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PREDICTORS OF MATERNAL PRENATAL ATTACHMENT AND PREGNANCY ADAPTATION IN WOMEN CONCEIVED VIA ASSISTED REPRODUCTIVE TECHNIQUES: A MIXED METHOD STUDY

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Approval of the Graduate School of Social Sciences

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I certify that this thesis satisfies all the requirements as a thesis for the degree of Doctor of Philosophy.

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I hereby declare that all information in this document has been obtained and presented in accordance with academic rules and ethical conduct. I also declare that, as required by these rules and conduct, I have fully cited and referenced all material and results that are not original to this work.

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ABSTRACT

PREDICTORS OF MATERNAL PRENATAL ATTACHMENT AND PREGNANCY ADAPTATION IN WOMEN CONCEIVED VIA ASSISTED REPRODUCTIVE TECHNIQUES: A MIXED METHOD STUDY

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The main target of present dissertation was to achieve a deeper understanding of the psychology of pregnant women who conceived via assisted reproductive techniques (ART). For this purpose, a mixed method study was designed and three separate studies were conducted. In the first study, Turkish adaptation of the Parenthood Motivation Scale was conducted with 457 pregnant women. Results revealed that the measure was reliable and valid, and women who conceived via ART had higher motivations in terms of overall motivation levels, and *identity* and *social pressure* dimensions. In the second study, the effects of psychosocial factors on women's pregnancy adaptation and prenatal attachment were investigated for 185 ART-conceived expectant mothers. The findings of moderation analyses emphasized that, first, the relation between prenatal distress and pregnancy adaptation could be buffered via perceived friend support, and intensified via anxious attachment style. Second, in the case of higher distress, women showed higher prenatal attachment levels. Third, prenatal distress negatively, and perceived social support from significant other positively influenced the relation between parenthood motivation

and pregnancy adaptation. In the third study, to provide a comprehensive knowledge about these findings, the experiences of ART-conceived pregnant women were investigated through focus group discussions. The results of thematic analysis demonstrated three super-ordinate themes: (1) infertility and treatment process: feeling like an “empty can”, (2) pregnancy process: “what if I have a miscarriage”, (3) projections about motherhood: despair and hope. Based on the literature, the findings of present dissertation were discussed with its strengths, limitations and clinical implications.

Keywords: Infertility, Assisted Reproductive Techniques, Pregnancy, Prenatal Attachment, Pregnancy Adaptation

ÖZ

YARDIMCI ÜREME TEKNİKLERİYLE GEBE KALAN KADINLARIN GEBELİK DÖNEMİ BAĞLANMASI VE GEBELİK UYUMUNU YORDAYAN ETKENLER: BİR KARMA YÖNTEM ARAŞTIRMASI

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Bu doktora tezinin amacı, yardımcı üreme teknikleriyle oluşan gebeliklerde anne adaylarının psikolojik durumu hakkında bilgi sahibi olmaktır. Bu amaçla, üç çalışmadan oluşan karma yöntemli bir araştırma yürütülmüştür. İlk çalışmada, Ebeveynlik Motivasyonu Ölçeğinin Türkçeye uyarlama çalışması 457 anne adayıyla gerçekleştirilmiştir. Sonuçlar, ölçeğin güvenilir ve geçerli olduğunu; yardımcı üreme teknikleriyle gebe kalan kadınların toplam motivasyon düzeyleri ile *kimlik* ve *sosyal baskı* alt boyutları bakımından daha yüksek motivasyona sahip olduğunu göstermiştir. İkinci çalışmada, yardımcı üreme teknikleriyle gebe kalmış 185 anne adayının gebelik dönemi adaptasyonları ile gebelik dönemi bağlanma düzeylerini etkileyen psiko-sosyal etkenleri incelemek için bir dizi moderasyon (biçimleyici) analizi yapılmıştır. Sonuçlar, ilk olarak, gebelik stresi ve gebelik adaptasyonu arasındaki olumsuz ilişki üzerinde arkadaşlar tarafından algılanan sosyal desteğin tampon görevi görürken, kaygılı bağlanma stilinin ilişkiyi kuvvetlendirici etkisi olduğu göstermiştir. İkinci olarak, ebeveynlik motivasyonu ile gebelik stresinin yüksek olduğu durumlarda anne adaylarının gebelik

bağlanmalarının "aşırı korumacı" olduğu görülmüştür. Üçüncü olarak, ebeveynlik motivasyonu ile gebelik adaptasyonu arasındaki ilişkinin gebelik stresi tarafından olumsuz yönde; "özel" bir insandan algılanan sosyal destek tarafından ise olumlu yönde biçimlendiği bulunmuştur. Son çalışmada, edilen bilgilere kapsamlı bir bakış açısı kazandırmak amacıyla, odak grup görüşmeleri yapılmış ve bu kadınların infertilite sürecinden itibaren yaşadıkları deneyimlerin anlaşılması hedeflenmiştir. Tematik analiz bulguları, üç ana üst anlam temasının oluştuğunu göstermiştir. Bunlar, (1) infertilite ve tedavi sürecine dair "boş teneke" gibi hissetmek teması, (2) gebelik sürecine dair "ya kaybedersem?" teması, (3) annelik kurgularına dair ise "hayal kırıklığı ve umut" teması olarak adlandırılmıştır. Tezin tüm bulguları alanyazındaki kaynaklar ışığında incelenmiş; çalışmanın kuvvetli yönleri, sınırlılıkları ve klinik çıkarımları ele alınmıştır.

Anahtar Kelimeler: İnfertilite, Yardımcı Üreme Teknikleri, Gebelik, Prenatal Bağlanma, Gebelik Adaptasyonu

To My Beloved Family...

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CHAPTER 1

GENERAL INTRODUCTION

"Sometimes it's hard to see the rainbow, when there's been endless days of rain."
—Christina Greer,
Two-Week Wait: Motherhood Lost and Found

Infertility is a medical problem concerning the reproductive system. In the glossary of International Committee for Monitoring Assisted Reproductive Technology (ICMART) and the World Health Organization (WHO), infertility was clinically defined as the inability to conceive more than 12 months in a consequence of regular unprotected sexual relationship (Zegers-Hochschild et al., 2009). Studies revealed that both male and female-based infertility have equal rates of incidence and 20% of the cases are defined as unexplained infertility (Fisher, 2008). The unexplained cases having no organic reasons are referred to as "psychogenic infertility" and it was proposed that unconscious psychological factors or personality traits could be the reasons behind them (see Greil, 1997). To explain unexplained infertility, "stress hypothesis" indicates that stress is an important factor leading to infertility (e.g., Wasser, 1994; Wasser, Sewall, & Soules, 1993).

Stress is not only a cause, but also a consequence of infertility while attempting conception (Boivin et al., 1998; Cousineau & Domar, 2007). Since the process is unpredictable and patients can experience repetitive losses (Lalos, 1999), they can go through various states of negative emotions such as excessive anxiety, irritability, deep sadness, guilt, depression, social isolation, and increased sensitivity

in interpersonal relationships (Berg & Wilson, 1991). Most of the time women become the core subject of these adverse psychological consequences (Greil, 1997). In many cultures, regardless of the basis of infertility, women are likely to feel more pressure throughout the diagnosis and treatment process; because the process proceeds on their body, they are exposed to social expectations concerning having children, and the stigma of infertility imposes that motherhood is an important representation of womanhood (Hussain, 2006).

The case of women to be destructively affected by infertility is also true within the Turkish culture. Even though it is a male-factor infertility, they can think that inability to naturally conceive means being "less of a woman", which drags them to the feeling of being incomplete and unable to satisfy the social expectations regarding womanhood (Boz & Okumuş, 2017). This notion can decrease their self-worth and cause them to blame themselves (Sarac & Koc, 2018). To compensate their "inadequacy", infertile women are highly motivated for having children, even thinking about using illegal treatment procedures (Akyuz, Sever, Karasahin, Guvenc, & Cek, 2014). In some cases, these women can even become the victim of domestic violence because of their infertility (Yildizhan et al., 2009).

In the last fifteen years, it was emphasized in the infertility-related Turkish studies that women have more depressive symptoms and higher levels of anxiety during infertility and treatment processes, but also perceive greater social support that can decrease their higher distress levels (Aldemir, Eser, Ozturk Turhan, Dalbudak, & Topcu, 2015; Karlıdere et al., 2007). As their age and infertility period increase, they have higher anxiety and depression levels (Guz, Ozkan, Sarisoy, Yanik, & Yanik, 2003), which can decrease the possibility of getting pregnant (Terzioglu et al., 2016). It is important to note that, the focus of these studies is in general, on the psychology of infertile women in the process of diagnosis and treatment. However,

women's negative psychological states can persist even when they achieve successful pregnancy, with the additional adverse effects of treatment process.

Concerning assisted reproductive techniques (ART)-conceived pregnant women's psychological states, the literature findings emphasized that pregnancy process, which is expected to be a joyful time period, turns into a compelling experience for women with infertility history (Boivin et al. 2001). They can have difficulty with believing that they are pregnant and have consistent fears of losing their baby (Bernstein, Lewis, & Seibel, 1994; Hammarberg, Fisher, & Wynter, 2008; McMahon, Ungerer, Beaurepaire, Tennant, & Saunders 1997; Olshansky, 1990); their pregnancy adjustment can be more difficult (Łepecka-Klusek & Jakiel, 2007); and they can have either protective (Fisher, Hammarberg, & Baker, 2008) or disinterested (Bernstein, Lewis, & Seibel 1994; McMahon, Tennant, Ungerer, & Saunders, 1999) prenatal attachment styles. As a result of this process, their mother-infant relations can be adversely affected, they can feel lower self-esteem and less maternal confidence after the birth (Gibson, Ungerer, Tennant, & Saunders, 2000).

Concerning ART-conceived expectant mothers' pregnancy experiences, a limited number of studies exist in the Turkish literature. Among them, it was emphasized that these women perceive pregnancy as a "miracle and meaning of life" (Ataman, 2007), and identified that motherhood obtained via assisted conception is a "sacred motherhood" (Sarı, 2014). Since pregnancy is hard and have greater importance for them, they feel greater social pressure and have higher fear of losing their baby (Keskin, 2014). In terms of identification with maternal role and maternal attachment, these women can experience difficulties (see Boz, Özçetin, & Teskereci, 2018); studies revealed that these negative psychological states during pregnancy process can also affect women's postnatal emotional state as well as the unborn baby. Relevantly, Aşçı and Kızılkaya Beji (2012) stated that early detection of these emotional problems can decrease the adverse effects of depression on the

mother and the unborn baby. Particularly in the Turkish literature, the findings about this subject are scarce and require further investigations; as Boz and colleagues (2018) emphasized, both qualitative and quantitative studies should be conducted to reveal the life experiences and psychological requirements of expectant mothers who conceived through ART.

The present dissertation aimed to achieve a deeper understanding of the psychology of pregnant women who conceived via ART in Turkey. It was planned as a mixed-method study that combines quantitative and qualitative research methods; as Chow, Quine, and Li (2010) emphasized mixed-method studies have significant advantages such that quantitative data find explanations from qualitative study, which broaden the researchers' knowledge about the topic and demonstrate more than they think. For this purpose, this research has been conducted in three separate studies. In the first study, the target was to explore the parenthood motivation of ART-conceived women. Within the scope of Study 1, Turkish adaptation of Parenthood Motivation Scale (PMS) was conducted and the motivational bases of naturally conceived and ART conceived expectant mothers were compared. In Study 2, by using PMS as an assessment tool, predictive effects of parenthood motivation and prenatal distress on ART-conceived women's pregnancy adaptation and prenatal attachment were examined, while also considering the moderator roles of perceived social support and women's adult attachment style on these associations. Lastly, in Study 3, to explore the ART-conceived pregnant women's experiences from the infertility diagnosis towards their pregnancy process, two separate focus groups were assembled. Throughout these focus group discussions, the main goal was to understand the reasons behind some of the findings in Study 2.

