reported. The perception of being less desired can contribute to feelings of insecurity and self-doubt, influencing the separation-individuation process by fostering dependency issues and relational difficulties, as supported by Verdult (2020) and Winnicott (1958). However, our study found that perceiving oneself as less wanted was not significantly associated with the separation-individuation

processes, contrary to some literature suggesting that being unwanted negatively impacts bonding and personality development (Appleton, 2020; David et al., 2003).

There was no statistically significant difference found between how much the baby was wanted and the baby's separation-individuation difficulties in adulthood. This study failed to document significant association between being an unwanted baby and personality development, which is suggested in the literature. This could be due to either the absence of a relationship or the small sample size, which may have prevented the detection of an existing relationship.

4.4. BIRTH-RELATED FACTORS

The results on birth-related factors indicate several insights into separation-individuation difficulties, including birth timing, birth method, complications, and the overall birth-related difficulty count.

4.4.1. Birth Timing

The data did not show significant differences in separation-individuation difficulties based on *birth timing (early, on-time, late)*, which is contradictory to the previous findings. Studies suggest that people born very preterm (VPT) often show traits like heightened neuroticism, reduced extraversion, and heightened agreeableness (Hertz et al., 2013). However, this also aligns with some literature suggesting that while preterm or late-term births can be associated with developmental challenges, they may not directly have a negative impact on the development unless coupled with other stressors such as death anxiety (Golombok et al., 2001; Scharf, and Cohen, 2013). Tideman et. al (2002) showed that while conscious attachment models showed no significant differences, unconscious measures revealed significant differences in attachment and separation issues in the preterm individuals. The current study has relied on consciously self-reported measures, which could miss significant unconscious processes that are critical to understand the long-term effects of preterm birth on individuation.

4.4.2. Birth Method

When the relationship between birth method and separation-individuation was inspected, participants born via unplanned cesarean sections showed higher mean scores on separation-individuation difficulties. Medicated natural births had the lowest mean scores for separation-individuation difficulties. Wilks (2017) distinguishes 'natural' childbirth as minimally intervened, while 'normal' birth may involve interventions like pain relief. Medicated births, which relieve pain during delivery, might create a less painful separation and birth experience for both the baby and the mother, providing a smoother transition and separation process. An unplanned c-section can be a traumatic experience for both mother and child. These observations and interpretations are based on the observed mean differences; the association of various factors such as medicated or unmedicated natural births and planned or unplanned cesarean sections with the separation-individuation related difficulties should be examined in more detail in future studies.

In the current study, further investigations revealed that individuals born via cesarean section, as reported by mothers, show significantly higher separation individuation related difficulties compared to those born naturally. From a psychoanalytic standpoint, birth represents a pivotal moment of transition from the intrauterine environment to the external world, symbolizing a separation from the maternal body and the beginning of individuation. Therefore, the method of birth could be seen as an initial experience of separation and individuation for the child. For instance, cesarean section births, often characterized by a sudden removal from the womb environment, could potentially disrupt the natural progression of separation from the mother, leading to difficulties in relational patterns, and self-concepts in later life. On the other hand, vaginal births, which involve a more gradual transition from womb to world, may facilitate a smoother separation process and contribute to healthier separation-individuation dynamics.

Raphael-Leff (1992) noted that from pregnancy to birth, the mother acts as a "container" for the fetus, providing essential functions like nutrient supply and waste removal. She linked this prenatal "container" concept with Bion's idea of the

postnatal maternal container (1962). C-section might interrupt the natural birthing process, potentially leading to feelings of abruptness and loss of control. According to Bion's theory of container-contained (1962), a sudden and unplanned c-section might disrupt the containment process, where the mother holds and processes the infant's primitive anxieties. This disruption could be internalized by the infant, leading to difficulties in differentiating and managing their emotions later in life, as reflected in higher scores on Splitting and Differentiation.

In addition to the possible explanations above, this could be due to the nature of cesarean births, which may involve more medical intervention and less immediate physical contact with the mother, potentially affecting early bonding experiences and creating an invasion control complex in infants (Emerson, 1998; Kalef, 2018; Verdult, 2014). This condition is marked by a sense of being controlled by external forces. Babies born via cesarean sections miss the natural stimulation of uterine contractions, which can affect their initial adaptation and individuation processes by intensifying the anxiety associated with birth, particularly the separation from the womb (Castellino, 2000). As the collaborative process between mother and infant is disrupted by cesarean births, a more abrupt and intervention-driven experience might leave infants feeling isolated and disconnected. To cope with these feelings, individuals may develop a strong need for togetherness in later relationships.

In sum, the invasive nature of the initial separation, involving external medical interventions, and the disruption of the mother-child dyadic collaboration can isolate the baby in the first physical separation from the womb.

4.4.3. Birth Complications

This study failed to document significant differences in separation-individuation scores related to birth complications. Although there was a trend towards higher mean scores for participants whose mothers reported birth complications, it is not statistically significant in this study.

There are studies indicating that complications during birth can create an environment of heightened stress and anxiety, potentially impacting the early mother-infant bond and the infant's sense of security (Merchant, 2015; Soref, 1992). Previous literature (e.g., Emerson, 1998a; Piontelli, 1987; Verdult, 2021; Wilks, 2017) highlights the potential for birth trauma to affect bonding, attachment, and personality development, which could influence issues related to individuation and dependency indirectly. However, this relationship observed in case reports was not quantitatively replicated in this study. This could be due to either the absence of a relationship or the small sample size, which may have prevented the detection of an existing relationship. In this study, the number of participants reporting complications was quite low, which might explain the lack of a significant association with complication presence, despite the observed mean difference.

