



UCAM

UNIVERSIDAD CATÓLICA
DE MURCIA

ESCUELA INTERNACIONAL DE DOCTORADO
Programa de Doctorado Ciencias de la Salud

Exploration of childhood influences on the development of
first-time mothers' prenatal parenting expectations

Autora:

Nour Mohsen Zaki

Directores:

Dr. Jorge López Puga

Dr. Ana María Ruiz-Ruano García

Dr. Arthur Becker-Weidman

Murcia, Junio de 2020



UCAM

UNIVERSIDAD CATÓLICA
DE MURCIA

ESCUELA INTERNACIONAL DE DOCTORADO
Programa de Doctorado Ciencias de la Salud

Exploration of childhood influences on the development of
first-time mothers' prenatal parenting expectations

Autor:

Nour Mohsen Zaki

Directores:

Dr. Jorge López Puga

Dr. Ana María Ruiz-Ruano García

Dr. Arthur Becker-Weidman

Murcia, Junio de 2020



UCAM

UNIVERSIDAD CATÓLICA
DE MURCIA

AUTHORIZATION OF THE THESIS DIRECTORS FOR SUBMISSION

Prof. Dr. Jorge López Puga, Prof. Dr. Ana María Ruiz-Ruano García and Dr. Arthur Becker-Weidman as directors of the doctoral thesis “Exploration of childhood influences on the development of first-time mothers’ prenatal parenting expectations” by Nour Zaki in the Departamento de Ciencias de la Salud, **authorize for submission since it has the conditions necessary for the defense.** Signed in compliance with the Royal Decrees 99/2011, 1393/2007, 56/2005 and 778/98 on the 31st of May 2020.

Dr. Jorge López Puga

Dr. Ana María Ruiz-Ruano García

Dr. Arthur Becker-Weidman

ACKNOWLEDGMENTS

I would like to thank Amina and Malak, my beautiful twin girls, who have taught me more in the past couple of years than I learned in my whole life. Thank you for being the inspiration behind my research and everything I do. You were part of every single step of this research with me, before I even knew you existed.

I would like to thank my wonderful supportive husband, Hassouny. I don't know how I could have done this without your continuous support. You are my greatest blessing in life and my all-time favorite supporter.

Thank you to my parents for doing everything they could, every step of the way. You have been the most influential teachers in my life, in more ways than you can imagine.

A special thank you to Mariam Fishere who always believed in me and helped me see the light at the end of the tunnel when this research seemed impossible at many points.

I would like to thank my PhD supervisors for their continuous guidance and academic support. I would also like to thank professionals in the field who inspired my passion and empowered my academic development in many ways, including Dr. Arthur Becker-Weidman, Mary-Jo Land, , and Dr. Ronald Rohner. I want to thank Dr. Mona Amer, the chair of the Psychology Department at the American University in Cairo (AUC), for facilitating my international research stay. I want to particularly thank Dr. Hassan Zaky who supervised my research stay at AUC and has been very supportive and encouraging throughout this journey. Thank you to the Psychology Department at AUC who has been a second home for me as an undergraduate, graduate, alumnus, Scholar without a Stipend, and adjunct faculty. And a very special thank you goes to Dr. Yasmine Saleh who has been my mentor and role model since 2013 and inspired me in more ways than I can explain.

Last but definitely not least, I would like to thank the participants who kindly agreed to taking part in my study and without whom this study would not have been possible. Thank you for being patient enough with my not-so-fluent Spanish throughout the process. Of course, I will never forget Dr. Marisa, Dr.

Joseli, Delia, Fatima, and the nurses at Hospital Virgen de Arrixaca for all their help and support throughout the data collection process. I also wish to express my gratitude to Ghada Hossam who spent countless hours patiently teaching me Spanish at the very beginning of this journey.

PREAMBLE

This topic has always intrigued me and has been a significant part of my personal journey. My hope is for this thesis to shed light on overlooked factors that are likely to become salient during pregnancy. And I truly wish for this research to speak to many individuals, as I certainly know it directly spoke to me, in so many ways that I am truly grateful for.

TABLE OF CONTENTS

AUTHORIZATION OF THESIS DIRECTORS FOR SUBMISSION	
ACKNOWLEDGMENTS	
PREAMBLE	
INDEX OF FIGURES	13
INDEX OF TABLES	14
INDEX OF APPENDICES	15
ABSTRACT	16
RESUMEN	17
CHAPTER I: INTRODUCTION	19
1.1. WHY WOMEN CHOOSE TO BECOME MOTHERS	21
1.2. MOTHER AS THE “VARIABLE” OF INTEREST	22
1.3. RESEARCH PROBLEM	24
1.4. SIGNIFICANCE OF THE CURRENT STUDY	26
CHAPTER II: THEORETICAL FRAMEWORK	31
2.1. PRENATAL AND PERINATAL PSYCHOLOGY	33
2.2. ATTACHMENT THEORY	36
2.3. CAREGIVING SYSTEM	40
2.3.1. Function of the caregiving system	41
2.3.2. Sources of the caregiving system	42
2.3.3. Development of the caregiving system	43
CHAPTER III: LITERATURE REVIEW	47
3.1. PARENTING REPRESENTATIONS	49
3.1.1. Parenting representations: before having a baby	50
3.1.2. Parenting representations: during pregnancy	57
3.1.3. Parenting representations: mothering behavior	61
3.2. INTERGENERATIONAL TRANSMISSION OF ATTACHMENT	64
3.2.1. Evidence for	65
3.2.2. Evidence against	66
CHAPTER IV: OBJECTIVES AND HYPOTHESES	71

4.1. RESEARCH OBJECTIVES	73
4.2. RESEARCH QUESTIONS	73
4.3. RESEARCH HYPOTHESES	74
CHAPTER V: METHODOLOGY	77
5.1. RESEARCH DESIGN	79
5.2. MEASURES	79
5.2.1. Demographic questionnaire	79
5.2.2. Relationship Questionnaire (RQ)	79
5.2.3. Parental Bonding Instrument (PBI)	81
5.2.4. Desire to Have Children (DTC)	82
5.2.5. Perceived Ability to Relate to Children (PARC)	83
5.2.6. Meaning ascribed to motherhood	83
5.2.7. Pregnancy Preoccupations Scale (PPS)	84
5.3. PARTICIPANTS	84
5.3.1. Sample recruitment & criteria	84
5.3.2. Sample description	85
5.4. PROCEDURES	87
5.5. PILOT STUDY	89
5.6. STATISTICAL ANALYSIS	90
CHAPTER VI: RESULTS	91
6.1. RESULTS FOR RESEARCH QUESTION (A)	94
6.2. RESULTS FOR RESEARCH QUESTION (B)	96
6.3. OTHER STATISTICAL ANALYSES	97
6.4. MULTIPLE REGRESSION MODELS	98
6.5. MEDIATION ANALYSIS	99
CHAPTER VII: DISCUSSION	107
CHAPTER VIII: LIMITATIONS & FUTURE LINES OF RESEARCH	115
CHAPTER IX: CONCLUSION (English and Spanish)	119
CHAPTER X: REFERENCES	127
CHAPTER XI: APPENDICES	141

INDEX OF FIGURES, TABLES AND APPENDICES

INDEX OF FIGURES

Figure 1. The attachment and caregiving systems	25
Figure 2. Study rationale	30
Figure 3. Classification of attachment styles	42
Figure 4. Classification system of the Relationship Questionnaire	82
Figure 5. Classification system of the Parental Bonding Instrument	84
Figure 6. Procedure of data collection	90
Figure 7. Mediated relationship between relationship satisfaction and negative meaning of motherhood with DTC as the mediator	102
Figure 8. Mediated relationship between attachment styles and negative meaning of motherhood with PARC as the mediator	104
Figure 9. Mediated relationship between attachment styles and preoccupations with PARC as the mediator	106
Figure 10. Directed Aciclyc Graph produced by Tabu algorithm	108

INDEX OF TABLES

Table 1. Correlations between continuous variables of research question (a) ...	96
Table 2. Descriptive statistics for attachment styles & scales	97
Table 3. Correlations between continuous variables of research question (b) ...	98
Table 4. Model summary for mediation analysis 1	103
Table 5. Model summary for mediation analysis 2	105
Table 6. Model summary for mediation analysis 3	107

INDEX OF APPENDICES

Appendix 1. Information sheet	145
Appendix 2. Informed consent form	147
Appendix 3. Questionnaire for data collection	149

ABSTRACT

During the transition to motherhood, the woman is moving from seeking care from her own caregivers to also providing care to her own baby in the near future (i.e. she is becoming an attachment figure herself). This transition may, therefore, be triggering attachment insecurities for some pregnant women – especially those with adverse childhoods. The purpose of this research is to examine the effect of attachment style and how one was parented (represented by parental care, parental over-protection, and parenting style) on parental expectations during the first trimester of pregnancy (represented by the desire to have children (DTC), perceived ability to relate to children (PARC), meaning associated with motherhood, and preoccupations regarding becoming a mother). A sample of 100 Spanish first-time pregnant women was studied. Respondents with a secure attachment style were more likely to have more positive prenatal expectations than the ones with insecure attachment. Secure attachment was related to higher PARC and lower excessive preoccupations regarding motherhood. Insecure attachment, however, was associated with more negative meanings ascribed to becoming a mother. In addition, recollection of higher parental care and lower parental over-protection in childhood were correlated with higher PARC and lower excessive preoccupations regarding motherhood. Optimal parenting was only related to higher perceived ability to relate to children. In this sample, DTC was not found to be related to any of the explanatory variables. These findings shed light on important concepts related to how one's own attachment background can affect caregiving representations and perceptions of the self as a future mother. This theoretical understanding can be directly translated into early psycho-educational, psychotherapy, and prevention initiatives, which can positively impact how women deal with their potentially challenging attachment backgrounds, experience their transition to motherhood in a smoother sense, and help build healthier maternal-infant attachment – which can start from pregnancy.

Keywords: desire to have children (DTC), internal working model of caregiving, perceived ability to relate to children (PARC), prenatal expectations, transition to motherhood

RESUMEN

Durante la transición a la maternidad, la mujer está pasando de buscar la atención de sus propios cuidadores para también brindarle atención a su propio bebé en un futuro cercano (es decir, ella misma se está convirtiendo en una figura de apego). Esta transición puede, por lo tanto, desencadenar inseguridades de apego para algunas mujeres embarazadas, especialmente aquellas con una infancia desafiante. El propósito de esta investigación es examinar el efecto del estilo de apego y cómo fuimos criados (representados por el cuidado parental, la sobreprotección parental y el estilo parental) sobre las expectativas de los padres durante el primer trimestre del embarazo (representados por el deseo de tener hijos (DTC), la capacidad percibida de relacionarse con los niños (PARC), el significado asociado con la maternidad y las preocupaciones con respecto a convertirse en madre). Se estudió una muestra de 100 embarazadas españolas primerizas. Las encuestadas con un estilo de apego seguro eran más propensas a tener representaciones parentales más positivas y expectativas prenatales que aquellas con apego inseguro. El apego seguro se relacionó con mayor PARC y menores preocupaciones excesivas con respecto a la maternidad. El apego inseguro, por otro lado, se asoció con más significados negativos atribuidos a ser madre. Además, el recuerdo de un mayor cuidado parental y una menor sobreprotección parental en la infancia se correlacionó con un mayor PARC y menores preocupaciones excesivas con respecto a la maternidad. La crianza óptima solo se relacionó con una mayor capacidad percibida de relacionarse con los niños. En esta muestra, no se encontró que el DTC esté relacionado con ninguna de las variables explicativas. Estos hallazgos arrojan luz sobre conceptos importantes relacionados con la forma en que los propios antecedentes de apego pueden afectar las representaciones y percepciones de cuidado de sí misma como futura madre. Esta comprensión teórica se puede traducir directamente a las primeras iniciativas psicoeducativas, de psicoterapia y prevención que pueden causar una diferencia significativa en la forma en que las mujeres aceptan sus antecedentes de apego potencialmente desafiantes, experimentan su transición a la maternidad en un sentido más suave y ayudan a construir apego más saludable materno-infantil (que puede comenzar desde el embarazo).

Palabras clave: deseo de tener hijos (DTC transición a la maternidad, expectativas prenatales, modelo interno de trabajo de cuidado,), capacidad percibida de relacionarse con los niños (PARC)

I - INTRODUCTION

I - INTRODUCTION

“Being a mother is learning about strengths you did not know you had, and dealing with fears you did not know existed” – Linda Wooten, author.

The transition to motherhood is often a phase of great joy and novel challenges. Like all life transitions, it is a time rich in depth, layers, and implications. Pregnancy, beside puberty, causes psychological changes more than any other life event. This research focused on this phase of life among first-time mothers through relevant lens of a number of theoretical constructs in an attempt to better understand factors affecting the transition to motherhood and the development of the caregiving system.

Many couples choose to delay having children or not to have children at all. The question of *whether* and *when* to have children is increasingly becoming more an individual choice, rather than an obligation dictated by society (Bjorgo, 2003). Certainly, the degree of such personal freedom varies from one culture to another. However, an increased awareness of contraceptive methods and family planning are making it relatively easier to embark on the journey of parenthood when the couple chooses to.

Nevertheless, statistics show that most women *do* actually become mothers at some point in their lives (Livingston, 2019). Even though most women eventually become mothers, not every woman has an equally strong desire to have children (Rholes, Simpson, & Blakely, 1995), nor does she have the same motivation for it. Both the lack of strong desire and different reasons of having a baby certainly have critical implications on feelings, expectations, meaning-making, and later on, maternal behavior toward the child.

1.1. WHY DO WOMEN CHOOSE TO BECOME MOTHERS?

Other than the apparent reason of mindfully choosing to have a child because one is ready for and looking forward to it, there are different theoretical approaches as to why women may choose to have children. The three most

common theoretical approaches are: (1) biological, (2) sociocultural and (3) psychoanalytic/object-relations approaches. Biological principles suggest that the ultimate aim of parenthood is based on necessity, that is, in terms of species' continuation. In this line of thinking, women are considered predisposed to bear children and care for them. Bjorgo (2003) indicates that sociological theories propose that the desire to have children, the ability to care for them, and the experience of being a mother are created and maintained by the society in which women live in. The psychoanalytic theory looks at motherhood from quite a different perspective. Essentially, it considers an individualistic process of motivation – unlike the other theories. According to Michaels (1988), the focus is usually on the woman's inner conflicts, concerns, as well as possible resentments she may bring to motherhood. Among the motivations to become a mother, reliving the lost relationship with one's mother or having an unconscious wish to replace one's mother by having a baby of her own may be present. According to this line of thought, parenthood *triggers* unresolved conflicts and insecurities that were previously experienced in childhood in relation to one's own mother in childhood. When these conflicts are re-activated, they can potentially be enacted once again. This time, however, in the context of the relationship with one's children. This research is based on the psychoanalytic assumption that motherhood is likely to trigger attachment insecurities and conflicts related to the woman's own childhood.

1.2. MOTHER AS THE "VARIABLE" OF INTEREST

Research studies have mostly focused on parents in terms of how they affect their children (i.e. the parent being the independent variable). The particular interest in the parent as a subject in and of itself is considered relatively recent. The parent's mental world is a complex one. It involves the empirical attempt to assess and understand different layers of parental desires, needs, and doubts. Both parents can be the subject of study in this line of research. However, the focus is often placed on the mother as the primary caregiver in most families. The relatively recent field of study of maternal-infant attachment places a high emphasis on the mother's internal world and how it affects her bonding with the

baby. Other fields of research that have been dedicated to delving into such topics including the psychoanalytic view, the feminist outlook, the social cognition perspective, and *attachment theory* (Mayseless, 2006). For the purposes and scope of this dissertation, the focus is on the attachment perspective of the transition to motherhood.

From an attachment perspective, the relationship between the caregiver and the baby has two directions. In the first one, the baby exhibits attachment behaviors to elicit proximity from the mother. This is related to the baby's *attachment system*. Ideally, the mother responds sensitively to the baby's attachment needs by offering caregiving behaviors that make the baby feel safe and secure. In the second one, the parent's behaviors towards the baby are part of his/her *caregiving system*.

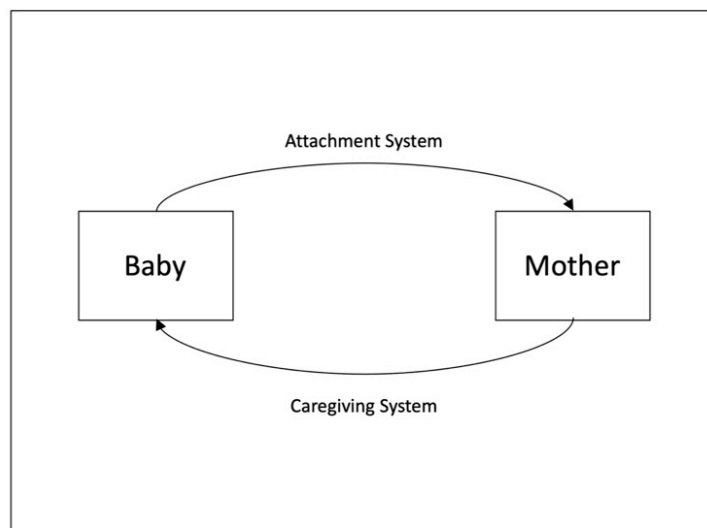


Figure 1. The attachment and caregiving systems

This dissertation's focus is on the mother's internal world and caregiving representations, which is known as the "Caregiving Behavioral System" (CBS)¹. It involves the parent's mental representation of what it means to be a caregiver (i.e. Parenting Representations, PR). Parenting representations are among the different

¹ The concept of CBS will be explored at greater length in the following chapter.

internal working models (IWMs) that are formed throughout our life in regards to different relationships. For particular relevance to this study, the caregiving behavioral system reaches its highest development during the transition to parenthood (i.e. during pregnancy, birth, and the months following childbirth). During this period of development, pregnant women and new parents commonly experience a remarkable increase in “thoughts, doubts, and worries about the self as a parent, the spouse, and the past” (George & Solomon, 2008, p.839). Ilicali & Fisek (2004) suggest that this is an essential process for the mother’s re-organization of self in this period. The exploration process that happens by asking herself *who she has been in the past, who she is today, and who she wants to be in the near future* is critical in her transition to a new identity – becoming a mother.

1.3. RESEARCH PROBLEM

The transition to motherhood is a phase characterized by an upsurge in thoughts, feelings, and possibly doubts, concerns, as well as a change in one’s outlook on life. In this transition, a woman slowly transitions from being someone who *seeks care* from her own attachment figures, to someone who will also *provide care* to her baby in the near future (i.e. she is becoming an attachment figure herself). This transition may trigger attachment insecurities for pregnant women – especially for those with adverse childhoods. Therefore, it is of great relevance to explore the expectant mother’s relationship with her primary caregivers, and how it affects her transition to becoming a mother herself. This line of research – that places the transition to parenthood within the theoretical framework of adult attachment theory – is still growing, and requires further examination. While most women become mothers, little research has explored the psychological factors that affect this subjective experience and the motivations behind it (Gerson, 1980). Moreover, even though expectations and beliefs about parenthood may be highly affected by one’s experience with his/her own parents (George & Solomon, 2008), the literature is limited in exploring this topic (Moreira & Canavarro, 2015; Scharf & Rousseau, 2017). The relationship between the transition to parenthood, parenting representations, attachment style, and intergenerational transmission of attachment is surprisingly rare (Rholes, Simpson, & Friedman, 2006) and inconsistent (Conway, 2014).

In this research, the present state of transition to motherhood that the woman undergoes is viewed in its critical context between her *past* and her *future*. Using the reasoning of attachment theory and psychoanalytic perspective, factors from the past are likely to become salient and re-triggered in this period such as one's attachment representations, internal working models, and/or bonding memories with caregivers during childhood. This study looked at these factors from the past and their possible projections on the future, in terms of prenatal expectations, parenting representations, and meaning-making of parenthood. An excellent analogy of *fear of flying* was proposed by Mary-Jo Land (2017) in her attachment video series titled "when we were very young". She proposes that we assume that the airplane represents the family, the pilot is the primary caregiver, and the children are the passengers. Supposedly, the caregiver will get the family to a safe destination and will make sure that the family is secure and comfortable along the way. However, this is not necessarily the case, and the journey becomes rather turbulent. In some cases, these passengers (i.e. the children) may even develop a "fear of flying" due to their unpleasant experience in this airplane. Maybe they were neglected, felt unsafe, or simply an accident happened (e.g. abuse, neglect or trauma). Someday, these children will grow up and may become parents themselves. What happens when someone with a "fear of flying" becomes the pilot? This is a very important question, and yet, the literature available does not discuss it in great depth.

With this in mind, does the care that women receive from their caregivers in childhood affect the development of their parenting representations? Do childhood experiences contribute to the desire to become a parent or not (or the strength of this desire)? When a girl experiences unresponsive parenting and/or low care from her attachment figures, does she grow up to doubt her own abilities as a parent? Are secure parents more committed to the parental role than insecure parents? (Rholes et al., 1995). The aim of this research endeavor is to not only answer these questions but to also open up a path for new ones.

1.4. SIGNIFICANCE OF THE STUDY

The current study is conducted in the first trimester of pregnancy to get a sense of the earliest phase after the woman finds out she is pregnant. This is done to avoid having future factors affect her feelings and expectations (e.g. social support, rationalization). This is the first study that explores parenting representations of pregnant women in the first trimester of their pregnancy. As women go through the transition to parenthood and psychologically prepare for becoming caregivers, their own attachment background becomes very salient (Slade, Cohen, Sadler, & Miller, 200). Therefore, studying this construct during pregnancy is a critical timing of investigation. This study also investigates a combination of variables that were not simultaneously studied before, namely attachment style, bonding with caregivers, desire to become a parent, perceived ability to relate to children, meaning ascribed to parenthood, and preoccupations regarding becoming a mother. Critical control variables are also considered in this study – relationship satisfaction, if the woman is currently working, if she had a previous abortion and/or miscarriage, and whether the pregnancy is wanted, mistimed, or unwanted.

The aim of this study is to explore factors related to one's early experiences and parenting representations regarding motherhood in general, and particularly herself as a mother in particular. As such, this research builds on the existing literature related to perinatal psychology, the caregiving system, and parenting representations. These specific areas of research attempt to better understand the transition to parenthood from the mother's perspective, which we now know has implications on the baby later on, as the prenatal environment is of critical importance. The current study is specifically interested in whether attachment styles are related to pre-parenthood attitudes and expectations regarding having children – which will potentially set the stage for future parent-child interactions (Rholes, Simpson, Blakely, Lanigan, & Allen, 1997). Unfortunately, the literature is not extensive when it comes to the caregiving system (as opposed to the attachment system, which is a much more studied construct). This research endeavor aims to study critical aspects of this construct as it undergoes its greatest development – during the transition to

parenthood (George & Solomon, 2008). It is not uncommon that this transitional phase triggers the woman's attachment as well as her caregiving system (i.e. her internal working model of parenthood). Generally speaking, studies either focus on attachment towards caregivers (related to the past) or attachment towards one's partner, friends, and/or therapist (related to the present). The construct of attachment is studied differently in the current study, which uses both constructs of attachment to have a wider view of one's attachment style. Hence the use of both the Relationship Questionnaire (RQ; measuring attachment style by focusing on romantic relationships) and the Parental Bonding Instrument (PBI; measuring memories of attachment with primary caregiver). This gives a wider overview of early and current relationships. It also takes into account the likelihood of having an "earned secure attachment," which is often overlooked in the literature. A woman may have had a negative relationship with her primary caregiver (assessed by the PBI), but still have a secure attachment style (assessed by the RQ). This study recognizes the possibility of people coming to terms with their past, and not necessarily having their future determined by their childhood experiences.

The transition to motherhood is a phase possibly rich in existential meaning and re-ordering of one's priorities (Prinds, Hvidt, Mogensen, & Buus, 2014). Some even perceive it as a spiritual experience full of novel feelings and thoughts. The use of the open-ended question in this study gives space for exploring *personal meaning* ascribed by the woman, instead of having to choose from a pre-determined list of meanings. In addition, a specific scale was specially developed for this study by the author, which assesses excessive attachment-based concerns during pregnancy regarding becoming a mother. This scale is the first of its kind and can be of significant value for future work in this field. After all, it is an important area for research since attachment-related negative thoughts, which can arise during pregnancy, are believed to continue throughout motherhood (Taubman - Ben-Ari, Shlomo, Sivan, & Dolizki, 2009). A long time ago, Fraiberg, Adelson and Shapiro (1975) introduced the idea that disturbed caregiving internal working models lead to disturbed maternal behaviors, which elicits disturbed attachment patterns in the child. The importance of understanding how this process develops and being able to assess it during pregnancy cannot be emphasized enough.

The research logic follows a complete circle of events (see Figure 1). Childhood experiences with attachment figures affect our internal working models of who we are, how we relate to other people. Based on how we perceive ourselves and others (especially our parents), we internalize a representation of what it means to be a caregiver. The latter constitutes our parenting representations later on, which directly influence mothering behavior. Automatically how we interact with our children will shape their own childhood experiences and attachment style in return. It is a full cycle rather than a separate chain of events. It is what the “intergenerational transmission of attachment” construct stands for. This concept opens doorways into better understanding “second-generation effects of a mother’s own child-rearing and attachment history” (Solomon & George, 2006, p.3). In terms of the woman’s experience of pregnancy, a challenging childhood and/or a dysfunctional interpersonal style can lead her to experience a significantly higher level of distress during pregnancy as her attachment experiences are re-triggered. This, in turn, can lead to unhealthy prenatal expectations and, later on, a challenging mother-infant relationship (Narayan, Bucio, Rivera, & Lieberman, 2016).