In the current dissertation, following this general introduction the first, second and third studies will be presented in chapters 2, 3 and 4 respectively, including the literature review, aims and hypotheses, method, result and discussion parts.

CHAPTER 2

STUDY I: TURKISH ADAPTATION OF PARENTHOOD MOTIVATION SCALE

2.1. Introduction

The common notion that married couples would have children unless they had a biological problem has begun to change in recent years. As of the second half of 20th century, the nature of human reproduction has been affected through the progress of modern contraceptive and proceptive methods and reproductive rights. Today, childbearing is more than a biological gift and it is a consequence of deliberate decision making process (Bigner, 2010; Michaels, 1988; Richardson, 1993; Rotkirch, Basten, Väisänen, & Jokela, 2011). Even in the cases of the biological problem of fertility or involuntary childlessness, several couples participate in a long and difficult process, and make an investment to satisfy their wish for children through a number of fertilization techniques (Colpin, de Munter, & Vandemeulebroecke, 1998). Despite psychological and physical difficulties (Weaver, Clifford, Hay, & Robinson, 1997), time and money consumption during the treatment, and low success rate, many involuntary childless couples are seeking help for their problem with the motivation of satisfying their desire to have children (Van Balen & Visser, 1997). Infertile couples endure a long and difficult process, experience repetitive trials and treatment failures, but many of them do not give up the treatment process (Colpin et al., 1998). For this reason, conceiving via assisted reproductive techniques (ART) may have some unique characteristics in terms of motivational factors. Thus, understanding the reasons behind the desire for having

children, and comparing the parenthood motivations of fertile and infertile groups may shed light on their probably different motivational characteristics.

For this aim, in the present chapter, to provide a general understanding of the motivation for having children, first Turkish adaptation of the Parenthood Motivation Scale (PMS), which was developed by Cassidy and Sintrovani (2008), was be conducted. The factor structure and psychometric properties of the scale was examined with a sample of pregnant women who conceived naturally or via ART. Then, as the second aim, the parenthood motivations of these two groups of expectant mothers were compared to investigate whether the scale successfully differentiates fertile and infertile groups in terms of bases of parenthood motivation.

In this respect, this chapter will first present a brief historical overview from a number of theoretical approaches to understand the motivation for parenthood with underlying factors. Then, studies related to psychological, social and economic aspects of parenthood will be summarized, and parenthood motivations of mothers who conceived naturally or through ART will be compared depending on previous studies. Lastly, the aims and the hypotheses of the present study will be presented.

2.1.1. Theoretical Explanations for Desire to Have Children

The theoretical approaches from social, behavioral and psychological sciences suggested number of explanations related to parenthood motivation and desire for having children. Psychoanalytic approach made the earliest attempt to explain the psychological basis of this desire. In psychoanalytic writings, motivation for parenthood was discussed in relation to innate, biological, and unlearned drives. Since females and males experience different processes during psychosexual development, according to theory the reason behind the desire for having children can differ across genders (Michaels, 1988). It was proposed that women had inborn need to breed which was called “maternal instinct” (Benedek, 1959; Deutsch, 1944;

1945). According to Freud, not only the biological dispositions but also the natural psychic needs of women had an effect on their desire for having children (Rowan, n.d.). For instance, Freud (1914) stated that women are more narcissistic than men and through having children they reflect their self-love towards the baby. Children provide "revival and reproduction of their own narcissism" (p. 91). Moreover, he proposed that the basis of women's desire for having children was also relevant with their oedipal attachment to father (Freud, 1914). For Freud (1965) before the phallic stage, when girls are playing with the dolls, they identify themselves with their mother and the doll represents themselves. However, in the phallic stage, when their wish for a penis emerges, girls begin to fantasize about having a baby from their father. In this stage the doll symbolizes "the baby from the father" and having children in the future becomes a substitution for paternal phallus (Freud, 1965). In other words, "penis envy" and women's desire for a penis is symbolically equivalent with their wish for a baby, especially for a son (Deutsch, 1945). The theory suggested that having a son could serve as a penis substitution for women. After the birth of son, "a mother is only brought unlimited satisfaction by her relation to a son; this is altogether the most perfect, freest from ambivalence of all human relationships." (Freud, 1965, p.133). For this reason, according to theory because of their penis envy women give greater importance to male children. Therefore, from the psychoanalytic point of view, unconscious motives induce the desire for having children, and women could achieve a great fulfillment when their intrinsic childhood desire becomes concrete by bearing a (male) child (Markovic, 2000).

With the emergence of ego psychology, the focus of psychoanalytic explanation on parenthood motivation changed from instinctual gratification to identification processes. According to ego psychology, one's wish for a child is related with his or her internalization of the caretaking behaviors of the parents. This identification process was explained with the individuals' desire to recreate the past relationship

they had with their mother. In their relationship with the baby, they could replicate the previous behaviors of their mothers (see Michaels, 1988). However, this view was not approved by all ego psychologists. Erikson (1963), for instance, believed that the desire for children is related with the individuals' altruistic desire to make something for the next generation. Erikson (1963) presented his ideas on individuals' need for productivity and creativity including having children, on generativity versus stagnation stage of psychosocial development. In other words, he suggested that when adults establish a truly intimate relationship and solve the intimacy versus isolation crisis, instead of putting themselves first, they become psychologically adequate for facing the more compelling responsibilities of caring for society and next generations. The theory stated that as children need grown-ups, the adults also depend on children; they need to be needed and they concentrate on building and guiding the next generations which motivate them for parenthood. Nevertheless, if they are restrained from such an enrichment, they feel pervasive stagnation and personal impoverishment. For this reason, according to Erikson (1963) the generativity stage is essential and successful resolution of this crisis reveals the enrichment of psychosexual and psychosocial development of a person.

Contrary to the altruistic view of Erikson, other ego psychologists presented that the desire for children is essentially a narcissistic need (Michaels, 1988). For Fleugel (1947), for instance, the child symbolizes the extension of the ego or the self which extends to the future even after the individual's death. In parallel with this narcissistic based explanation, the children's function of the continuity of parents (even after their deaths) was discussed through terror management theory (TMT) in later years. The theory was inspired by existential, psychodynamic, and evolutionary perspectives and it explained the underlying psychological mechanisms of individuals' death related anxiety (Arndt & Vess, 2008). TMT was rooted in the ideas of Becker (1973) who proposed that when people became aware of their mortality, they would experience an overwhelming anxiety due to their

fundamental desire for existence. According to TMT, being aware of mortality leads people to experience terror and existential anxiety. In order to escape from this anxiety and to protect themselves cognitively from the idea of mortality, individuals use anxiety-buffering mechanisms which are more persistent than physical existence, provide sense of meaning and symbolic immortality, have self-preservation function, and in this way, decrease individuals' existential anxiety (Solomon, Greenberg, & Pyszczynski, 1991). From this perspective, the desire for having children had an anxiety-buffering function because it was strongly associated with people's desire to leave "something" behind by providing a sense of literal and symbolic immortality, increasing the individuals' self-worth and suppressing their death related anxiety (Fritsche et al., 2007; Wisman & Goldenberg, 2005; Yaakobi, Mikulincer, & Shaver, 2014). Relevantly, it was presented that after mortality salience, the number of intended children (Wisman & Goldenberg, 2005), the desire for having offspring and child-related thoughts (Fritsche et al., 2007) increases. In addition to this, studies about TMT revealed that, as expected, in the case of infertility, the accessibility of death thoughts is highly common (Yaakobi et al., 2014), but if people already have children, their existential anxiety was eliminated by means of obtaining life satisfaction and well-being from their children (Fritsche et al., 2007). This revealed that the availability of having other means in life can influence the person's attitude toward existential anxiety and reduce the desire for having children. About this notion, Wisman and Goldenberg (2005) also revealed that compared to men, women's desire for having children is inhibited by their strong career strivings and negative beliefs that motherhood would damage their career. That was associated with the fact that both reproduction and career strivings had an important place in women's cultural world view. If women achieve meaning from their careers this would inhibit their desire for children, because compared to fathers having children is more threatening for the career opportunities of mothers (Wisman & Goldenberg, 2005). This argument

supported the notion that having children is perceived as the responsibility of mother, which was also criticized by feminist perspective.

Motherhood and procreation were two of the core topics of the feminist movement and supporters of this movement had negative views toward motivation for motherhood (Gerson, 1984). Contrary to the advocates of instinctual perspective, feminist theoreticians proposed that the desire for having children is not an innate drive, it occurs as a result of social pressure. For instance, Corea (1985), Hamner (1984), and Rowland (1984) stressed that women's decision on reproduction and motherhood is enforced by dominant patriarchal social rules (as cited in Van Balen & Trimbos-Kemper, 1995). They were also against the idea that motherhood is a vocation of women (Abbott, Wallace, & Tyler, 2005). For this reason, pro-feminists thought that to get through the subordination of women and to gain equality with men, rejecting motherhood is a pre-requisite for women. Moreover, they argued against the common belief that motherhood is natural, because through this view motherhood is accepted as the "natural" responsibility of women and women are exploited as child bearer and baby sitter. In addition, this common belief disregards the difference between biological (i.e., bearing) and social (i.e., rearing) motherhood. As the advocates of feminist theory argued, these two types of motherhood include different roles and responsibilities. However, if the distinctions between biological and social motherhood are overlooked and the responsibilities of social motherhood are normalized as mother's duty, this situation signifies the exploitation of women via denying that motherhood is also a work (see Neyer & Bernardi, 2011 for review). Apart from this, feminist theoreticians also criticized the application of assisted reproductive techniques (ART) for conception. For instance, Franklin (1995) stated that ART ruins and displaces the nature of reproduction, makes women inferior across reproductive techniques. Furthermore, some feminists believed that improvements in ART also put pressure on women. As Hartouni (1997) presented, through ART the reproductive freedom of women is

ignored, the women are seen as a nurturing machine; regardless of their health, age, and course of life, it is assumed that every woman has a wish for having children. Therefore, feminist perspective argued against the common assumption that every woman wants to have children and motherhood is the job of women, not of men. This argument is also highly relevant with the notion of parental investment theory (Trivers, 1972), which stressed that compared to men, women invest more for the survival of their children.

As an extension of evolutionary psychology, parental investment theory (Trivers, 1972) suggested that men and women differ in terms of their time, effort and resource investment for mating versus parenting. Although both males and females have similar reproductive goals, paternal investment is less than maternal investment for the survival of the offspring. Beginning from the fertilization, the babies' basic needs are provided by their mother, and in all cultures, compared to fathers, mothers spend more time for caring their children (see Geary, 1998). While planning for having children, people consider these costs and benefits for themselves and for the infants under the conditions of social and cultural environment (Mace, 2014). This reveals that financial costs and benefits of children are important determinants of the decision for having children. This notion was approved by Darwinian based evolutionary psychologist Westermarck (1894), and MacDonald (1999) also proposed that to improve their economic success and social status people have a tendency to delay marriage and decrease their fertility rate. Therefore, the views on evolutionary psychology presented that environmental conditions and social norms have an influence on the fertility decision of human beings. Childless people think the costs and benefits of having children and try to repeat the rewarding experiences of people having children (Rotkirch, 2008).