Lastly, considering the possibility that a greater number of birth-related difficulties could be associated with a more traumatic birth experience, the relationship between the birth-related difficulty count and separation-individuation related difficulties was examined and birth-related difficulties reported by mothers was positively associated with children's separation-individuation difficulties. This suggests that the cumulative impact of multiple birth-related difficulties might lead to an association with the child's separation-individuation process. The more traumatic or stressful the birth experience, the greater the potential for these experiences to impact the child's psychological development (Schore, 2001, 2012; Piontelli, 1992).

The higher number of birth-related difficulty might make this initial physical separation more traumatic for the infant and make them more vulnerable to later separation-related issues. Freud (1926) and Rank (1924/1952) emphasized the traumatic nature of birth and its potential to shape anxiety and psychological development. Differences in scores based on number of birth trauma experienced align with Rank's idea that unresolved birth trauma can lead to later psychological issues. When the initial separation from the womb is traumatic, it might unconsciously set the precedent for the infant's expectations of the world, and relational stability and security, influencing their later ability to form healthy

relationships, explore their environment freely, and develop autonomy. Children who experience early disruptions may develop heightened anxiety and reliance on Splitting as a mechanism to manage their environment and relationships.

From a Winnicottian perspective, birth-related difficulties experienced by the mother could disrupt her ability to provide a "holding environment," crucial for the child's emotional regulation and development. The lack of a significant relationship between birth-related difficulties reported by children and their separation-individuation difficulties might mean that it is the mother's unprocessed and uncontained difficulties during birth that are internalized by the child, rather than the child's direct memory or knowledge of the birth. In another words, for the mother, physical separation was already challenging enough due to complications, making separation seem like a fatal or negative event. This might be unconsciously communicated to the child, suggesting that they need not separate to survive, which manifests as difficulties in the child's separation-individuation processes. The presence of this relationship solely in the mother's responses about birth might indicate something about the mother's anxiety, which was projected onto and internalized by the child. In addition, since this initial separation was experienced negatively by the mother, it can complicate subsequent separation processes. As Winnicott (1965) mentions how the mother's emotional state can affect the child's ability to separate and develop independently.

In sum, while individual factors, such as birth timing, and complications, did not show significant associations; cumulatively, these events can have a more profound impact on the infant's psychological development. The concept of cumulative trauma suggests that repeated or multiple stressors can overwhelm the infant's capacity to cope, leading to greater psychological difficulties (Castellino, 2000; Emerson, 1998). Further research with larger sample sizes and more detailed assessments could provide additional insights into these complex relationships.

4.5. COMPOSITE ADVERSITY SCORE

Findings indicate a significant correlation between participant-reported composite adversity score and separation-individuation difficulties, while no significant correlation was found for mother-reported composite adversity score. This discrepancy highlights the importance of understanding the child's perception and awareness of negative circumstances during pregnancy and birth processes. As mentioned before, object relations theory suggests that individuals internalize their experiences with their caregivers, which then shape their internal world. Adversities perceived by the child, even if not objectively reported by the mother, might represent internal conflicts and unresolved anxieties. These perceptions could lead to difficulties in achieving a stable sense of self and managing the process of separation-individuation.

This discrepancy might be explained by the varying degrees of maternal emotional expression and the child's sensitivity to these emotions. Studies have shown that children can sense and be affected by maternal stress even if it is not explicitly acknowledged by the mother (Nelson & O'Brien, 2015; Verdult, 2014). Psychoanalytic theories suggest that unconscious emotional states and unresolved conflicts in the mother can be transmitted to the fetus (Winnicott, 1958). Winnicott discuss how early prenatal emotional experiences, even those in the prenatal period, can shape the developing psyche of the child. The fetus may unconsciously pick up on maternal stress and unresolved emotions, which can influence their later psychological development and ability to manage separation and individuation.

Furthermore, as Bollas (1987) mentioned, the unborn has the early capacity to unconsciously register their prenatal experiences, and even though these are not acknowledged by the mothers, the child knows and feels this at some level, which is called "unthought known." Although we were not able to statistically analyze the mismatch between mothers' and children's reports in this study, considering the possibility that children's perceptions or distortions might have a significant impact, these results might be related to the projections of the child participants onto the intrauterine environment of their mothers. These projections might originate from

prenatal experiences as noted in the literature (Piontelli, 1992; Rucker, 1994). This finding can be contextualized within the psychoanalytic concept of womb fantasies, which explores the duality in case analysis (Piontelli, 2006), depicting the womb as both nurturing and life-giving, or dangerous and destructive. Discrepancies between children's and mothers' reports on composite adversity might reflect children's unconscious fantasies about the womb's ability to sustain life. Children who reported higher instances compared to their mothers might be projecting a negative fantasy of the womb. These womb fantasies might be affected by prenatal life, as shown in existing case analyses (Rucker, 1994). However, due to the methodology used in this research, establishing such a connection is not possible. These fantasies might also be related to what they have sensed or heard from their mothers about these events. Future studies should explore this in depth using qualitative case study methods to gain more insights into these unconscious dynamics.

As prenatal attachment theory underscores the importance of the emotional bond between the mother and fetus; unusual prenatal events perceived by the child can disrupt this bond, leading to an environment where the fetus experiences inconsistency and emotional turmoil. The lack of a stable and nurturing prenatal environment might contribute to enmeshment or fusion with others, as the individual seeks to compensate for the early emotional instability.

These findings support Mahler's idea that early stress or trauma disrupts development, extending this theory to suggest these impacts begin in the womb.

In sum, there are situations where both the subjective perceptions of the participants and the objective reports provided by their mothers are associated with separation-individuation processes. According to Klein (1957) and Bion (1960), subjective perceptions shaped by early relationships and internalized objects play a crucial role in one's psychic reality. For example, a child who perceives their mother as traumatized might develop a fragmented self, using splitting to manage anxiety. These perceptions, even if not aligned with objective reality, can significantly impact psychological development. In contrast, Winnicott (1958) and Bowlby (1960) emphasize the importance of objective circumstances. Winnicott's concept

of the "good enough mother" and the holding environment highlights the need for a stable, responsive caregiving environment for healthy development. These objective conditions are essential for a child's ability to navigate separation-individuation effectively (Mahler, 1975). Understanding the interplay between subjective perceptions and objective conditions is crucial for addressing separation-individuation difficulties. These subjective perceptions and objective realities may not only start forming after birth but have their roots in the prenatal period. During this phase, the atmosphere in the womb and the fetus's experiences might begin to shape early psychological development. The fetus's time in utero, influenced by the mother's emotional state, physical conditions, and overall prenatal environment, might create an initial framework for how the infant will later navigate separation and individuation processes.