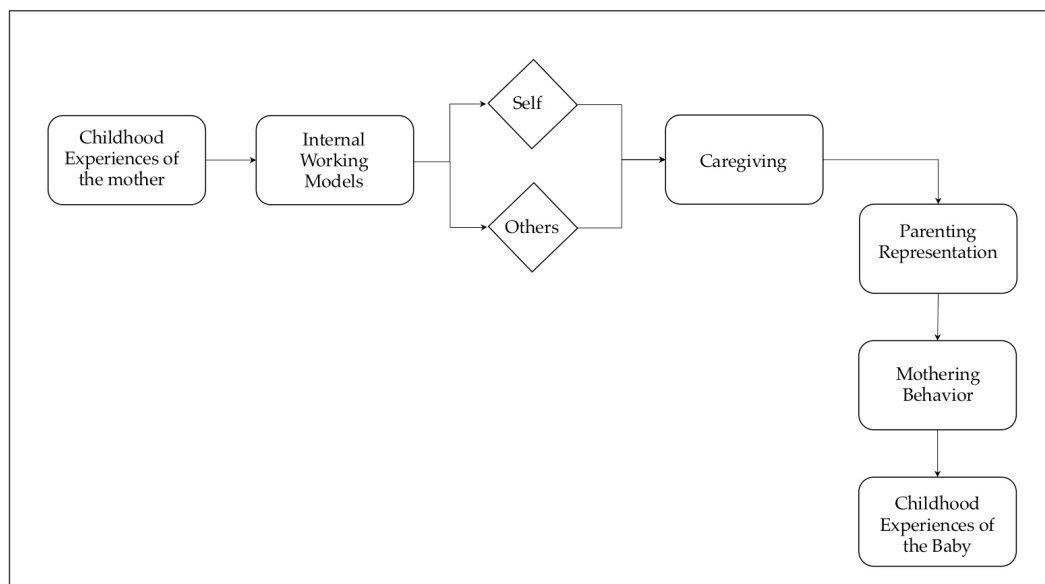


Figure 2. Study Rationale

The focus of this research is on studying experiences of the mother in her own right, even though it implies important information for her baby. The research is conducted on “the level of representation” by exploring how relationships are mentally represented and remembered. It is an attempt to understand the transition to motherhood in a better way – by looking at it from an attachment perspective. Ideally, this knowledge will bring more awareness to maternal motivations and feelings – that may be positive, negative, conscious, or unconscious – regarding having a child. A better understanding of the development of the caregiving system is likely to translate into early psycho-educational, psychotherapy and prevention initiatives that can help expectant mothers going through this transition. Moreover, is it likely that such an innovative approach would lower the risk of postpartum depression as well as perinatal mood and anxiety disorders..

II – THEORETICAL FRAMEWORK

II – THEORETICAL FRAMEWORK

2.1. PRENATAL AND PERINATAL PSYCHOLOGY

“The womb is a classroom and every child attends” – David Chamberlain

The field of study pertaining to prenatal and perinatal psychology began to develop in the 1950s in Europe and Britain and has been growing extensively throughout the past two decades. The prenatal and perinatal period starts *before* conception and extends almost until the first year after birth. The current research is embedded within this time frame. It is a multi-disciplinary field that combines knowledge from fields such as psychology, affective neuroscience, attachment research, cell biology, trauma resolution work, interpersonal biology, and epigenetics (Glenn & Cappon, 2017).

According to David Chamberlain (1998), one of the founders of the field, there was a completely different paradigm in the 19th century with regard to baby’s consciousness. At that time, it was believed that babies are not capable of attaching meaning to experience, are unable to feel pain, and do not form memories of their birth. Today, we know that such assumptions are untrue. The concepts brought forward by perinatal psychology research have revolutionized how babies’ development is perceived. The field is based on a number of principles, including the following:

1. Life – and learning – start before conception and not after birth.
2. Babies are conscious and aware of their environment, even in utero.
3. In-utero and birth memories are stored in the body, and stored in the baby’s implicit memory.
4. Attachment and bonding begin before birth.
5. The environment affects the baby’s DNA (deoxyribonucleic acid) expression.
6. The earliest experiences – including prenatal experiences in the womb – create a template for how we eventually see the world.

7. "Conscious conception" is very important – the best prenatal task that parents can do is to resolve their *own* early history.
8. Working with expectant mothers can directly help the baby's sense of safety and being welcomed, and can enhance the mother-infant bonding experience.

The pregnancy period is critical in the physical, cognitive, and emotional development of the baby (Verny & Weintraub, 2003). A woman's attitude towards pregnancy and motherhood is affected by a number of factors. Psychological factors that may directly impact her pregnancy include: her childhood environment, messages about pregnancy she received as a child, social and cultural beliefs, and the timing of pregnancy in her life. It is important to take these factors into account to ensure a healthy pregnancy and motherhood experience. Babies can be affected by their mother's issues during pregnancy. The mother's thoughts, feelings, and attitudes get translated into neurochemistry, which can directly affect the physiology of the baby. Everyone knows a mother shares blood and nutrition with her fetus, but unfortunately, not everyone is familiar with the knowledge that the same is true for *feelings* as well. For example, if the mother is constantly stressed, the fetus receives the message that he/she is coming into a stressful environment. As such, the baby's brain development alters to meet the demands of such an environment (e.g. developing a hyper-vigilant brain) (Chamberlain, 1998). A poor attitude towards motherhood has also been linked to complications in childbirth. In addition, mothers who have had abortion attempts, their teenagers eventually experience annual suicide ideations/attempts around the same time of the year of the abortion attempt (Chamberlain, 2013). Interestingly, these teenagers were never told about this prenatal event. As for women who have poor relationships with their mothers, they also have a higher risk of problematic pregnancies and labor. An extensive amount of research and evidence proves that babies are conscious and they seem to know when they are unwanted (Verny & Weintraub, 2003). This knowledge entails that the baby develops an early sense of identity and stores in-utero experiences in his/her implicit memory. Therefore, "a conscious pregnancy" is

one that takes this information into account and tries to be mindful of the baby's experience of the womb environment (Wilson & Peters, 2014). Another way to approach this concept is by focusing on the mother herself and her psychological journey during pregnancy. In simple terms, whenever the mother and her wellbeing are supported, the baby is directly being supported as well.

The best thing mothers can do prenatally is to prepare a healthy womb and family environment. This basically entails them resolving their *own* childhood history. A parent's early history can influence how a baby is conceived, born, and raised. It can even affect how the person feels about becoming a parent. It also influences the DNA selection of the baby. Epigenetics, the field of science that studies the interaction between genes and the environment (including in-utero environment), supports this claim (Claes, 2018; Desocio, 2018). Essentially, the environment has the power to turn on certain genes while to also turn off others. This process is known as "gene expression." Therefore, "conscious conception" and being mindful of one's impact on the baby – even before conception – is critical in prenatal psychology. There is general consensus among scholars in the prenatal psychology field that it is not what happens in childhood that matters, but rather how one eventually makes sense of it and how he/she comes to terms with it. It is particularly helpful to look into one's childhood and experience of being parented, before one becomes a parent. Otherwise, it is common to fall into the same pitfalls one has experienced unpleasantly as a child. After all, we are likely to end up repeating any patterns that were not properly repaired in our past. Therefore, pregnancy and childbirth can be considered as extensive opportunities for profound self-understanding, exploration and – ideally – healing. A healthy perspective of this phase can lead to a mindful and insightful transition to parenthood.

This dissertation explores the thoughts and emotions of first-time mothers in an attempt to better understand this transition. The main theoretical focus of this study includes: (1) Exploring emotional wellbeing of women during pregnancy, (2) Recognizing potential for attachment-based concerns and anxieties, and (3) Shedding light on the relationship between attachment

patterns and the psychological experience of pregnancy, in an attempt to benefit both the mother and the baby with this knowledge.

2.2. ATTACHMENT THEORY

One of the premises on which perinatal psychology developed is attachment theory research (Bowlby, 1969/1982, 1973, 1980, 1988). Therefore, it is important to examine what happens after the baby is born. The relationship between the baby and the caregiver² is very meaningful and has far-reaching implications. John Bowlby (1969/1982), the founder of this theory, started by exploring the implications of temporary separation between the baby and his mother. When he realized the importance of this bond, he focused his research on the “nature of the child’s tie to his mother” (Bowlby, 1958). Babies are born with an innate predisposition to desire physical proximity to the caregiver, especially when in distress. They have natural “attachment behaviors” such as crying and clinging. For example, when the baby is hungry, in pain, or sick; he/she would cry to seek caregiving support from others to re-balance his/her sense of security. From an evolutionary perspective, this protects infants of all species and ensures their survival. When the caregiver is proximate, the infant feels safer and is less likely to be in any dangerous situation. On the other hand, the infant feels vulnerable and distressed when separated from his attachment figure. This is considered to be a normal and ideal state of the attachment system.

How the caregiver responds to this need for proximity has critical long-lasting implications. When the caregiver is responsive and sensitive to her infant’s needs, a secure bond of attachment develops between them. The caregiver then represents a *secure base* to the infant (Bowlby, 1988). This allows the baby to freely explore the world while knowing he/she has someone to return to for reassurance and safety. For the baby, this translates into two messages: 1) that he is worthy of attention and love (i.e. positive model of self), and 2) that others are trustworthy

² For the sake of simplicity, the caregiver in this dissertation will be referred to as the mother. However, it is important to note that the caregiver can be someone other than the birth mother.

and the world is a safe place (i.e. positive model of others). Both the model of self and model of others are considered to be *internal working models (IWMs)* that the infant internalizes (Bowlby, 1988). The IWMs are templates that lay the ground for several attitudes and expectations later in life. Positive relationships with parents – which result in secure attachment – is positively correlated with overall positive levels of adjustment and wellbeing in adults (Antonucci, Ajrouch, & Birditt, 2014). In most cases, a securely attached child grows up capable of self-exploration, autonomy, and a healthy level of intimacy and proximity to others. On the other hand, if the caregiver is unresponsive, unpredictable, inconsistent, or neglectful to the needs of the baby, insecure attachment develops. It is primarily characterized by a negative model of self or others (either or both) apparent in doubts about one's lovability and others' intentions. Other models define insecure attachment by the presence of high levels of anxiety and/or avoidance.

Bowlby (1988) goes on to explain that attachment patterns do not stop at childhood. They remain significant throughout a person's life. These patterns continue to manifest in thoughts, emotions, and behaviors, related to one's fundamental sense of security and relationships with other people. Fraley and Shaver (2000) consider this pattern as a psychological residue stemming from one's attachment history. This construct is referred to as "adult attachment styles" and a prominent field of research focuses on how these patterns affect different aspects of adults' lives. Eventually, individuals with insecure attachment styles are expected to form and maintain less functional relationships and more negative views about their sense of meaning and purpose (López, Ramos, Nisenbaum, Thind, & Ortiz-Rodríguez, 2015). These mental representations of the self, others, and the world, continue to be based on the experience with one's caregivers/attachment figures (Bowlby, 1969/1982). However, research is not extensive when it comes to long term effects of attachment and childhood maltreatment in relation to cross-generational interactions (Kong & Martine, 2019). With this in mind, four adult attachment styles have been identified (Bartholomew & Horowitz, 1991) and extensively researched. These attachment styles are built on earlier attachment patterns as children. Each style has a unique representation of self/others and particular reliance on (or lack thereof) avoidance/anxiety. They also hold distinct models of attachment figures' availability. People sometimes hold characteristics from different attachment

styles, or not fit in a particular orientation most of the time. However, when distressed, individuals tend to revert to a particular pattern of attachment – the one that feels more natural to them when their attachment system is triggered (Teyber & McClure, 2011).

1. *Secure Attachment Style*: Positive view of self, Positive view of others, Low Avoidance, Low Anxiety.

Throughout their lives, securely attached individuals tend to believe that the world is a safe place and that people are reliable. They are confident about their self-worth and generally have a high sense of self-efficacy (Bretherton, 1985). In relationships, they have no insecurities regarding proximity to others, and are usually able to sustain their independence when in a relationship. Attachment security is generally positively correlated with mental health and positive personality characteristics. When asked about their childhoods, securely attached individuals are expected to acknowledge the impact of their experiences. In the case of these memories not being positive, this type of person will have almost internally resolved it and “earned” attachment security. They do not blindly idealize their parents nor defensively deny any problems in their past (Teyber & McClure, 2011).

2. *Dismissing Attachment Style*: Positive view of self, Negative view of others, High Avoidance, Low Anxiety.

"Avoidant attachment style" is another way to refer to this orientation. Individuals with dismissing/avoidant attachment style avoid intimacy, closeness, and dependency. They place a high value on emotional distance, autonomy, and self-sufficiency. They resort to disengagement from strong affect and emotional closeness as a self-defense against potential rejection. When distressed, dismissive people use a "deactivating strategy" by minimizing their needs, vulnerabilities, and distress (Teyber & McClure, 2011). Usually, this person has experienced

rejection from his caregiver, so he learned to rely on himself and not trust other people.

3. *Preoccupied Attachment Style*: Negative view of self, Positive view of others, Low Avoidance, High Anxiety.

This attachment orientation is also referred to as "anxious attachment." Preoccupied/anxious individuals struggle with doubts regarding their self-worth, abilities, and lovability. They often rely on other people for reassurance (Foster, Kernis, & Goldman, 2007), and at the same time doubt others' availability in times of need (Teyber & McClure, 2011). They have a fear of abandonment, as well as concerns regarding rejection and failure (Rholes et al., 1997). When distressed, preoccupied individuals rely on "hyper-activating strategy" by exaggerating their emotional needs, constantly seeking proximity and trying to attract the maximum responsiveness and attention possible (Teyber & McClure, 2011). They present themselves as vulnerable and needing help (Canterberry & Gillath, 2012).

4. *Fearful Attachment Style*: Negative view of self, Negative view of others, High Avoidance, High Anxiety.

Fearful individuals not only have a low self-esteem but also view others as untrustworthy. This attachment style is believed to have the poorest mental health among all attachment orientations (Reis & Grenyer, 2004). It is noted that these people do not have a stable coping strategy pattern. Very often this attachment orientation results from childhood abuse and/or maltreatment (Teyber & McClure, 2011).

According to Bakermans-Kranenberg and van Ijzendoorn (2009), 58% of a general population are secure, 23% are dismissing, 19% are preoccupied, and about 18% are coded for unresolved loss or another type of trauma. Figure 3 illustrates the categorization of adult attachment styles based on the model of self/others (Bartholomew & Horowitz, 1991), and adapted to the level of anxiety/avoidance.

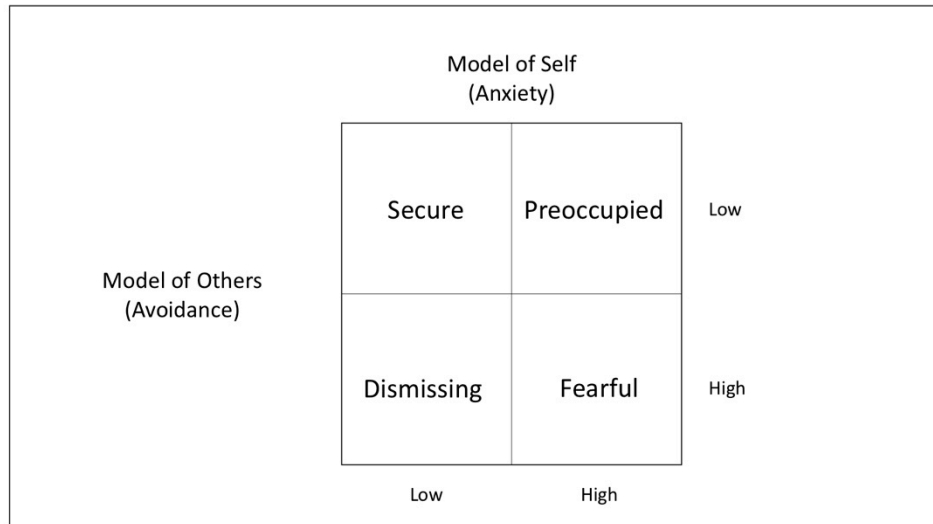


Figure 3. Categorization of Adult Attachment Styles

2.3. CAREGIVING SYSTEM

The caregiving system is the other side of the attachment concept. For a child to be securely attached to an adult, a caregiver must be willing to provide a certain amount and quality of care. The caregiving instinct in humans is remarkable. One has to stop and think, how, and why, are caregivers even willing to sacrifice their own life for their children? (George & Solomon, 2008). Few studies have looked deeply into the roots of the caregiving system to examine the time period before one becomes a parent.

Bowlby (1969/1982, 1973) discussed two reciprocal behavioral systems: attachment and caregiving. He referred to them as “the attachment-caregiving social bond” (Bowlby, 1969/1982, p. 377). However, his theoretical work on attachment was more renowned – which later formed the theoretical base for caregiving as well. Both behavioral systems are related to each other. However, each half of the social bond is distinct and separate in many ways. Solomon and George (1996) are among the first to call attention to this promising area of study. The focus on the caregiving system within research is a shift of perspective from the relevant mainstream literature, which mainly focuses on the attachment system.

2.3.1. Function of the caregiving system

Bowlby (1969/1982) borrowed the concept of a “behavioral system” from ethology and systems theory. Essentially it refers to a set of behaviors that result in predictable outcomes and has an adaptive function (Solomon & George, 1996). As explained in the previous section, the attachment system allows the child to receive the necessary care and attention. He/she wants to feel safe and close to the caregiver. On the other hand, the caregiving system motivates the person to give this care and protection, and to foster the child’s growth (Canterberry & Gillath, 2012). This reciprocal system ensures that the child is safe from danger. The *caregiving* and *care-seeking systems* (Lake & Heard, 2009) are, therefore, reciprocal. Essentially, they can be thought of as two sides of the same coin. In the end, both work to ensure the survival of the child (George & Solomon, 2008).

The caregiving behavioral system is activated by a set of internal and external cues. Cassidy (2000) explains that the internal cues include the caregiver’s hormones, cultural beliefs, parental state of mind, and other behavioral systems (e.g. fear system). As for the external cues, they include safety of the environment, the infant’s physical and emotional state, as well as the infant’s behaviors. Generally speaking, the child’s attachment system and the parent’s caregiving system are complementary (Bowlby, 1969/1982). In other words, as the caregiving behaviors increase, the child’s need to exhibit attachment behaviors diminishes. However, when caregiving is not apparent to the child, he/she increases attachment behaviors to ensure proximity. Bowlby (1969/1982) calls this phenomenon a “dynamic equilibrium” (p. 236).

In describing the attachment system, Bowlby has presented the concepts of an internal working model of the self (IWM-S) and an internal working model of the other (IWM-O). The concept of an “internal working model of caregiving” (IWM-C) has later been introduced (Mayseless, 2006). The IWM-C holds the mental representation the meaning of being a parent and of providing care for others. Like other IWMs, the IWM of caregiving is internalized from previous experiences (e.g. with one’s parents) and is goal-oriented – it functions to serve specific goals. Bowlby does not only limit the caregiving system to parent-child relationships. It consists of many manifestations including caring for siblings,

pets, students, and clients. As a way to assess the IWM of caregiving, a growing area of research has been developing to explore “parenting representations” (i.e. the internal world of parents’ thoughts and emotions). Other terms for this concept include ‘mental model of caregiving,’ ‘internal representation of caregiving,’ and ‘parenting buds.’ This dissertation delves into this rising and promising area of research.

2.3.2. Sources of the caregiving system

Just as attachment representations are based on actual experiences, so are parenting/caregiving representations, which are based on actual caregiving-related situations. According to Mayseless (2006), a person’s memories and experiences with the caregiver as a child are considered main sources of the caregiving system later on. The child internalizes feelings and behaviors of the caregiver (or his/her interpretation of them). Being cared for by other people, including a nanny, can also contribute to caregiving representations. In many cases, a child can even internalize other real or fictional figures. These can include his/her best friend’s mother or a movie character. Sometimes, the child takes on the role of a caregiver early on – to a parent, a grandparent, or even a pet – and it becomes part of his own parenting representations later on. Bell (2001) also suggests that biological factors (e.g. hormones) and temperament are among the sources of caregiving representations. Individual differences can also play a role in the tendency to provide care to others. For example, the trait of agreeableness is related to caregiving (Graziano, Habashi, Sheese, & Tobin, 2007). Compassion and empathy are other characteristics that are associated with recognizing needs in others and providing care to them (Unger & Thumulari, 1997).

Attachment style is an important factor in the tendency to give care to others (Gillath et al., 2005). The subjective experience of caregiving also differs between different attachment styles (Canterberry & Gillath, 2012). For example, insecure individuals tend to provide care in order to benefit from it on some level, or feel obligated to do it in some instances. As such, their motives may be egoistic. Anxious individuals enjoy helping other people since they value feeling needed by others. It is one way of getting external validation and reassurance. Avoidant

individuals, on the other hand, would instead generally perceive a caregiving role as stressful and pressuring. They do not feel very comfortable in roles that entail a high degree of proximity and interrelatedness.

It is clear from the multitude of sources referenced throughout this research endeavor that people internalize and eventually develop an internal working model of caregiving before actually becoming parents. Research shows that these parental representations affect the kind of parent one later becomes (Slade, Belsky, Aber, & Phelps, 1999). Bowlby (1979) claims that secure attachment helps establish healthier parenting behaviors and attitudes later on. A study conducted by Pearson, Cohn, Cowan, & Cowan (1994) elaborates on the case of having a negative childhood, but eventually “earning” secure attachment. They found that, for people with such experiences, the parenting representations they hold as adults are more related to their children’s attachment and their own parenting behavior. In other words, they eventually come to terms with their past wounds and develop healthier representations as adults. On the other hand, Fraiberg (1980) claims that generally, we do to other people what was previously done to us. Or as therapist Christine Langley Obaugh puts it, *“we repeat what we do not repair.”* In all cases, it seems promising to look deeper into parenting expectations and perceptions before one becomes a parent. Since such representations are mostly based on real experiences, and largely operate outside our direct awareness, they can affect parenting behavior. By exploring information about one’s past, we may be able to understand and predict how a parent will relate to his/her child later on. However, it is important to note that once the child is born, the IWM of caregiving starts to reflect the actual interaction with the baby’s unique personality (Solomon & George, 1996). Fortunately, these perceptions are flexible and can be restructured in response to new situations.

2.3.3. Development of the caregiving system

Caregiving representations are based on the internal working model of self and the internal working model of others (Solomon & George, 1996). These are the building blocks of perceptions and expectations related to different aspects of the world. The first stage of development of the caregiving system is rooted in

childhood influences (Pryce, 1995; Simpson & Belsky, 2008). One of the most important contexts in which one's caregiving capacity develops is the family of origin. Ideally, the child experiences what it feels like to be cared for and protected, for the first time, within this setting (George & Solomon, 2008). Eventually, the child internalizes the caregiving attitudes and behaviors of his parents as part of his internal working model of caregiving. All behavioral systems start with "mini" immature behaviors, that later adjust to adulthood. Behavioral systems that are essential for survival in infancy, such as attachment, develop right after the baby's birth. On the other hand, more sophisticated behaviors – like caregiving – take longer to develop. However, immature caregiving behaviors can be seen in certain situations even in childhood. According to Pryce (1995), "play-mothering" is an important example, especially among girls. In the presence of dolls and/or pets, human children tend to behave in ways that exhibit caregiving. It is crucial to note that this kind of maternal behavior is highly related to the child's own experience of being cared for by a mother figure. For example, play-mothering is not observed among monkeys who have been taken away from their mothers in their first year of life. As such, the development of a sense of caregiving (even in its still immature forms) is highly related to the personal experience with one's mother (Bowlby, 1969; Bretherton & Munholland, 2008; George & Solomon, 2008).

Later on, during the period of adolescence, individuals start to form an idea of themselves as caregivers to some extent. This is parallel but different from how they see themselves as attached to their caregivers (Solomon & George, 1996). With overall developmental maturity, the caregiving system starts to take a more mature form. Adolescents start by constructing a perception of themselves as caregivers early on by asking questions such as: "Will I be a good mother?" (Solomon & George, 1996, p.190). These questions increase in sophistication throughout later developmental stages. For example, asking "Will I be able to protect a child?" and "Will I *want* to protect a child?" (Solomon & George, 1996, p.190). In the person's mind, these questions may resonate with past experiences with caregivers. The experience of being cared for and the interpretation of caregiver's feelings play a role in this self-reflection. Usually, people who had adverse or traumatic childhood backgrounds may find greater difficulty in answering such questions (Solomon & George, 1996). Yet, generalizations should

be avoided. As adults, each person has a different capacity for change and healing with regards to the past. Some would eventually answer these questions independently of their childhood experiences, while others would find it an almost impossible task.

Then comes the greatest period for the development of caregiving representations: during the transition to parenthood (i.e. pregnancy and the months following the birth of the baby) (Solomon & George, 1996; George & Solomon, 2008). Biological changes play an important role in this development. Hormonal and neurological changes are known to automatically trigger “motherly impulses” for most women during this time (Pryce, 1995). Brizendine, author of “the female brain”, claims that “*motherhood changes you because it literally alters a woman’s brain – structurally, functionally, and in many ways, irreversibly*” (Brizendine, 2006, p.95). Then, later, the birth process itself creates a hormonal change that is likely to trigger different feelings and behaviors. Northrup (2005), in her book “mother-daughter wisdom”, explains that during childbirth, the same surge of hormones that was experienced as a baby gets re-created. She goes on to elaborate that “*when you give birth, a part of you longs for connection with your own mother. [...] Just as when you were born, every cell in your body cries out for your mother – it is primal*” (p.148). This is the case even when the woman has a difficult or complicated relationship with her mother. In other words, there is no doubt that there is an intricate relationship between one’s caregiving system and the relationship with one’s mother.

The transition to parenthood is also characterized by intense emotions. Researchers have noted that pregnant women experience numerous thoughts, doubts, and questions about their identity and their abilities during this time (George & Solomon, 2008). This dissertation directly looks into these thoughts. Fortunately, this time of deep reflection is a great opportunity for self-exploration during pregnancy (which may cause some confusion or disorganization at first) and hopefully settles into re-organization of the self (Benedek, 1959). Therefore, the transition to parenthood is often accompanied by a mature transformation of one’s representations of caregiving – from the perspective of a “child” to that of a “caregiver” (Solomon & George, 1996). Afterwards, the birth experience itself and bonding with the baby further trigger the caregiving system (George & Solomon,

2008). Bell (1968) argues that babies automatically elicit caregiving from most parents. After all, their attachment system is particularly designed to trigger these motherly behaviors to ensure their survival.