The costs and benefits of having children were also taken into account in the "Value of Children (VOC)" model of Hoffman and Hoffman (1973), who conducted the

first cross-cultural comparisons related to fertility decision. They proposed that people had some underlying psychological needs for having children which were influenced by cultural, social and economic factors. In other words, according to this approach, parents attribute three types of values to children, namely, utilitarian/economic, psychological, and social values, and on their decision about having children they consider the importance of these values for themselves. In the VOC model, Hoffman and Hoffman (1973) offered nine basic values representing the functions provided by children for the fulfillment of parental needs. These values were presented as follows: (1) *Adult status and social identity* represents the fulfillment of being recognized as a responsible and mature adult; (2) *Expansion of the self* represents continuity after death and adding meaning to life with the experiences; (3) *Moral values* represent moral involvement and making moral contribution to society; (4) *Primary group ties and affection* represents giving and obtaining affection and intimacy from children; (5) *Stimulation and fun* represents the children's contribution for interests; (6) *Achievement and creativity* represents fulfilling the feelings of accomplishment, achievement and creativity via childrearing; (7) *Power and influence* represent having power over another person; (8) *Social comparison* represents getting prestige and competition chance over others through having children; and (9) *Economic utility*, represents gaining economic advantage from children. In addition to these value categories, it was suggested that people consider costs, benefits, and obstacles (e.g., health problems) of having children, and for individuals who had fewer "alternatives sources" to satisfy a particular need as listed above, having a child would represent a greater value. According to Hoffman and Hoffman (1973), these aspects were crucial determinants of fertility behavior and decision about having children. Since the model took into account the cross-cultural, social, economic and psychological factors while explaining the value of children for the parents, it had an important place in the literature about motivation for having children. Moreover, related to

these aspects, a number of studies (e.g., Kagitcibasi, 1982; Kagitcibasi & Ataca, 2005) were conducted within the framework of VOC model that will be mentioned in the next part.

Therefore, in the light of abovementioned theoretical views, it was apparent that the couples' motives for parenthood have some underlying bases which are influenced by psychological, social and economic factors, and they affect the individuals' attitude towards childbearing in a positive or negative way. As Kagitcibasi (1982) stated, understanding the parents' perceived value of having children provides foresight about the reasons behind their fertility related behaviors and how the parents would interact with their children in future. For this reason, the effects of these variables on desire for having children should be considered to understand the motivational bases of the fertility-related behaviors.

2.1.2. Parenthood Motivation with Economic, Social and Psychological Aspects

The desire for having children is a natural and universal condition, when people wish to touch, smell and carry their own baby because of their strong desire; and this means that their "biological clock" is ringing and they may feel "baby fever" (Rotkirch, 2008). As it was presented with numerous studies, in contemporary developed countries, when people want to carry out their wish to have children, they take the economic, social and psychological issues about this serious decision into account (Hoffman & Hoffman, 1973; Kagitcibasi, 1982; Kagitcibasi & Ataca, 2005). It is important to note that although these three factors are stated as separate dimensions, they are interrelated and decision to have children occur as a result of their combinations (Bigner, 2010). Additionally, these dimensions were the "salient" motives for the parents, however, people may have so many invisible reasons of having children (Kagitcibasi & Ataca, 2005).

2.1.2.1. Economic Aspects of Having Children

Economic aspects of having children are among the most influential determinants of couples' timing of childbearing (Tough, Tofflemire, Benzies, Fraser-Lee, & Newburn-Cook, 2007). On their decision about having children, in terms of economic aspects, people consider both costs and benefits of having children for themselves. Economic/utilitarian values of having children stand for the material benefits provided by the children, both in the childhood and adulthood period. For parents, children can provide security in their old ages, support for household chores, and may lessen the income-tax (Hoffman, Thornton, & Manis, 1978). According to Hoffman et al. (1978) economic benefits provided by children were associated with high fertility desires (i.e., number of children) and for people whose economic resources were limited, the materialistic value of children was more crucial. However, in industrialized and urban regions of United States, in which social security system was sponsored by government, economic utility of children was less likely to be considered by the parents (Hoffman et al., 1978). In parallel to this, in terms of economic values of having children, Kagitcibasi (1982) emphasized that the utilitarian and economic values of having children were more common in rural and less developed regions where economic resources and social welfare institutions (e.g., social security systems, unemployment insurance, free health care, nursing homes) are limited, and economic necessities were mostly provided by the families or adult-age children. Moreover, it was presented that people who give greater importance to the economic/utilitarian benefits of children, have a tendency to reveal greater son preference. This is because of the fact that in patriarchal family systems a son can be seen as having responsibility for their elderly parents' economic necessities and provide old age security function of them (Kagitcibasi, 1982; Kagitcibasi & Ataca, 2005).

Although in the past children were seen as economic assets that contribute to the family budget and provide assurance for the parents' old ages, this notion has changed within the last 30-year time span. Instead of materialistic value of children, children have begun to be seen as an economic burden, and the symbolic meaning of having children has increased its significance (Nock, 1987). In recent studies it was also confirmed that economic utility of children has decreased in importance in Western countries (Bigner, 2010) and also in Turkey (Kagitcibasi & Ataca, 2005). In Turkey, in the last decade, through socioeconomic development and increased level of education, the psychological value of children increased while utilitarian/economic values decreased. Also, the daughter preference took the place of son preference which decreased from 75% to 41.1% from the years 1975 to 2003 (Kagitcibasi & Ataca, 2005). However, the results from the rural areas of Turkey have indicated that male children preference is still valid in these regions, which highlighted the old age security value (i.e., economic value) of having children (Boyacioğlu & Türkmen, 2008). According to Kağıtçıbaşı (2007) rural traditional cultures, which were characterized by collectivism, give importance to economic and old age security value of children, and thus, in these societies male children preference, high fertility rates, and lower female status were highly common.

Despite the fact that there are economic benefits of having children, in recent years, this approach to having children has altered. Economically, children have become a source of liability for the parents, and for this reason the couples may delay childbearing until they prepare themselves financially (Bigner, 2010; Van Balen, Verdurmen, & Ketting, 1997). In the report of United States Department of Agriculture for expenditures on children by families, it was presented that the total costs required for a child who was born in 2015 and reaches age 17 in 2032 was estimated as $284,570 for a middle-income family with two children (Lino, Kuczynski, Rodriguez, & Schap, 2017). In Turkey, when the educational and other expenses were taken into consideration, it was presented that the middle-income

families would spend approximately 560.000 Turkish Liras, until their children graduated from the university (ICCPA, 2013). Apart from the expenditures, having a child can be seen as a reason of potential loss of family income, because many women do not want to return to work to give full-time parental supervision up to their children attend kindergarten (Bigner, 2010).

Therefore, while making a decision about having children, couples think about these economic benefits and costs of having children. From these results it can be understood that economic values of having children was decreasing in importance and today the couples' fertility decision may be negatively affected from the financial costs of having children. However, as mentioned before, the parents' views on economic utility of having children can still be different depending on the social environment where people live in. For this reason, understanding the social aspects of having children is also essential.

2.1.2.2. Social and Structural Aspects of Having Children

In contemporary developed countries, environmental conditions and social norms can also influence the fertility decisions of human beings (Rotkirch, 2008). The social factors such as employment status, level of education, family size norms, and ethnic membership are crucial determinants of the couples' fertility decision (Bigner, 2010). The social environment where people grow up and live in, shape the individuals' views on parenthood before they have children (Razina, 2014). Having children, for example, is observed among the most important aspects of marriage (Wu & Macneill, 2002), and in addition to social environment, as the smallest social unit the couples' own parents (Bigner, 2010; Cassidy & Sintrovani, 2008; Olafsdottir, Wikland, & Möller, 2011) and also friends (Olafsdottir et al., 2011) can put a pressure on their fertility decision.

In order to gain approval from society, people try to correspond the societal expectations related to reproductive behavior such as childbearing at the right age, number of children, having children for improving relationship, and proving femininity through motherhood which can also differentiate depending on the cultural background (see Yakupova & Zakharova, 2014). For instance, as mentioned in the previous part, social structure of societies, that is individualism and collectivism, can affect the person's perspectives on value of having children (Kağıtçıbaşı, 2007). Collectivist and traditional cultures pay greater value to marriage, motherhood (Boyacioğlu & Türkmen, 2008), continuity of the family line, and having a son (Kagitçibaşi, 1982; Kagitçibaşi & Ataca, 2005). For them "having children" means that having male children (Boyacioğlu & Türkmen, 2008). However, in urban, industrialized and individualistic cultures, since people have intergenerational and intra-generational independence, they focus on psychological value of having children, they have lower son preference and lower fertility rates (Kağıtçıbaşı, 2007). As a cultural aspect, Razina (2014) investigated how individuals' religious affiliation may affect their ideas on motherhood and childbearing. It was revealed that compared to Christian women, Muslims had more positive images for future children, desired their first children in earlier ages, and idealized higher number of children. Likewise, having children was found as more noteworthy for Eastern cultures (Stöbel-Richter, Beutel, Finck, & Brähler, 2005) and in many Western developed countries women might delay their desire for having children to their middle thirties due to educational, professional, or economic reasons (Van Balen et al., 1997).

A person's level of education, family income, and professional status can also have an impact on their decision for having children and may lead them to postpone their child decision until they feel prepared. In other words, people who desire to have children at later ages mostly have higher levels of economical, educational, and professional status (Van Balen et al., 1997). In recent years, women have strong

desire to achieve independence and social and economic equality with men, which encourage them to increase their level of education and labor force attendance. As a result, they delay motherhood until their thirties with the confidence of medical developments for reproduction (Wu & Macneill, 2002). It was also proved from the studies of various countries that due to their educational and career goals numerous women have a tendency to delay motherhood (e.g., Martin, 2000; Monstad, Proper, & Salvanes, 2008). They postpone motherhood until they complete their studies, and after they achieve their educational goals, they focus on the fulfillment of the desire for having children. However, if the women were employed and career-minded, they may decide to pursue their career goals instead of having children after age 30 (Wu & Macneill, 2002). As Gerson (1985) presented for career-minded women, the possibility of missing the career opportunities and changes in their social role from career women to mother might be seen as the costs of having children (as cited in Dingle, 2002). For this reason, women with higher level of education tend to have fewer children if they are employed (Bigner, 2010; Wu & Macneill, 2002). Relevantly, since highly educated women would have greater financial resources and alternative means to improve their self-esteem, motherhood would be less important for them (Mcquillan, Greil, Shreffler, & Tichenor, 2008). Their motivations for career development and personal autonomy can lead them to postpone the decision for having children to their thirties (Wu & Macneill, 2002).

As mentioned before, in terms of economic, educational and professional reasons people delay their desire for having children. In many studies it was observed that recently the rising percentage of women have delayed their first birth to ages close to forties (Billari, Kohler, Andersson, & Lundstörm, 2007; Prioux, 2005). However, it is important to note that age is also an important determinant of childbearing. In terms of biological reasons, as revealed in the study of Dunson, Colombo, and Baird (2002), beginning from the late 20s fertility of women was decreasing and at the late 30s an excessive decline became obvious. To exemplify, compared to the

ages of 35-39 years, the pregnancy rate of women is twice as high between the ages of 19-26 years. Although for men the age is less influential, after the age of 35 their fertility is decreasing, too (Dunson et al., 2002). After mid-thirties the probability of women's fertility is suddenly decreasing and infertility problems come on the scene (Van Balen et al., 1997). For this reason, when people are getting older, they feel like they are competing against time to fulfill their wish for having children (Olafsdottir et al., 2011).

Mynarska (2010) stated that the childless women feel time pressure for having children and perceive the age 30 as the deadline for childbearing. The women believed that the age of 30 is a "biologically optimal age for having children", as they get older their "energy and patience for children" decreases, and older parents might have "worse relationship with their children" (p.362). This revealed that in addition to biological reasons, social factors can also limit the age of fertility (Billari et al., 2007; Billari et al., 2011; Prioux, 2005). Social expectations related to age deadline for fertility also put pressure on couples; for women these age related rules are more rigid and they are more strongly influenced by these expectations (Billari et al., 2011; Mynarska, 2010). For instance, in European countries it was depicted that in terms of social limitations women and men should not have children after age of 40 and 45, respectively (Billari et al., 2011). Moreover, as previously mentioned, as a result of social expectations compared to Christian cultures, Muslim women tend to have children at earlier ages (Razina, 2014), which also reveals that the women's ideas on having children at certain age are also shaped through socially and culturally prescribed norms and rules (Mynarska, 2010).