4.6. CLINICAL IMPLICATIONS

The study's results have significant implications for clinical practice in prenatal care, early childhood intervention, and psychotherapy.

Comprehensive prenatal care should address both the physical and emotional well-being of the mother and fetus. Healthcare providers need training to support pregnant women experiencing emotional distress or trauma, which can have lasting effects on the child's psychological development.

Early intervention programs should support mothers who experience complicated births or prenatal stressors. Providing resources to foster secure attachment and emotional regulation in infants can help mitigate negative impacts.

Mental health professionals should be aware of the long-term effects of birth trauma and prenatal stress. Understanding the prenatal history of clients can provide clinicians with deeper insights into the enactments and transference relationships observed in psychodynamic therapy. It is well-known that transference and countertransference dynamics are heavily influenced by early relationships with the primary caregiver. When we consider the client's experiences in the womb and their

prenatal history, clinicians keep an open mind to the possibility that these early experiences can also be reenacted in the therapy room.

4.7. LIMITATIONS OF THE PRESENT STUDY AND RECOMMENDATIONS FOR FUTURE RESEARCH

The findings of this study offer several significant implications for future research in the field of prenatal psychology, particularly regarding the association of prenatal and birth-related factors with the separation-individuation processes in adulthood. The observed trends suggest that while some prenatal conditions, such as maternal emotional states, trauma, and birth-related difficulties, have significant relationship with the child's later ability to gain independence from the mother and recognize their own identity, other factors may not have significant relationship despite observed trends in the mean scores. Therefore, this highlights the necessity for further research into the specific prenatal factors influencing long-term psychological development.

The study used convenience sampling, which limits the generalizability of the findings. Participants who were more willing to share their pregnancy experiences and had a specific interest in the study topic might not represent the broader population.

The small sample size also limits the representation of the population and the generalizability of the findings. Low participation rates among certain groups, such as those with emotionally challenging pregnancies, and difficulty accessing specific demographics, such as adults conceived through IVF, contributed to this issue. Future research should aim to address these limitations by increasing the sample size and incorporating underrepresented groups, thus enhancing the inclusivity and robustness of the study's findings.

Moreover, the study had a significant non-completion rate, with many mothers dropping out, possibly due to the personal nature of the questions. Considering that the questions in the study revolved around highly personal and emotionally charged aspects of the relationship between participants and their

mothers during the earliest stages, it may have been triggering for those experiencing difficulties in this aspect, leading them to withdraw from the study. Consequently, conducting the study with mother-child pairs may suggest that participating pairs represent a more select group, possibly characterized by mothers who are willing to discuss their pregnancy experiences openly, alongside children who are close enough to participate in research alongside their mother. The study may not accurately represent all mother-child pairs, particularly those who experienced unwanted or difficult pregnancies. This introduces bias, as the sample might not reflect the broader population's experiences. Future research may try to include those groups that present greater challenges in terms of accessibility.

Mothers were concerned about the confidentiality of their information, which may have influenced their willingness to share openly. Particularly, participants may have had difficulties openly sharing their emotional states during pregnancy and their attitudes toward the baby.

The study relied on self-reports for information on prematurity, complications, and birth methods, rather than comprehensive medical records. Access to more detailed medical data and a larger sample size would provide better insights into the impact of medical-risk factors.

A broadly exploratory research approach was adopted to investigate research questions that have not previously been studied in depth because of the scarcity of empirical research from a psychoanalytic perspective. Using qualitative methods, such as in-depth interviews, case analysis, and projective measures, could provide a richer understanding of the relationship between early experiences and adult psychological development and capture unconscious materials. Using self-report measures might not fully capture unconscious processes related to separation-individuation, which is another limitation of the current study.

The study's reliance on retrospective reports and the subjective nature of emotional experiences introduces potential biases. Additionally, considering that negative emotions felt during pregnancy are generally more difficult to share, and that some mothers indicated they did not feel any negative emotions, which might not fully capture their true experiences, this method of measuring the mother's

emotions might be inadequate in capturing unconscious and ambivalent feelings the mother may have experienced.

The Pathological Separation (PATHSEP) scale by Christenson and Wilson (1985) is widely used to assess problematic separation-individuation and it has been employed in this study as well. However, all its subscales were found to converge around a single factor, which could pose a limitation in this study as it might limit the opportunity to assess the potential reflections of biological birth processes on separation-individuation. Future research could benefit from employing the Separation-Individuation Test of Adolescence (SITA; Levine et al., 1986) for a more comprehensive examination. The SITA includes specific scales, such as nurturance-symbiosis and separation anxiety, targeting dysfunctional dependence, while others, like engulfment anxiety and dependency denial, address dysfunctional independence, offering a nuanced assessment.

The discrepancies between maternal reports and children's perceptions underscore the importance of considering both objective and subjective data. Certain questions were directed only to mothers, not to child participants. This disparity led to deficiencies in the comparative analysis. Specifically, mothers were questioned about any psychiatric or health challenges they encountered before, during, or after pregnancy, whereas children were not asked about their awareness of such issues their mothers may have faced. Additionally, while mothers were asked about how much they desired the baby both before becoming pregnant and after learning about their pregnancy, child participants were only asked about their perception of how much their mothers desired the baby after learning about the pregnancy. We acknowledge this limitation and apologize for the oversight in the data collection process.