It is worth mentioning that external factors can also play a role in increasing or minimizing caregiving behaviors. The culture and societal beliefs surrounding parenting come into play in this dynamic. Economic factors, relationship satisfaction with one's partner, and having a strong support network are critical factors as well. Sometimes, the partner can be an essential factor in either encouraging or challenging the mother's desire and ability to be a good caregiver (George & Solomon, 2008). In terms of the caregiving system's development, there is a clear interplay between attachment and caregiving behaviors in many situations (Canterberry & Gillath, 2012). The way one system operates usually affects how the reciprocal system functions (Mikulincer & Shaver, 2009). Secure individuals had the opportunity to experience sensitive and responsive caregiving in their childhoods. Eventually, this first-hand experience influences their mental representation of what it means to be a good caregiver. On the other hand, insecure individuals may struggle to provide care or assistance to others. They may simply not know how to do it effectively (Collins & Feeney, 2000). Therefore, the interaction with one's caregivers may not only determine one's attachment style, but also one's caregiving style (Canterberry & Gillath, 2012).

As this chapter elaborated on the theoretical framework of prenatal psychology, attachment theory and the caregiving system, the following chapter will present the most important studies that focused on these constructs.

III – LITERATURE REVIEW

III – LITERATURE REVIEW

The research done on parenting representations will be presented in three distinct categories: before pregnancy, during pregnancy, and after birth. The studies presented in this literature review shed light on the findings related to parenting representation during different phases of this transition. Then, the literature review elaborates on the concept of “intergenerational transmission of attachment” by presenting the evidence for and against it. It should be noted that the different results attained by some research studies might be due to the use of different methodologies assessing the same variables. By understanding the development of parenting representations more accurately, therapeutic interventions can be proposed to ensure an adequate development of one's caregiving system. When people are presented with a proper chance to understand their feelings and deeply rooted beliefs, they become in a much better position to manage and control their behaviors. Such interventions can go a long way in preparing young adults for the parental role, which will tremendously help them and their future children in the journey of life (Scharf & Mayseless, 2011).

3.1. PARENTING REPRESENTATIONS

As explained before, parenting representations refer to beliefs, perceptions, and expectations regarding the concept of parenthood in general, and oneself as a parent in particular. Different studies refer to this concept using various terminologies, including ‘parenting buds’, ‘prenatal expectations/attitudes of parenthood’, ‘caregiving representations’, and ‘working models of parenthood.’ So, do attachment representations carry over into prenatal/parenting representations? (George & Solomon, 2008). It is an important question that some researchers in the field attempted to answer. From a long time, the parent-child relationship was often studied from the child’s perspective. A famous assessment tool like the Strange Situation Test (SST; Ainsworth, Blehar, Waters, & Wall, 1978)

revealed important aspects of attachment from the child's behaviors. Studying parenting representations allows us to examine the parent's experience, especially that the transition from being a child to raising a child is an incredibly interesting and rich phenomenon (Scharf & Mayseless, 2011).

3.1.1. Parenting representations: Before having a baby

People start preparing for parenthood long before making this decision (Bjorgo, 2003; Scharf & Mayseless, 2011; Scharf & Rousseau, 2017). As such, to a large degree, a mother's parenting experience and interaction with her baby can already be predicted before actually having the baby (Bowlby, 1969/1982; Scharf & Mayseless, 2011). From an attachment perspective, it is believed that adult relationships are highly affected by one's attachment style (Teyber & McClure, 2011). Therefore, there is no reason to expect the relationship with one's children to be any different. However, it can be assumed that this experience is determined by many psychological factors, including one's attachment style and the desire to become a parent (Rholes et al., 2006). For example, Bowlby (1979) suggested that avoidant individuals do not particularly look forward to becoming caregivers. In addition, people who had adverse childhoods or did not experience warm caregiving from their parents may eventually have a low Desire to Have Children (DTC) (Rholes et al., 2006).

Caregiving representations include the motivation behind having children. What does becoming a parent mean and/or symbolize for the person? In fact, several studies have been dedicated to this very question. Gerson (1980) questioned the reasons why women would want – or not want – to have children. He found that, for undergraduate students, positive recollection of maternal warmth and love was among the main reasons why they wanted to become mothers one day. Other factors also included memories of paternal love and overall childhood happiness - even though they did not contribute uniquely to DTC. In 1986, Gerson continued his exploration by asking male and female adults – aged 21 to 42 years old – about their reasons for wanting children. He found two interesting themes. For women, there was a negative relationship between narcissism and wanting to become a mother. It seems that women who have a high DTC might subconsciously need someone to fill a void they have. Even

without realizing it, they may want to live through their children and their accomplishments. The second finding was another negative relationship – this time between self-esteem and DTC. In other words, sometimes women might be compensating for their low self-esteem through their children. Gormly, Gormly, & Weiss (1987) also asked college students about their intentions to have children. 92% planned to have children one day. Results showed that 48% of the sample reported three main reasons. The first reason revolved around continuity and wanting to have a child who carried their name, genes or appearance. The second reason was to achieve a particular adult social identity. The third reason was to create a family of their own. On the other hand, the main reasons for wanting to delay parenthood included reaching financial stability and building their careers first (especially for women). A similar study was conducted in 1992; Caron and Wynn addressed 600 college students with an open-ended question about their motivations to have children one day. Again, 92% wanted to become parents. In this sample, 35% reported narcissistic reasons for wanting to be parents (i.e. egoistic or self-serving motivations). These included “personal fulfillment” and “to give me something to do.” On the other hand, those who did not want to become parents also had egoistic reasons. Some believed having children is mostly about the continuity of the family’s name and therefore see it more as an obligation. Whereas others believed they would like to share their knowledge and experience with their children.

Gerson (1980, 1986) also believed that women’s desire to become parents and parenting representations are related to the quality of their childhoods. In general, developing a sense of the costs and benefits associated with parenthood is likely to be related considerably to one’s childhood experiences with one’s caregivers. The more distant one is from their parents due to a challenging relationship, the more likely they are to perceive disadvantages to becoming a parent (Bjorgo, 2003). Rholes et al. (1995) were among the pioneers in the area of research linking childhood to future parenting representations. They assessed 94 college male and female students in terms of their attachment style, perceived ability to relate to children (PARC), concerns about psychological challenges of parenting, and their desire to have children (DTC). They found that avoidant students were clearly more uncertain about having children and about their own abilities to relate to them. As for ambivalent students (i.e. anxious attachment style), they were also

uncertain about their parenting abilities (probably due to their general negative self-perception). However, their ambivalence did not affect their desire to become parents. Generally speaking, this study revealed that insecure attachment styles have more negative working models of parenthood - especially those with an avoidant attachment style. As such, an avoidant individuals' high emphasis on their individuality and personal space may make parenthood less appealing to them. In 1997, Rholes et al. conducted another similar study to confirm and expand on the first research project. They asked 379 male and female college students, aged 18 to 23 years old, about their attachment style, desire to have children (DTC), perceived ability to relate to children (PARC), expected parental satisfaction, and perceptions of past relationship with their mothers. The results confirmed that insecurely attached individuals held more negative orientations towards becoming parents and perceived themselves more negatively in the parental role. Avoidant individuals also reported a lower desire to have children, while ambivalent participants still had a high DTC. Those who perceived themselves as less able to deal with children were the avoidant students, ambivalent individuals, and those who do not have a strong desire to have children in the first place. As for those who expected lower satisfaction from the parental role, they were mainly participants with an avoidant attachment style, the very ones who reported a lower DTC. The desire to have children proved to be a strong factor in parenting representations. Even when insecure attachment styles were not included in the analysis, lower DTC was still associated with negative working models of parenthood. Even though ambivalent individuals doubt their abilities to be good parents, they still have more positive parenting representations than avoidant individuals. They are more accepting of the caregiving role. The study also revealed an interesting mediation model: **Avoidant attachment** → **DTC** → **parental expectations**. The model shows that avoidant attachment affects parental expectations through the low desire to have children. Yet, a lot of avoidant individuals end up having children for different reasons. In this case, it is likely that the usual challenges of parenthood will seem even more stressful for them due to their lower commitment to this new role. A second study within this same research project (Rholes et al., 1997) explored 259 male and female college students' expectations of their future child's characteristics. They were asked to describe their future 3-year old child.

Avoidant individuals and those with lower DTC tended to expect insecure behavioral characteristics from their children. They also proposed a mediation model: **Avoidant attachment** → **DTC** → **expectations for secure behavior and expectations of child's affectionate behavior**. In other words, the desire to have children is related to avoidant attachment style, and it emphasizes the latter's impact on more negative expectations regarding one's children.

Bjorgo (2003) was also interested in this construct and wrote his doctoral dissertation on it. His contribution to this work was mainly adding the level of peer attachment to the theory, instead of just the parental attachment. He recruited 127 female college students, aged 18 to 29 years old, to his study. A total of 94% of the sample reported being single. He assessed their parent and peer attachment, self-esteem, gender role attitudes, desire to have children (DTC), perceived ability to relate to children (PARC), and their motivation to have children. His findings revealed that peer and parental attachment were correlated. Peer attachment was associated with both DTC and PARC. However, parental attachment was not related to PARC - which contradicts the results found by Rholes et al. (1997). Bjorgo (2003) offered three explanations for this contradiction. First, women who had poor parental models in their childhood may believe that they have learned a hard lesson and intend to become better parents for their children. Second, these women may report high PARC as a defense mechanism to cope with their negative perception of their own parents. It may be more reassuring to think of themselves as capable parents rather than as repeating the same mistakes they were previously exposed to. Third, it may be that women with high attachment to their parents are yet to imagine themselves in the parental role for lack of experience in dealing with children. In addition, this study also did not find a correlation between parental attachment and DTC - which also contradicts the results found by Rholes et al. (1995; 1997). These variables may, in fact, be unrelated or may be due to the use of different measures to assess attachment style in the aforementioned studies. In general, this study proposed that peer attachment was a stronger predictor of DTC and PARC than the level of current attachment to one's parents. It is possible that in college, primary attachment moves from the level of parents to the peers - and hence their influence becomes more apparent during this age (Bjorgo, 2003).

Another important study was conducted by Scharf & Maysseless (2011) to explore the construct of parenting buds. It is a longitudinal study that followed 60 men from high school until the age of 27 years old. The first assessment was administered in adolescence. It included administering the Adult Attachment Interview (AAI; to assess their state of mind with regards to attachment), Adult Attachment Questionnaire (AAQ), and Family Systems Test. The second assessment was conducted during the period of emerging adulthood. The participants answered questions including their desire to have children (DTC), perceived ability to relate to children (PARC), expected satisfaction derived from parenthood, self-perception as a parent, and representations of one's future child. Narrative analysis of some responses revealed particular themes. For example, an avoidant participant reported not wanting to repeat the mistakes of his parents and his uncertainty about his own parenting abilities. An ambivalent participant wanted to have children to fulfill a social requirement and for his own self-development. In general, avoidant individuals were unable to imagine a clear picture of parenthood, and their narratives were found not very coherent. As for ambivalent individuals, they seemed to want children and to have thought about parenthood previously, yet with great ambivalence.

Papadimitriou (2008) conducted qualitative and quantitative studies with women, most of whom did not have children. He uncovered that women who experienced a loving environment in their homes and had good relationships with their mothers were more looking forward and motivated to have children of their own, mostly to offer to their children the same kind of care they received and enjoyed. On the other hand, those who had negative memories in regards to their relationship with their parents, those who had an absent father, and those who had over-controlling dominating fathers did not have a high desire to have children. They were actually afraid of exposing their children to the same feelings and experiences they were subjected to. In this study, women who attained higher educational levels were more ambivalent about becoming mothers due to the fear of giving up or negatively affecting their careers. However, those who have good support and resources, including family support and an extended maternity leave, were more comfortable about the idea of combining motherhood with their work. The women in these studied reported several perceived

advantages and disadvantages of becoming mothers. The most common reported advantage was seeing their children achieve important milestones and the satisfaction that comes with it. As for the most common disadvantage, it was the belief that raising children is difficult and would impact one's freedom and spontaneity. Another study (Snell, Overbey, & Brewer, 2005) also suggested that anxious individuals have unrealistic perceptions of parenthood, mostly characterized by the notion of perfectionism. On the other hand, secure individuals seem to hold a balanced view of parenthood. They acknowledge both positive and challenging aspects of it. It is worth mentioning that different attachment styles had unique profiles of parenting representations. Also, the current relationship with one's parents affected parenting buds to a large degree. High PARC was related to having a loving mother and having a good relationship with her. On the other hand, feeling rejected from one's mother, having anger towards one's parents, and/or having an insecure attachment style were negatively correlated with PARC. Lower DTC was also related to ambivalent attachment and mother's rejection. Lower expected satisfaction from becoming a parent was linked to not having been close to one's mother during adolescence. Negative perception of the self in the parental role was correlated with ambivalence, as well as mother's rejection and anger towards the person. In general, this study proved that attachment styles and relationship with parents (especially with the mother) in the period of adolescence end up contributing to the development of one's caregiving system in adulthood. The relationship with the mother is significant in this process due to her usually dominant role in caregiving (Bretherton, Lambert, & Golby, 2006).

Conway (2014) conducted a similar study. He recruited 572 participants, aged 18 to 40 years old, who do not have children. 64% of them were in a romantic relationship at the time of the study. He assessed their attachment style, desire to have children (DTC), perceived ability to relate to children (PARC), expectations towards raising children, perceptions about future parental satisfaction, quality of current romantic and family relationships, and self-esteem. Unlike the other studies, Conway (2014) only used short versions of the DTC and PARC scales. In this study, avoidant individuals were found to exhibit the most negative orientation towards parenthood. The researcher proposed the following

interpretation: becoming a parent may be perceived as a threat to their need for independence and personal space. As such, a mediation model was proposed in the study: **Avoidant attachment** → **DTC** → **negative working models of parenthood**. In other words, it is the lower desire to have children that emphasizes the negative parenting representations for avoidant individuals. In this study, the level of one's DTC was a stronger predictor than one's attachment style when it came to parenting representations. As for participants with anxious attachment, they exhibited less negative beliefs and expectations about having children, and they were more interested in becoming parents – which goes in line with Rholes et al.'s findings (1995; 1997). They actually hold the expectation that the parental role will be personally satisfying for them. Their expected fulfillment might be stemming from their thirst for emotional closeness and for feeling needed by others. Ironically, these individuals reported higher PARC when their marital relationship was less satisfying for them. The desire to have children was the strongest predictor for both expected parental satisfaction and PARC. In addition, individuals who expected higher satisfaction in the parental role also reported higher satisfaction within their families of origin. The study claimed that negative parenting representations eventually lead to less effective parenting strategies. In other words, insecurely attached individuals are characterized by their discomfort with healthy levels of emotional closeness, which leads to non-optimal quality of caregiving to their children (George & Solomon, 2008). Other studies also confirmed the link between insecure attachment and negative parenting representations (i.e. low DTC, low PARC, and low expected fulfillment from parenthood) (Nathanson & Manohar, 2012; Snell et al., 2005).

One of the most recent studies on parenting representations with regards to individuals who do not yet have children was conducted by Scharf & Rousseau (2017). They recruited 96 intact families comprise with individuals and their parents. The researchers were interested in the factor of over-parenting from the parents' side (i.e. anticipatory problem-solving and advice/affect management). As for the young adults, their attachment style, interpersonal problems, and perceived ability to relate to children (PARC) were assessed. Attachment style was assessed using the Relationship Questionnaire in this study – which is also used in this dissertation. Control variables of this research included age,

relationship status, and cultural context. Maternal over-protection was significantly correlated with PARC. Higher levels of anticipatory problem solving were associated with lower PARC, while higher levels of advice/affect management were related to higher PARC. Maternal advice/affect may be perceived in many instances as a sign of care rather than intrusion, this is why it does not seem to hinder one's perception of becoming a good parent. On the other hand, anticipatory problem solving might eventually cause the person to internalize a feeling of inadequacy – which can be generalized to PARC. Secure individuals perceived themselves as able to relate to children positively while dismissive and fearful individuals had difficulties perceiving themselves as good future parents. Only the mother's over-parenting dimensions seemed to affect parenting representations in this study while the father's anticipatory problem solving and advice/affect management did not have significant contributions.

Finally, it is important to note that studies proposing a link between insecure attachment styles and certain aspects of parenting representations should be considered with caution. Neither of them implies that people who either choose not to have children, or who have difficulties relating to children, are necessarily insecurely attached (Rholes et al., 1995). There are numerous factors that can contribute to such decisions and/or feelings. However, it might be the case that insecurely attached individuals may just be *more likely* to experience some difficulties in the development of their caregiving representations, according to these studies.

3.1.2. Parenting representations: During pregnancy

The literature regarding parenting representations during pregnancy is rare in comparison to the studies done on participants who do not have children. Furthermore, the overwhelming majority of studies were conducted during the third trimester of pregnancy. However, this phase is particularly important since one's caregiving system reaches its development maturity during this stage (George & Solomon, 2008; Solomon & George, 1996). It is also closer to the phase of actual parenting, and therefore the perceptions, beliefs, and expectations at this point are very important. In addition, stressful situations and life transitions (e.g. being pregnant) tend to activate one's attachment system and trigger particular

insecurities (Bowlby, 1988). An important line of research explored representations that parents have of their babies during pregnancy and how they affect aspects of parenthood later on (Maysless, 2006).

The most relevant study with couples undergoing the transition to parenthood was conducted by Rholes et al. (2006). The study was comprised of 106 couples recruited from childbirth preparation classes. A pre-assessment was conducted 6 weeks before the delivery, where attachment style and DTC were recorded. Then, a post-assessment was conducted 6 months after the child was born. The second assessment included recording the experience of actual parental stress, as well as meaning and satisfaction derived from parenthood. Avoidant attachment was the focus of the study. This particular type of attachment is related to the experience of higher stress after birth, and lower satisfaction and personal meaning derived from parenthood. Anxious attachment was neither related to DTC nor to parental meaning. Avoidant attachment assessed prenatally predicted how stressful parenting would be perceived six months after the baby is born. In addition, prenatal DTC predicted the level of which parenting will be perceived as personally meaningful and satisfying post-natally. This study proposed the following mediation model: **Avoidant attachment** → **DTC** → **parental meaning/satisfaction**. Along the same line of the other studies, it seems that the desire to have children acted as a mediator that emphasizes the relationship between attachment avoidance and aspects of parenting representations. Another study was conducted on couples during the third trimester of the pregnancy (Zeanah, Keener, & Anders, 1986; Zeanah, Keener, Stewart, & Anders, 1985). Participants were asked about their prenatal expectations of their baby including his/her expected activity level, affect, and sociability. Then they were interviewed again regarding their baby's personality and their relationship with him/her both one and six months after the delivery. The parenting representations they held during pregnancy were related to those they had after delivery. This illustrates the importance of expectations during pregnancy since they persist in a way or another afterwards. Ammaniti et al. (1992) asked 23 pregnant women in the third trimester to describe themselves as mothers, their own mother, and their unborn baby. Most women had better expectations about their baby than of themselves or of their own mothers. Vizziello, Antonioli, Cocci and Invernizzi (1993) had similar findings but

suggested that these representations do not stay the same. Due to the actual relationship with the baby after birth, these representations develop and change. Another study (Ilicali & Fisek, 2004) asked 23 pregnant women to describe using 18 pre-set adjectives: their unborn child, themselves as mothers, themselves as people, their own mother, and their partner. There was a moderate correlation between their representation of their partner with their representation of their child and themselves. However, their representation of their own mother was not related to any of the other figures described. As for Cramer et al. (1990), they were interested in the effect of psychotherapy on working models of parenthood. They found that maternal representations improved and became generally more positive after psychotherapy. The mothers were happier and calmer. They believed their mothers were more anxious yet more available. In addition, they perceived themselves more positively, even though their perception of themselves as mothers did not change.

More recent studies added to the understanding of prenatal expectations during pregnancy. In 2000, a study confirmed the link between pre-parenthood attitudes and postnatal parenting experience (Delmore-Ke, Pancer, Hunsberger & Pratt, 2000). Women who were “prepared” for the transition in the third trimester of pregnancy were significantly better adjusted to parenthood after giving birth than women who were “fearful” or “complacent.” Flykt et al. (2009) also studied prenatal predictions of own and partner’s relationship with the baby. Negative expectations of relating to the baby were significantly correlated with stress after giving birth. In 2012, Ammaniti, Tambelli and Odorisio conducted interviews with 411 women with non-risk pregnancies and 255 pregnant who were clinically depressed and/or psychosocially at-risk. They uncovered a significantly higher prevalence of integrated/balanced prenatal expectations in the non-risk sample while the women at-risk of psychosocial difficulties and/or psychopathology had a higher prevalence of non-integrated or ambivalent prenatal expectations. Chen and Xu (2018) studied a sample of pregnant women in their third trimester with their second child. They explored important variables – the women’s attachment to their mother, their parenting experience in raising the first child and their prenatal attachment to the second baby. It is important to mention that prenatal expectations are theorized differently in different studies. Their findings proposed that the women’s attachment and bonding experience with their own

mothers was highly related to the level of prenatal attachment they felt towards the second baby. However, this relationship was moderated by their parenting experience with the first child. Another study was also conducted in 2018, where the researchers used the parental bonding instrument (which is also used in this dissertation) to examine the relationship between recollection of memories with the mother and the pregnant woman's current development of a mother identity (Handelzalts, Rosenbaum, Gozlan & Benyamini, 2018). After studying 341 pregnant women, they concluded that recollections of maternal care is significant in the formation of a mother identity for the pregnant woman.

Other studies have also revealed interesting aspects that may prevail during the period of pregnancy. Insecure women undergoing pregnancy generally feel more stressed, exhibit more negative orientations towards their unborn baby, report lower mental health and higher dissatisfaction with their body image, and frequently think about the challenges of becoming a parent (Taubman - Ben-Ari et al., 2009; Wilson, Rholes, Simpson, & Tran, 2007). Generally, insecure attachment has been linked with higher prevalence of psychopathology and affective disorders (Bifulco, Kwon, Jacobs, Moran, Bunn & Beer, 2006). In addition, Adverse Childhood Experiences (ACEs) are correlated with particular psychological conditions, including higher levels of depression as well as posttraumatic stress disorder (PTSD) symptoms during pregnancy (Atzl, Narayan, Rivera, & Lieberman, 2019). Negative attachment representations are particularly internalized by individuals who experienced ACEs – including childhood maltreatment – which result in self-perceptions as being incapable, unworthy, or not being enough (River, Narayan, Atzl, Rivera, & Lieberman, 2020). These internal representations can play out in distinct ways for people with different attachment styles during pregnancy. Avoidant expectant women feel less close to their prenatal babies, do not think about them frequently, and experience lower levels of prenatal bonding with the baby in the third trimester (Priel & Besser, 2000). They also find it difficult to seek help from their partners during this challenging time (Rholes, Simpson, Campbell, & Grich, 2001). In fact, they seem to reject their partners and exhibit overly self-reliant and distancing coping strategies (Conway, 2014; Mikulincer & Florian, 1999). As for anxious expectant mothers, they have lower levels of psychological wellbeing during pregnancy and may rely on emotion-based defense mechanisms throughout this

phase (Mikulincer & Florian, 1999). Also, they seem to experience prenatal jealousy as they feel threatened that the baby will take their partner's time and attention (Rholes & Paetzold, 2019; Wilson et al., 2007). As they tend to demand attention for themselves and excessively fear abandonment, these thoughts may trigger insecurities they already have. In addition, anxious women perceive less support from their partners during pregnancy, which ends up making them even more anxious and more attuned to any threats to their relationship (Simpson, Rholes, Campbell, Tran, & Wilson, 2003; Simpson, Rholes, Campbell, & Wilson, 2003). Taubman - Ben-Ari et al. (2009) suggest that attachment-related concerns held during pregnancy continue throughout motherhood as well. Anxious individuals are caught up in depressive thoughts and lower perceived relationship satisfaction. These thoughts seem to continue even after the child is born. As for avoidant individuals, they have thoughts of lack of emotional closeness to the baby, negative expectations of parenthood as overly stressful and their children as too difficult (Priel & Besser, 2000; Rholes et al., 2006; Wilson et al., 2007). Interestingly, this pattern of negative caregiving representations among anxious and avoidant individuals was still consistent even in a study that explored this construct among undergraduate students who "raised a child" through a simulated parenting program (Symons, Adams, & Smith, 2015). It is also important to mention that being pregnancy can be particularly triggering for women who experienced abuse in their childhood (Lara, Navarrete, Nieto, & Le, 2015) – however, this is outside of this dissertation scope. Generally, insecure attachment seems to predispose women to more negative parenting representations and more negative mothering behavior (Conway, 2014; Rholes et al., 1995).

3.1.3. Parenting representations: Mothering behavior

As mentioned earlier, Rholes investigated working models of parenthood before conceiving and during pregnancy (1995; 1997; 2006). His other significant studies explored similar constructs. However, they focused on the time period after the baby's birth (i.e. mothering behavior with the child). In 1995, Rholes et al. held a lab observation for 44 mothers teaching a new task to their 12-48 month old children. They observed both supportive and hostile behaviors. Avoidant

mothers were generally less supportive and did not feel as emotionally close to their children as secure mothers did. As for ambivalence, it was not correlated with supportive behavior or the teaching style of the mother to her child. However, ambivalent women seemed to feel emotionally closer to their children when their level of relationship satisfaction with their partner was high.

Generally speaking, it seems that insecure mothers exhibit less adequate, positive and sensitive mothering behavior towards their children than secure mothers (Crowell & Feldman, 1988). Insecure mothers are less warm and provide less structured environments (Pearson et al., 1994). Along these lines, they enjoy motherhood less than secure mothers, and report lower levels of fulfillment and joy when dealing with their children. As for mothers who have a secure attachment style, research shows they have different maternal attitudes. They are more sensitive and responsive to their children's needs (Ward & Carlson, 1995). They perceive themselves and other people positively which results in higher levels of intimacy, empathy, closeness, emotion regulation and adequate support to their children (Reizer & Mikulincer, 2007).