As can be seen from the age related expectations, compared to men, society puts more pressure on women in terms of having children. In other words, social and cultural environment stress women to become mother (Russo, 1976), and

motherhood is accepted as a necessity of being a woman (Ussher, 1989). Although this is not valid for men, women identify themselves through being a mother (Glover, McLellan, & Weaver, 2009). This might be due of the fact that as a social construct motherhood is an essential part of feminine gender identity (Gillespie, 2003). Especially in conservative cultures, which were dominated by patriarchy, childbearing is accepted as a natural duty of women. Since becoming a mother seems natural and normative, in the case of childlessness women may feel inadequate and they may be criticized for being abnormal (Choi, Henshaw, Baker, & Tree, 2005). For instance, in eastern part of Turkey women are expected to be submissive, respect their husband, have children soon after marriage, and be a good mother. If they are childless, they feel "worthless", unfulfilled, and they are afraid that their husbands would bring a second-wife into home (Boyacioğlu & Türkmen, 2008). As Kagitcibasi (1981) mentioned, women in Turkey believed that having children would cause them to become closer to their spouse and increase their husbands' commitment to family. Thus, it seems that compared to men, having children is more important for women (Stöbel-Richter et al., 2005), due to gender roles in society.

Therefore, based on aforementioned aspects of having children, it was observed that social environment and culture have great influence on individuals' decision and timing of having children. Especially in traditional cultures, feminine gender identity was associated with motherhood, and in addition to physiological limitations, because of age women are forced by society to have children soon after marriage. However, through the increase in industrialization, women also have a desire to achieve social and economic independence and have begun to focus on their education and career, which led them to delay childbearing decision. Apart from these external sources (i.e., economic and social aspects), it is important to note that as an internal motivation, psychological factors also significantly influence the person's idea of having children, which was highlighted by Kagitcibasi and

Ataca (2005) that the psychological value of children has been increasing in recent years.

2.1.2.3. Psychological Aspects of Having Children

In addition to economic and social determinants of having children, individuals may have strong psychological bases that motivate them for having children. Psychologically based motivations for becoming a parent can predict the person's child-rearing practices; they include different personal reasons which can be affected by individuals' "family of origin, social class or ethnic group", and they are formed long before the person has children (Bigner, 2010, p.105). As mentioned in the part of theoretical perspectives, individuals have different psychological motivations for having children including gratification of instinctual desires (Benedek, 1958; Deutsch, 1944, 1945), identification with their own parents (Michaels, 1988), altruistic wish for making something for the next generations (Erikson, 1963), and providing continuity even after death (Fritsche et al., 2007; Wisman & Goldenberg, 2005). In addition to them, numerous explanations were proposed in relation to psychological aspects of having children. For instance, according to Burnell and Norfleet (1986) the couples want to have children to make life richer, create a new person with the beloved one, fulfill their marriage, have someone to share things, enjoy with children, experience the raising of a child, achieve the life's greatest accomplishment through parenthood, give birth to someone who loves them, feel as a real woman/man, and provide the continuation of life (Burnell & Norfleet, 1986). These psychological aspects can be categorized as conscious and unconscious motivations for having children, as Papaligoura, Papadatou, and Bellali (2012) presented in their qualitative study.

According to Papaligoura et al. (2012) people have both conscious and unconscious motivations for having children. On the one hand, -on the conscious level- women have desire to achieve social status, acceptance and recognition, and to have

satisfying relationship with their partner. On the other hand, they implicitly desire children to reveal their fertility through pregnancy, repair the guilt of previous abortions, and become like their own mothers (Papaligoura et al., 2012). Conscious desires do also correspond to the instrumental aspects of having children. Instrumental motives refer to the personal needs provided by parenthood including the couples' expectations that children would enhance family relations (e.g., Gormly, Gormly, & Weiss, 1987; Yakupova & Zakharova, 2014), improve marital life, compensate their unsuccessful childhood experiences (since it is believed that children would not make their mistake), and please their own parents via satisfying their desire for becoming grandparent (Bigner, 2010). On the unconscious level, individuals might have fatalistic (i.e., continuity of their family), altruistic (i.e., having affection for children) or narcissistic (i.e., children reveal the goodness of person) motivations (Bigner, 2010). In addition, as previously highlighted in the part of theoretical perspectives, and also, as Papaligoura and colleagues (2012) confirmed, identification with their own mothers has an important place in women's desire for having children. That also reveals the importance of having basic trusting relationship in human life, since the person's perceived happiness in early family life experiences and memories related to parental nurturance are positively associated with the intensity of their parenthood motivations (Gerson, 1983).

Apart from these conscious and unconscious bases, parenthood is also an emotionally rewarding experience and people idealize the joys of having children despite its economic and social burdens for themselves (Eibach & Mock, 2011). Among the dimensions of parenthood motivation, psychological basis "reflects the value of a child himself" and indicates how much the parents give importance to emotional bonding with children (Yakupova & Zakharova, 2014, p. 113). For this reason, before having children women feel unfulfilled and empty, they perceive baby as a gift and think that having children would evoke positive emotions such as love, joy, and laugh (Hoffman & Hoffman, 1973; Montgomery et al., 2010).

According to Hoffman and Hoffman (1973), psychological values of children which refer to the fulfillment provided by having children such as joy, pride, love and companionship, have a crucial role on people's wanting for children. Moreover, among Hoffman and Hoffman's (1973) nine value categories of having children, the values of *primary group ties and affection* and *stimulation and fun,* which were highly relevant to psychological needs provided by children, were identified as the most commonly expressed aspects of having children in United States (Hoffman et al., 1978) and also in Turkey (Kagitcibasi, 1981). In addition, in terms of psychological values of children, the results from international VOC study indicated that in Turkey, these values influence the couples' views on having children especially in urban and developed regions where children are not seen as economic assets (Kağıtçıbaşı, 2007). This might be explained by the finding that, across three decades, the importance of psychological values has been increasing in Turkey like other contemporary developed countries. It was revealed that compared to 1975, in 2003 although economic/utilitarian values became the least important predictor, the psychological values of children were found as the most important factor for desire of having children (Kagitcibasi & Ataca, 2005).

All in all, although in contemporary world the psychological values of children are seen as having a crucial role, the desire and decision to have children is a complex and multidimensional issue where the couples consider the aforementioned economic, social and psychological aspects of having children. As Stöbel-Richter and friends (2005) defined, on the one hand people consider the emotional satisfaction (e.g., the feeling of having a real home with children, the fondness for children) and social reputation of having children; on the other hand, they are concerned about the financial limitations and personal handicaps of having children that have become an obstacle especially in individualized societies. In their decision making process, people try to make a balance between these contradictory situations. It seems that for voluntarily childless women, especially who have

higher education, the costs of having children outweigh and this may turn into an involuntary childlessness within time (Stöbel-Richter et al., 2005). After getting the bad news of infertility, they reconsider their life goals and the meaning of children for themselves and for their relationship (Glover et al., 2009). In this regard, understanding the parenthood motivations of this special group seems essential.

2.1.3. Parenthood Motivations of Natural and ART-Mothers

Until the couples realize their biological limitations and face with infertility, the modern birth control techniques mislead them to think that their reproduction is under control and they can conceive whenever they want to (Glover et al., 2009; Papaligoura et al., 2012; Olafsdottir et al., 2011). Based on this assumption, as previously mentioned, people focus on their personal development, postpone their desire for having children and unintentionally may jeopardize their possibility of natural conception (Olafsdottir et al., 2011; Stöbel-Richter et al., 2005) and may cause infertility problems as a result of increasing age (Billari et al., 2007; Van Balen et al., 1997). When their age reaches the biological limits for having children, the women recognize their desire for motherhood and notice that fulfillment of this desire might not be possible for them (Papaligoura et al., 2012).

In the case of infertility, although some couples stop treatment after experiencing negative trials and treatment failures, many couples still continue to stay strongly motivated for having children. Despite being a source of stress for the patients, women's motivational factors for having children should also be taken into consideration to understand the fertility behavior in regard to infertility (Langdridge, Connolly, & Sheeran, 2000). Compared to natural conception, conceiving via treatment is a long and difficult process; therefore, being a parent via ART may have some unique characteristics (Colpin et al., 1998). As Rotkirch (2008) presented, having children after planned time could be disappointing and may lead to some pathological consequences like depression and false pregnancies.

Moreover, people may feel deep sorrow due to previous unsuccessful trials and have intense feelings of longing for a baby, increased parenthood motivation (Rotkirch et al., 2011) and idealization of parenthood (Hammarberg, Fisher, & Wynter, 2008; Smorti & Smorti, 2012). Apart from this, compared to fertile population, involuntarily childless couples could explicitly reflect their motivation about having children as a result of their preoccupation about the topic (Van Balen & Trimbos-Kemper, 1995). For this reason, to understand their motivational bases and investigate their differences from the motivational bases of fertile couples, many parenthood motivational scales were developed (e.g., PMS; Cassidy & Sintrovani, 2008; The List of 24 Reasons for Wanting to Have a Child; Langdridge et al., 2000; Parenthood Motivation List; Van Balen & Trimbos-Kemper, 1995) and infertile couples were compared with their fertile counterparts in terms of motivational dimensions (e.g., Cassidy & Sintrovani, 2008).

Among these assessment tools, Van Balen and Trimbos-Kemper (1995) developed Parenthood Motivation List (PML) including six subscales, namely happiness (i.e., feelings of affection and happiness in the relationship with children), well-being (i.e., positive influences of children on the family), identity (i.e., achieving adulthood and identity- strengthening through having children), motherhood (i.e., feeling of life-fulfillment through parenthood), continuity (i.e., living through children even after death), and social control (i.e., the implicit or explicit social pressure for childbearing); and they explored the infertile couples' parenthood motivations. They found that "happiness" was the most frequently mentioned motivation for both men and women. However, the intensity of the desire for having children was greater for involuntarily childless women than men. Also, the women's motivation was strongly associated with motherhood, identity and well-being motives, which were also correlated with high femininity scores. The researchers found this result very consistent with the previous finding of Van Balen and Trimbos-Kemper (1993), in which the infertile women felt as "fail to be a

woman" because of their infertility. Similar results related to gender identity of women were also obtained in the retrospective study of Colpin and colleagues (1998). By using the same measure developed by Van Balen and Trimbos-Kemper (1995), they found that ART-mothers had significantly higher motivations in terms of identity and motherhood dimensions. According to researchers, these results could have two reasons. First, "motherhood and identity, motives referring to gender roles, are more important for ART-mothers than for naturally conceiving mothers" even before they realize their fertility problem. That may lead them to be urgent about the treatment process or might be the reason behind their unexplained infertility. Second, since reproductive ability is associated with gender identity, undergoing treatment due to their infertility might negatively affect ART-mothers' femininity (Colpin et al., 1998, pp. 24-25). Although for having children men were mostly motivated by the need for marital completion, having children means the fulfillment of "gender-role requirement" for infertile women (Newton, Hearn, Yuzpe, & Houle, 1992). Therefore, it seems that for infertile women having children is critical for feeling like a "real woman" (Colpin et al., 1998), especially in collectivist cultures (Cassidy & Sintrovani, 2008).

Studies from different cultures revealed that attitudes towards infertility and involuntary childlessness took shape as a consequence of interaction between religious beliefs and gender stereotypes which seem to display differences across cultures (Cassidy & Sintrovani, 2008). For instance, in South India women are responsible from the continuity and well-being of the matrilineal inheritance through fertility. If it is violated, they are blamed for negatively affecting all the members of lineage (Neff, 1994). In Iran, early marriages and having children soon are the social expectations from women (Baluch, Al-Shawaf, & Craft, 1992). In eastern Turkey childless women feel "worthless" and unfulfilled, and they are afraid that their husbands would bring a second-wife into home (Boyacioğlu & Türkmen, 2008). Although these negative attitudes towards infertile women seem

peculiar to Eastern cultures and in Western cultures having children is a free choice on the surface level, within the same culture, even in America, childless women could be labeled as abnormal and less than "real women" (Greil, 1991).