CONCLUSION

This study aimed to investigate the effects of prenatal experiences on personality development and relational patterns in adulthood from a psychodynamic perspective. For this purpose, separation-individuation as a psychoanalytic concept was used. Most findings were in line with the existing literature in that some of the prenatal experiences had a significant association with individual's personality development and relational dynamics. These experiences, involving the initial physical symbiotic relationship and subsequent physical separation, were found to have some reverberation on the later separation and individuation processes. This study found that maternal negative attitudes during pregnancy, the presence of adverse circumstances such as trauma, and traumatic birth experiences have a relationship with the later psychological development of the infant. On the other hand, in this study, various factors such as mother's desire for the baby, the intentionality of the pregnancy, factors related to the conception, and birth timing were not found to be significantly associated with separation-individuation related difficulties. In sum, findings suggests that the cumulative number of events deemed negative, such as birth-related difficulties and composite of adversities, was found significantly associated with the separation-individuation related difficulties. Additionally, the mother's emotional state, especially feelings of guilt, and the child's perception of the mother's emotional narratives were found significantly related to the separation-individuation issues. Findings seem to support the psychoanalytic theory and existing literature on the prenatal psychology that there is continuity between intrauterine life and extrauterine life. In cases where the results did not align with the literature or did not support this continuity, such as lacking the association of pre-pregnancy loss history, desire for the baby, fetal threats including abortion attempts and miscarriage risks, and birth complications with the separation-individuation problems in adulthood, the observable mean differences still suggest the importance of the continuity between the intrauterine environment and later developmental trajectories as highlighted in the literature. However, the generalizability of the results is constrained by the

limited number and diversity of participants. This study underscores the significance of comprehending prenatal influences on psychological outcomes and contributes to the broader field by highlighting the possible enduring impact of early experiences on personality and relational patterns. Due to the explorative and quantitative nature of the study, future research employing qualitative methods such as case analysis is needed to capture unconscious dynamics and deepen our understanding of prenatal influences on adult psychological development.



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APPENDICES

Appendix A: Informed Consent Form

BİLGİLENDİRİLMİŞ ONAM FORMU

Sayın Katılımcı,

Bu araştırma İstanbul Bilgi Üniversitesi Klinik Psikoloji Yüksek Lisans Programı öğrencisi Asya Kabadayı tarafından, Dr. Öğr. Üyesi Alev Çavdar danışmanlığında, yüksek lisans tez çalışması kapsamında yürütülmektedir. Bu çalışmanın amacı hamile kalma yöntemlerinin, annenin gebeliğe karşı tutumunun ve doğum sürecinin yetişkinlik dönemine yansıyan kişilik üzerindeki etkilerini psikodinamik açıdan incelemektir.

Çalışma anne-çocuk çiftleri ile yürütülmektedir. Çalışma kapsamında annelerin ve yetişkin çocuklarının ayrı ayrı çeşitli anketler doldurması istenecektir. Çalışmada yer alan soruları birbirinizden bağımsız bir şekilde yanıtlamanız beklenmektedir. Ankette sizden kimlik belirleyici hiçbir bilgi istenmemektedir. Cevaplarınız tamamıyla gizli tutulacak, tüm veriler araştırmacılar tarafından grup olarak değerlendirilecek ve sadece bilimsel yayın amacıyla kullanılacaktır.

Bu araştırmaya katılım tamamen gönüllülük esasına dayanmaktadır. Anketlerde kişisel rahatsızlık verecek sorular bulunmamaktadır ancak katılım sırasında sorulardan ya da herhangi başka bir nedenden ötürü kendinizi rahatsız hissederseniz çalışmayı yarıda bırakabilirsiniz. Çalışmanın amacına ulaşması için sizden ricamız tüm soruları eksiksiz ve içtenlikle yanıtlamanızdır. Tüm soruların cevaplanması yaklaşık olarak 20-25 dakika sürmektedir.

Çalışma hakkında herhangi bir sorunuz olması halinde Asya Kabadayı ile iletişime geçebilirsiniz.

Araştırmamıza katkıda bulunduğunuz için teşekkür ederiz.

Yukarıda verilen bilgiler doğrultusunda araştırmaya katılmayı kabul ediyorum.

Appendix B: Separation-Individuation Scale

Açıklama: Aşağıdaki cümleler genel olarak insanlarla ve kendimizle ilgili düşüncelerimizi yansıtmaktadır. Her ifadeyi aşağıda verilen 10 dereceli ölçeği kullanarak değerlendiriniz. Lütfen hiçbir soruyu boş bırakmayınız.

Hiç Katılmıyorum 1 2 3 4 5 6 7 8 9 10 Tamamen Katılıyorum

1. İnsanlar birine gerçekten çok değer verip bağlandığında, sıklıkla kendileri hakkında daha kötü hissederler.
2. Bir kişi, başka birine duygusal olarak aşırı yakınlaştığında, çoğu zaman kendini kaybolmuş hisseder.
3. İnsanlar birine gerçekten öfkелendiğinde genelde kendilerini değersiz hisseder.
4. İnsanların birine karşı duygusal olarak çok fazla yakınlaşmaya başladıkları zaman, büyük bir olasılıkla incinmeye en açık oldukları zamandır.
5. İnsanlar zarar görmemek için başkaları üzerindeki kontrolü elinde tutmaya ihtiyaç duyar.
6. İnsanları tanıdıkça değişmeye başladıklarını hissederim.
7. Hem iyi hem kötü yanlarımı aynı anda görebilmek benim için kolaydır.
8. Bana öyle geliyor ki insanlar benden ya gerçekten hoşlanıyor ya da nefret ediyorlar.
9. İnsanlar bana karşı çoğu zaman sanki ben yalnızca onların her isteğini yerine getirmek için oradaymışım gibi davranıyor.
10. Kendimden gerçekten hoşlanmak ile kendimi hiç beğenmemek arasında ciddi anlamda gidip geliyorum.
11. Kendi başıma olduğumda bir şeylerin eksik olduğunu hissederim.
12. İçimde bir boşluk hissetmemek için etrafımda başka insanların olmasına ihtiyaç duyarım.