More importantly, secure mothers accept their maternal role and enjoy the caregiving aspects related to it (Ainsworth et al., 1978). Moss (1967) was interested in how, two years before having a baby, mothers' expectations of parenthood would affect the way they respond to their infants when they cry. The study revealed that women who were accepting and looking forward to a "nurturing role" two years before having a baby were more likely to be sensitive and respond to their baby's crying. Therefore, one's orientation towards being a caregiver, even from early on, may affect maternal behavior. Avoidant individuals, on the other hand, appear to be uncomfortable and resentful of their caregiving role, and are often bored with its duties (George & Solomon, 1996; Selcuk et al., 2010). Bowlby (1980) explains that individuals with avoidant attachment are uncomfortable with emotional closeness and dependency. Therefore, having fragile and dependent infants may present a real challenge to them. Their relationship with their children often improves when their children grow older and become more independent. Main (1990) suggests that mothers of avoidant infants tend to reject and not encourage physical contact. However, they still show the same level of protection against danger toward their children.

Attachment avoidance was also related to lower levels of mindful parenting due to these individuals' perceptions that other people – in that case, their children – are not that “worthy” of help (Moreira & Canavarro, 2015). As for mothers of ambivalent infants, they tend to encourage dependency and close tracking of the child. These mothers may be acting on their own needs for closeness and enmeshment, rather than the child's needs (Rholes et al., 1995). They may even interfere with their toddlers' exploration needs at times (Selcuk et al., 2010). Attachment anxiety was also linked to less mindful parenting due to self-serving reasons behind wanting to help and the parent's inability to accurately interpret signs of need from the child (Moreira & Canavarro, 2015).

Solomon and George (2006) explain that mothers of disorganized children (i.e. correspondent of fearful attachment in adults) tend to feel helpless and unsure whether they are capable of protecting their children. They often have had unresolved loss or physical/sexual abuse in their own childhoods. Also, they frequently describe a high degree of dependence on the child, who often dominates the relationship. Moreover, when the mother's attachment system is aroused, she either abandons the child or asks him/her for reassurance. Interestingly, 6-year-old disorganized children have been found to play with dolls in particular ways. Usually the dollhouse is “falling apart” and the adult is threatening or abandoning the child in the game. Lyons-Ruth and Block (1996) found that mothers who experienced physical abuse in their childhoods tend to exhibit hostile and intrusive behavior towards their children. These women adapt with their childhood trauma in terms of “identifying with the aggressor.” They treat their children in similar ways in which they were treated. As for mothers with sexual abuse in their childhoods, they tend to be less involved and more distant with their children.

Another study suggests that in the parental role, fathers are affected by current relationships in their lives more than mothers, while the impact of childhood experiences influence mothers more so (Cox, Owen, Lewis, Riedel, Scalf-Mciver, & Suster, 1985). In general, the birth of a vulnerable baby generally has an immense ability to evoke caregiving behaviors (Solomon & George, 1996). Generally, even mothers with traumatic backgrounds are strongly motivated to protect their babies (Fraiberg, 1980). This is why Solomon and George (1996) state

that before having a child, caregiving representations are largely based on the past. However, once the baby is born, caregiving representations reflect much more the actual relationship with the baby – for better or worse.

3.2. INTERGENERATIONAL TRANSMISSION OF ATTACHMENT THROUGH CAREGIVING

Intergenerational transmission of attachment is a strongly significant concept in the literature and is of great relevance to this dissertation. It refers to the phenomenon by which caregivers can transmit their attachment styles to their children through the type and quality of care that they provides them with. Several studies have attempted to answer this very question. Most of these attempts involved the use of the Adult Attachment Interview. It is an interview that is conducted by a professional to uncover the person's "state of mind with respect to attachment" (Bretherton & Munholland, 2008). In other words, the interviewer tries to explore the person's current attachment representations of his/her early attachment figures (Bartholomew & Shaver, 1998). The AAI is designed particularly to trigger attachment memories - such as rejection, abuse, and separation in order to categorize individuals into distinct adult attachment styles (Mayseless, 2006; Scharf & Mayseless, 2011).

There are four types of attachment categories that result from the AAI: secure/autonomous, dismissing, preoccupied, and "earned-secure" (Scharf & Mayseless, 2011). Secure individuals' narratives in the AAI are coherent, balanced, and include both positive and negative aspects of the past (Bretherton & Munholland, 2008; Scharf & Mayseless, 2011). Dismissive individuals often find it harder to recall their childhood memories and/or minimize the importance of early attachment relationships in their lives. At other times, they idealize their parents to a great extent without any proof or evidence of such idealization. On the other hand, preoccupied individuals are still living in their childhood challenges and memories. They often still have feelings of anger and resentment towards their parents (Scharf & Mayseless, 2011). As for those who fall under the "earned-secure" category, they were able to somehow rework and reformulate their painful childhood memories and have been able to come to terms with the past and as such, their narratives are coherent (Bretherton & Munholland, 2008).

The question is, do individuals with different AAI categorizations end up transmitting their attachment style to their children? Some studies confirm the intergenerational transmission of attachment phenomenon, while others are strongly against it. The next section will present both perspectives.

3.2.1. Evidence for the intergenerational transmission of attachment

“Child tend unwittingly to identify with parents and therefore to adopt, when they become parents, the same patterns of behavior towards children that they themselves have experienced during their own childhood, patterns of interaction are transmitted, more or less faithfully, from one generation to another” (Bowlby, 1973, p. 323).

The intergenerational transmission hypothesis proposes that parents transmit their attachment style to their children through the quality of care and parental behavior they exhibit (Bowlby, 1969; 1973; George & Solomon, 2008). It is also referred to as the “assimilation model of caregiving” (Solomon & George, 1996). It entails that maternal caregiving is how mothers transfer their attachment security/insecurity to the next generation. According to this concept, the mother assimilates new experiences with her child according to her already established attachment representations (George & Solomon, 2008).

Some studies found a high correlation between mothers’ own attachment experiences (assessed by the Adult Attachment Interview, AAI) and their infants’ attachment (assessed five years earlier by the Strange Situation Test, SST) (Main, Kaplan, & Cassidy, 1985). In fact, numerous research studies confirm this finding (e.g. Bakermans-Kranenburg & Van IJzendoorn, 1993; Van IJzendoorn, 1992). There is 75% agreement between the mother’s attachment style during the period of pregnancy and her child’s attachment one year after birth (Fonagy, Steele, & Steele, 1991). In many cases, babies end up forming insecure attachments when their caregivers have insecure attachment styles (Main, Kaplan, & Cassidy, 1985). This makes sense as the parent’s attachment style influences their caregiving style. In turn, the caregiving a baby receives affects the attachment he develops towards the parent (Rholes et al., 1995; Rholes et al., 1997; Rholes et al., 2006; Conway, 2014). For example, avoidant children most likely have avoidant mothers (Main et al., 1985). Lyons-Ruth & Block (1996) found that disorganized children are highly associated with maternal trauma. In addition, mothers with

challenging or abusive backgrounds report certain characteristics in their relationship with their infants. In general, when the mother reports violence or abuse in her childhood, her infants tend to exhibit insecure attachment. Disorganized children have also been associated with mother's "lack of resolution" state on the AAI. 87% of disorganized children's mothers have experienced "rage" during their childhood upbringing (Solomon & George, 2006). These findings suggest that the mother-child interaction is based on the mother's state of mind regarding her attachment experience. Essentially, this means that the past is re-enacted in the present relationship with one's child. In addition, Brizendine (2006) claims that "inattentive mothering behavior can be passed on for three generations" (p.110). Therefore, if the woman is not mindful and conscious of how her own upbringing may come into play in her parenting journey, she is likely to repeat cycles from her own past – whether she liked them or was personally hurt or even traumatized by them.

Other studies have used prenatal assessments of the mother's own attachment experiences to predict their infants' attachment (Benoit & Parker, 1994; Fonagy et al., 1991). Autonomous mothers (i.e. secure) were very likely to have secure infants one year following the prenatal assessment. On the other hand, prediction was moderate to poor for insecure mothers. Most participants who showed a pattern of maternal attachment insecurity had secure infants one year later. One of the limitations of these studies might have been the difficulty of assessing thoughts regarding the past during the emotionally challenging time of pregnancy.

3.2.2. Evidence against the intergenerational transmission of attachment

Some researchers disagree with the concept of intergenerational transmission of attachment. They argue that this is not a direct process. Instead, many other factors play a role, which may cause a "transmission gap" (Solomon & George, 2006). According to this view, a mother's relationship with her child is not necessarily affected by her own upbringing. On the contrary, this new relationship may cause her to re-organize her childhood experiences in a different way. In this case, it is not the past that is affecting the present, but rather *the present that is changing the perception of the past*. When a mother enjoys her maternal

role, she may start to perceive herself and her own parents in a new and better light (Solomon & George, 2006). She may eventually believe that past attachment challenges do not currently define her self-worth or maternal potential (Bretherton & Munholland, 2008). In fact, many women approach parenthood with the intention of giving their child what they did not receive as children. Some mothers can even use this opportunity as a second chance to re-live their childhood through parenting their children (Sacks, 2017). They try to at least become the mother they wish they had as a baby – what Winnicott (1953) refers to as the “good-enough mother.” Major turning points in life (i.e. life transitions) present opportunities for such evaluations of the past. Other factors also come into play. For example, the presence of a supportive partner may encourage a positive working model of parenthood, regardless of the past (Solomon & George, 2006). Therefore, subsequent secure relationships are essential and their impact should not be discounted (Simpson, Collins, Tran, & Haydon, 2007). Other factors that may cause discontinuity of attachment styles across generations include psychotherapy and the actual birth of the baby and all the changes that it causes (George & Solomon, 1996).

Main et al. (1985) claim that mothers with challenging childhood backgrounds and whose children are secure have remarkably re-interpreted their experiences and eventually saw them differently (i.e. earned security). The parent’s level of coherence on the Adult Attachment Interview (AAI) depicts the current state of mind with regard to one’s caregivers. It is considered to be the best predictor of an infant’s sense of security/insecurity (Bretherton & Munholland, 2008). What happened to the person in childhood is less important than how he/she currently makes sense of it (Main et al., 1985; van IJzendoorn, 1995). Therefore, when it comes to predicting an infant’s attachment, the caregiver’s childhood experiences are not as critical as how he/she currently perceives them (Mayseless, 2006). Researchers adopting the viewpoint against the intergenerational transmission of attachment also believe that the concordance is found mainly among secure/autonomous mothers. On the other hand, it is not as clear or direct for mothers of insecure children. For example, mothers of disorganized children do not always report attachment-related trauma as claimed by other researchers (George & Solomon, 2008). In fact, only 59% of disorganized babies have “unresolved” mothers (as assessed by the AAI) (van IJzendoorn, 1995). In

addition, 42% of physical/sexual abuse survivors eventually develop a secure attachment with their children (Lyons-Ruth & Block, 1996). Fisher (2000, cited by George & Solomon, 2008) even claims that earned secure parents tend to act as disorganized parents and have insecure children. According to him, parenthood triggers these mothers' caregiving systems and in fact causes their old wounds to resurface.

All of these contradictory findings lead to the concept of "transmission gap" (De Wolff & Van IJzendoorn, 1997; van IJzendoorn, 1995). This concept mainly entails that the mother's state of mind with regards to her attachment figures and experiences is not a direct or strong predictor of how she relates to her children. In other words, the child's attachment does not directly reflect his mother's attachment style (Main et al., 1985). However, there is a dearth of literature on "intergenerational discontinuity of attachment" (George & Solomon, 1996). Whether one agrees or disagrees with the concept of intergenerational transmission of attachment, it is still critical to explore the mother's internal world of thoughts and experiences. Eventually, they affect her mothering behavior – which may have a direct or indirect effect on her child's attachment and experiences in life.

In conclusion, this review of the literature review presented some of the most relevant studies and findings pertaining to the construct of parenting representations before having a baby, during pregnancy, and after the baby is born. The aforementioned studies highlight the importance of understanding prenatal expectations and their relationship with different factors, including one's own upbringing and/or attachment background. Since people with different attachment styles have different perceptions of themselves, others, and the world, it is likely that they might experience the transition to parenthood in distinct ways. However, the literature is neither extensive nor consistent when it comes to the findings and the theoretical understanding that related the attachment system, the caregiving system, and parenting representations.

This dissertation aims at exploring these constructs in the following unique ways. 1) Exploring prenatal expectations in the first trimester of pregnancy (as opposed to the third trimester). 2) Being the first of its kind to be carried out in Spain, to the author's knowledge. 3) Studying critical variables simultaneously,

namely attachment style, bonding with caregivers, desire to become a parent, perceived ability to relate to children, meaning ascribed to parenthood, and preoccupations regarding becoming a mother. Also, important control variables are accounted for in this study, which consist of the relationship satisfaction, if the woman is currently working, if she had a previous abortion and/or miscarriage, and whether the pregnancy is wanted, mistimed, or unwanted. 4) Using a measure that focuses on memories of parental bonding (i.e. PBI) as well as a measure that focuses on romantic relationships (i.e. RQ) to study the construct of attachment. This gives a more holistic perspective of past and current relationships and influences. 5) Exploring the area of meaning making, which is often overlooked in the literature. This study explores the expectant mothers' personal meaning ascribed to becoming a mother in their own words – through the use of an open-ended question. 6) Proposing a new scale that assesses excessive attachment-based concerns during pregnancy regarding motherhood. According to the author's knowledge, this scale is the first of its kind and can be of significant value for future work in the field. Overall, this dissertation aims at raising important questions in an attempt to understand the transition to motherhood in a deeper sense. This is likely to be translated into psycho-educational, psychotherapy and prevention initiatives that can help and support expectant mothers going through this transition. Such an innovative approach is likely to lower the risk of perinatal mood and anxiety disorders – including postpartum depression.

IV – OBJECTIVES AND HYPOTHESES

IV – OBJECTIVES & HYPOTHESES

4.1. RESEARCH OBJECTIVES

To examine the contribution of 1) expectant mothers' attachment style and 2) representations of their own attachment figures to their representation of themselves as caregivers, in terms of:

- 1) Their desire to have children (DTC)
- 2) Their perceived ability to relate to children (PARC)
- 3) The meaning they ascribe to motherhood
- 4) The presence of excessive preoccupations regarding becoming a mother

4.2. RESEARCH QUESTIONS

The research objective is translated into the following main question: to what extent do *childhood influences* affect *prenatal expectations* in Spanish first-time pregnant women during their first trimester?

In this study, childhood influences are operationalized as one's attachment style (assessed by the RQ), and memories of care and over-protection as well as the parenting style experienced from the primary caregiver (assessed by the PBI). Prenatal expectations include one's desire to have children (assessed by the DTC scale), perceived ability to relate to children (assessed by the PARC scale), personal meaning ascribed to motherhood (assessed by an open-ended question), and concerns regarding becoming a mother (assessed by the Pregnancy Preoccupations Scale developed for this study). These prenatal expectations involve the mother's representation of herself as a caregiver (also referred as "parenting representations" in this study).

In order to answer the main question, two sub-questions will also be explored in this study:

Question 1: Do pregnant women's attachment style, memories of care and over-protection from her primary caregiver, and the parenting style she experienced in her childhood, influence her parenting expectations? (See hypotheses 1 to 4)

Question 2: Does the following affect parenting expectations in pregnant women: age, income/education levels, work, relationship satisfaction, having a wanted pregnancy, and having a previous abortion and/or miscarriage? (See hypotheses 5 to 10)

4.3. RESEARCH HYPOTHESES

1. Expectant mothers with a secure attachment style will have more positive parenting representations than the ones with insecure attachment styles.
 - a) Secure attachment is expected to be positively correlated with higher desire to have children (DTC), higher perceived ability to relate to children (PARC), positive meanings/themes of motherhood, and lower preoccupations regarding motherhood.
 - b) Insecure attachment is expected to be correlated with lower DTC, lower PARC, more negative meanings/themes of motherhood, and higher preoccupations regarding motherhood.
2. Positive memories of bonding with parents (i.e. high parental care) are expected to be associated with positive parenting expectations: higher DTC, higher PARC, positive meanings/themes of motherhood, and lower preoccupations regarding becoming a mother.
3. Memories of parental over-protection are expected to be related to more negative parenting representations: lower DTC, lower PARC, more

negative meanings/themes of motherhood, and higher preoccupations regarding becoming a mother.

4. Expectant mothers who experienced an optimal parenting style during their childhoods are expected to exhibit more positive parenting representations than their counterparts who experienced other types of parenting.
5. Older expectant women are expected to have higher DTC, higher PARC, as well as higher preoccupations regarding motherhood.
6. Expectant women with higher income levels are expected to have a higher DTC since women with low-income levels may have concerns about their financial resources.
7. Expectant women with higher education levels are expected to have lower DTC (motherhood may be perceived as a potential threat to their ambitions) and higher preoccupations regarding motherhood.
8. Working expectant women are expected to have lower DTC and higher preoccupations regarding motherhood due to their potential unavailability, motherhood potentially being perceived as a potential threat to their ambitions and career opportunities.
9. Higher relationship satisfaction as well as having a wanted pregnancy (as opposed to having an an unwanted or a mistimed pregnancy) are expected to be associated with more positive parenting representations: higher DTC, higher PARC, more positive meanings/themes of motherhood, and lower preoccupations regarding becoming a mother.
10. Having a previous miscarriage and/or abortion is expected to be related to having more preoccupations regarding pregnancy and the transition to motherhood.

V - METHODOLOGY

V - METHODOLOGY

5.1. RESEARCH DESIGN

The current research study investigates the relationship between one's childhood experiences, attachment style and their pre-parenthood attitudes/expectations regarding having children. Explanatory variables consist of attachment style, memories of parental bonding and the parenting style experienced as a child. Outcome variables consist of desire to have children (DTC), perceived ability to relate to children (PARC), meaning ascribed to motherhood, and excessive preoccupations regarding becoming a mother. Control variables consist of relationship satisfaction, wanted/mistimed/unwanted pregnancy, and previous abortion and/or miscarriage. Finally, demographic variables consist of age, income level, education level, and working status.

5.2. MEASURES

5.2.1. Demographic Questionnaire

The self-report questionnaire consisted of questions regarding age, income level, education level, and employment status. Participants' phone numbers were collected for the researchers to send them a post-questionnaire following childbirth, if needed.

5.2.2. Relationship Questionnaire (RQ)

The Relationship Questionnaire is a 4-item measure of attachment style developed by Bartholomew & Horowitz (1991). Each item represents a pattern of attachment based on Bowlby's definition of internal working models (Bartholomew & Shaver, 1998; Bowlby, 1973). Respondents are asked to rate using a Likert-scale the degree to which each paragraph applies to how they feel in relationships. The items can be categorized as having two distinct dimensions:

model of the self (MOS) and model of others (MOO) (Bartholomew & Shaver, 1998; Griffin & Batholomew, 1994). MOS refers to a sense of self-worth and level of anxiety in relationships, while MOO is related to comfort with intimacy and the perception of others as available (Griffin & Batholomew, 1994). Figure 3 illustrates the classification system of the Relationship Questionnaire. The RQ tool is used extensively in the literature as it is easy to administer and relies on a solid theoretical construct. A cross-cultural study used this self-report measure across 62 cultural regions (Schmitt et al., 2004). The current study uses the Spanish version of the RQ in Schmitt et al.'s study (2004).

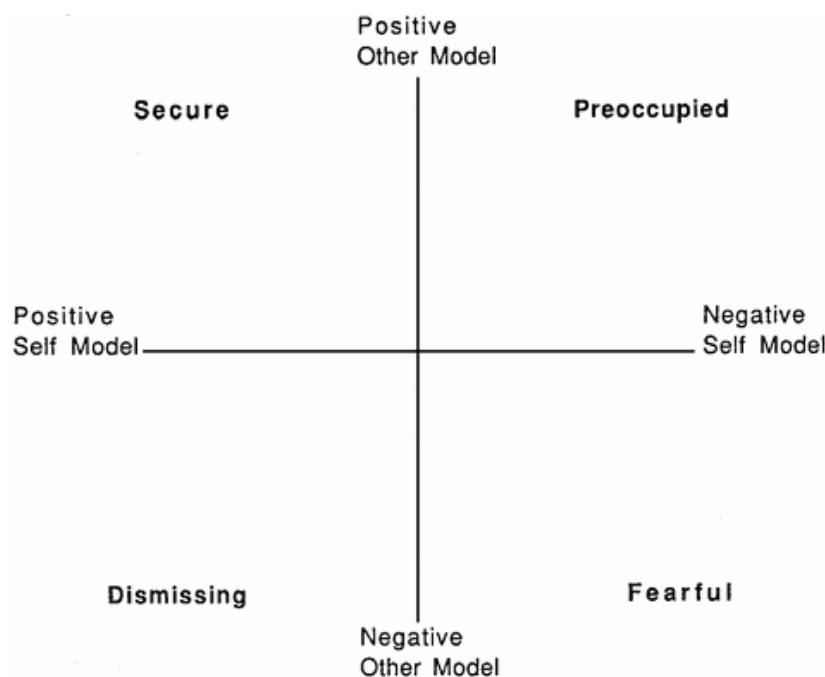


Figure 4. Classification system of the RQ

Several studies have demonstrated adequate psychometric properties for the RQ (e.g. Brennan, Clark, & Shaver, 1998). In addition, insecure attachment style scores on the RQ show a significant correlation with insecure attachment style scores on the Experiences in Close Relationships scale (ECR; Brennan et al., 1998) – another strong measure of attachment. Another study of 840 college students showed that attachment styles measured on the RQ and Hazan & Shaver's attachment measure (1987) were statistically related. In general, as a self-

report measure, the Relationship Questionnaire does not claim to uncover unconscious processes. It assesses feelings and trends in close emotional relationships. It is considered to be a “convenient surface indicator” that points towards specific attachment dynamics (Bartholomew & Moretti, 2002).

The RQ had low internal consistency in this study ($\alpha = .42$) when it came to the continuous variables. Therefore, for more accurate results, the variables of “model of self” and “model of others” were removed from the analysis. They consist of equations calculated from this scale. As for the categorical attachment styles (i.e. secure/insecure attachment as categorized in this study), they were still used since they only entailed having the participant choose the best description of their patterns of behavior.

5.2.3. Parental Bonding Instrument (PBI)

The PBI is used to account for retrospective perception of the bond with one’s caregivers during the first 16 years of the respondent’s life. It is included in the study to investigate not only the general attachment style but also how it relates to one’s earliest social environment (i.e. early parenting representations). The questionnaire originally had two scales, one referring to the mother and one to the father. However, in this study, the instructions were changed to refer to whoever the woman considers to be her *primary caregiver* during the first 16 years of her life. No previous assumptions are made regarding who this person should be.

The scale was originally published in the British Journal of Medical Psychology (Parker, Tupling & Brown, 1979) and was adapted to Spanish by Gómez, Vallejo, Villada and Zambrano (2007). It is comprised of two dimensions: care and overprotection. It includes 25 items in total – 13 for care and 12 for overprotection. Participants are asked to rate their degree of agreement with the statements, which is later translated into a score. The cutoff score for parental care is 27, while the cutoff score for parental overprotection is 13.5. The scores of these dimensions are then translated into one of four “parenting quadrant:” optimal parenting, affectionate constraint, affectionless control, or neglectful parenting. Figure 4 illustrates the classification system of the PBI.

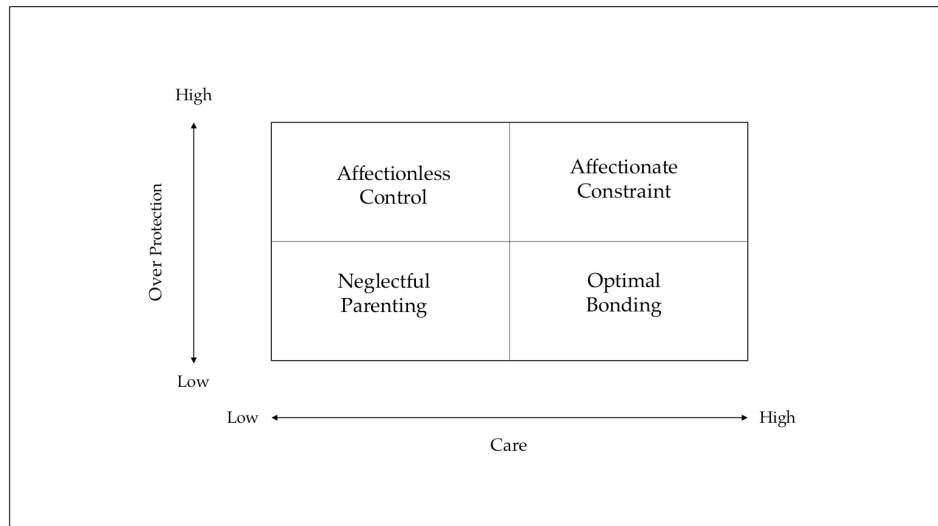


Figure 5. Classification system of the PBI

For over 25 years, studies have found this scale's psychometric properties to be reliable. The original English scale has good internal consistency, construct and convergent validity, and test-retest reliability (Parker et al., 1979). When it was adapted to a sample in the University of Antioquia in the city of Medellín in Colombia, the alpha Cronbach for paternal care was 0.891, maternal care 0.883, paternal protection 0.807 and maternal protection 0.855 (Gómez et al., 2007). In this study, the subscales of both parental care ($\alpha = .70$) and parental over-protection ($\alpha = .72$) had good internal reliabilities.

5.2.4. Desire to Have Children (DTC)

Rholes et al. developed this scale in 1995 to be used in a parenthood questionnaire as part of a study. It was used in several studies that focused on the concept of the varying desires to be a parent. It was administered to mothers of children aged 24 to 48 months (Rholes et al., 1995), college students (Rholes et al., 1997), pregnant women (Rholes et al., 2006), and in a longitudinal study to emerging adults (Scharf & Mayseless, 2011). The present study administers the

whole scale (12 items). The higher the score, the higher the desire to have children. In this study, the DTC scale had good internal reliability ($\alpha = .75$).