According to Cassidy and Sintrovani (2008), individualistic and collectivistic views of the cultures could explain these differences. They found that in collectivist cultures childless women feel greater pressure for having children. In their study, Cassidy and Sintrovani (2008) stated that compared to English ART-group, Greek ART-group revealed significantly higher scores for all the dimensions of PMS, namely, continuity, nurturance, relationship, identity, social pressure, and materialism. In addition, Greek ART-sample had significantly higher scores on identity, social pressure, and materialism dimensions in comparison to English fertile women. According to the researchers, the reason behind these differences might be due to individualism of British culture where nuclear families are more independent from the extended family networks. In the study, Greek ART women's over concern about identity, social pressure, and materialism were associated with their strong affiliation with extended family network, which might be the reason why they were connecting the idea of child-rearing with femininity in their mind and feeling excessive social pressure (Cassidy & Sintrovani, 2008). From these findings it can be concluded that especially in collectivist cultures for infertile women the desire for having children is strongly associated with their concern about gender identity. In addition, depending on the gender role expectations of society, in these cultures, infertile women may feel greater social pressure on themselves in terms of involuntary childlessness. Their friends (Olafsdottir et al., 2011) and parents (Cassidy et al., 2008; Olafsdottir et al., 2011) might become sources of social pressure for them and fulfillment of social expectations is among the motives that have greater importance (Newton et al., 1992). They feel responsible for the social expectations about having children, and in addition to

infertility, the society also increases their motivation (Dyer, Mokoena, Maritz, & Van der Spuy, 2008).

Relevant with the feeling of social pressure, there is a common belief that having children would be good for spousal relationship. The couples with infertility problems thought that having children would make their marriage even better (Cassidy and Sintrovani, 2008; Van Balen & Trimbos-Kemper, 1995; Newton et al., 1992). Without children individuals do not accept themselves as a family (Langdridge et al., 2000). For this reason, after achieving stability in terms of their social conditions (i.e., finished education, satisfactory employment) and finding the right spouse, the couples begin to focus on establishing a whole family and feel prepared for having children (Olafsdottir et al., 2011). The importance of this motivation was common for both fertile and infertile groups (Langdridge et al., 2000). Enhancing family ties is among the highly mentioned benefits of having children (Gormly et al., 1987) and maybe due to its internal basis, this motivation does not put a significant pressure on infertile women.

It is important to note that although as an external source of motivation, the intensity of social demands dominate the infertile women's desire for having children, they are also strongly influenced by internal motivational bases (Cassidy & Sintrovani, 2008). In addition to becoming a "complete" family, the couples are motivated by the need to give and receive love, enjoy with children (Langdridge et al., 2000), and achieve continuity, well-being and happiness (Colpin et al., 1998). Studies revealed that among these emotional bases infertile women placed great emphasis on happiness motive but the least emphasis on continuity motive (Dyer et al., 2008; Van Balen & Trimbos-Kemper, 1995); "happiness" was the strongest motivation for both men and women (Van Balen & Trimbos-Kemper, 1995). It is important to note that in contrast to the previously mentioned studies from traditional cultures, in the literature many studies from the Western industrialized

countries indicated that these aforementioned internal motivations have become prominent and social control was among the least frequent motivations of desire to have children (Colpin et al., 1998; Langdridge et al., 2000; Van Balen & Trimbos-Kemper, 1995). According to Colpin and colleagues (1998) ART-mothers' increased feelings of social pressure might be due to their increased age, not their conception type. However, Langdridge et al. (2000) mentioned that although having children is a positive life event having strong internal bases, it still has social importance. Nonetheless, to make a good impression and conceal that their decisions were affected by others, in research studies the participants could have a tendency to give lower scores to socially based motivations for having children (Langdridge et al., 2000). Related to these findings, Dyer and colleagues (2008) presented another view by indicating that the differences between the significance of internal and external factors might be associated with industrialized and traditional structure of the country where a person lives. Namely, for them, in industrialized countries instead of social reasons for having children, the internal motivations of happiness and personal fulfillment were common, and they were equally important for both women and men (Dyer et al., 2008). These results also highlighted the importance of considering the societal and cultural differences while comparing the parenthood motivational bases of fertile and infertile couples.

Therefore, in the light of abovementioned information, it can be seen that women undergoing assisted reproductive treatment feel greater influence of the motivational factors of femininity and social pressure that were highly shaped through the impacts of cultural and social environment. Although emotional aspects and internal motivations for having children were also important to them, it seems that the effects of external factors significantly differentiate them from the fertile group in terms of parenthood motivational dimensions.

2.2. The Aims and Hypotheses

Based on these results it can be concluded that economic, social and psychological aspects of having children can influence individuals' motivations for parenthood, and for infertile couples, especially for women, desire for having children might have unique features. For this reason, first of all, this study aimed to conduct Turkish adaptation of the Parenthood Motivation Scale (PMS; Cassidy & Sintrovani, 2008) including six factors (i.e., continuity, nurturance, relationship, identity, social pressure, and materialism). Through this aim, the scale's factor structure and psychometric characteristics were examined in a Turkish sample. In this respect, it was hypothesized that the Turkish version of the scale would confirm these six-factor structure and reveal good internal consistency. As the second aim of the present study, the parenthood motivation of fertile and infertile pregnant women was compared in terms of the dimensions of PMS. In that respect, it was hypothesized that after controlling the effects of the participants' age, level of education, income, place of living, duration of marriage, marital satisfaction and duration of desire to have a children on parenthood motivation; first, the women who were impregnated via ART would have significantly higher levels of parenthood motivation, and second, they would significantly differentiate from the fertile pregnant women in terms of identity and social pressure dimensions of PMS, as it was previously depicted in collectivist cultures.

2.3. Method

2.3.1. Participants

This study consisted of 457 pregnant women who conceived either spontaneously (naturally) or via assisted reproductive technologies (ART). The demographic features of the participants will be presented separately.

2.3.1.1. Sample 1: Spontaneously Conceived Pregnant Women

Of the 457 participants, 272 (59.5%) of them were spontaneously conceived pregnant women from different cities of Turkey. Although 275 participants completed the survey without missing, the answers of three of them were omitted from the data set, because of their extreme values. During the data collection process, the participants were informed about the study through the announcement shared on pregnancy related websites and "Facebook" groups. While collecting data, an online survey program called "Qualtrics: Online Survey Software" was used and the data collection process took place between 17th of December 2015 and 30th of August 2016.

In terms of demographic characteristics, the participants' ages ranged between 19 and 41 years old (M = 29.39, SD = 3.93). Their duration of marriage was reported as minimum lower than 1 year and maximum 22 years (M = 3.64, SD = 3.11). The participants' duration of struggle for having children ranged from 0 to 48 months (M = 4.16, SD = 6.31) and they had been pregnant for 4 to 42 weeks (M = 24.57, SD = 10.98) when they participated in the survey. In terms of their education level, approximately half of the participants (n = 147, 54%) were university graduates, 25% of them (n = 68) had their master's degree, 11.8% of them (n = 32) were high school graduates, 5.1% of them (n = 14) had a Ph.D. degree, and 4% of them (n = 11) were only primary school graduates. As for the employment status of the participants, while 66.2% of the women (n = 180) were employed, 21.3% of them (n = 58) were unemployed, and 12.5% of them (n = 34) were taking a break during their pregnancy. Most of the participants (n = 209, 76.8%) reported their income level as middle, 21% of them (n = 57) as high, and only 2.2% of them (n = 6) as low. Lastly, in terms of the place of living, nearly half of the women were living in a city (n = 145, 53.3%), 36.4% of them (n = 99) were living in a metropolis (i.e., İstanbul, Ankara, Adana etc.), and a similar rate of participants were living in a

town (n = 15, 5.5%) or a village (n = 13, 4.8%). The descriptive properties of the sample can be seen in Table 1.

2.3.1.2. Sample 2: Via ART Conceived Pregnant Women

The participants who conceived via assisted reproductive technologies consisted of 185 (40.5%) pregnant women. Although the sample consisted of 187 women at the beginning of data analysis, 2 cases were deleted from the sample as a result of outlier analysis. Similar to the previous group, the data collection process started with the online survey program "Qualtrics" and the survey was sent to in vitro fertilization (IVF) related websites and "Facebook" groups. Also, since obtaining data from this special sample through online groups was much more difficult compared to Sample 1, the participants were also attained from one of the biggest private practice IVF Clinics in Ankara. Except for nine participants who did not use the internet and filled the hard-copy questionnaire set, the webpage link of the survey was shared with the patients of the clinic and they attended the study via Qualtrics as well. Due to imbalance between the number of participants from whom the data were gathered via paper-pencil questionnaire and via online survey program, the results of these two administrations could not be compared in terms of the dimensions of PMS (i.e., dependent variables). Data collection period was between 23th February 2016 and 16th October 2017.

In terms of demographic characteristics, the participants' ages ranged between 21 and 42 (M = 32.04, SD = 4.49) years old. Their duration of marriage was minimum 1 year and maximum 25 years (M = 6.66, SD = 3.93). The participants' duration of desiring children ranged from 1 to 276 months (M = 50.92, SD = 41.80), and when they participated in the study, they had been pregnant for 5 to 40 weeks (M = 19.34, SD = 9.45). In terms of their level of education, nearly half of the participants (n = 95, 51.4%) were university graduates, 23.2% of them (n = 43) were high school graduates, 13.5% of them (n = 25) graduated from primary school, 8.6% of them

had a master's (n = 16), and 3.2% of them had Ph.D. (n = 6) degree. In terms of employment status, while 41.1% of the women (n = 76) were unemployed, 39.5% of them (n = 73) were employed, and 19.5% of them (n = 36) were taking a break during their pregnancy period. Apart from this, great majority of the participants (n = 152, 82.2%) reported their income level as middle, 12.4% of them (n = 23) as high, and 5.4% of them (n = 10) as low. Lastly, related to their place of living, the participants reported that 47.6% of them were living in a city (n = 88), 40.5% of them were living in a metropolis (n = 75), 7.6% of them were living in a town (n = 14) while 4.3% of the participants were living in a village (n = 8). The demographic characteristics of this sample can be seen in Table 1.

Table 1. *Demographic Characteristics of the Participants*

	Pregnant Women Conceived Spontaneously (n = 272)					Pregnant Women Conceived via ART (n = 185)				
	M	*SD*	*N*	%	Min-Max	*M*	*SD*	*N*	%	Min-Max
Age	29.39	3.93			19.00-41.00	32.04	4.49			21.00-42.00
Duration of marriage (year)	3.64	3.11			.00-22.00	6.65	3.93			1.00-25.00
Duration of struggle (month)	4.16	6.31			.00-48.00	50.91	41.8			1.00-276.00
Pregnancy weeks	24.57	10.98			4.00-42.00	19.34	9.45			5.00-40.00
Education										
Primary School			11	4.0				25	13.5	
High School			32	11.8				43	23.2	
University			147	54.0				95	51.4	
Master			68	25.0				16	8.6	
Ph.D.			14	5.1				6	3.2	
Employment										
Unemployed			58	21.3				76	41.1	
Employed			180	66.2				73	39.5	
Break (during pregnancy)			34	12.5				36	19.5	
Income										
Low			6	2.2				10	5.4	
Middle			209	76.8				152	82.2	
High			57	21.0				23	12.4	
Place of Living										
Village			13	4.8				8	4.3	
Town			15	5.5				14	7.6	
City			145	53.3				88	47.6	
Metropolis			99	36.4				75	40.5	

2.3.2. Instruments

2.3.2.1. Demographic Information Form

The form had 37 questions for naturally conceived and 42 questions (due to additional questions about treatment process) for ART-conceived expectant mothers to obtain information about participants' demographic characteristics (e.g., age, duration of marriage, employment status, socio-economic status, education level, residence, psychological and physical health status), families (e.g., relationship quality with their husband), and pregnancy process (e.g., pregnancy week, number of pregnancy, duration of struggle for having children). In the form some open-ended (e.g., importance of having children, whether they faced with any problems during pregnancy, expectations from their social environment) and Likert type questions (e.g., perceived spousal support, perceptions of infertility, readiness for motherhood) were also included. Through these questions providing a detailed information about the participants' perspectives on having a baby, their social relations and attitudes towards infertility were aimed to be understood. The form is presented in Appendix A.