13. Başka biriyle aynı fikirde olduğumda bazen kendime ait bir parçamı kaybetmiş gibi hissedirim.
14. Herkes gibi ben de, ne zaman gerçekten saygı duyduğum ve hürmet ettiğim biriyle karşılaşsam kendimi daha kötü görürüm, kendimle ilgili daha kötü hissedirim.
15. Kendimi ayrı bir birey olarak görmek benim için kolaydır.
16. Anne babamdan ne kadar farklı olduğumu fark ettiğim zamanlarda çok rahatsızlık duyarım.
17. Önemli bir karar almadan önce neredeyse her zaman anneme danışırım.
18. Diğer insanlarla bağlılık kurup bunun gereklerini yerine getirmek benim için oldukça kolaydır.
19. Duygusal yönden biriyle yakınlaştığımda ara sıra kendime zarar veriyormuşum gibi hissediyorum.
20. Ya birini çok sevdiğimi ya da kimseye katlanamadığımı hissediyorum.
21. Sıklıkla, düşmekle ilgili beni korkutup tedirgin eden rüyalar görürüm.
22. Gözlerimi kapatıp, benim için anlamı olan kişileri zihnimde canlandırmak bana zor geliyor.
23. Birden fazla kere nasıl ya da neden olduğunu anlayamadığım şekilde, uykudan uyanır gibi kendimi biriyle bir ilişkide buldum.
24. Kabul etmeliyim ki kendimi yalnız hissettiğimde çoğunlukla sarhoş olmak isterim.
25. Ne zaman biriyle kavgalı ya da birine çok kızgın olsam kendimi değersiz hissedirim.
26. En derin düşüncelerimi söyleyip paylaşacak olsaydım içimde bir boşluk hissederdim.
27. İnsanların benden hep nefret edermiş gibi olduklarını hissedirim.

28. Anne-babama ne kadar çok benzediğimi fark ettiğim zamanlarda kendimi çok rahatsız hissediyorum.
29. Biriyle yakın bir ilişki içinde olduğumda sıklıkla kim olduğum duygusunun kaybolduğunu hissedirim.
30. Başkalarını aynı anda hem iyi hem kötü özelliklere sahip insanlar olarak görmek benim için zordur.
31. Bana öyle geliyor ki kendim olabilmenin tek yolu diğerlerinden farklı olmaktır.
32. Duygusal açıdan birine aşırı yakınlaştığımda, benliğimin bir parçasını kaybettiğimi hissediyorum.
33. Ne zaman ailemden uzakta olsam kendimi çok rahatsız hissediyorum.
34. Fiziksel yakınlığı ve şefkati almak, kendi başına, onu bana kimin verdiğinden daha önemliymiş gibi olabiliyor.
35. Bir başka insanı gerçekten iyi tanımak bana zor geliyor.
36. Bir karar vermeden önce annemin onayını almak benim için önemlidir.
37. İtiraf etmeliyim ki, başka birinin kusurlarını gördüğümde kendimi daha iyi hissediyorum.
38. Diğer insanları yanımda tutabilmek için, içimde onları kontrol etme dürtüsü duyarım.
39. İtiraf etmeliyim ki birine duygusal olarak yakınlaştığımda, bazen onlara acı çektirme isteği duyarım.

Appendix C: Demographic Information Form for Children

Demografik Form: (ÇOCUK)

Sayın katılımcı,

Bu çalışma anne-çocuk çiftleri ile yürütülmektedir. Anket formlarınızın başka formlarla karışmaması için sizden anne-çocuk olarak ortak bir rumuz belirlemenizi rica ediyoruz. Annelerin ve yetişkin çocuklarının anket formlarını eşleştirebilmemiz için her anne-çocuk çiftinin aynı rumuzu kullanması gerekmektedir. Başka anne-çocuk çiftleriyle aynı rumuzun belirlenmesi ihtimaline karşın ayırıcı olabilmesi adına annenizin ve kendinizin adının ve soyadının yalnızca baş harflerini belirtmenizi rica ediyoruz.

Soruları annenizle ile konuşmadan yanıtlamanızı, annenizin de diğer linke tıklayarak ve aynı rumuzu kullanarak soruları yanıtladığından emin olmanızı rica ederiz.

Rumuz: ____ (örn: Yıldız1, Çiçek)

Kendi adınızın ve soyadınızın baş harfleri: (örn. MNY)

Annenizin adının ve soyadının baş harfleri: (örn. FY)

A. Kişisel Bilgiler

1. Yaşınız: ____
2. Medeni Haliniz:
 - Evli
 - Bekar
 - Diğer
3. İlişki durumunuz
 - İlişkim yok
 - İlişkim var
 - Diğer

4. Lütfen en son bitirdiğiniz okulu işaretleyiniz.
- İlköğretim
Lise
Üniversite - Lisans
Üniversite - Yüksek Lisans/Doktora
Diğer
5. Çalışıyor musunuz?
- Evet
Hayır
6. Çalışıyorsanız mesleğiniz nedir? _____
7. Gelir seviyenizi aşağıdakilerden hangisi olarak tanımlarsınız?
- Alt
Alt-Orta
Orta
Orta-Üst
Üst
8. Şu anda kiminle yaşıyorsunuz?
- Anne/Baba/Kardeş
Eş ve/veya çocuklar
Arkadaş/Akraba
Yalnız
Diğer: _____
9. Çocuğunuz var mı?
- Evet
Hayır

B. Sağlık Bilgileri

1. Herhangi bir hastalığınız veya fiziksel şikayetiniz var mı?
- Evet
Hayır
Evet ise lütfen belirtiniz: _____

Evet ise, bu sađlık probleminin g nl k hayatınızı ne oranda zorlařtırdığını deęerlendiriniz (0 Hi  zorlařtırmadı – 10  ok fazla zorlařtırdı)

2. Psikolojik/psikiyatrik bir hastalıęınız/řikayetiniz var mı veya daha  nce ge irdiniz mi?

Evet

Hayır

Evet ise l tfen belirtiniz: _____

Evet ise, bu psikolojik/psikiyatrik hastalıęınızın/řikayetinizin sizi ne oranda zorlařtırdığını deęerlendiriniz (0 Hi  zorlařtırmadı – 10  ok fazla zorlařtırdı)

Evet ise bu konuda bir yardım alıyor musunuz veya daha  nce aldınız mı?