5.2.5. Perceived Ability to Relate to Children (PARC)

PARC scale was originally developed in the study conducted by Rholes et al. in 1997. It consists of 11 items, relating to one's comfort with children and one's expectation of becoming a good parent. The scale is significantly correlated with several aspects related to parenthood (e.g. desire to have children and expected satisfaction from parenting) (Rholes et al., 1997; Scharf & Mayseless, 2011). It was used in numerous studies (e.g. Bjorgo, 2003; Conway, 2014; Rholes et al., 1997; Scharf & Mayseless, 2011; Scharf & Rousseau, 2017). The participants ranged from college students, mothers, fathers, and emerging adults. The present study administers the whole scale (11 items). 10 items are reverse-scored. The higher the final score, the higher the perceived ability to relate to children. In this study, the PARC scale had good internal reliability ($\alpha = .81$).

5.2.6. Meaning Ascribed to Motherhood

In an open-ended question, the participant was asked to write in her own words what it means for *her* to become a mother for the first time. The respondent is not guided into giving a positive or negative meaning. According to Simon (1997), stress research lacks this focus (i.e. a person's meaning-making and unique understanding of a situation). This question is based on his rationale and questionnaire. The meanings were then content-coded by two raters (professional psychotherapists)³ and classified into six general themes. The themes were divided as follows: 1) positive experiences (e.g. happiness, blessing, miracle of life), 2) giving love and nurturance, 3) creation and continuity, 4) fulfillment (e.g. self-actualization, fulfilling a goal, becoming complete), 5) responsibility and commitment, and 6) negative emotions (e.g. concerns, obligation, fear). Only the sixth meaning entailed negative connotations, while the others were either positive or neutral. Each theme is dichotomous (i.e. present or not present in the

³ The raters are the author and Dr. Yasmine Saleh, a clinical psychologist and associate professor of practice at the American University in Cairo.

participant's response). Only seven out of the hundred participants did not answer this question.

5.2.7. Pregnancy Preoccupations Scale (PPS)

The PPS was developed for the purpose of this study by the author. It consists of 14 preoccupations⁴ that pregnant women may have at some point regarding pregnancy and/or the transition to parenthood. They are mostly related to attachment issues (e.g. if the baby will love her, if she will be a good mother). However, all these doubts are relatively normal and/or common to some degree. Therefore, the participant is required to rate from 0 to 6 whether she *excessively* has each of these concerns. The maximum score on this scale is 84. The higher the score, the more the pregnant woman has excessive preoccupations regarding pregnancy and/or the transition to motherhood. In this study, the PPS had good internal consistency ($\alpha = .87$).

5.3. PARTICIPANTS

5.3.1. Sample recruitment and criteria

Participants consist of first-time pregnant women, more specifically between the beginning of their pregnancy until the 4th month of their pregnancy. Inclusion criteria entailed the following: (1) having a low risk pregnancy, (2) natural conception, (3) being Spanish, (4) having a partner, (5) not having a medical condition that may affect the pregnancy, and (6) not having experienced any pregnancy complication so far. Those who knew they were expecting twins or that their baby was at risk of having a disability were excluded from the study, as to ensure that these factors do not account for variations in findings.

Participants were recruited from the Hospital Virgen de Arrixaca in Murcia, Spain. It is the largest public hospital in the region. The Department of Obstetrics and Gynecology at this hospital is particularly reputable. Women usually follow up with their doctors at health centers in their cities, and go to

⁴ The scale items are included in the appendices.

Hospital Virgen de Arrixaca in weeks 12, 20, 36, and 40 for follow-ups and consultations. As such, the hospital is representative of the region's population since pregnant women from different cities and backgrounds visit the hospital. For the purpose of this research, participants were asked to take part in the study during their consultation visit in the 12th week of pregnancy by filling out a 10-15 minute questionnaire. The data was collected in the period between June 2017 and February 2018.

This study made use of purposive convenience sampling, since the main focus of the research lies in a particular phase of pregnancy in first-time expectant mothers. The sample size depended on the flow of patients and their willingness to participate. The sampling methodology/sample size followed the common practice of similar studies in the field.

5.3.2. Sample description

The sample consisted of 100 Spanish participants, who ranged in age from 16 to 43 years old ($M = 28.82$, $SD = 5.78$). 8% of the sample was under 20 years old. The average age in the current study is slightly lower than the average age of first-time mothers in the region of Murcia ($M = 30$) (Instituto Nacional de Estadística, 2018a). Most of the participants (73%) have a monthly family income between 1000 and 3000 euros, which goes in line with the average income for employed Spanish people in the region of Murcia ($M = 1684$ euros) (Instituto Nacional de Estadística, 2018b). The rest reported earning between 3000 and 5000 euros (8%) or less than 1000 euros (19%). No participant earned more than 5000 euros. 52% of the sample had a university education or higher, followed by 35% who completed secondary education. 10% of women had primary education, and 3% did not complete a minimum of primary education (or are uneducated). As such, this research's sample is considered to be a relatively highly educated sample. 75% of the respondents were currently working.

Control variables. On a Likert scale from 0 to 6 (where 6 is the highest level of relationship satisfaction), most of the participants were very satisfied in their relationship with their partners ($n = 86$, $M = 5.78$, $SD = 0.63$). 88% wanted their current pregnancy, while 12% felt it was mistimed (i.e. it would have been

better at a different time). None of the participants reported a completely unwanted pregnancy (i.e. not wanting to become a mother now or later). 11% of the sample had at least one previous miscarriage, and 4% had at least one previous abortion.

Explanatory variables. In this sample, attachment styles in this sample were biased towards secure attachment. However, it is important to take into consideration that social desirability bias might have played a role. Due to the very low percentages on some subcategories of insecure attachment styles (e.g. only 2% reported a “preoccupied” attachment style), the participants were classified as either “securely attached” (86%) or “insecurely attached” (14%). The latter category includes the dismissing (6%), preoccupied (2%), and fearful (6%) attachment styles. Even in the literature, the distinction between secure and insecure attachments is meaningful when comparing their effects on parenting representations. 63% of the participants indicated that their mother was their primary caregiver during the first 16 years of their life, followed by those who reported that both their parents were their primary caregivers (18%). Others chose other people, including their grandmother or aunt. As for parental care’s score, it ranged from 19 to 36 ($M = 30.45$, $SD = 4.15$) while parental over-protection ranged from 0 to 25 ($M = 13.88$, $SD = 4.96$). Since over-protection is not an optimal characteristic of parenting, these averages reflect a healthy trend in parenting. 41% of the sample experienced “optimal parenting” in their childhoods, while 59% experienced “non-optimal parenting.” The latter category combines the “affectionate constraint” (44%), “affectionless control” (13%), and “neglectful parenting” (2%) styles.

Outcome variables. The desire to have children (DTC) is very high in this sample ($M = 53.57$, $SD = 10.04$). On a scale from 0 to 72, the scores ranged from 25 to 72. The same goes for the perceived ability to relate to children (PARC), which ranged from 24 to 66 (the scale goes from 0 to 66) ($M = 56.55$, $SD = 9$). The subjective meanings of motherhood identified by respondents consisted of the following themes and percentages: positive experiences (44.72%), giving love and nurturance (10.57%), creation and continuity (12.20%), fulfillment (17.89%), responsibility and commitment (8.94%), and negative concerns/obligation (5.69%). As for excessive preoccupations, the participants’ scores ranged from 0 to 65 (M

=21.46, $SD = 13.60$), with 84 being the highest possible score. The highest excessive preoccupation reported by participants was fear of losing the baby ($M = 3.75$, $SD = 1.64$), followed by worrying about being a good mother ($M = 2.25$, $SD = 1.87$). The lowest reported preoccupation was the lack of wanting to become a mother ($M = 0.22$, $SD = 0.72$) which confirms the high DTC among the participants and not having any unwanted pregnancies among the sample.

5.4. PROCEDURES

Before starting the data collection for this dissertation, formal acceptance was received from the ethics committee at the Universidad Católica de Murcia (UCAM) as well as the separate ethics committee at the hospital in Murcia. The study is cross-sectional in nature and the questionnaire took between 10 and 15 minutes to be completed.

Around 36 women, who are in their 12th week of pregnancy, come in every day to the Hospital Virgen de Arrixaca. They go into a room where a nurse takes their medical history and then remain in the waiting area until they have an ultrasound. The data collection for this research was completed during this period of waiting time. Women were asked if they were willing to take part in the study, as they left the nurse's room. In case they agreed to participate, they completed the questionnaire in an area that was separate from the waiting room (where usually the husband or a family member is waiting). Figure 6 explains the steps taken to recruit the participants.

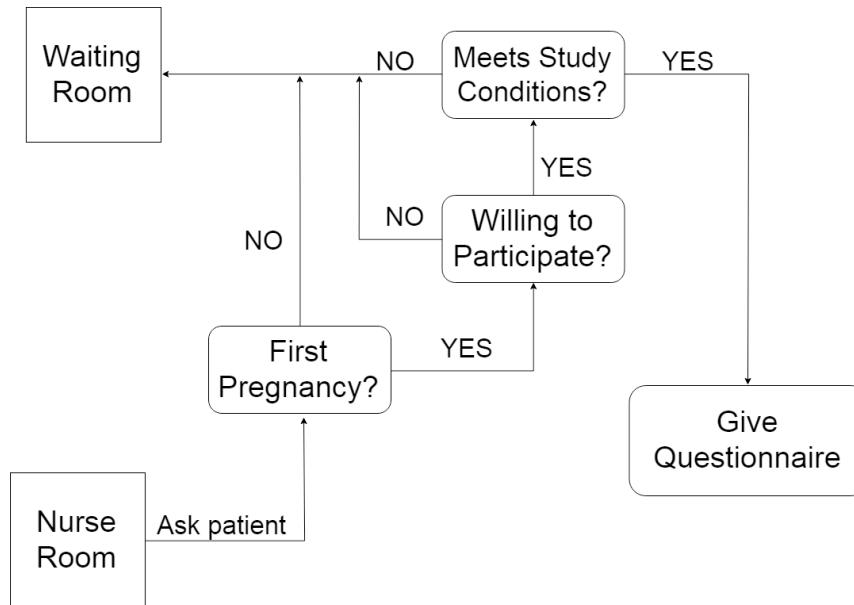


Figure 6. Procedure of data collection

Participants were first given an information sheet that briefly explained the general aim of the study (i.e. to better understand different experiences of women undergoing the transition to motherhood). The information sheet emphasized that there were no right or wrong answers, and that respondents should answer according to which responses *best* describe her. This was done in order to decrease social desirability bias in terms of how they “should” be feeling about their pregnancy. Then, the participants were asked to sign the informed consent form, which stipulated their willingness to participate. The questionnaire was only given after the informed consent was signed and after any questions that the participant may have had, were answered.

Participation in the study was completely voluntary. It did not have any implications on the woman’s receipt of services from her health care provider originally targeted. Financial compensation was not used to recruit the participants as they volunteered their time. Participants could withdraw at any point in the study, without having to explain their reasons. Other than the probability of discomfort or asking about possibly unpleasant relationships or feelings, there were no foreseeable risks that were expected to ensue.

Confidentiality of results was guaranteed to the participants. All forms and questionnaires were treated as confidential material and were kept on a secure password-protected computer. Access to the research data was only privileged to the author, who was in charge of the research study.

With regards to all of the scales used in this research to measure data, either the author's permission was taken beforehand, or there were no copyrights associated with the materials. Previously translated and validated versions of the used scales were used in this study. As for the scales that did not have a Spanish version, they were subsequently translated for the purposes of this research. The translation procedure consisted of several steps of translation and back-translation until at least two mental health professionals agreed on the final version of the translated scale.

5.5. PILOT STUDY

From April until September 2017, a pilot study was conducted in Murcia. 57 participants were recruited. After the data collection and statistical analysis of the responses, critical changes were made to the study in order to improve the quality of the research. Some of these changes included:

- a. Using a scale to measure the desire to become a parent instead of one item.
- b. Using a scale to measure perceived ability to relate to children instead of one item.
- c. Making sure the woman fills out the questionnaire on her own, instead of having a partner or relative sitting next to her. It might have affected the responses in the pilot study.
- d. Excluding participants who are not Spanish to focus the results on this sample.
- e. Instead of asking whether the pregnancy was planned or unplanned, a different approach was taken (i.e. if the pregnancy is wanted, mistimed, or unwanted). The different terminologies refer to critically different concepts.
- f. Adding a "quality control" question to make sure if the participant was actually paying attention, and not choosing randomly.

5.6. STATISTICAL ANALYSIS

Statistical analysis was conducted using JASP free software (JASP team, 2018). In order to better understand the data, the researcher used descriptive statistics, correlation analyses, multiple regression, mediation models, and Bayesian statistics.

VI - RESULTS

VI - RESULTS

This chapter delves into an examination of the results and illustrates the significance of the findings at hand. It begins with restating the study's hypotheses, and then answers the research questions according to the actual findings of this sample. Correlations, regression models, and mediation models will illustrate the results. An alpha level of .05 is used for all statistical tests.

As mentioned in chapter four, this study hypothesized that there would be a distinction between parenting representations of individuals having a secure and insecure attachment styles. It was predicted that secure expectant mothers would have a higher desire to have children (DTC), higher perceived ability to relate to children (PARC), lower preoccupations, and more positive meanings associated with motherhood than insecure expectant mothers. It was also predicted that those who experienced a higher level of parental care, lower level of parental over-protection, as well as those who were exposed to an optimal parenting style during childhood would have more positive parenting representations (i.e. higher DTC, higher PARC, positive meanings of motherhood, and lower preoccupations). Higher DTC was hypothesized to be related to older first-time mothers and a higher income level. On the other hand, lower DTC was hypothesized to be related to the mother's higher education and a working status, as motherhood might be perceived as a threat to these women's ambitions. A higher level of preoccupations was expected to be associated with the woman's older age, higher education level, and having a previous miscarriage or abortion. Lastly, a higher level of relationship satisfaction and having a wanted pregnancy were predicted to be related to positive parenting representations.

6.1. RESULTS FOR RESEARCH QUESTION (1)

Do the pregnant woman's attachment style, memories of care and over-protection in relation to her primary caregiver, and the parenting style experienced in her childhood, influence her parenting expectations?

As mentioned above, parenting expectations consist of DTC, PARC, the meaning of motherhood, and excessive preoccupations regarding the transition to motherhood. Analyses were run to explore the relationships between parenting expectations and the explanatory variables (i.e. attachment style, parental care, parental over-protection, and parenting style experienced in childhood). Table 1 summarizes the correlations between the continuous variables pertaining to the first research question.

Table 1
Correlations Between Continuous Variables of Research Question (a)

	Parental Care	Parental Over-protection	DTC	PARC
Parental Care	—			
Parental Over-protection	-0.433 ***	—		
DTC	0.097	-0.011	—	
PARC	0.346 ***	-0.302 **	0.242 *	—
Preoccupations	-0.247 *	0.221 *	-0.141	-0.677 ***

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

In line with the first hypothesis, some parenting representations were indeed related to attachment style. A main effect of attachment style was found for PARC, $F(1,97) = 19.17$, $p < .001$. Individuals with secure attachment ($M = 57.94$, $SD = 7.76$) reported significantly higher perceived ability to relate to children than individuals with insecure attachment ($M = 47.50$, $SD = 10.99$). A main effect of attachment style was also found for preoccupations, $F(1,97) = 14.99$, $p < .001$. Securely attached individuals reported significantly lower preoccupations ($M =$

19.66, $SD = 12.20$) than those who were insecurely attached ($M = 33.79$, $SD = 15.25$). The only thematic meaning of motherhood that was significantly predicted by attachment style (insecure attachment in particular) was the negative meaning that entails fears and/or concerns regarding motherhood ($p = .05$). However, there were no significant differences in DTC between individuals with secure and insecure attachment styles. Table 2 further illustrates the relationships between secure/insecure attachment and the different scales.

Table 2
Descriptive Statistics for Attachment Styles and Scales

	Secure Attachment		Insecure Attachment	
	Mean	SD	Mean	SD
DTC	54.40	9.49	49.36	12.37
PARC	57.94 ***	7.76	47.50***	10.99
Preoccupations	19.66 ***	12.20	33.79***	15.25
Parental Care	30.64	4.00	28.93	4.71
Parental Over-protection	13.53 *	5.00	16.50*	3.78

Significant differences between the attachment style groups * $p < .05$, ** $p < .01$, *** $p < .001$

In line with the second and third hypotheses, parental care and parental over-protection were significantly related to PARC and having excessive preoccupations regarding motherhood. Parental care and PARC were significantly positively correlated, $r(98) = .35$, $p < .001$. A negative significant relationship was found between parental care and preoccupations, $r(98) = -.25$, $p = .01$. However, there was a non-significant correlation between parental care and DTC. In addition, all thematic meanings were not significantly related to parental care. Parental over-protection and PARC were significantly negatively correlated, $r(98) = -.30$, $p = .002$. Parental over-protection was significantly positively

correlated with preoccupations, $r(98) = .22$, $p = .03$. However, no statistically significant relationship was found between DTC and parental over-protection. Furthermore, all thematic meanings were not significantly related to parental over-protection.

As for the fourth hypothesis, the only main effect of parenting style that was found was for PARC, $F(1,98) = 6.97$, $p = .01$. Individuals who experienced an optimal parenting style during their childhood ($M = 59.32$, $SD = 6.11$) reported significantly higher perceived ability to relate to children than did individuals who experienced a non-optimal parenting style ($M = 54.63$, $SD = 10.16$). Parenting style was not significantly related to DTC, meaning of motherhood, or preoccupations.

6.2. RESULTS FOR RESEARCH QUESTION (2)

Do the following affect parenting expectations in pregnant women: age, income/education levels, work, relationship satisfaction, having a wanted pregnancy, and having a previous abortion and/or miscarriage?

To answer this question, analyses were run to explore the relationships between parenting expectations and the demographic as well as control variables. Table 3 summarizes the correlations between the continuous variables of the second research question.

Table 3

Correlations Between Continuous Variables of Research Question (b)

	Age	Relationship Satisfaction	DTC	PARC
Relationship Satisfaction	0.175	—		
DTC	-0.223 *	0.357 ***	—	
PARC	-0.069	0.129	0.242 *	—
Preoccupations	0.132	-0.046	-0.141	-0.677 ***

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

The only statistically significant correlation for age was found with DTC. However, contrary to the fifth hypothesis, this correlation was negative ($r(98) = -.22, p = .03$). There were no statistically significant relationships between parenting expectations and income, education, work, and having a previous abortion/miscarriage (i.e. disconfirming hypotheses 6, 7, 8, and 10). In line with the ninth hypothesis though, relationship satisfaction was significantly positively correlated with DTC, $r(98) = .36, p < .001$. Lower relationship satisfaction significantly predicted the thematic meaning of motherhood entailing negative emotions and/or concerns ($p = .003$). Also in line with the ninth hypothesis, a main effect of wanting the pregnancy was also found for DTC, $F(1,98) = 10.01, p = .002$. Individuals who want their current pregnancy reported significantly higher DTC ($M = 54.69, SD = 9.49$) than those who thought their pregnancy was mistimed ($M = 45.33, SD = 10.59$). Relationship satisfaction and wanting the pregnancy were not related to any other parenting representations other than DTC.

6.3. OTHER STATISTICAL ANALYSES

Other than the statistical analyses described above, exploratory data analysis between all variables was calculated to explore potentially overlooked relationships. A main effect of attachment style was found for parental over-protection, $F(1,97) = 4.51, p = .04$. Individuals with secure attachment reported significantly lower perceived parental over-protection in childhood ($M = 13.53, SD = 5.00$) than did individuals with insecure attachment ($M = 16.50, SD = 3.78$). A main effect of attachment style was also found for relationship satisfaction, $F(1,97) = 10.89, p = .001$. Securely attached individuals reported significantly higher satisfaction in their relationship with their partner ($M = 5.86, SD = 0.47$) than those who are insecurely attached ($M = 5.29, SD = 1.14$). In addition, a chi-squared test was performed to examine the relationship between secure/insecure attachment and wanting the pregnancy. The relationship between these variables was significant, $\chi^2(1) = 8.52, p = .004$. Almost 92% of secure individuals wanted their current pregnancies while only 64% of insecurely attached individuals reported wanting their pregnancy.

Parental care and parental over-protection were significantly negatively correlated, $r(98) = -.43, p < .001$. A positive significant relationship was found

between parental care and relationship satisfaction, $r(98) = .20, p = .04$. Parental over-protection and age were significantly negatively correlated, $r(98) = -.28, p = .004$. An analysis of variance showed a significant relationship between parental over-protection and education level, $F(3,96) = 4.77, p = .004$. Individuals with university education perceive their parents as having been significantly less overprotective ($M = 12.65, SD = 5.13$) compared to those who have no education ($M = 19.33, SD = 3.51$). In addition, women who are currently working perceived their parents as having been significantly less overprotective ($M = 12.99, SD = 4.68$) than those who are not currently working ($M = 16.56, SD = 4.92$). Parenting style experienced during childhood was also significantly related to current education level ($\chi^2(3) = 10.26, p = .017$) and whether the woman is currently working ($\chi^2(1) = 3.98, p = .046$). While 68% of those who experienced an optimal parenting style during childhood reached university level of education, only 41% of those who experienced a non-optimal parenting style reached the same education level. In addition, 85% of individuals who experienced an optimal parenting style are currently working, while only 68% of those who experienced a non-optimal parenting style are currently working.

As for the outcome variables, DTC and PARC were significantly positively correlated, $r(98) = .24, p = .015$. In addition, PARC was significantly negatively correlated with preoccupations, $r(98) = -.677, p < .001$. Negative meaning of motherhood was significantly predicted in logistic regressions by lower desire to have children ($p < .001$), lower perceived ability to relate to children ($p = .002$), and higher preoccupations regarding motherhood ($p = .015$).

6.4. MULTIPLE REGRESSION MODELS

Regression analyses were conducted for each continuous outcome variable of parenting representations - i.e. desire to have children (DTC), perceived ability to relate to children (PARC), and preoccupations regarding the transition to motherhood. The stepwise method of regression analysis indicated that relationship satisfaction, age, and wanting the pregnancy explained 28.9% of the variance in DTC ($r^2 = .31, F(3,96) = 14.28, p < .001$). It was found that relationship satisfaction significantly predicted the desire to have children ($\beta = .36, t(95) = 4.06$,

$p < .001$), as did age ($\beta = -.36$, $t(95) = -4.09$, $p < .001$), and wanting the pregnancy ($\beta = .33$, $t(95) = 3.69$, $p < .001$).

As for perceived ability to relate to children, the stepwise method of regression indicated that attachment style, parental care, work, income level, and parental over-protection explained 36% of its variance ($r^2 = .39$, $F(5,93) = 12.02$, $p < .001$). It was found that attachment style significantly predicted PARC ($\beta = .39$, $t(93) = 4.62$, $p < .001$), as did parental care ($\beta = .28$, $t(93) = 3.12$, $p = .002$), work ($\beta = -.28$, $t(93) = -3.20$, $p = .002$), income level ($\beta = .23$, $t(93) = -2.76$, $p = .007$), and parental over-protection ($\beta = -.22$, $t(93) = -2.40$, $p = .019$).

The stepwise method of regression also indicated that attachment style, work, parental care, education level, and parental over-protection explained 26.9% of the variance in preoccupations ($r^2 = .31$, $F(5,93) = 8.22$, $p < .001$). It was found that attachment style significantly predicted preoccupations ($\beta = -.36$, $t(93) = -4.04$, $p < .001$), as did work ($\beta = .22$, $t(93) = 2.23$, $p = .028$), parental care ($\beta = -.19$, $t(93) = -1.95$, $p = .054$), education level ($\beta = .25$, $t(93) = 2.55$, $p = .013$), and parental over-protection ($\beta = .21$, $t(93) = 2.02$, $p = .046$).

6.5. MEDIATION ANALYSIS

Mediation models were explored between some variables to understand how they potentially exert their influence. As an extension to multiple regression, mediation analysis was used to assess potential causal mechanisms. The following three models were significant.

Model 1. This model explored the relationship patterns between relationship satisfaction, DTC, and negative meaning of motherhood (defined as the 6th theme among the meanings coded from the participants' answers). Figure 7 displays a visual illustration for the mediation model.

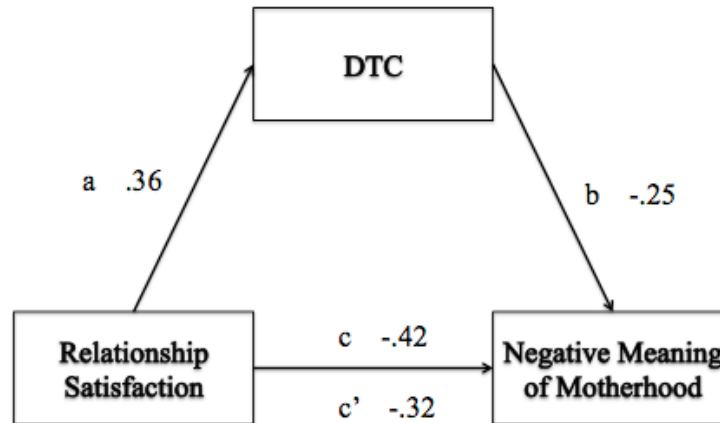


Figure 7. Mediated relationship between relationship satisfaction and negative meaning of motherhood with DTC as the mediator, showing the standardized regression coefficients.

First, using steps described by Baron and Kenny (1986), relationship satisfaction was a significant predictor of negative meaning of motherhood (the c pathway), as shown in Table 4. Individuals who reported a lower level of satisfaction with their partner are significantly more likely to project a negative meaning on motherhood, $t(91) = -4.36, p < .001$. Second, relationship satisfaction was used to predict the mediator variable of DTC (the a pathway), which showed that relationship satisfaction was positively related to DTC, $t(98) = 3.79, p < .001$. Third, the relationship between the mediator (i.e. DTC) and negative meaning of motherhood was examined controlling for relationship satisfaction (the b pathway). DTC was negatively related to negative meaning of motherhood, $t(90) = -2.45, p = .016$. Lastly, the mediated relationship between relationship satisfaction and negative meaning of motherhood was examined for a lower prediction coefficient when the mediator was added to the model (the c' pathway), $t(90) = -3.19, p = .002$. The effect of relationship satisfaction on negative meaning of motherhood was lowered (from $b = -.42$ to $b = -.32$) after controlling for DTC. However, relationship satisfaction remained significant in the model (i.e. partial mediation). The Sobel test confirmed statistically significant difference between pathways c and c' ($Z = 2.68, p = .01$). This model indicates that lower

relationship satisfaction was related to lower DTC which, in turn, predicted negative meaning ascribed to motherhood.