2.3.2.2. Parenthood Motivation Scale (PMS)

The scale includes 24 items that were used in the study of Langdridge, Connolly, and Sheeran (2000) to understand couples' reasons for parenthood. Then, these items were transformed into a scale form by Cassidy and Sintrovani (2008). They turned the list of items into five-point Likert type scale format ranging from *strongly disagree* (1) to *strongly agree* (5). In their study, the factor analysis of the scale was conducted through Principal Component Analysis (PCA) using Varimax rotation and six factors accounting for 85% of the variance were obtained.

In terms of reliability and validity of the measurement, no results were presented in the original study of PMS and the authors recommended further analyses. Even so,

regarding validity, it was noted that the dimensions of PMS were found to be significantly associated with psychological distress, perceived social support, social pressure and maladaptive coping in predictable ways.

The existing six factors of the scale and their internal consistency coefficients are as follows. (1) “Continuity” measures women’s motivation to maintain their family line or provide the continuity of family. The factor consists of five items and its Cronbach’s alpha was found as .89; (2) “Nurturance” measures women’s desire for children and their maternal urge for caring and loving children. This factor also consists of five items and its Cronbach’s alpha was reported as .78; (3) “Relationship” measures the motivation for pursuing a relationship, generating a family unit, and sharing the parenthood role. This factor has four items and its Cronbach’s alpha was found as .86; (4) “Identity” measures the women’s feelings on female identity related with motherhood role. It has three items and Cronbach’s alpha of the factor was .87; (5) “Social Pressure” measures the motives based on the constraints from family and friends, and women’s perception on child-bearing as a part of their social role. The factor has four items and its Cronbach’s alpha was reported as .82; (6) “Materialism” measures the material worth of children and how the mother’s needs are met from the child. This factor has three items and its Cronbach’s alpha was .81. For Turkish adaptation of PMS, reliability and validity findings will be mentioned in the results section of present study (see Appendix B and C).

2.3.2.3. The Survey of Parenthood Outlook

To measure the mother or father candidates’ views on being a parent, Kunt (2011) developed scale in Turkish within the scope of her M.D. thesis. The scale includes 48 items constituting eight factors, namely, family environment (e.g., “My childhood was good.”), targets and ideals (e.g., “Raising a good child is an important target of life.”), opinions about children (e.g., “I cannot tolerate the noise

of children." -negative item), physical sufficiency (e.g., "I am in good health."), opinions about marriage (e.g., "I am satisfied with my marital life."), economic status (e.g., "I have adequate economical resources for raising children."), social attitude (e.g., "I like to participate in social activities."), personal ability (e.g., "I am an unskilled person." - reverse item). It is a five-point Likert type scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*).

In the study, construct validity of the measure was not presented. However, it was reported that "targets and ideals" was positively predicted by being male [$F(1, 242) = 6.88$, $p < .01$] and negatively predicted by age [$F(1, 242) = 6.43$, $p = .01$]. "Opinions about marriage" was positively influenced by being informed about parenthood [$F(1, 242) = 4.34$, $p < .05$] and negatively influenced by the number of people living at home [$F(1, 242) = 9.49$, $p < .01$]. "Economic status" was positively predicted by being male [$F(1, 242) = 4.87$, $p < .05$] and years of education [$F(1, 242) = 7.60$, $p < .01$]. "Physical sufficiency" was negatively predicted by age [$F(1, 242) = 31.52$, $p < .001$] and positively predicted by being male [$F(1, 242) = 10.35$, $p = .001$] and years of education [$F(1, 242) = 6.05$, $p < .05$]. "Social attitude" was positively influenced by years of education [$F(1, 242) = 11.15$, $p = .001$]. "Personal ability" was positively affected by being informed about parenthood [$F(1, 242) = 5.08$, $p < .05$] and years of education [$F(1, 242) = 7.31$, $p < .01$].

Apart from this, for the original measure the internal consistency reliability (Cronbach's alpha) of total scale was found as .89. Quite similarly, in the present study, the Cronbach's alpha of total scale revealed good reliability ($\alpha = .88$). Moreover, the internal consistency of the subscales for the present sample was obtained as follows: family environment ($\alpha = .88$), targets and ideals ($\alpha = .79$), opinions about children ($\alpha = .76$), physical sufficiency ($\alpha = .60$), opinions about marriage ($\alpha = .84$), economic status ($\alpha = .83$), social attitude ($\alpha = .66$), and personal ability ($\alpha = .65$). The scale can be found in Appendix D.

2.3.2.4. Marital Life Scale

The scale was developed by Tezer (1996) and it aims to measure the participants' marital satisfaction. It includes 10 items and the items are rated on a five-point Likert type scale in which the answers range from 1 (*strongly disagree*) to 5 (*strongly agree*). Test-retest reliability of the scale was reported as .85. In terms of validity, marital satisfaction showed significant negative association with level of tension in marital relationship (r = -.34, $p < .01$) indicating convergent validity, and a non-significant correlation with social desirability (r = .21, p = n.s.) indicating divergent validity. Internal consistency of the scale was calculated by Cronbach's alpha coefficient and reported as .91 and .89, in the first and second administration, respectively. Likewise, in this study internal consistency of the scale was found as .91. The scale is presented in Appendix E.

2.3.3. Procedure

First of all, before starting to prepare the Turkish version of Parenthood Motivation Scale (PMS), permission was obtained from the first author of the original study. Then, the study began with the translation of the scale by three Ph.D. candidates in Clinical Psychology Program of Psychology Department at Middle East Technical University. After these translations were carefully considered, one single Turkish form was created. Then, the back translation of the scale was made by an assistant professor in psychology department from another university. As the last step, the back translated version was checked against the original version of the scale, and finally the Turkish form of PMS was organized.

Before starting the study, the researcher applied to the Middle East Technical University (METU) Human Subjects Ethics Committee, to be considered the appropriateness of the research. When the approval was obtained, all the instruments were installed into an online data collection system called as "Qualtrics:

Online Survey Software”. The research was announced in pregnancy and IVF related websites and online groups. Compared to fertile women, data gathering from ART-group was much more difficult, because some women were keeping it like a secret that they conceived via ART and the others did not participate to the survey for some reasons related with their negative experiences (i.e., they thought that the questions may evoke the previous negative trials) and anxious thoughts (i.e., they thought that the questions may negatively influence current pregnancy). Therefore, it was acknowledged that gaining trust with these women was the first step and having face to face interaction could accelerate this process. For this aim, after getting required permissions, the researcher began to attend one of the biggest private practice IVF clinics in Ankara. She worked there voluntarily as a clinical psychologist and collected data from the patients of the clinic in addition to online groups. Since the owner and the head doctor of the clinic is the president of International Society of In Vitro Fertilization (ISIVF) and due to its success rate, the clinic has a good reputation across the country, and it has patients from different cities of Turkey. Also, even in Ankara the doctors of some other institutions have an agreement with the clinic and they refer their patients there for in vitro fertilization. In this way, the clinic provided a wide range of participants from different parts of Turkey. While collecting data from the clinic, as a clinical psychologist the researcher made an initial interview with the expectant mothers either face to face or via phone call. If they were suitable for the study, she gave information about her research and provided the webpage link of the survey. For the patients who did not use the internet, hard-copy questionnaire sets were prepared, and the data from these patients were gathered via paper-pencil questionnaire administration.

In the survey before the questions, an informed consent form was presented to the participants. The participants were informed about the aims of the study, the importance of their participation and their right to refuse or quit the survey at any

time during the process. While placing the instruments to prevent the carryover effect, the scales were arranged randomly. Fulfillment of the survey took approximately 30 minutes. Upon the completion of the survey, a detailed debriefing about the study and the researcher's contact information were presented to the participants.

2.3.4. Data Analysis

First of all, in the adaptation of Parenthood Motivation Scale (PMS), confirmatory factor analysis (CFA) was conducted via EQS-Structural Equation Modeling Software. Since the PMS and its underlying factors were based on a prior research evidence, CFA was decided as a suitable analysis (Brown, 2006). Internal consistency reliability of the instrument was calculated by Cronbach's alpha coefficients and to assess the construct validity of PMS, Pearson correlation coefficients with other theoretically relevant constructs were taken into consideration. After the scale adaptation, based on the preliminary analyses through which the covariates were determined via Pearson correlation coefficients and multivariate analysis of variance (MANOVA), to investigate whether the scale successfully discriminates fertile and infertile pregnant women and to observe the differences between the groups in terms of the dimensions of PMS, multivariate analysis of covariance (MANCOVA) was conducted. Except CFA, all the other analyses were run through IBM SPSS Statistics 20 software.

2.4. Results

2.4.1. Psychometric Features of PMS

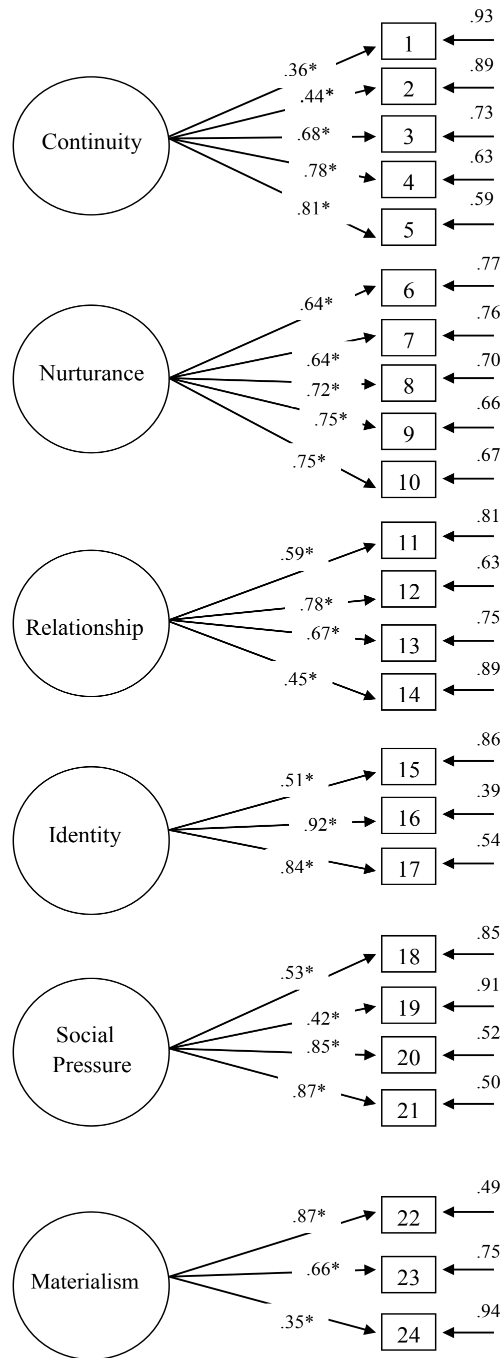
2.4.1.1. Confirmatory Factor Analysis (CFA)

Confirmatory factor analysis was carried out with both of the samples including fertile and infertile women. First of all, the model with 24 items and 6 factors of

PMS was tested. Results revealed that all the items under each factor were significant and the range of loadings was from .36 to .81 for continuity (items 1-5), from .64 to .75 for nurture (items 6-10), from .45 to .78 for relationship (items 11-14), from .51 to .92 for identity (items 15-17), from .42 to .87 for social pressure (items 18-21), and from .35 to .87 for materialism (items 22-24) (see Figure 2.1 for item loadings). Since the value of Mardia's normalized estimate was above the cut off score of 5, the analysis pointed out non-normality (*Mardia's Z* = 39.63) and the robust statistics were taken into consideration (Byrne, 2006). The average off-diagonal absolute standardized residual was found as .10, which was below the cut off score of 2.58 (Byrne, 2006). The distribution of standardized residuals depicted that the percentage of residuals between the *z* scores of -0.1 and +0.1 was 62.34. Since robust statistics were taken into consideration, the model was tested with Satorra-Bentler scaled chi square. The results revealed that the suggested model of PMS had mediocre fit (MacCallum, Browne, & Sugawara, 1996), S-Bχ^2 (237) = 1046.18, $p = 0.00$, $\chi^2/df = 4.41$, $CFI = 0.76$, $RMSEA = .08$, 90% CI [.08, .09]. Please see Figure 1 for Model 1.