Alıyorum

Aldım, bitti

Almadım

Dięer: _____

C. Aile Bilgileri

Ařaęıda annenizin size gebe kalmadan  nceki ve gebelik d nemi boyunca tutumlarına ve duygularına dair sorular bulunmaktadır. Bu soruları bildięiniz, bu zamana kadar ailenizden duyduęunuz bilgilere g re yanıtlayınız. **Sizden ricamız  alıřma boyunca bu soruların yanıtlarını annenize veya herhangi birine sormadan yanıtlamanız.** Eęer soruların yanıtlarını bilmiyorsanız veya emin deęilseniz buna uygun se eneęi iřaretleyiniz.

1. Annenizin size hamilelięi planlı mıydı?

Evet

Hayır

Bilmiyorum

2. Anneniz size hamilelięini  ğrendikten sonra istenen bir bebek miydiniz? (0 Hi  istemiyordu – 10  ok fazla istiyordu); Bilmiyorum

3. Anneniz size hamilelięini sonlandırmayı hi  d ř nm ř m ?

Evet

Hayır

Bilmiyorum

4. Annenizin anlatılarını düşündüğünüzde, size gebelik döneminden nasıl bahsederdi? (0 Çok olumsuz bahsederdi - 10 Çok olumlu bahsederdi)
5. Annenizin size olan gebeliğine dair anlatılarının sizi nasıl etkilediğini düşünüyorsunuz? 0 Çok olumsuz etkiledi - 10 Çok olumlu etkiledi)

D. Gebe Kalma Yöntemi ve Etkileri

1. Anneniz hangi yöntem ile size gebe kaldı?

Doğal yollarla

Yardımcı üreme teknikleri (Intrauterin İnseminasyon (IUI), In Vitro Fertilizasyon (IVF) vb.)

Bilmiyorum

2. Bu yöntemin sizi nasıl etkilediğini düşünüyorsunuz? (0 Çok olumsuz etkiledi - 10 Çok olumlu etkiledi)

E. Düşük/Kürtaj/Travma Bilgileri

1. Annenizin size gebe kalmadan önce kürtaj geçirdi mi?

Evet

Hayır

Bilmiyorum

2. Annenizin size gebeliği boyunca kürtaj teşebbüsü oldu mu?

Evet

Hayır

Bilmiyorum

3. Annenizin size gebe kalmadan önce düşük yaşadı mı?

Evet

Hayır

Bilmiyorum

4. Anneniz size gebeliği boyunca herhangi bir düşük tehlikesi yaşanmış mı?

Evet

Hayır

Bilmiyorum

5. Annenizin size gebeliği boyunca yaşadığı travmatik bir olay var mı? (Bir yakının kaygı, doğal afet vb.)

Evet

Hayır

Bilmiyorum

Evet ise belirtiniz: _____

F. Doğum Süreci

1. Doğumunuz beklenen zamanda mı gerçekleşmiş?

Beklenen zamanda

Erken doğum

Zamanından geç doğum

Bilmiyorum

2. Hangi yöntemle doğduğunuzu belirtiniz.

Normal doğum – İlaç desteksiz

Normal doğum – İlaç destekli

Planlanmış sezaryen

Planlanmamış sezaryen (zorunlu)

Diğer: _____

Bilmiyorum

3. Doğum sürecinizde herhangi bir komplikasyon gelişti mi? (Birden çok seçebilirsiniz)

Hayır

Kordonla ilgili anormal durumlar (sarkma, dolanma, düğüm vb.)

Omuz distosisi (omuz takılması)

Akut fetal distres (bebeğin kalp seslerinin yavaşlaması)

Bebeğin oksijensiz kalması

Bebeğin doğum kanalına sıkışması

Bebekte duruş anomalisi

Rahimin yırtılması

Anesteziye bağlı komplikasyonlar

Doğum sonrası enfeksiyon

Diğer: ____
Bilmiyorum



Appendix D: Demographic Information Form for the Mothers of the Participants

Demografik Form: (ANNE)

Sayın katılımcı,

Bu çalışma anne-çocuk çiftleri ile yürütülmektedir. Birden fazla çocuğunuz varsa lütfen yalnızca biri ile çalışmaya katılın ve **tüm soruları aynı çocuğunuzu düşünerek yanıtlayın.**

Anket formlarınızın başka formlarla karışmaması için sizden anne-çocuk olarak ortak bir rumuz belirlemenizi rica ediyoruz. Annelerin ve yetişkin çocuklarının anket formlarını eşleştirebilmemiz için her anne-çocuk çiftinin aynı rumuzu kullanması gerekmektedir. Başka anne-çocuk çiftleriyle aynı rumuzun belirlenmesi ihtimaline karşın ayırıcı olabilmesi adına kendinizin ve çocuğunuzun adının ve soyadının yalnızca baş harflerini belirtmenizi rica ediyoruz.

Soruları **çocuğunuz ile konuşmadan yanıtlamanızı**, çocuğunuzun da diğer linke tıklayarak ve aynı rumuzu kullanarak soruları yanıtladığından emin olmanızı rica ederiz.