Table 4

Model summary for mediation analysis 1

Model	<i>F</i>	<i>p</i>	<i>R</i> ²
Relationship satisfaction predicting negative meaning	(1,91) = 19.02	< .001	.17
Relationship satisfaction predicting DTC	(1,98) = 14.36	< .001	.13
Relationship satisfaction and DTC predicting negative meaning	(2,90) = 13.02	< .001	.22

Model 2. This model explored the relationship patterns among attachment style, PARC, and negative meaning of motherhood. Figure 8 displays a visual illustration for the mediation model.

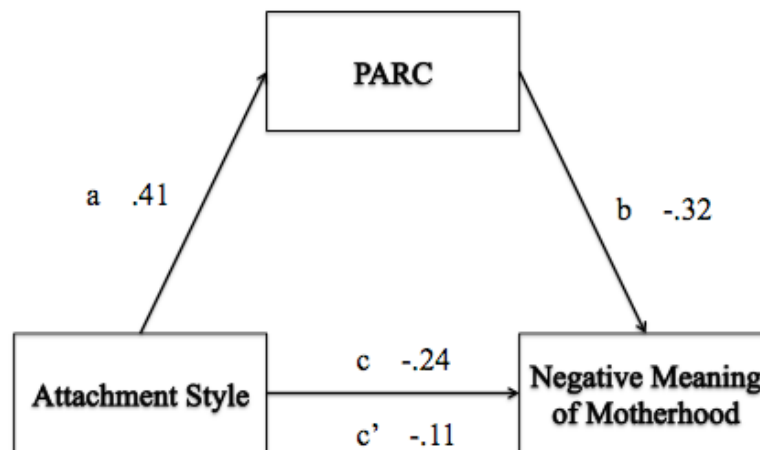


Figure 8. Mediated relationship between attachment style and negative meaning of motherhood with PARC as the mediator, showing the standardized regression coefficients.

Attachment style was a significant predictor of negative meaning of motherhood (the *c* pathway), as shown in Table 5. First, insecure individuals project negative meaning on motherhood more so than secure individuals, $t(90) = -2.31, p = .023$. Second, attachment style was used to predict the mediator variable of PARC (the *a* pathway), which showed that attachment style was positively related to PARC, $t(97) = 4.38, p < .001$. Third, the relationship between the mediator (i.e. PARC) and negative meaning of motherhood was examined controlling for attachment style (the *b* pathway). PARC was negatively related to negative meaning of motherhood, $t(89) = -3.02, p = .003$. Lastly, the mediated relationship between attachment style and negative meaning of motherhood was examined for a lower prediction coefficient when the mediator was added to the model (the *c'* pathway), $t(89) = -1.07, p = .290$. The effect of attachment style on negative meaning of motherhood was lowered (from $b = -.24$ to $b = -.11$) after

controlling for PARC, and became non-significant (i.e. complete mediation). The Sobel test confirmed statistically significant difference between pathways c and c' ($Z = 2.48, p = .01$). This model indicates that attachment insecurity was related to lower PARC which, in turn, predicted negative meaning ascribed to motherhood.

Table 5

Model summary for mediation analysis 2

Model	F	p	R^2
Attachment style predicting negative meaning	(1,90) = 5.34	.023	.06
Attachment style predicting PARC	(1,97) = 19.17	< .001	.17
Attachment style and PARC predicting negative meaning	(2,89) = 7.46	.001	.14

Model 3. This model explored the relationship patterns between attachment style, PARC, and preoccupations. Figure 9 displays a visual illustration for the mediation model.

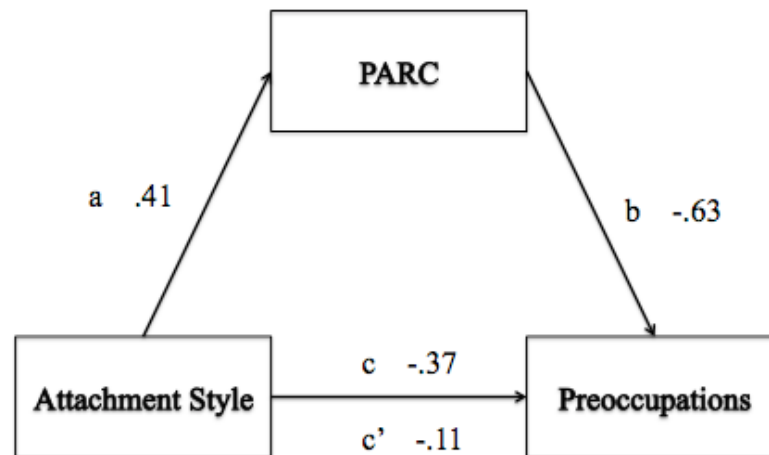


Figure 9. Mediated relationship between attachment style and preoccupations with PARC as the mediator, showing the standardized regression coefficients.

Attachment style was a significant predictor of preoccupations (the *c* pathway), as shown in Table 6. First, secure individuals have significantly lower preoccupations regarding the transition to motherhood, $t(97) = -3.87, p < .001$. Second, attachment style was used to predict the mediator variable of PARC (the *a* pathway), which showed that attachment style was positively related to PARC, $t(97) = 4.38, p < .001$. Third, the relationship between the mediator (i.e. PARC) and preoccupations was examined controlling for attachment style (the *b* pathway). PARC was negatively related to preoccupations, $t(96) = -7.69, p < .001$. Lastly, the mediated relationship between attachment style and preoccupations was examined for a lower prediction coefficient when the mediator was added to the model (the *c'* pathway), $t(96) = -1.35, p = .180$. The effect of attachment style on preoccupations was lowered (from $b = -.37$ to $b = -.11$) after controlling for PARC, and became non-significant (i.e. complete mediation). The Sobel test confirmed statistically significant difference between pathways *c* and *c'* ($Z = 3.80, p < .001$).

This model indicates that insecure attachment was related to lower PARC which, in turn, predicted higher preoccupations regarding motherhood.

Table 6

Model summary for mediation analysis 3

Model	<i>F</i>	<i>p</i>	<i>R</i> ²
Attachment style predicting preoccupations	(1,90) = 5.34	.023	.06
Attachment style predicting PARC	(1,97) = 19.17	< .001	.17
Attachment style and PARC predicting preoccupations	(2,89) = 7.46	.001	.14

In a paper based on this dissertation (Zaki, Ruiz-Ruano, & Puga, 2020), Bayesian statistics were used in data analysis as a complement to the classical use of p-values as proposed by Ruiz-Ruano and Puga (2018). Bayesian networks showed that attachment style is indeed a predictor for parenting representations, either directly or indirectly. This is depicted in Figure 10 by the tabu algorithm that estimates the causal Bayesian network. The Figure is re-designed from Zaki, et al. (2020).

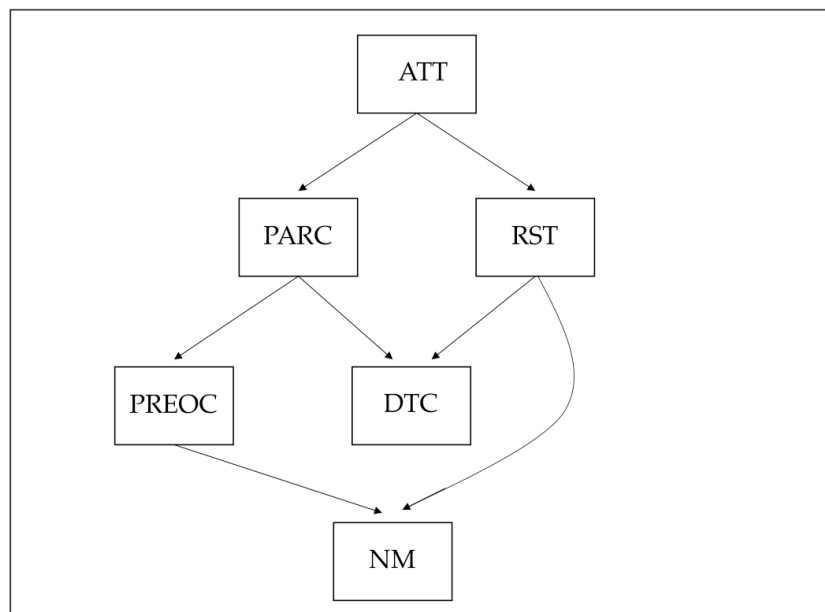


Figure 10. Directed Acyclic Graph produced by Tabu algorithm. ATT: attachment, RST: relationship satisfaction, DTC: desire to relate children, PARC: perceived ability to relate to children, PREOC: preoccupations related to motherhood; NM: negative meaning ascribed to motherhood

Finally, the findings presented in this chapter confirmed some hypotheses and contradicted others. The following chapter will further discuss and analyze these results.

VII - DISCUSSION

VII - DISCUSSION

The purpose of this research was to examine the effect of attachment style and how one was parented (represented by parental care, over-protection, and parenting style) on prenatal expectations during the first trimester of pregnancy (represented by DTC, PARC, meaning associated with motherhood, and preoccupations regarding becoming a mother). In an attempt to answer the research questions presented in chapter four, the findings confirmed some hypotheses and refuted others.

Research question (1): *Do the pregnant woman's attachment style, memories of care and overprotection in relation to her primary caregiver, and the parenting style experienced in her childhood, influence her parenting expectations?*

As expected, and in accordance with past research (e.g. Conway, 2014; Nathanson & Manohar, 2012; Scharf & Maysel, 2011; Scharf & Rousseau, 2017; Snell et al., 2005), the findings confirm that expectant mothers with secure attachment have more positive pre-parenthood expectations and parenting representations than the ones with insecure attachment. In other words, the positive parenting representations that were found in the results were correlated with securely attached respondents.

Hypothesis 1. Respondents with a secure attachment style were significantly more likely to report a higher perceived ability to relate to children and lower preoccupations regarding motherhood. Previous studies confirm these findings, especially when it comes to secure attachment and higher PARC (e.g. Rholes et al., 1995; Rholes et al., 1997). As for insecurely attached expectant mothers, they were significantly more likely to associate motherhood with a negative meaning (e.g. obligation, fears). A very long time ago, Bowlby proposed the idea that individuals with avoidant attachment, in particular, do not look forward to becoming caregivers. Bjorgo (2003) elaborates on this concept by

explaining that the more distant the person is from his/her parents due to a challenging relationship, the higher the perception of disadvantages in regards to becoming a parent. Due to their attachment insecurities, such individuals are likely to project negative meanings on this transition. For instance, avoidant individuals may perceive becoming a parent as a threat to their need for independence and personal space (Conway, 2014) – which goes in line with some of the negative themes uncovered in this dissertation. On the other hand, secure individuals are more prone to having a balanced view of motherhood – characterized by clear and realistic expectations (Snell et al., 2005).

However, the findings only partially supported the first hypothesis, since attachment style was found to be unrelated to the desire to have children. In fact, none of the explanatory variables of the study were related to desire to have children. DTC was only associated with particular demographic and control variables (i.e. wanting the pregnancy, younger age and being satisfied with one's partner). One reason might be the use of different measures than other studies examining a similar construct. It is also possible that current circumstances (including a high relationship satisfaction as is prevalent in this study) affect one's desire to become a parent more than past and childhood influences. Even though this contradicts some studies (e.g. Rholes et al., 1995; Rholes et al., 1997); similar findings were reported by Bjorgo (2003). In the latter study, DTC was not correlated with parental attachment, but rather with peer attachment. Since the study was conducted with college students, one of the explanations was the possibility that, in college, primary attachment shifts from parents to peers. In this dissertation, a parallel explanation is proposed – during the transition to motherhood, DTC might be more related to the partners' relationship satisfaction and wanting the pregnancy. This implies that DTC might be a variable more related to current circumstances, whereas other parenting expectations (e.g. PARC and meaning-making of parenthood) might be more persistent across time and relatively more affected by attachment style and the experience of being parented in a certain way. Also, a deeper look at the concept of the desire to have children uncovers the fact that there are numerous motivations for having children. Other than being satisfied in a relationship and wanting to create a family with a loved one, other reasons include achieving a particular adult social identity, personal fulfillment, or even filling a void (Caron & Wynn, 1992; Gerson,

1986; Gormly et al., 1987). Therefore, DTC might be a complicated construct that is affected by numerous factors, and not just directly related to one's attachment style. It is also important to mention that studies which found a relationship between DTC and attachment style did not report consistent findings across different attachment styles. For example, many studies (e.g. Conway, 2014; Rholes et al. 1995; Rholes et al., 1997; Rholes et al., 2006) suggested that avoidant individuals are less certain about their DTC than secure individuals, while anxious attachment was not related to DTC. In other words, DTC might be experienced in distinct ways among individuals with different attachment styles. Since this dissertation categorizes individuals as secure or insecure, such variations between different attachment styles cannot be accounted for.

Hypotheses 2, 3 and 4. The findings also partially support these hypotheses. Parental care and parental over-protection from one's caregiver as well as the parenting style experienced as a child were indeed related to some parenting representations but not others. Namely, high parental care and low over-protection in childhood were related to higher PARC and lower preoccupations during pregnancy. However, they were not related to DTC or meaning-making of motherhood. In addition, optimal parenting was only related to PARC – and not other parenting representations.

The findings support the theoretical perspective that individuals subjected to higher levels of parental care, lower levels of parental over-protection, and an optimal parenting style in childhood eventually develop more positive internal working models. These parental attitudes of nurturing and allowing the child to freely explore without excessive attempts to control or over-protect him/her are likely to be internalized by the child as a positive model of the self (i.e. "I am loved", "I am worthy", and "I am capable"). These positive self representations can later develop into different types of self-perceptions – in this case, related to caregiving. As such, these respondents reported more positive expectations of themselves as caregivers and had less excessive worries about motherhood.

Previous studies also proposed a link between high parental care as well as low over-protection and more positive parenting representations. After all,

Gerson (1980) claims that positive recollection of maternal warmth and love is among the main reasons why women want to become mothers in the first place. In addition, Snell et al. (2005) uncovered a relationship between lower expected satisfaction from becoming a parent and not having been close to one's mother in adolescence. The same study proposed that high PARC is related to having a loving mother and having a good relationship with her. On the other hand, the study suggested that low PARC is associated with being rejected by one's mother and having anger towards one's parents – which may cause the person to question their own ability of playing this role (i.e. the parental role). As for maternal overprotection, Scharf & Rousseau (2017) suggested that it is related to one's perceived ability to relate to children later on. However, they differentiated between two types of over-protection: anticipatory problem-solving and advice/affect management – as explained in the literature review. According to them, anticipatory problem-solving is related to lower PARC, since it causes the child to internalize feelings of inadequacy. On the other hand, advice/affect management is associated with higher PARC, especially when it is perceived as a sign of care rather than intrusion. As for parental care and DTC, Rholes et al. (2006) proposed that a person who had a rough childhood and who did not experience warm caregiving from parents may eventually have low DTC. Snell et al. (2005), also suggests that mother's rejection is associated with lower DTC. However, this relationship was not found in this study. Again, this might be because of the use of different measures or it further suggests that DTC might be a product of current circumstances (e.g. high relationship satisfaction) more than recollection of past childhood memories in this sample.

Research question (2): *Do the following affect parenting expectations in pregnant women: age, income/education levels, work, relationship satisfaction, having a wanted pregnancy, and having a previous abortion and/or miscarriage?*

This question pertains to the control and demographic variables variables and their contribution to the outcome variables. Minimal findings were uncovered to answer this question, as opposed to the study's initial expectations.

Hypothesis 5. Contrary to expectation, DTC was related to older age instead of younger individuals. Understandably, older individuals might become less interested in becoming parents for many reasons including having established a particular lifestyle that becomes harder to change with time and health concerns related to the woman and/or the baby. Age was not related to any other parenting representations.

Hypotheses 6, 7, 8 and 10. The findings did not support these predictions. Income, education, work as well as having a previous miscarriage and/or abortion were not related to any parenting representations. Papadimitriou (2008) reported similar findings. Demographic variables (i.e. education, age, religion) were not significantly related to the motivation to become a mother. However, a quantitative study within this same research uncovered that women with a higher educational level were more ambivalent regarding having children.

Hypothesis 9. As expected, the present findings suggest that DTC is related to higher relationship satisfaction and wanting the pregnancy. It is interesting that DTC was only related to these variables (and age) and not to any of the explanatory variables – possible reasons are mentioned above. It does make sense, though, that when a woman is in a satisfying relationship and when she already wanted and/or planned for the pregnancy, it translates into a desire to have this baby. On the other hand, being in a less satisfying relationship was associated with negative meanings ascribed to motherhood. Being in a toxic/abusive relationship or having a non-supportive partner, for instance, form less empowering circumstances that may not allow the woman to have a balanced view of motherhood.

Mediation findings. These are particularly interesting. The first partial mediation model suggests that insecure attachment leads to a negative meaning of motherhood through a lower PARC. The second full mediation model suggests that insecure attachment leads to higher preoccupations through a lower PARC. These two models propose that insecure expectant mothers essentially have lower expectations of themselves as parents, which eventually lead to more general negative parenting expectations – namely, negative meaning and higher

doubts/concerns regarding motherhood. As for the third full mediation model, it suggests that lower relationship satisfaction leads to a negative meaning of motherhood through a lower DTC. Understandably, expectant mothers who are relatively less satisfied with their partner have a lower desire to have a child with them, which eventually leads to a more negative meaning related to motherhood.

Other relationships. The present findings also suggest that a secure attachment style is related to having experienced a relatively low level of over-protection from caregivers in the past, and experiencing a high relationship satisfaction and wanting the pregnancy in the present. High prenatal care in childhood was also related to a high relationship satisfaction. From a theoretical perspective, nurturance in childhood and a secure attachment style do indeed enable individuals to have healthier and more satisfying relationships as adults (López et al., 2015). These findings do not imply, however, that individuals who do not want to have children or who are not satisfied in their relationship necessarily have insecure attachment styles or challenging childhoods.

Interactions among the outcome variables. Parenting representations were found to be related to each other in interesting ways. High DTC was correlated with high PARC – which makes sense, since usually when someone wants to become a parent, they have a somewhat positive expectation of themselves in that role. High PARC was associated with low preoccupations regarding motherhood. Understandably, the more one has positive perceptions of themselves as future parents, the less they are concerned about the transition. In addition, having a negative meaning ascribed to parenthood was related to low DTC, low PARC, and high preoccupations regarding this transition. Therefore, it can be claimed that parenting expectations feed into each other in ways that reinforce feelings of adequacy and positivity regarding the experience, or the opposite..

**VIII – STRENGTHS,
LIMITATIONS AND FUTURE
LINES OF RESEARCH**

VIII – STRENGTHS, LIMITATIONS AND FUTURE LINES OF RESEARCH

The strength of this research lies in examining parenting representations in the first trimester of pregnancy for first-time mothers, a topic that is almost non-existent in the literature. According to the author's knowledge, it is the first research done in Spain to explore this construct. In addition, the focus on including expectant mothers' subjective meanings associated with motherhood gave more flexibility rather than using a scale that identifies specific meanings that they have to choose from. Moreover, the use of both the PBI (which focuses on relationship with parents until age 16) and the RQ (which focuses on current attachment pattern in relationships) acknowledges the possibility of having an earned secure attachment. Some individuals may have had particular childhood experiences, positive or negative, and later develop different attachment styles for several reasons explained in earlier chapters.

The findings of this study, however, should be considered within their context. First, the research is cross-sectional and mostly correlational in nature, therefore no causations can be directly interpreted from the results. Future longitudinal studies can shed more light regarding causal mechanisms of important variables. Second, the sample is characterized by a "roof-effect" regarding the desire to have children, relationship satisfaction and wanting the current pregnancy. No one reported a completely unwanted pregnancy, even those who did not plan to have a baby at that time. This has important implications on their parenting representations (i.e. positive bias) that could have been different under other circumstances. Third, all data are collected through self-report questionnaires. Therefore, limitations of social desirability bias and single-source data collection might apply to the findings. Fourth, since specific criteria were used to select participants, results are only considered generalizable to those of similar backgrounds.

Future studies can study important prenatal psychology concepts in relation to parenting representations during pregnancy – such as maternal-fetal

attachment and prenatal bonding. It would also be highly informative to include both expectant mothers and fathers in future studies in order to understand potential similarities and differences in their experience. A longitudinal design can uncover new angles of this construct. It can follow a particular sample to explore how the women's early life experiences eventually affect their attitudes towards motherhood. Also, non-Western countries have not been studied before when it comes to parenting representations, so replicating existing studies or conducting new ones in diverse populations can be of significant added value to the literature. In addition, future studies can focus on the more detailed classification of attachment styles (i.e. secure, dismissing, preoccupied, and fearful) and parenting styles (i.e. optimal parenting, affectionate constraint, affectionless control, or neglectful parenting) instead of dividing individuals into more general groups as is the case in this study. This will shed more light on potential variations of parenting representations between different types of insecure attachment as well as non-optimal parenting styles.

IX – CONCLUSION

IX – CONCLUSION

The study's findings support the connection between childhood influences and parenting representations during the transition to motherhood. Specifically, this research examined the effect of attachment style and how we were parented (represented by parental care, over-protection, and parenting style) on prenatal expectations during the first trimester of pregnancy (represented by the desire to have children (DTC), perceived ability to relate to children (PARC), meaning-making associated with motherhood, and excessive preoccupations regarding becoming a mother).

One hundred Spanish women, in their first trimester of pregnancy, participated in this study by filling out a self-report questionnaire. The findings confirm that expectant mothers with secure attachment have more positive pre-parenthood expectations and parenting representations than the ones with insecure attachment. Secure attachment was related to higher PARC and lower excessive preoccupations regarding motherhood. Insecure attachment, on the other hand, was associated with more negative meanings ascribed to becoming a mother. In addition, recollection of higher parental care and lower parental over-protection in childhood were correlated with higher PARC and lower excessive preoccupations regarding motherhood. Optimal parenting was only related higher perceived ability to relate to children. In this sample, DTC was not found to be related to any of the explanatory variables – but rather to higher relationship satisfaction, younger age, and wanting the pregnancy. Therefore, this study proposes that DTC might be a variable that is more related to current circumstances, whereas other parenting expectations (e.g. PARC and meaning-making of parenthood) might be more persistent across time and relatively more affected by attachment style and the experience of being parented in a certain way. Also, having a negative meaning ascribed to parenthood was related to low DTC, low PARC, and high preoccupations regarding this transition. Therefore, it can be claimed that parenting expectations feed into each other in ways that reinforce feelings of adequacy and positivity regarding the experience, or the

opposite. The study's hypotheses approached parenting representations as one construct comprised of different variables. The findings showed that these variables do not necessarily vary simultaneously. Even though parenting representations affect each other, they are each uniquely affected by different factors.

This study also proposed three mediation models. The first partial mediation model suggests that insecure attachment leads to a negative meaning of motherhood through a lower PARC. The second full mediation model suggests that insecure attachment leads to higher preoccupations through a lower PARC. As for the third full mediation model, it suggests that lower relationship satisfaction leads to a negative meaning of motherhood through a lower DTC.

This study and its findings have important theoretical and clinical implications. Theoretically, the parenting representations construct is studied using new variables in a country where such research has not been conducted before. The findings shed light on important concepts related to how one's own attachment background can affect the transition to motherhood and perceptions of the self as a future mother. This further builds on the attachment and caregiving systems' literature in an attempt to reach a deeper understanding of their unique interactions. As for the clinical implications, it cannot be stressed enough that one's orientation towards being a caregiver starts to develop long before actually having a baby. The transition to motherhood is a critical opportunity to explore the expectant mother's parenting representations, since these are very likely to continue throughout her journey of parenthood. The mother's attachment style and caregiving representations are likely to be transmitted to the baby through her responsiveness and maternal behaviors – which rely, to a great extent, on her internal working model of caregiving. The findings of this study can contribute in the development of a prenatal psychology practice. This theoretical understanding can be directly translated into early psycho-educational, psychotherapy, and prevention initiative that can cause a significant difference in how women come to terms with their potentially challenging attachment backgrounds, experience their transition to motherhood in a smoother sense, and help build healthier maternal-infant attachment (which can start from pregnancy). In addition, understanding the development of parenting representations has important implication for therapists – especially those who work with expect

mothers. Therapists need to help women explore their motivations to become parents, uncover what it means for them to become mothers, and heal from past wounds that can fog their parenting journey. Pregnancy can be truly considered as an opportunity for personal growth in terms of exploring one's attachment background, uncovering defenses that distort one's perceptions and interactions, overcoming doubts about self-worth, and finally overcoming the prison of one's childhood wounds and finding liberation in choosing one's parenting path mindfully and consciously. This does not only affect the mother and help reduce the likelihood of postnatal depression and perinatal mood disorders, but it can also go a long way in setting a healthier start for the baby who is about to come.

CONCLUSIONES

Este estudio respalda la conexión entre las influencias de la infancia y las representaciones parentales durante la transición hacia la maternidad. Específicamente, esta investigación examinó de qué manera el estilo de apego y la manera en que fuimos criados (a través del cuidado parental, la sobreprotección y el estilo de crianza) influye sobre las expectativas prenatales durante el primer trimestre del embarazo [representados por el deseo de tener hijos (DTC), capacidad percibida de relacionarse con los niños (PARC), construcción de significado sobre la maternidad y las excesivas preocupaciones ante el hecho de convertirse en madre].