To improve the model, the suggestions of multivariate Lagrange multiplier (LM) test was taken into consideration. Since adding a covariance between E21-E20 propounded a largest decrement in χ^2, the model was modified by including a path between the error covariance between items 20 and 21. After this modification, the model revealed that the average off-diagonal absolute standardized residual was .09; the percentage of residuals between the *z* scores of -0.1 and +0.1 was 65.34; and compared to the first model the second model revealed improvement, S-B χ^2 (236) = 897.97, $p = 0.00$, $\chi^2/df = 3.80$, $CFI = 0.80$, $RMSEA = .08$, 90% CI [.07, .08]. The significance of this improvement was determined through Satorra-Bentler chi square difference calculation. Then, it was observed that Model 2 revealed a significant improvement over Model 1, S-B $\chi^2_{difference}$ (462, 1) = 208.50, $p < .001$.

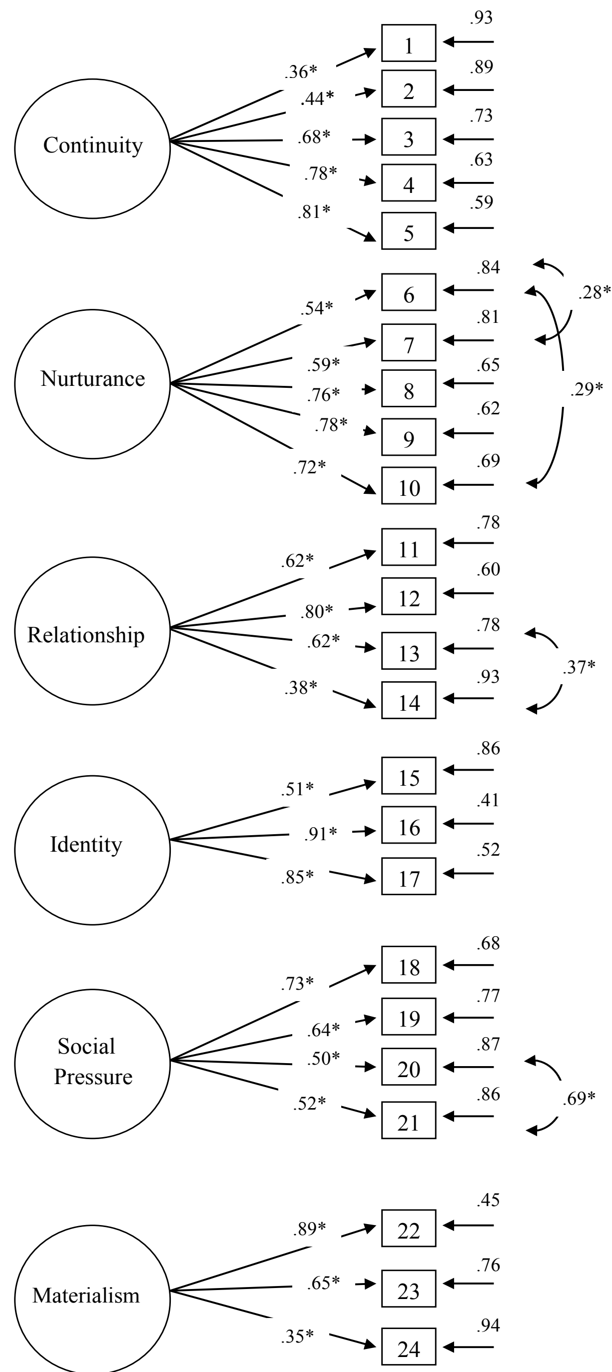
After the first modification, based on the suggestions of LM test the second modification was applied and error covariance parameters between E14-E13, E7-E6, and E10-E6 were included in the model. The results of Model 3 revealed that the average off-diagonal absolute standardized residual was .09 and the percentage of residuals between the *z* scores of -0.1 and +0.1 was 66.34. When it is compared to the second model, the third model had a better fit and in terms of fit indices the model was acceptable, S-B χ^2 (233) = 817.23, p = 0.00, χ^2/df = 3.51, *CFI* = 0.83, *RMSEA* = .07, 90% CI [.07, .08]. Also, via the Satorra-Bentler chi square difference, it was observed that the improvement of the third model was also significant, S-B $\chi^2_{difference}$ (462, 3) = 41.09, $p < .001$. Since, the model had an acceptable fit and neither of the modifications suggested by LM test was meaningful, the third model was decided as the final model (see Figure 2 for Model 3).



Note. S-Bχ^2 (237) = 1046.18, p = 0.00, χ^2/df = 4.41, *CFI* = 0.76, *RMSEA* = .08, 90% CI [.08, .09]

Figure 1. Hypothesized CFA Model for Parenthood Motivation Scale

Note. S-Bχ^2 (237) = 1046.18, p = 0.00, χ^2/df = 4.41, *CFI* = 0.76, *RMSEA* = .08, 90% CI [.08, .09]



Note. S-B χ^2 (233) = 817.23, p = 0.00, χ^2/df = 3.51, *CFI* = 0.83, *RMSEA* = .07, 90% CI [.07, .08].

Figure 2. Final CFA Model for Parenthood Motivation Scale

Note. S-B χ^2 (233) = 817.23, p = 0.00, χ^2/df = 3.51, *CFI* = 0.83, *RMSEA* = .07, 90% CI [.07, .08]

2.4.1.2. Intercorrelations among the Subscales of PMS

The correlations among the six factors of PMS depicted that all the dimensions had significant and positive associations with each other. The correlations ranged between .15 (*continuity* and *materialism*) and .58 (*relationship* and *identity*). The results can be seen in Table 2.

Table 2. *Pearson Intercorrelations among the Factors of PMS (N = 457)*

	Continuity	Nurturance	Relationship	Identity	Social Pressure	Materialism
Continuity	(.74)					
Nurturance	.49*	(.82)				
Relationship	.39*	.56*	(.71)			
Identity	.32*	.46*	.58*	(.78)		
Social Pressure	.18*	.24*	.36*	.53*	(.75)	
Materialism	.15*	.18*	.33*	.41*	.53*	(.55)

Note 1. *Correlation is significant at 0.01 level (2-tailed).
Note 2. Scores shown within the parentheses on the diagonal indicate the Cronbach's alpha coefficient of the variables.

2.4.1.3. Reliability Analysis

Internal consistency reliability of Turkish adaptation of PMS was assessed through Cronbach's alpha coefficient. The analyses revealed that internal consistency reliability of the scale was good (α = .88). In terms of subscales, Cronbach's alpha of nurturance (α = .82) was good; continuity (α = .74), relationship (α = .71), identity (α = .78), and social pressure (α = .75) were acceptable; but materialism (α = .55) was poor (see Table 2.2). The results were interpreted based on the rule of thumb proposed by George and Mallery (2003). In addition, the reliability analysis revealed that item-total correlations were acceptable and it is not necessary to delete an item to increase Cronbach's alpha level (see Table 3 for the results).

Table 3. *Reliabilities of PMS (N = 457)*

Items with relevant subscale	Mean	*SD*	Item-total correlation (*r*)	*a* if item deleted
Continuity				
PMS_1	3.23	1.15	.224	.886
PMS_2	3.16	1.16	.430	.880
PMS_3	3.95	0.94	.407	.880
PMS_4	3.68	1.04	.439	.880
PMS_5	4.00	0.88	.464	.879
Nurturance				
PMS_6	4.48	0.78	.421	.880
PMS_7	4.14	0.84	.488	.879
PMS_8	3.67	1.18	.592	.875
PMS_9	3.81	1.13	.560	.876
PMS_10	4.33	0.82	.494	.879
Relationship				
PMS_11	4.43	0.84	.470	.879
PMS_12	4.16	1.04	.587	.876
PMS_13	3.05	1.27	.570	.876
PMS_14	2.87	1.24	.423	.880
Identity				
PMS_15	4.14	0.98	.548	.877
PMS_16	3.19	1.24	.640	.874
PMS_17	2.82	1.25	.596	.875
Social Pressure				
PMS_18	2.75	1.25	.550	.876
PMS_19	2.95	1.25	.548	.877
PMS_20	2.00	1.04	.290	.883
PMS_21	1.88	0.94	.295	.883
Materialism				
PMS_22	1.69	0.88	.337	.882
PMS_23	1.39	0.62	.206	.884
PMS_24	3.05	1.27	.438	.880

2.4.1.4. Construct Validity

Construct validity (Cronbach & Meehl, 1955) of PMS was assessed by examining the association of the scale with other theoretically related constructs. With this aim in mind, the correlations of PMS with the Survey of Parenthood Outlook (SPO) and Marital Life Scale were investigated. In this context, positive and negative correlations between the scales were taken into consideration in terms of convergent validity (see Table 4). Results revealed that PMS had positive correlation with SPO (r = .19, p < .01) and its dimensions of targets and ideals (r = .54, p < .01), opinions about children (r = .10, p < .05) and social attitude (r = .19, p < .01). As expected, it was found that PMS measures similar tendencies with SPO; increase in parenthood motivation was associated with an increase in positive views on parenthood, targets and ideals for life and having children, and opinions about children and person's social attitudes.

Among the subscales of PMS, continuity motivation showed positive relation with all the other scales and subscales, namely, SPO (r = .36, p < .01), family environment (r = .27, p < .01), targets and ideals (r = .31, p < .01), opinions about children (r = .16, p < .01), physical sufficiency (r = .17, p < .01), opinions about marriage (r = .16, p < .01), economic status (r = .18, p < .01), social attitude (r = .32, p < .01), personal abilities (r = .13, p < .01), and marital satisfaction (r = .20, p < .01). Thus, as the pregnant women's views on parenthood increased in terms of all the factors, their motives for continuity also increased.

Nurturance factor revealed positive correlations with SPO (r = .25, p < .01), targets and ideals (r = .43, p < .01), opinions about children (r = .22, p < .01), physical sufficiency (r = .15, p < .01), economic status (r = .17, p < .01), and social attitude (r = .19, p < .01). When women had higher levels of parenthood outlook, targets and ideals for having children, opinions about having children, feeling physically

sufficient, economic sources, and social attitude, their desire for having children due to nurturance motivation increased, as well.

Relationship factor indicated positive correlations with SPO (r = .11, p < .05) and targets and ideals (r = .44, p < .01), indicating that as the women's views on parenthood and targets and ideals for having children are gained importance, they became more likely to desire children to enhance their relationship with their spouse.

Identity factor revealed positive correlations with targets and ideals (r = .47, p < .01), and negative correlations with opinions about marriage (r = -.10, p < .05) and personal abilities (r = -.10, p < .05). This means that women's positive attitudes on targets and ideals for having children, and negative attitudes on marriage and personal abilities, were associated with higher parenthood motives in terms of identity factor.

Similarly, social pressure factor showed positive relation with targets and ideals (r = .30, p < .01) and negative relation with opinions about marriage (r = -.13, p < .01), personal abilities (r = -.15, p < .01), and marital satisfaction (r = -.13, p < .05). That is to say as the women have higher levels of targets and ideals for having children, they tend to feel higher levels of social pressure; as these women have negative views on marriage and on their abilities or less satisfied in their marital life, they are more likely to feel higher levels of social pressure for having children.

Lastly, materialism dimension indicated positive correlations with targets and ideals (r = .27, p < .01), and negative correlations with physical sufficiency (r = -.14, p < .01) and personal abilities (r = -.13, p < .01). This indicated that increase in women's targets and ideals for having children, and decrease in their feelings of physical or personal sufficiency are associated with increased parenthood

motivations in terms of material value of having children. The correlation coefficients among the scales can be seen in Table 4.