Rumuz: ____ (örn: Yıldız1, Çiçek)

Çocuğunuzun adının ve soyadının baş harfleri (örn. MNY)

Kendi adınızın ve soyadınızın baş harfleri (örn: FY)

A. Kişisel Bilgiler

Yaşınız: ____

Medeni Haliniz:

Evli

Bekar

Diğer

İlişki durumunuz

İlişkim yok

İlişkim var

Diğer

Lütfen en son bitirdiğiniz okulu işaretleyiniz.

İlköğretim

Lise

Üniversite - Lisans

Üniversite - Yüksek Lisans/Doktora

Diğer

Çalışıyor musunuz?

Evet

Hayır

Çalışıyorsanız mesleğiniz nedir? _____

Gelir seviyenizi aşağıdakilerden hangisi olarak tanımlarsınız?

Alt

Alt-Orta

Orta

Orta-Üst

Üst

Şu anda kiminle yaşıyorsunuz?

Anne/Baba/Kardeş

Eş ve/veya çocuklar

Arkadaş/Akraba

Yalnız

Diğer: _____

Kaç çocuğunuz var? _____

İkiz çocuklarınız var mı?

Evet

Hayır

Bu araştırmaya katıldığınız çocuğunuz ikiz çocuklarınızdan biri mi?

Evet

Hayır

Bu araştırmaya birlikte katıldığınız çocuğunuz doğum sırasına göre kaçınıcı çocuğunuz? ____

Bu araştırmaya birlikte katıldığınız çocuğunuza gebe kaldığınız yaş: ____

Bu araştırmaya birlikte katıldığınız çocuğunuza gebe kaldığınız dönemde babasıyla ilişkinizi belirtiniz.

Evliydim

Sevgilimdi

Ayrıydık / boşanmışım

İlişkim yoktu

Diğer: ____

B. Sağlık Bilgileri

1. Bu araştırmaya birlikte katıldığınız çocuğunuza **gebe kalmadan önce** herhangi bir hastalığınız veya fiziksel şikayetiniz var mıydı?

Evet

Hayır

Evet ise lütfen belirtiniz: ____

2. Bu araştırmaya birlikte katıldığınız çocuğunuza **gebe kaldığınız dönemde** herhangi bir hastalığınız veya fiziksel şikayetiniz var mıydı?

Evet

Hayır

Evet ise lütfen belirtiniz: ____

Evet ise, bu sağlık probleminin gebelik boyunca günlük hayatınızı ne oranda zorlaştırdığını değerlendiriniz. (0 Hiç zorlaştırmadı – 10 Çok fazla zorlaştırdı)

3. Doğumdan hemen sonraki dönemde herhangi bir hastalığınız veya fiziksel şikâyetiniz var mı?

Evet

Hayır

Evet ise lütfen belirtiniz: ____

4. Bu araştırmaya birlikte katıldığınız çocuğunuza **gebe kalmadan önce** psikolojik/psikiyatrik bir hastalığınız/şikâyetiniz var mıydı?

Evet

Hayır

Evet ise lütfen belirtiniz: _____

5. Bu araştırmaya birlikte katıldığınız çocuğunuza **gebe kaldığınız dönemde** psikolojik/psikiyatrik bir hastalığınız/şikâyetiniz var mıydı?

Evet

Hayır

Evet ise lütfen belirtiniz: _____

Evet ise, bu psikolojik/psikiyatrik hastalığınız/şikâyetiniz gebelik boyunca günlük hayatınızı ne oranda zorlaştırdığını değerlendiriniz. (0 Hiç zorlaştırmadı – 10 Çok fazla zorlaştırdı))

6. Doğumdan hemen sonraki dönemde herhangi bir psikolojik/psikiyatrik hastalığınız/şikâyetiniz var mı?

Evet

Hayır

Evet ise lütfen belirtiniz: _____

7. Hamileliğiniz boyunca herhangi bir travmatik olay yaşadınız mı? (Bir yakınınızın kaybı, doğal afet vb.)

Evet

Hayır

Evet ise belirtiniz: _____

C. Gebeliğe Dair Tutumlar

Aşağıdaki soruları bu araştırmaya birlikte katıldığınız çocuğunuza hamile kalma sürecinizi düşünerek yanıtlayınız.

1. Hamileliğiniz planlı mıydı?

Evet

Hayır

2. Ne kadar süre gebe kalmayı denediniz?

6 aydan az

6 ay - 1 yıl

1 yıldan çok

Bilmiyorum/Hatırlamıyorum

Diğer: _____

3. Gebe kalmayı denediğinizin sürecin o dönemki hayatınızı ne kadar zorlaştırdığını düşünüyorsunuz? (0 Hiç zorlaştırmadı – 10 Çok fazla zorlaştırdı)

4. Hamileliğinizi öğrenmeden önce bebek sahibi olmayı ne kadar istiyordunuz? (0 Hiç istemiyordum – 10 Çok fazla istiyordum)

5. Hamileliğinizi öğrendikten sonra bebek sahibi olmayı ne kadar istediniz? (0 Hiç istemiyordum – 10 Çok fazla istiyordum)

6. İnsan hamile olduğunu öğrendiğinde olumlu ve olumsuz birçok duygu hissedebilir. Sizden ricamız çalışmaya birlikte katıldığınız çocuğunuza **hamile kaldığınızı öğrendiğinizde** aşağıdaki duyguların her birini ne düzeyde hissettiğinizi 1 (Hiç) ile 7 (Çok fazla) aralığında bir sayı vererek değerlendirmeniz.

	0	1	2	3	4	5	6	7	8	9	10
Heyecan/Coşku											
Mutluluk											
Umut											
Minnet											
Öfke											
Hayal kırıklığı											
Kaygı/Korku											
Üzüntü											
Utanç											
Suçluluk											
Diğer:											

7. Hamilelik süreci boyunca birbirine zıt duyguların aynı anda yaşanması ve/veya duygusal dalgalanmalar normal tepkilerdir. Sizden ricamız çalışmaya birlikte katıldığınız çocuğunuza **hamilelik sürecinizi tamamını düşündüğünüzde** aşağıdaki duyguların her birini ne düzeyde hissettiğinizi 1 (Hiç) ile 7 (Çok fazla) aralığında bir sayı vererek değerlendirmeniz.