Cien mujeres españolas que estaban atravesando su primer trimestre de embarazo participaron en este estudio completando un formulario de autoevaluación. Los resultados confirman que las mujeres embarazadas con un apego seguro tienen más expectativas positivas ante la maternidad y representaciones de crianza que las que tienen un apego inseguro. El apego seguro está relacionado con un mayor PARC y menor preocupación ante la maternidad. En cambio, el apego inseguro se asocia a un sentido negativo de las ideas suscritas a la maternidad. Además, el recuerdo de un mayor cuidado parental y una menor sobreprotección parental en la infancia se correlacionó, en el primer caso, con un mayor PARC, y en el segundo, con menores preocupaciones extremas con respecto a la maternidad. La crianza óptima se vinculó únicamente con una mayor capacidad percibida de relacionarse con los niños. En esta muestra, no se encontró que el DTC esté ligado con ninguna de las variables explicativas, sino más bien con una mayor satisfacción en la relación, el ser más joven y querer el embarazo. De esta manera, este estudio propone que DTC puede ser una variable más cercana a factores circunstanciales, mientras otras expectativas de crianza (por ejemplo, PARC y construcción de sentido sobre la maternidad) pueden ser más persistentes a través del tiempo y estar relativamente más afectadas por estilos de apego y la experiencia de haber sido criado de una determinada manera. Asimismo, atribuir un sentido negativo a la

maternidad está relacionado a un bajo DTC y PARC, y una alta preocupación por esta transición. Por lo tanto, se puede afirmar que las expectativas de las madres se retroalimentan entre sí y pueden o bien reforzar los sentimientos de adecuación y positividad con respecto a esta experiencia, o bien todo lo contrario. Las hipótesis del estudio abordaron las representaciones parentales como una construcción compuesta de diferentes variables. Los resultados mostraron que estas variables no necesariamente oscilan simultáneamente. Aunque las representaciones parentales impactan la una en la otra, cada una de ellas se ve influida de manera única por diferentes factores.

Este estudio también propuso tres modelos de mediación. El primer modelo parcial de mediación sugiere que el apego inseguro lleva a una construcción de sentido negativo de la maternidad a través de una baja PARC. El segundo plantea que el apego inseguro conduce a mayores preocupaciones a través de un PARC más bajo. El tercer modelo propone que una menor satisfacción en la relación conlleva un significado negativo de la maternidad a través de un bajo DTC.

Estos estudios y sus resultados tienen notables implicaciones a nivel teórico y clínico. En el plano teórico, el constructo de representaciones parentales se estudia utilizando nuevas variables en un país donde dicha investigación no se ha realizado antes. Los hallazgos arrojan luz sobre conceptos importantes relacionados con la forma en que los propios antecedentes de apego pueden afectar la transición a la maternidad y las percepciones de una persona como futura madre. Esta percepción se basa en la literatura de los sistemas de apego y cuidado en un intento por alcanzar una comprensión más profunda de sus interacciones únicas. En cuanto a las implicaciones clínicas, no se puede enfatizar lo suficiente que la orientación hacia ser un cuidador comienza a desarrollarse mucho antes de tener un bebé. La transición a la maternidad es una oportunidad crítica para explorar las representaciones parentales de la futura madre, ya que es muy probable que continúen durante su viaje por la maternidad. Es posible que el estilo de apego y las representaciones de cuidado de la madre se transmitan al bebé a través de su capacidad de respuesta y conductas maternas, que dependen, en gran medida, de su modelo interno de crianza. Por lo tanto, esta comprensión teórica puede traducirse directamente en una iniciativa temprana de psicoeducación, psicoterapia y prevención que puede marcar una diferencia

significativa en la forma en que las mujeres aceptan sus antecedentes de apego potencialmente desafiantes y experimentan su transición a la maternidad en un sentido más suave, así como una ayuda para construir un apego más saludable entre la madre y el bebé (que puede comenzar desde el embarazo). El embarazo puede considerarse verdaderamente como una oportunidad para el crecimiento personal en términos de explorar los antecedentes de apego, descubrir los mecanismos de defensa que distorsionan las percepciones e interacciones, superar las dudas sobre la autoestima y finalmente superar la prisión de las heridas de la infancia y encontrar la liberación al elegir el propio camino de crianza conscientemente. Esto no solo afecta a la madre y ayuda a reducir la tendencia a la depresión posparto y los trastornos del estado de ánimo perinatal, sino que también pueden ir más allá asentando un comienzo más saludable para el bebé que está por nacer.

X - REFERENCES

X – REFERENCES

- Ainsworth, M., Blehar, M. C., Waters, E., & Wall, S. (1978). *Patterns of attachment: A psychological study of the strange situation*. Hillsdale, NJ: Erlbaum.
- Ammaniti, M., Baumgartner, E., Candelori, C., Perucchini, P., Pola, M., Tambelli, R., & Zampino, F. (1992). Representations and narratives during pregnancy. *Infant Mental Health Journal*, 13(2), 167–182. [https://doi.org/10.1002/1097-0355\(199223\)13:2<167::aid-imhj2280130207>3.0.co;2-m](https://doi.org/10.1002/1097-0355(199223)13:2<167::aid-imhj2280130207>3.0.co;2-m)
- Ammaniti, M., Tambelli, R., & Odorisio, F. (2012). Exploring Maternal Representations During Pregnancy in Normal and At-Risk Samples: The Use of the Interview of Maternal Representations During Pregnancy. *Infant Mental Health Journal*, 34, 1-10. <https://doi.org/10.1002/imhj.21357>
- Antonucci, T. C., Ajrouch, K. J., & Birditt, K. S. (2014). The Convoy Model: Explaining Social Relations From a Multidisciplinary Perspective. *The Gerontologist*, 54(1), 82-92. <https://doi.org/10.1093/geront/gnt118>
- Atzl, V. M., Narayan, A. J., Rivera, L. M., & Lieberman, A. F. (2019). Adverse childhood experiences and prenatal mental health: Type of ACEs and age of maltreatment onset. *Journal of Family Psychology*, 33(3), 304-314. <https://doi.org/10.1037/fam0000510>
- Bakermans-Kranenburg, M. J., & Van IJzendoorn, M. H. (1993). A psychometric study of the Adult Attachment Interview: Reliability and discriminant validity. *Developmental Psychology*, 29(5), 870–879. <https://doi.org/10.1037/0012-1649.29.5.870>
- Bakermans-Kranenburg, M. J., & Van IJzendoorn, M. H. (2009). The first 10,000 Adult Attachment Interviews: Distributions of adult attachment representations in clinical and non-clinical groups. *Attachment & Human Development*, 11(3), 223-263. <https://doi.org/10.1080/14616730902814762>
- Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51(6), 1173-1182. <https://doi.org/10.1037/0022-3514.51.6.1173>

- Bartholomew, K., & Horowitz, L. M. (1991). Attachment styles among young adults: A test of a four-category model. *Journal of Personality and Social Psychology*, 61(2), 226–244. <https://doi.org/10.1037/0022-3514.61.2.226>
- Bartholomew, K., & Moretti, M. (2002). The dynamics of measuring attachment. *Attachment & Human Development*, 4(2), 162–165. <https://doi.org/10.1080/14616730210157493>
- Bartholomew, K., & Shaver, P. R. (1998). Methods of assessing adult attachment: Do they converge? In J. A. Simson & W. S. Rholes (Eds.), *Attachment theory and close relationships* (pp. 25–45). New York: Guilford Press. <https://doi.org/10.1037/0022-3514.61.2.226>
- Bell, D. C. (2001). Evolution of parental caregiving. *Personality and Social Psychology Review*, 5(3), 216–229. https://doi.org/10.1207/S15327957PSPR0503_3
- Bell, R. Q. (1968). A reinterpretation of the direction of effects in studies of socialization. *Psychological Review*, 75(2), 81–95. <https://doi.org/10.1037/h0025583>
- Benedek, T. (1959). Parenthood as a Developmental Phase - A Contribution to the Libido Theory. *Journal of the American Psychoanalytic Association*, 7(3), 389–417. Retrieved from <http://www.pep-web.org.ezproxy.cul.columbia.edu/document.php?id=apa.007.0389a>
- Benoit, D., & Parker, K. (1994). Stability and Transmission of Attachment across Three Generations. *Child Development*, 65(5), 1444–1456. <https://doi.org/10.2307/1131510>
- Bifulco, A., Kwon, J., Jacobs, C., Moran, P. M., Bunn, A., & Beer, N. (2006). Adult attachment style as mediator between childhood neglect/abuse and adult depression and anxiety. *Social Psychiatry and Psychiatric Epidemiology*, 41(10), 796–805. <https://doi.org/10.1007/s00127-006-0101-z>
- Bjorgo, L. (2003). *Current attachment styles and attitudes toward motherhood of female college students* (Unpublished doctoral dissertation). Texas Tech University.
- Bowlby, J. (1958). The nature of the child's tie to his mother. *International Journal of Psycho-Analysis*, 39, 350–373.
- Bowlby, J. (1969). *Attachment and Loss - Volume 1: Attachment*. Basic Books (Second ed., Vol. 1). New York, NY.
- Bowlby, J. (1973). *Attachment and Loss - Volume 2: Separation, Anxiety and Anger*.

- Basic Books* (Vol. 2). New York: Basic Books.
- Bowlby, J. (1979). *The making and breaking of affectional bonds*. London: Tavistock.
- Bowlby, J. (1980). *Attachment and Loss - Volume 3: Loss, Sadness and Depression* (Vol. 3). New York: Basic Books. <https://doi.org/10.1177/000306518403200125>
- Bowlby, J. (1988). *A Secure Base: Parent-Child Attachment and Healthy Human Development*. New York: Basic Books. <https://doi.org/10.1097/00005053-199001000-00017>
- Brennan, K. A., Clark, C. L. & Shaver, P. R. (1998). Self-report measurement of adult attachment: An integrative overview. In *Attachment Theory and Close Relationships* (pp. 46-76). New York, NY: Guilford Express.
- Bretherton, I. (1985). Attachment theory: Retrospect and prospect. *Monographs of the Society for Research in Child Development*, 50(1/2), 3–35. <https://doi.org/10.2307/3333824>
- Bretherton, I., Lambert, J. D., & Golby, B. (2006). Modeling and reworking childhood experiences: Involved fathers' representations of being parented and of parenting a preschool child. In O. Mayseless (Ed.), *Parenting Representations: Theory, Research, and Clinical Implications* (pp. 177–207). Cambridge: Cambridge University Press. <https://doi.org/10.1017/CBO9780511499869.007>
- Bretherton, I., & Munholland, K. A. (2008). Internal working models in attachment relationships: elaborating a central construct in attachment theory. In J. Cassidy & P. R. Shaver (Eds.), *Handbook of Attachment: Theory, Research, and Clinical Applications* (Second edi, pp. 102–127). New York, NY: The Guilford Press.
- Brizendine, L. (2006). *The female brain*. New York, NY: Broadway Books.
- Canterberry, M., & Gillath, O. (2012). Attachment and caregiving: Functions, interactions, and implications. In P. Noller & G. C. Karantzas (Eds.), *The Wiley-Blackwell handbook of couples and family relationships* (pp. 207–219). Chichester: Blackwell Publishing Ltd.
- Caron, S. L., & Wynn, R. L. (1992). The intent to parent among young, unmarried college graduates. *Families in Society*, 73 (8), 480–487. <https://doi.org/10.1177/104438949207300804>
- Cassidy, J. (2000). The Complexity of the Caregiving System : A Perspective from Attachment Theory. *Psychological Inquiry*, 11(2), 86–91.

- Chamberlain, D. B. (1998). *The mind of your newborn baby*. Berkeley, CA: North Atlantic Books.
- Chamberlain, D. B. (2013). *Windows to the womb: Revealing the conscious baby from conception to birth*. Berkeley, CA: North Atlantic Books.
- Chen, B., & Xu, Y. (2018). Mother's attachment history and antenatal attachment to the second baby: The moderating role of parenting efficacy in raising the firstborn child. *Archives of Women's Mental Health*, 21(4), 403-409. <https://doi.org/10.1007/s00737-017-0808-8>
- Claes, S. (2018). Neuroepigenetics of Prenatal Psychological Stress. *Progress in Molecular Biology and Translational Science Neuroepigenetics and Mental Illness*, 158, 83-104. <https://doi.org/10.1016/bs.pmbts.2018.04.007>
- Collins, N. L., & Feeney, B. C. (2000). A safe haven: An attachment theory perspective on support seeking and caregiving in intimate relationships. *Journal of Personality and Social Psychology*, 78(6), 1053–1073. <https://doi.org/10.1037/0022-3514.78.6.1053>
- Conway, A. P. (2014). *Attachment Style and Working Models of Parenting in Individuals without Children* (Unpublished doctoral dissertation). Victoria University of Wellington.
- Cox, M. J., Owen, M. T., Lewis, J. M., Riedel, C., Scalf-Mciver, L., & Suster, A. (1985). Intergenerational Influences on the Parent-Infant Relationship in the Transition to Parenthood. *Journal of Family Issues*, 6(4), 543-564. <https://doi.org/10.1177/019251385006004008>
- Cramer, B., Robert-Tissot, C., Stern, D. N., Serpa-Rusconi, S., De Muralt, M., Besson, G., ... D'arcis, U. (1990). Outcome evaluation in brief mother-infant psychotherapy: A preliminary report. *Infant Mental Health Journal*, 11(3), 278–300. [https://doi.org/10.1002/1097-0355\(199023\)11:3<278::aid-imhj2280110309>3.0.co;2-h](https://doi.org/10.1002/1097-0355(199023)11:3<278::aid-imhj2280110309>3.0.co;2-h)
- Crowell, J. A., & Feldman, S. S. (1988). Mothers' Internal Models of Relationships and Children's Behavioral and Developmental Status: A Study of Mother-Child Interaction. *Child Development*, 59(5), 1273–1285. <https://doi.org/10.2307/1130490>
- Delmore-Ko, P., Pancer, S. M., Hunsberger, B., & Pratt, M. (2000). Becoming a parent: The relation between prenatal expectations and postnatal experience. *Journal of Family Psychology*, 14(4), 625-640. <https://doi.org/10.1037/0893->

3200.14.4.625

- De Wolff, M. S., & Van Ijzendoorn, M. H. (1997). Sensitivity and attachment: A meta-analysis on parental antecedents of infant attachment. *Child Development, 68*(4), 571–591. <https://doi.org/10.1111/j.1467-8624.1997.tb04218.x>
- Desocio, J. E. (2018). Epigenetics, maternal prenatal psychosocial stress, and infant mental health. *Archives of Psychiatric Nursing, 32*(6), 901–906. <https://doi.org/10.1016/j.apnu.2018.09.001>
- Flykt, M., Lindblom, J., Punamäki, R., Poikkeus, P., Repokari, L., Unkila-Kallio, L., . . . Tulppala, M. (2009). Prenatal expectations in transition to parenthood: Former infertility and family dynamic considerations. *Journal of Family Psychology, 23*(6), 779–789. <https://doi.org/10.1037/a0016468>
- Fonagy, P., Steele, H., & Steele, M. (1991). Maternal Representations of Attachment during Pregnancy Predict the Organization of Infant-Mother Attachment at One Year of Age. *Child Development, 62*(5), 891–905. <https://doi.org/10.2307/1131141>
- Foster, J. D., Kernis, M. H., & Goldman, B. M. (2007). Linking adult attachment to self-esteem stability. *Self and Identity, 6*, 64–73. <https://doi.org/10.1080/15298860600832139>
- Fraiberg, S., Adelson, E., & Shapiro, V. (1975). Ghosts in the nursery. A psychoanalytic approach to the problems of impaired infant-mother relationships. *Journal of the American Academy of Child and Adolescent Psychiatry, 14*(3), 387–421.
- Fraiberg, S. (1980). *Clinical studies in infant mental health: The first year of life*. New York: Basic Books Inc.
- Fraley, R. C., & Shaver, P. R. (2000). Adult Romantic Attachment: Theoretical Developments, Emerging Controversies, and Unanswered Questions. *Review of General Psychology, 4*(2), 132–154. <https://doi.org/10.1037//1089-2680.4.2.132>
- George, C., & Solomon, J. (1996). Representational models of relationships: Links between caregiving and attachment. *Infant Mental Health Journal, 17*(3), 198–216. [https://doi.org/10.1002/\(sici\)1097-0355\(199623\)17:3<198::aid-imhj2>3.0.co;2-1](https://doi.org/10.1002/(sici)1097-0355(199623)17:3<198::aid-imhj2>3.0.co;2-1)
- George, C., & Solomon, J. (2008). The caregiving system: A behavioral systems approach to parenting. In J. Cassidy & P. R. Shaver (Eds.), *Handbook of*

- Attachment: Theory, Research, and Clinical Applications* (Second edi, pp. 833–856). New York, NY: The Guilford Press.
- Gerson, M.-J. (1980). The lure of motherhood. *Psychology of Women Quarterly*, 5, 207–217. <https://doi.org/10.1111/j.1471-6402.1980.tb00957.x>
- Gerson, M.-J. (1986). The Prospect of parenthood for women and men. *Psychology of Women Quarterly*, 10, 49–62. <https://doi.org/10.1111/j.1471-6402.1986.tb00736.x>
- Gillath, O., Shaver, P. R., Mikulincer, M., Nitzberg, R., Erez, A., & Ijzendoorn, M. H. V. A. N. (2005). Attachment, caregiving and volunteering: placing volunteerism in an attachment theoretical framework. *Personal Relationships*, 12, 425–446. <https://doi.org/10.1111/j.1475-6811.2005.00124.x>
- Glenn, M., & Cappon, R. (2017). Essential Clinical Principles For Prenatal and Perinatal Psychology Practitioners. *Journal of Prenatal and Perinatal Psychology and Health*, 28, 20-42.
- Gómez, Y. M., Vallejo, V. J., Villada, J. A., & Zambrano, R. (2007). Caracterización de lazos parentales en estudiantes de pregrado de la Universidad de Antioquia. *Revista De Psicología: Universidad De Antioquia*, 1(1), 35-53.
- Gormly, A. V., Gormly, J. B., & Weiss, H. (1987). Motivations for parenthood among young adult college students. *Sex Roles*, 16(1/2), 31–39. <https://doi.org/10.1007/BF00302849>
- Graziano, W. G., Habashi, M. M., Sheese, B. E., & Tobin, R. M. (2007). Agreeableness, Empathy, and Helping: A Person × Situation Perspective. *Journal of Personality and Social Psychology*, 93(4), 583–599. <https://doi.org/10.1037/0022-3514.93.4.583>
- Handelzalts, J. E., Preis, H., Rosenbaum, M., Gozlan, M., & Benyamini, Y. (2018). Pregnant Women's Recollections Of Early Maternal Bonding: Associations With Maternal-Fetal Attachment And Birth Choices. *Infant Mental Health Journal*, 39(5), 511-521. <https://doi.org/10.1002/imhj.21731>
- Hazan, C., & Shaver, P. (1987). Romantic love conceptualized as an attachment process. *Journal of Personality and Social Psychology*, 52(3), 511-524. <https://doi.org/10.1037/0022-3514.52.3.511>
- Ilicali, E. T., & Fisek, G. O. (2004). Maternal representations during pregnancy and early motherhood. *Infant Mental Health Journal*, 25, 16–27. <https://doi.org/10.1002/imhj.10082>

- Instituto Nacional de Estadística. (2018a). Fertility indicators. Retrieved 2020, from <https://www.ine.es/jaxiT3/Datos.htm?t=1581#!tabs-tabla>
- Instituto Nacional de Estadística. (2018b). Average wages. Retrieved 2020, from <https://www.ine.es/jaxiT3/Datos.htm?t=13930#!tabs-tabla>
- Kong, J., & Martire, L. M. (2019). Parental childhood maltreatment and the later-life relationship with parents. *Psychology and Aging, 34*(7), 900-911. <https://doi.org/10.1037/pag0000388>
- Lake, B., & Heard, D. (2009). *The challenge of attachment for caregiving*. S.I.: Routledge.
- Land, M-J. (2017). *Fear of flying*. Retrieved from <https://www.youtube.com/watch?v=ryjMQyDT31o&feature=youtu.be>
- López, F. G., Ramos, K., Nisenbaum, M., Thind, N., & Ortiz-Rodriguez, T. (2015). Predicting the Presence and Search for Life Meaning: Test of an Attachment Theory-Driven Model. *Journal of Happiness Studies, 16*, 103–116. <https://doi.org/10.1007/s10902-013-9498-8>
- Lara, M. A., Navarrete, L., Nieto, L., & Le, H. (2015). Childhood abuse increases the risk of depressive and anxiety symptoms and history of suicidal behavior in Mexican pregnant women. *Brazilian Journal of Psychiatry, 37*(3), 203-210. <https://doi.org/10.1590/1516-4446-2014-1479>
- Livingston, G. (2019, December 31). U.S. Women More Likely to Have Children Than a Decade Ago. Retrieved 2020, from <https://www.pewsocialtrends.org/2018/01/18/theyre-waiting-longer-but-u-s-women-today-more-likely-to-have-children-than-a-decade-ago/>
- Lyons-Ruth, K., & Block, D. (1996). The disturbed caregiving system: Relations among childhood trauma, maternal caregiving, and infant affect and attachment. *Infant Mental Health Journal, 17*(3), 257–275. [https://doi.org/10.1002/\(sici\)1097-0355\(199623\)17:3<257::aid-imhj5>3.0.co;2-l](https://doi.org/10.1002/(sici)1097-0355(199623)17:3<257::aid-imhj5>3.0.co;2-l)
- Main, M. (1990). Cross-cultural studies of attachment organization: Recent studies, changing methodologies, and the concept of conditional strategies. *Human Development, 61*, 85–98. <https://doi.org/10.1159/000276502>
- Main, M., Kaplan, N., & Cassidy, J. (1985). Security in Infancy , Childhood , and Adulthood: A Move to the Level of Representation. *Monographs of the Society for Research in Child Development, 50*(1/2), 66–104. <https://doi.org/10.2307/3333827>

- Mayseless, O. (2006). Studying parenting representations as a window to parents' internal working model of caregiving. In O. Mayseless (Ed.), *Parenting Representations: Theory, Research, and Clinical Implications* (pp. 3–40). Cambridge: Cambridge University Press. <https://doi.org/10.1017/CBO9780511499869.002>
- Michaels, G. Y. (1988). Motivational factors in the decision and timing of pregnancy. In W. A. Michaels, G. Y. & Goldberg (Ed.), *The transition to parenthood: Current theory and research* (pp. 23–61). Cambridge: Cambridge University Press.
- Mikulincer, M., & Florian, V. (1999). Maternal-fetal bonding, coping strategies, and mental health during pregnancy – the contribution of attachment style. *Journal of Social and Clinical Psychology, 18*(3), 255–276. <https://doi.org/10.1521/jscp.1999.18.3.255>
- Mikulincer, M., & Shaver, P. R. (2009). An attachment and behavioral systems perspective on social support. *Journal of Social and Personal Relationships, 26*, 7–19. <https://doi.org/10.1177/0265407509105518>
- Moreira, H., & Canavarro, M. C. (2015). Individual and gender differences in mindful parenting: The role of attachment and caregiving representations. *Personality and Individual Differences, 87*, 13–19. <https://doi.org/10.1016/j.paid.2015.07.021>
- Moss, H. A. (1967). Sex, age and state as determinants of mother-infant interaction. *Merrill-Palmer Quarterly of Behavior and Development, 13*, 19–36.
- Nathanson, A. I., & Manohar, U. (2012). Attachment, working models of parenting, and expectations for using television in childrearing. *Family Relations, 61*, 441–454. <https://doi.org/10.1111/j.1741-3729.2012.00701.x>
- Narayan, A. J., Bucio, G. O., Rivera, L. M., & Lieberman, A. F. (2016). Making sense of the past creates space for the baby: Perinatal childparent psychotherapy for pregnant women with childhood trauma. *Zero to Three Journal, 36*, 22–28.
- Northrup, C. (2005). *Mother-daughter wisdom: Understanding the crucial link between mothers, daughters, and health*. New York, NY: Bantam Books.
- Parker, G., Tupling, H., & Brown, L. B. (1979). A parental bonding instrument. *British Journal of Medical Psychology, 52*(1), 1–10.
- Papadimitriou, F. (2008). *Motherhood Motivation: Childhood Experiences, Attachment*

- Style, Feminism, Sex Role Identity & Fertility Awareness* (Unpublished doctoral dissertation). Swinburne University Hawthorn, Victoria, Australia.
- Pearson, J. L., Cohn, D. A., Cowan, P. A., & Cowan, C. P. (1994). Earned- and Continuous-security in adult attachment: Relation to depressive symptomatology and parenting style. *Development and Psychopathology*, 6, 359–373. <https://doi.org/10.1017/S0954579400004636>
- Priel, B., & Besser, A. (2000). Adult attachment styles, early relationships, antenatal attachment, and perceptions of infant temperament: A study of first-time mothers. *Personal Relationships*, 7, 291–310. <https://doi.org/10.1111/j.1475-6811.2000.tb00018.x>
- Prinds, C., Hvidt, N. C., Mogensen, O., & Buus, N. (2014). Making existential meaning in transition to motherhood—A scoping review. *Midwifery*, 30(6), 733–741. <https://doi.org/10.1016/j.midw.2013.06.021>
- Pryce, C. R. (1995). Motherhood in human and nonhuman primates. In C. R. Pryce, R. D. Martin, & D. Skuse (Eds.), *Determinants of motherhood in human and nonhuman primates: A biosocial model* (pp. 1–15). Basel, Switzerland: Karger.
- Reis, S., & Grenyer, B. F. S. (2004). Fearful Attachment , Working Alliance and Treatment Major Depression. *Clinical Psychology and Psychotherapy*, 11, 414–424. <https://doi.org/10.1002/cpp.428>
- Reizer, A., & Mikulincer, M. (2007). Assessing Individual Differences in Working Models of Caregiving. *Journal of Individual Differences*, 28(4), 227–239. <https://doi.org/10.1027/1614-0001.28.4.227>
- Rholes, W. S., & Paetzold, R. L. (2019). Attachment and the Transition to Parenthood. In O. Taubman - Ben-Ari (Ed.), *Pathways and Barriers to Parenthood* (pp. 291–303). Switzerland, AG: Springer Nature.
- Rholes, W. R., Simpson, J. A., Blakely, B. S., Lanigan, L., & Allen, E. A. (1997). Adult attachment styles, the desire to have children, and working models of parenthood. *Journal of Personality*, 65(2), 357–385. <https://doi.org/10.1111/j.1467-6494.1997.tb00958.x>
- Rholes, W. S., Simpson, J. A., & Blakely, B. S. (1995). Adult attachment styles and mothers' relationships with their young children. *Personal Relationships*, 2, 35–54. <https://doi.org/10.1111/j.1475-6811.1995.tb00076.x>