	0	1	2	3	4	5	6	7
				8	9	10		
Heyecan/Coşku								
Mutluluk								
Umut								
Minnet								
Öfke								
Hayal kırıklığı								
Kaygı/Korku								
Üzüntü								
Utanç								
Suçluluk								
Diğer:								

8. Hamile kaldığınızı öğrendikten sonra sonlandırmayı düşündünüz mü?

Evet

Hayır

Diğer: ____

9. Gebeliğiniz boyunca kürtaj teşebbüsünüz oldu mu?

Evet

Hayır

10. Bu araştırmaya birlikte katıldığınız çocuğunuza gebeliğiniz boyunca düşük tehlikesi yaşadınız mı?

Evet

Hayır

D. Gebe Kalma Yöntemi ve Etkileri

Aşağıdaki soruları bu araştırmaya birlikte katıldığınız çocuğunuza gebe kalma yöntemlerinizi düşünerek yanıtlayınız.

1. Hangi yöntem ile gebe kaldınız?

Doğal yollarla

Yardımcı üreme teknikleri (İntrauterin İnseminasyon (IUI), In Vitro Fertilizasyon (IVF) vb.)

2. Hangi tekniği kullandınız?

In Vitro Fertilizasyon (IVF) - Dondurulmuş Embriyo Transferi

In Vitro Fertilizasyon (IVF) - Taze Embriyo Transferi

Mikroenjeksiyon (ICSI)

Aşılama - İntrauterin İnseminasyon (IUI)

Destekli Yuvalama (Assisted Hatching)

Diğer (lütfen belirtiniz): _____

3. Yardımcı üreme tekniklerine başvurmadan önce ne kadar süre gebe kalmayı denediniz?

6 aydan az

6 ay - 1 yıl

1 yıldan çok

Bilmiyorum / Hatırlamıyorum

Diğer: _____

4. Yardımcı üreme teknikleriyle ne kadar süre gebe kalmayı denediniz?

6 aydan az

6 ay - 1 yıl

1 yıldan çok

Bilmiyorum / Hatırlamıyorum

Diğer: _____

5. Yardımcı üreme teknikleriyle kaç başarısız deneme gerçekleşti? (Hiç başarısız deneme olmadıysa 0 olarak belirtiniz.)

6. Bu yardımcı üreme tekniğini kullanmanın, o dönem hayatınızı ne oranda zorlaştırdığını düşünüyorsunuz? (0 Hiç zorlaştırmadı – 10 Çok fazla zorlaştırdı)
7. Yukarıda belirtilenler dışında, sizce bu tekniği kullanmak sizi nasıl etkiledi? Kısaca açıklayınız.
-

E. Düşük/Kürtaj Bilgileri

Aşağıdaki soruları bu araştırmaya birlikte katıldığınız çocuğunuza gebe kalmadan önceki süreci düşünerek yanıtlayınız.

1. Bu araştırmaya birlikte katıldığınız çocuğunuza gebe kalmadan önce kürtaj geçirdiniz mi?
Evet
Hayır
2. Evet ise lütfen geçirdiğiniz kürtaj sayısını belirtiniz: _____
3. Bu araştırmaya birlikte katıldığınız çocuğunuza gebe kalmadan önce düşük yaşadınız mı?
Evet
Hayır
4. Evet ise lütfen geçirdiğiniz düşük sayısını belirtiniz: _____
5. Bu araştırmaya birlikte katıldığınız çocuğunuza gebe kalmadan önce vefat eden bir çocuğunuz oldu mu?
Evet
Hayır
6. Gebeliğinizin ikiz başlaması ve birini kaybettiğiniz bir durum yaşadınız mı?
Evet
Hayır
7. Yukarıda belirtilenler dışında belirtmek istediklerinizi lütfen kısaca yazınız.

F. Doğum Süreci

Aşağıdaki soruları bu araştırmaya birlikte katıldığınız çocuğunuzun doğum sürecini düşünerek yanıtlayınız.

1. Doğum beklenen zamanda mı gerçekleşti?
Beklenen zamanda

Erken doğum

Zamanından geç doğum

2. Doğum yöntemini belirtiniz. (*Birden çok seçim yapabilirsiniz.*)

Normal doğum – İlaç desteksiz

Normal doğum – İlaç destekli

Planlanmış sezaryen

Planlanmamış sezaryen (zorunlu)

Diğer: ____

3. Sizce bu doğum yöntemi bebeğinizin ilk günlerinde onunla olan ilişkinizi nasıl etkiledi? (0 Oldukça olumsuz etkiledi – 10 Oldukça olumlu etkiledi)

4. Doğum sürecinde herhangi bir komplikasyon gelişti mi? (*Birden çok seçim yapabilirsiniz.*)

Hayır

Kordonla ilgili anormal durumlar (sarkma, dolanma, düğüm vb.)

Omuz distosisi (omuz takılması)

Akut fetal distress (bebeğin kalp seslerinin yavaşlaması)

Bebeğin oksijensiz kalması

Bebeğin doğum kanalına sıkışması

Bebekte duruş anomalisi

Rahimin yırtılması

Anesteziye bağlı komplikasyonlar

Doğum sonrası enfeksiyon

Bilmiyorum

Diğer: ____

5. Sizce bu komplikasyonlar bebeğinizin ilk günlerinde onunla olan ilişkinizi nasıl etkiledi? (0 Oldukça olumsuz etkiledi – 10 Oldukça olumlu etkiledi)

Appendix E: Ethics Board Approval

Ethics Board Approval is available in the printed version of this dissertation.