- Rholes, W. S., Simpson, J. A., Campbell, L., & Grich, J. (2001). Adult attachment and the transition to parenthood. *Journal of Personality and Social Psychology, 81*(3), 421–435. <https://doi.org/10.1037//O022-3514.81.3.421>
- Rholes, W. S., Simpson, J. A., & Friedman, M. (2006). Avoidant attachment and the experience of parenting. *Personality and Social Psychology Bulletin, 32*(3), 275–285. <https://doi.org/10.1177/0146167205280910>
- River, L. M., Narayan, A. J., Atzl, V. M., Rivera, L. M., & Lieberman, A. F. (2020). Past made present: The legacy of childhood maltreatment for romantic relationship quality and psychopathology during pregnancy. *Psychology of Violence, 10*(3), 324–333. <https://doi.org/10.1037/vio0000273>
- Ruiz-Ruano, A. M., & Puga, J. L. (2018). Deciding on null hypotheses using p-values or bayesian alternatives: A simulation study. *Psicothema, 30*, 110–115.
- Sacks, A. (2017, May 8). The birth of a mother. *The New York Times*. Retrieved 2020, from <https://www.nytimes.com/2017/05/08/well/family/the-birth-of-a-mother.html>
- Scharf, M., & Mayseless, O. (2011). Buds of parenting in emerging adult males: What we learned from our parents. *Journal of Adolescent Research, 26*(4), 479–505. <https://doi.org/10.1177/0743558411402339>
- Scharf, M., & Rousseau, S. (2017). "One Day I Will Make a Good Parent": On The Relationship Between Overparenting and Young Adults' Early Parenting Representations. *Journal of Adult Development, 24*(3), 199–209. <https://doi.org/10.1007/s10804-016-9258-1>
- Selcuk, E., Günaydin, G., Sumer, N., Harma, M., Salman, S., Hazan, C., . . . Ozturk, A. (2010). Self-reported romantic attachment style predicts everyday maternal caregiving behavior at home. *Journal of Research in Personality, 44*(4), 544–549. <https://doi.org/10.1016/j.jrp.2010.05.007>
- Simpson, J. A., & Belsky, J. (2008). Attachment theory within a modern evolutionary framework. In J. Cassidy & P. R. Shaver (Eds.), *Handbook of Attachment: Theory, Research, and Clinical Applications* (Second edi, pp. 131–157). New York, NY: The Guilford Press.
- Simpson, J. A., Collins, W. A., Tran, S., & Haydon, K. C. (2007). Attachment and the experience and expression of emotions in romantic relationships: A developmental perspective. *Journal of Personality and Social Psychology, 92*(2), 355–367. <https://doi.org/10.1037/0022-3514.92.2.355>

- Simpson, J. A., Rholes, W. S., Campbell, L., Tran, S., & Wilson, C. L. (2003). Adult Attachment, the Transition to Parenthood, and Depressive Symptoms. *Journal of Personality and Social Psychology, 84*(6), 1172–1187.
- Simpson, J. A., Rholes, W. S., Campbell, L., & Wilson, C. L. (2003). Changes in attachment orientations across the transition to parenthood. *Journal of Experimental Social Psychology, 39*, 317–331. [https://doi.org/10.1016/S0022-1031\(03\)00030-1](https://doi.org/10.1016/S0022-1031(03)00030-1)
- Slade, A., Belsky, J., Aber, J. L., & Phelps, J. L. (1999). Mothers' representations of their relationships with their toddlers: links to adult attachment and observed mothering. *Developmental Psychology, 35*(3), 611–619. <https://doi.org/10.1037/0012-1649.35.3.611>
- Slade, A., Cohen, L. J., Sadler, L. S., & Miller, M. (2009). *The psychology and psychopathology of pregnancy*. In C. H. Zeanah (Ed.), *Handbook of infant mental health* (pp. 22–39). New York, NY: Guilford Press.
- Snell, W. E., Overbey, G. A., & Brewer, A. L. (2005). Parenting perfectionism and the parenting role. *Personality and Individual Differences, 39*(3), 613–624. <https://doi.org/10.1016/j.paid.2005.02.006>
- Solomon, J., & George, C. (1996). Defining the caregiving system: Toward a theory of caregiving. *Infant Mental Health Journal, 17*(3), 183–197. [https://doi.org/10.1002/\(sici\)1097-0355\(199623\)17:3<183::aid-imhj1>3.0.co;2-q](https://doi.org/10.1002/(sici)1097-0355(199623)17:3<183::aid-imhj1>3.0.co;2-q)
- Solomon, J., & George, C. (2006). Intergenerational transmission of dysregulated maternal caregiving: Mothers describe their upbringing and childrearing. In *Parenting Representations: Theory, Research, and Clinical Implications* (pp. 265–295). Cambridge: Cambridge University Press. <https://doi.org/10.1017/CBO9780511499869.010>
- Symons, D. K., Adams, S., & Smith, K. H. (2015). Adult attachment style and caregiver attitudes after raising a virtual child. *Journal of Social and Personal Relationships, 33*(8), 1054–1069. <https://doi.org/10.1177/0265407515616710>
- Taubman - Ben-Ari, O., Shlomo, S. B., Sivan, E., & Dolizki, M. (2009). The transition to motherhood - a time for growth. *Journal of Social and Clinical Psychology, 28*(8), 943–970. <https://doi.org/10.1521/jscp.2009.28.8.943>
- Teyber, E., & McClure, F. H. (2011). *Interpersonal process in therapy: An integrative model* (6th ed). Boston, MA: Cengage Learning.
- Unger, L. S., & Thumhuri, L. K. (1997). Trait empathy and continuous helping:

- The case of voluntarism. *Journal of Social Behavior and Personality*, 12(3), 785–800.
- Van Ijzendoorn, M. H. (1992). Intergenerational transmission of parenting: A review of studies in nonclinical populations. *Developmental Review*, 12(1), 76–99. [https://doi.org/10.1016/0273-2297\(92\)90004-1](https://doi.org/10.1016/0273-2297(92)90004-1)
- Van Ijzendoorn, M. H. (1995). Adult attachment representations, parental responsiveness, and infant attachment: A meta-analysis on the predictive validity of the Adult Attachment Interview. *Psychological Bulletin*, 117(3), 387–403. <https://doi.org/10.1037/0033-2909.117.3.387>
- Verny, T. R., & Weintraub, P. (2003). *Pre-parenting: Nurturing your child from conception*. New York, NY: Simon & Schuster.
- Vizziello, G. F., Antonioli, M. E., Cocci, V., & Invernizzi, R. (1993). From pregnancy to motherhood: The structure of representative and narrative change. *Infant Mental Health Journal*, 14, 1-16.
- Ward, M. J., & Carlson, E. A. (1995). Associations among Adult Attachment Representations, Maternal Sensitivity, and Infant-Mother Attachment in a Sample of Adolescent Mothers. *Child Development*, 66(1), 69.
- Wilson, L., & Peters, T. W. (2014). *The attachment pregnancy*. Avon, MA: Adams Media.
- Wilson, C. L., Rholes, W. S., Simpson, J. A., & Tran, S. (2007). Labor, delivery, and early parenthood: An attachment theory perspective. *Personality and Social Psychology Bulletin*, 33, 505–518. <https://doi.org/10.1177/0146167206296952>
- Winnicott, D. W. (1953). Transitional objects and transitional phenomena; a study of the first not-me possession. *The International Journal of Psychoanalysis*, 34, 89-97.
- Zaki, N., Ruiz-Ruano, A. M., & Puga, J. L. (2020). Attachment style and prenatal expectations from a Bayesian perspective. *Psicothema*, 32(1), 138-144.
- Zeanah, C. H., Keener, M. A., & Anders, T. F. (1986). Adolescent Mothers' Prenatal Fantasies and Working Models of Their Infants. *Psychiatry*, 49(3), 193-203. <https://doi.org/10.1080/00332747.1986.11024321>
- Zeanah, C. H., Keener, M. A., Stewart, L., & Anders, T. F. (1985). Prenatal Perception of Infant Personality: A Preliminary Investigation. *Journal of the American Academy of Child Psychiatry*, 24(2), 204-210. [https://doi.org/10.1016/s0002-7138\(09\)60449-0](https://doi.org/10.1016/s0002-7138(09)60449-0)

XI - APPENDICES

APPENDIX 1: Information Sheet.**DOCUMENTO DE INFORMACIÓN PARA SUJETOS SOMETIDOS A ESTUDIO (HOJA INFORMATIVA)****1. EN QUÉ CONSISTE Y PARA QUÉ SIRVE:**

Este estudio está destinado a explorar cómo afectan tus experiencias con tus propios padres en la transición a la maternidad que pronto experimentarás. El estudio consistirá en la recogida de información por medio de cuestionarios psicológicos que se utilizarán para analizar la relación que exista entre los estilos de apego, el sentido de la propia vida y diferentes emociones o pensamientos.

Por consiguiente, el estudio servirá para arrojar luz sobre este periodo de transición tan importante para la vida de la mujer y para diseñar procedimientos de intervención que maximicen transiciones saludables hacia la maternidad.

Para que puedas participar en este estudio, es necesario que:

- Sea tu primer embarazo
- Sea un solo bebé, no gemelos
- Usted o el bebé no estén experimentando ninguna complicación durante el embarazo

2. COMO SE REALIZA:

El estudio se realizará recogiendo las respuestas de madres primerizas a test psicológicos en diferentes momentos del embarazo y pocos días después del alumbramiento.

3. QUÉ EFECTOS LE PRODUCIRÁ:

Se considera que este estudio no producirá ningún efecto en usted, en su bebé o en su pareja.

4. EN QUÉ LE BENEFICIARÁ:

El hecho de participar en este estudio no le reportará ningún beneficio directo. Sin embargo, nos gustaría facilitarle una guía informativa en formato electrónico que pudiese ser de utilidad a lo largo de su embarazo o tras el nacimiento de su bebe.

5. QUÉ RIESGOS TIENE:

No se prevé que este estudio reporte ningún riesgo para usted, su bebé o su pareja.

6. SITUACIONES ESPECIALES QUE DEBEN SER TENIDAS EN CUENTA:

No se consideran.

7. OTRAS INFORMACIONES DE INTERÉS (a considerar por el/la profesional)

No se consideran.

8. OTRAS CUESTIONES PARA LAS QUE LE PEDIMOS SU CONSENTIMIENTO

Nos gustaría poder contactar con usted vía telefónica en una fase posterior del estudio para poder recolectar más información sobre la evolución de su embarazo o alumbramiento.

APPENDIX 2: Informed consent form.**CONSENTIMIENTO INFORMADO**

Yo,, con
DNI:.....

DECLARO:

Haber sido informado/a del estudio y procedimientos de la investigación del Proyecto titulado: **_ Estilo de Apego y Experiencia de la Nueva Maternidad (*Attachment Style & Experience of New Motherhood*) _**

Los investigadores que van a acceder a mis datos personales y a los resultados de las pruebas son: **_Jorge López Puga, Ana Maria Ruiz-Ruano Garcia, Nour Zaki y María Isabel Sánchez Camps_**

Asimismo, he podido hacer preguntas del estudio, comprendiendo que me presto de forma voluntaria al mismo y que en cualquier momento puedo abandonarlo sin que me suponga perjuicio de ningún tipo.

CONSIENTO:

- 1.-) Someterme a las siguientes pruebas exploratorias (en su caso): de recogida de información mediante cuestionarios psicológicos.
- 2.-) El uso de los datos obtenidos según lo indicado en el párrafo siguiente:
En cumplimiento de la Ley Orgánica 15/1999, de 13 de diciembre, de Protección de Datos de Carácter Personal, le comunicamos que la información que ha facilitado y la obtenida como consecuencia de las exploraciones a las que se va a someter pasará a formar parte del

fichero automatizado INVESALUD, cuyo titular es la FUNDACIÓN UNIVERSITARIA SAN ANTONIO, con la finalidad de INVESTIGACIÓN Y DOCENCIA EN LAS ÁREAS DE CONOCIMIENTO CIENCIAS EXPERIMENTALES Y CIENCIAS DE LA SALUD. Tiene derecho a acceder a esta información y cancelarla o rectificarla, dirigiéndose al domicilio de la entidad, en Avda. de los Jerónimos de Guadalupe 30107 (Murcia). Esta entidad le garantiza la adopción de las medidas oportunas para asegurar el tratamiento confidencial de dichos datos.

En Guadalupe (Murcia) a de de 20

El investigador,

Fdo:..... Fdo:.....

APPENDIX 3: Questionnaire for data collection.**CUESTIONARIO****Sección 1 de 6**

1. Edad:
2. Número de teléfono:
3. Por favor, indique el nivel aproximado de ingresos mensuales de su familia:
 - Menos de 1000 euros
 - Entre 1000 y 3000 euros
 - Entre 3000 y 5000 euros
 - Más de 5000 euros
4. Por favor, indique el nivel máximo de estudios que ha alcanzado:
 - Sin estudios
 - Estudios primarios
 - Estudios secundarios
 - Estudios universitarios
5. ¿Tiene un trabajo?
 - Sí
 - No
6. Por favor, describa su embarazo:
 - Estoy muy contenta de haber tenido mi hijo/a ahora
 - Quiero a mi hijo/a, pero quizá haberlo tenido más adelante hubiese sido mejor
 - No quiero tener hijos ni ahora ni nunca
7. Marque con una X la casilla que mejor refleje su situación:
 - He tenido un aborto espontáneo o natural
 - He tenido un aborto inducido o provocado

Indica su grado de acuerdo con la siguiente pregunta, haciendo uso de esta escala donde: 0 = Totalmente en Desacuerdo; 3 = Ni en Desacuerdo ni de Acuerdo; 6 = Totalmente de Acuerdo. Utilice los numerosos intermedios para señalar grados intermedios de exactitud.

11. Estilo B: ("Me siento cómodo/a sin tener relaciones emocionales estrechas. Es muy importante para mí sentirme independiente y autosuficiente y prefiero no confiar en otras personas ni que ellas confíen en mí.")

0 1 2 3 4 5 6
 No me describe a mí con exactitude Me describe a mí con mucha exactitude

12. Estilo C: ("Quisiera tener una total intimidad emocional con otras personas, pero siento que los demás son reacios a mostrarse tan cercanos como yo querría. Me siento incómodo/a sin tener una relación íntima, pero a veces me preocupa que los demás no me valoren tanto como yo los valoro a ellos.")

0 1 2 3 4 5 6
 No me describe a mí con exactitude Me describe a mí con mucha exactitude

13. Estilo D: ("Me siento incómodo/ cuando tengo una relación estrecha con alguien. Me gustan emocionalmente las relaciones estrechas, pero encuentro difícil confiar en los demás completamente, o tener que contar con ellos. Me preocupa que yo pueda resultar herido/a si me

0 1 2 3 4 5 6
 No me describe a mí con exactitude Me describe a mí con mucha exactitude

Sección 3 de 6

Indica su grado de acuerdo con la siguiente pregunta, haciendo uso de esta escala donde: 0 = Totalmente en Desacuerdo; 3 = Ni en Desacuerdo ni de Acuerdo; 6 = Totalmente de Acuerdo. Utilice los numerosos intermedios para señalar grados intermedios de exactitud.

14. Hubiese estado muy desilusionada y triste si mi pareja y yo no hubiésemos podido tener hijos.

0 1 2 3 4 5 6
 No me describe a mí con exactitude Me describe a mí con mucha exactitude

15. Deseo mucho tener hijos.

0 1 2 3 4 5 6
 No me describe a mí con exactitude Me describe a mí con mucha exactitude

16. Me gustaría tener solo un hijo.

0 1 2 3 4 5 6
No me describe a mí con exactitude Me describe a mí con mucha
exactitude

17. No estoy segura de querer tener hijos.

0 1 2 3 4 5 6
No me describe a mí con exactitude Me describe a mí con mucha
exactitude

18. Puedo ser bastante feliz sin tener hijos.

0 1 2 3 4 5 6
No me describe a mí con exactitude Me describe a mí con mucha
exactitude

19. Si mi pareja y yo no hubiésemos podido tener hijos, seguramente hubiese intentado adoptar.

0 1 2 3 4 5 6
No me describe a mí con exactitude Me describe a mí con mucha
exactitude

20. Nunca podría haberme casado con alguien que claramente no quisiera tener hijos.

0 1 2 3 4 5 6
No me describe a mí con exactitude Me describe a mí con mucha
exactitude

21. Sin hijos, me sentiría no realizada.

0 1 2 3 4 5 6
No me describe a mí con exactitude Me describe a mí con mucha
exactitude

22. Quiero una familia grande.

0 1 2 3 4 5 6
No me describe a mí con exactitude Me describe a mí con mucha
exactitude

23. Para mi, la vida familiar es muy importante.

0 1 2 3 4 5 6
No me describe a mí con exactitude Me describe a mí con mucha

exactitude

24. A veces pienso que quiero tener hijos, a veces no.

0 1 2 3 4 5 6
No me describe a mí con exactitude Me describe a mí con mucha
exactitude

25. La verdad es que no he pensado mucho si quiero tener hijos o no, y me dan un poco igual ambos casos.

0 1 2 3 4 5 6
No me describe a mí con exactitude Me describe a mí con mucha
exactitude

Sección 4 de 6

Indica su grado de acuerdo con la siguiente pregunta, haciendo uso de esta escala donde: 0 = Totalmente en Desacuerdo; 3 = Ni en Desacuerdo ni de Acuerdo; 6 = Totalmente de Acuerdo. Utilice los numerosos intermedios para señalar grados intermedios de exactitud.

26. No me siento cómoda con los niños.

0 1 2 3 4 5 6
No me describe a mí con exactitude Me describe a mí con mucha
exactitude

27. No me sentiría cómoda teniendo niños que dependen de mí.

0 1 2 3 4 5 6
No me describe a mí con exactitude Me describe a mí con mucha
exactitude

28. Me siento incómoda con niños pequeños.

0 1 2 3 4 5 6
No me describe a mí con exactitude Me describe a mí con mucha
exactitude

29. Me preocupa no ser una buena madre, y eso me angustia sobre la idea de tener hijos.

0 1 2 3 4 5 6
No me describe a mí con exactitude Me describe a mí con mucha
exactitude

30. Me preocupa que pueda ser difícil para mí apegarme a un niño.

0 1 2 3 4 5 6
No me describe a mí con exactitude Me describe a mí con mucha exactitude

31. Los niños requieren más paciencia de la que tengo.

0 1 2 3 4 5 6
No me describe a mí con exactitude Me describe a mí con mucha exactitude

32. Creo que los niños necesitarán más atención de la que yo les pueda dar.

0 1 2 3 4 5 6
No me describe a mí con exactitude Me describe a mí con mucha exactitude

33. No soy una mujer con una sensibilidad especial hacia los bebés.

0 1 2 3 4 5 6
No me describe a mí con exactitude Me describe a mí con mucha exactitude

34. Mi personalidad y los niños no combinan bien.

0 1 2 3 4 5 6
No me describe a mí con exactitude Me describe a mí con mucha exactitude

35. Respecto a los niños, me veo cuidadosa y cariñosa.

0 1 2 3 4 5 6
No me describe a mí con exactitude Me describe a mí con mucha exactitude

36. Me preocupa no apegarme emocionalmente a los niños.

0 1 2 3 4 5 6
No me describe a mí con exactitude Me describe a mí con mucha exactitude

Sección 5 de 6

37. Por favor, describa con sus propias palabras lo que personalmente significa para usted convertirse en madre.

Por favor, responda a las siguientes preguntas relacionado con preocupaciones de algunas mujeres embarazadas. Recuerde que las respuestas a estas preguntas son subjetivas y no existen respuestas correctas o incorrectas.

Indica su grado de acuerdo con la siguiente pregunta, haciendo uso de esta escala donde: 0 = Totalmente en Desacuerdo; 3 = Ni en Desacuerdo ni de Acuerdo; 6 = Totalmente de Acuerdo. Utilice los numerosos intermedios para señalar grados intermedios de exactitud.

38. No deseo convertirme en madre.

0	1	2	3	4	5	6	
No me describe a mí con exactitude exactitude							Me describe a mí con mucha exactitude

39. Me preocupa excesivamente perder al bebé.

0	1	2	3	4	5	6	
No me describe a mí con exactitude exactitude							Me describe a mí con mucha exactitude

40. Si está prestando atención, seleccione la opción "totalmente de acuerdo".

0	1	2	3	4	5	6	
No me describe a mí con exactitude exactitude							Me describe a mí con mucha exactitude

41. Me preocupa excesivamente que el bebé dependa totalmente de mí.

0	1	2	3	4	5	6	
No me describe a mí con exactitude exactitude							Me describe a mí con mucha exactitude

49. Me preocupa excesivamente la intromisión de otros después del parto (por ejemplo, excesivos consejos de crianza).

0 1 2 3 4 5 6
No me describe a mí con exactitude Me describe a mí con mucha exactitude

50. Me preocupa excesivamente que ser madre afecte a mi relación con mi pareja.

0 1 2 3 4 5 6
No me describe a mí con exactitude Me describe a mí con mucha exactitude

51. Me preocupa excesivamente que ser madre afecte a mi relación con mis amigas/os.

0 1 2 3 4 5 6
No me describe a mí con exactitude Me describe a mí con mucha exactitude

52. Me preocupa excesivamente que no encuentre la maternidad personalmente satisfactoria.

0 1 2 3 4 5 6
No me describe a mí con exactitude Me describe a mí con mucha exactitude

Sección 6 de 6

53. ¿Quién ha sido la persona que más te ha criado los primeros 16 años de tu vida (cuidador/a principal)?

Este cuestionario incluye una lista de algunas actitudes y conductas. Responde a las siguientes cuestiones pensando en la persona que ha indicado como su PRINCIPAL CUIDADOR/A.

54. Hablaba conmigo en voz cálida y amigable.

- Siempre pasaba
- Algunas veces pasaba
- Rara vez pasaba
- Nunca pasaba

55. No me ayudaba tanto como yo lo necesitaba.

- Siempre pasaba
- Algunas veces pasaba
- Rara vez pasaba
- Nunca pasaba

56. Me dejaba hacer cosas que me gustaba hacer.
- Siempre pasaba
 - Algunas veces pasaba
 - Rara vez pasaba
 - Nunca pasaba
57. Parecía emocionalmente fría conmigo.
- Siempre pasaba
 - Algunas veces pasaba
 - Rara vez pasaba
 - Nunca pasaba
58. Parecía entender mis problemas y preocupaciones.
- Siempre pasaba
 - Algunas veces pasaba
 - Rara vez pasaba
 - Nunca pasaba
59. Era cariñosa conmigo.
- Siempre pasaba
 - Algunas veces pasaba
 - Rara vez pasaba
 - Nunca pasaba
60. Le gustaba que yo tomara mis propias decisiones.
- Siempre pasaba
 - Algunas veces pasaba
 - Rara vez pasaba
 - Nunca pasaba
61. No quería que yo creciera.
- Siempre pasaba
 - Algunas veces pasaba
 - Rara vez pasaba
 - Nunca pasaba
62. Trataba de controlar todo lo que yo hacía.
- Siempre pasaba
 - Algunas veces pasaba
 - Rara vez pasaba
 - Nunca pasaba

-
63. Invadía mi intimidad.
- Siempre pasaba
 - Algunas veces pasaba
 - Rara vez pasaba
 - Nunca pasaba
64. Disfrutaba al hablar conmigo.
- Siempre pasaba
 - Algunas veces pasaba
 - Rara vez pasaba
 - Nunca pasaba
65. Frecuentemente me sonreía.
- Siempre pasaba
 - Algunas veces pasaba
 - Rara vez pasaba
 - Nunca pasaba
66. Tendía a consentirme.
- Siempre pasaba
 - Algunas veces pasaba
 - Rara vez pasaba
 - Nunca pasaba
67. Parecía que no entendía lo que yo quería o necesitaba.
- Siempre pasaba
 - Algunas veces pasaba
 - Rara vez pasaba
 - Nunca pasaba
68. Me dejaba tomar mis propias decisiones.
- Siempre pasaba
 - Algunas veces pasaba
 - Rara vez pasaba
 - Nunca pasaba
69. Me hacía sentir que no me quería.
- Siempre pasaba
 - Algunas veces pasaba
 - Rara vez pasaba
 - Nunca pasaba

70. Podía hacerme sentir mejor cuando yo estaba disgustada.
- Siempre pasaba
 - Algunas veces pasaba
 - Rara vez pasaba
 - Nunca pasaba
71. No hablaba mucho conmigo.
- Siempre pasaba
 - Algunas veces pasaba
 - Rara vez pasaba
 - Nunca pasaba
72. Trataba de hacerme sentir dependiente de ella.
- Siempre pasaba
 - Algunas veces pasaba
 - Rara vez pasaba
 - Nunca pasaba
73. Sentía que no podía cuidar de mi misma, si no estaba cerca.
- Siempre pasaba
 - Algunas veces pasaba
 - Rara vez pasaba
 - Nunca pasaba
74. Me daba tanta libertad como yo quería.
- Siempre pasaba
 - Algunas veces pasaba
 - Rara vez pasaba
 - Nunca pasaba
75. Me dejaba salir a menudo, cuando yo quería.
- Siempre pasaba
 - Algunas veces pasaba
 - Rara vez pasaba
 - Nunca pasaba
76. Fue sobreprotectora conmigo.
- Siempre pasaba
 - Algunas veces pasaba
 - Rara vez pasaba
 - Nunca pasaba

77. No me alababa.

- Siempre pasaba
- Algunas veces pasaba
- Rara vez pasaba
- Nunca pasaba

78. Me dejaba vestir como yo quería.

- Siempre pasaba
- Algunas veces pasaba
- Rara vez pasaba
- Nunca pasaba