Table 4. *The Correlations of PMS and Its Subscales with Theoretically Relevant Constructs*

	PMS	Continuity	Nurturance	Relationship	Identity	Social Pressure	Materialism
SPO	.19**	.36**	.25**	.11*	.05	-.04	-.05
Family Environment	.06	.27**	.07	.02	-.05	-.06	-.05
Targets & Ideals	.54**	.31**	.43**	.44**	.47**	.30**	.27**
Opinions ab. Children	.10*	.16**	.22**	.04	.04	-.04	-.06
Physical Sufficiency	.07	.17**	.15**	.08	.02	-.07	-.14**
Opinions ab. Marriage	-.02	.16**	.02	-.02	-.10*	-.13**	-.08
Economic Status	.09	.18**	.17**	.03	-.00	-.02	-.06
Social Attitude	.19**	.32**	.19**	.08	.07	.05	.00
Personal Abilities	-.06	.13**	.04	-.09	-.10*	-.15**	-.13**
Marital Life/ Satisfaction	.01	.20**	.04	.01	-.09	-.13*	-.05

Note. *Correlation is significant at 0.05 level (2-tailed), **Correlation is significant at 0.01 level (2-tailed).

2.4.2. Group Comparison and Criterion-Related Validity

To investigate the group differences in terms of parenthood motivation and to determine the covariates that would be controlled in the main analyses, at first some preliminary analyses were conducted.

2.4.2.1. Preliminary Analysis

As mentioned in the literature review, it was predicted that the participants' age, educational level, income, place of living, duration of marriage, marital satisfaction, and duration of struggle for having children may have an impact on their parenthood motivation. For this reason, as a preliminary analysis, the influences of these variables on the dimensions of parenthood motivation were investigated. In this part, the continuous variables (i.e., age, duration of marriage, level of marital satisfaction, and duration struggle for having children) were analyzed through Pearson correlation analysis, and categorical variables (i.e., education level, income, and place of living) were analyzed with multivariate analysis of variance (MANOVA).

Pearson correlation analyses indicated that age had a significant negative correlation only with relationship motivation (r = -.20, p < .01), which suggested that as the age of the participants' increased, their motivation for having children in terms of relational factors decreased. Second, the participants' duration of marriage revealed significant positive association with identity (r = .10, p < .05), social pressure (r = .15, p < .01), and materialism (r = .18, p < .01) aspects of parenthood motivation. Pregnant women's marital satisfaction levels were positively correlated with continuity (r = .20, p < .01), and negatively correlated with social pressure (r = -.13, p < .01) dimensions of parenthood motivation. Last, in terms of the women's duration of struggle for having children, it was observed that it had a significant positive relation with all the dimensions of PMS, except continuity. In other words, duration of desire for having children had significantly positive relationship with nurturance (r = .18, p < .01), relationship (r = .15, p < .01), identity (r = .16, p < .01), social pressure (r = .25, p < .01) and materialism (r = .25, p < .01) dimensions of PMS (see Table 5 for the results).

Table 5. *Correlations between the Dimensions of PMS and Participants' Continuous Demographic Characteristics*

	Continuity	Nurturance	Relationship	Identity	Social Pressure	Materialism
Age	-.06	-.08	-.20**	-.03	.08	.01
Duration of Marriage	-.06	.06	.06	.10*	.15**	.18**
Marital Satisfaction	.20**	.04	.01	-.08	-.13**	-.05
Duration of Struggle	.04	.18**	.15**	.16**	.25**	.25**

Note. *Correlation is significant at 0.05 level (2-tailed), **Correlation is significant at 0.01 level (2-tailed).

MANOVA results showed that the women's overall parenthood motivation was significantly differentiated based on the level of education [*Multivariate* $F(24, 1560) = 2.64$, $p = .000$, *Wilk's* $\Lambda = .87$, *partial* $\eta^2 = .03$]. However, their income [*Multivariate* $F(12, 898) = 1.05$, $p = .40$, *Wilk's* $\Lambda = .97$, *partial* $\eta^2 = .01$] and place of living [*Multivariate* $F(18, 1267) = .85$, $p = .64$, *Wilk's* $\Lambda = .97$, *partial* $\eta^2 = .01$] did not reveal any significant effects.

According to univariate statistics, the participants' level of education significantly influenced their parenthood motivation based on the dimensions of relationship [$F(4, 452) = 5.70, p < .001$, partial $\eta^2 = .05$], identity [$F(4, 452) = 4.92, p < .01$, partial $\eta^2 = .04$] and materialism [$F(4, 452) = 7.98, p < .001$, partial $\eta^2 = .06$]. First, for relationship factor of PMS, the post-hoc results showed that while desiring for having children women who are primary school graduates ($m = 3.92$, $sd = .90$) had significantly higher relationship motivation, compared to university ($m = 3.63$, $sd =$

.74), master's (*m* = 3.38, *sd* = .81) and doctoral (*m* = 3.25, *sd* = .89) graduates. Second, relationship motivation of the high school graduates (*m* = 3.84, *sd* = .87) was significantly higher as compared to women who have master's (*m* = 3.38, *sd* = .81) and doctoral (*m*= 3.25, *sd* = .89) degrees. Third, relationship motivation of the women who have bachelor (*m* = 3.63, *sd* = .74) degree was significantly higher as compared to master's (*m* = 3.38, *sd* = .81) and doctoral (*m* = 3.25, *sd* = .89) graduates. However, for relationship factor there were no significant differences among primary school and high school graduates, and among the women who have master's and Ph.D. degrees.

Apart from this, the results revealed that in terms of identity dimension, primary school (*m* = 3.64, *sd* = .93), high school (*m* = 3.63, *sd* = .90), and university (*m* = 3.40, *sd* = .94) graduates had significantly higher motivations compared to women who have master's (*m* = 3.12, *sd* = 1.01) and doctoral (*m* = 2.87, *sd* = 1.11) degree. However, concerning identity factor, there were no significant differences between the women having master's and Ph.D. degree; and between the women who were primary school, high school and university graduates.

Lastly, in terms of materialism dimension of PMS it was found that compared to primary school (*m* = 2.25, *sd* = .81), high school (*m* = 2.30, *sd* = .65) and university (*m* = 2.03, *sd* = .69) graduates; women having master's (*m* = 1.86, *sd* = .61) and doctoral (*m* = 1.53, *sd* = .51) degree revealed significantly less materialism motivation. Moreover, the women having bachelor degree (*m* = 2.03, *sd* = .69) had significantly less materialism based parenthood motivation compared to high school graduates (*m* = 2.30, *sd* = .65). However, university graduates did not differ from primary school graduates (*m* = 2.25, *sd* = .81) in terms of materialism dimension. Lastly, high school and university graduates did not reveal any significant differences from the primary school graduates, in terms of materialism factor of

parenthood motivation. The results of the effects of educational level on parenthood motivation were summarized in Table 6.

Therefore, based on these results revealing significant associations of age, education level, duration of marriage, marital satisfaction and duration of struggle for having children with the factors of parenthood motivation, these variables were determined as the covariates while investigating group differences.

2.4.2.2. Multivariate Analysis of Covariance (MANCOVA)

In the light of the information provided by preliminary analyses, a multivariate analysis of covariance (MANCOVA) was conducted to investigate whether the dimensions of parenthood motivation successfully differentiate the women with different conception types (i.e., spontaneous and assisted) after controlling for the effects of age, education level, length of marriage, marital satisfaction and duration of struggle for having children. In the analysis the conception type (i.e., spontaneous and assisted) was assigned as the independent variable (IV), 6 factors of parenthood motivation (i.e., continuity, nurturance, relationship, identity, social pressure, and materialism) were assigned as the dependent variables (DV), and the variables which were found to be associated with the dimensions parenthood motivation (i.e., age, education level, duration of marriage, level of marital satisfaction, and duration of struggle for having children) were assigned as covariates. Before the analysis, the assumptions of MANCOVA were tested and five outliers were removed from the data based on the criterion of $p < .001$. In the analysis, non-significant results of Box's M test proved that the assumption of homogeneity of covariance matrices was met, $F(21,574679) = 1.52$, $p = .060$. Also, Levene’s test for homogeneity of variance revealed that the assumption of homogeneity of variance was met for five of DVs (i.e., nurturance, relationship, identity, social pressure, and materialism) but not for social pressure ($p = .03$).

Table 6. *The Effects of Level of Education on Dimensions of PMS*

	Educational Levels					One-way MANOVA			
	Primary School	High School	University/ Bachelor	Master	Ph.D.				
	M *SD*	*M* *SD*	*M* *SD*	*M* *SD*	*M* *SD*	*df*	*F*	η^2	*p*
Continuity	3.38 .79	3.63 .70	3.62 .75	3.61 .70	3.65 .58	1, 452	.95	.01	.432
Nurturance	4.16 .92	4.20 .83	4.10 .72	3.95 .61	3.94 .71	1, 452	1.57	.01	.182
Relationship	3.92 .90	3.84 .87	3.64 .74	3.38 .81	3.25 .89	1, 452	5.70	.05	.000
Identity	3.64 .93	3.63 .90	3.41 .94	3.12 1.01	2.87 1.11	1, 452	4.92	.04	.001
Social Pressure	2.41 .92	2.57 .81	2.39 .85	2.33 .84	2.05 .80	1, 452	1.76	.02	.136
Materialism	2.25 .81	2.30 .65	2.04 .69	1.86 .61	1.53 .51	1, 452	7.98	.06	.000

Note. Multivariate $F(24, 1560) = 2.64$, $p = .000$, *Wilk's* $\Lambda = .87$, *partial* $\eta^2 = .03$

According to multivariate statistics, covariates of age [*Multivariate* $F(6, 445) = 5.13$, $p = .000$, *Wilk's* $\Lambda = .94$, *partial* $\eta^2 = .07$], education level [*Multivariate* $F(6, 445) = 4.38$, $p = .000$, *Wilk's* $\Lambda = .94$, *partial* $\eta^2 = .06$], and marital satisfaction [*Multivariate* $F(6, 445) = 5.56$, $p = .000$, *Wilk's* $\Lambda = .93$, *partial* $\eta^2 = .07$] had significant contributions to the combined parenthood motivation. However, the participants' duration of marriage [*Multivariate* $F(6, 445) = .60$, $p = .73$] and duration of struggle for having children [*Multivariate* $F(6, 445) = 1.43$, $p = .20$] did not depict any significant association with the combined DVs. Thus, the results showed that age had significant effect on the parenthood motivation in terms of nurturance [$F(1, 450) = 9.11$, $p < .05$, partial $\eta^2 = .02$] and relationship [$F(1, 450) = 27.05$, $p < .001$, partial $\eta^2 = .06$] dimensions. Level of education had significant effect on identity [$F(1, 450) = 4.07$, $p < .05$, partial $\eta^2 = .01$] and materialism [$F(1, 450) = 8.42$, $p < .05$, partial $\eta^2 = .02$] dimensions of parenthood motivation. As the last significant covariate, the participants' marital satisfaction levels had significant impact on continuity [$F(1, 450) = 14.84$, $p < .001$, partial $\eta^2 = .03$] and social pressure [$F(1, 450) = 9.13$, $p < .05$, partial $\eta^2 = .02$] factors.

After controlling for the effect of these covariates, the findings depicted that there is a significant difference between the women conceiving naturally (i.e., fertile women) and via ART (i.e., infertile women) in terms of their overall parenthood motivation, *Multivariate* $F(6, 445) = 3.86$, $p = .001$, *Wilk's* $\Lambda = .95$, *partial* $\eta^2 = .05$. It is important to note that for the interpretation of univariate findings, Bonferroni adjustment was made by dividing the alpha level into 6 for each dependent variable, and the result was .008. The results revealed that fertile and infertile pregnant women were significantly different from each other in terms of overall parenthood motivation [$F(1, 450) = 14.59$, $p < .008$, partial $\eta^2 = .03$], and identity [$F(1, 450) = 8.09$, $p < .008$, partial $\eta^2 = .02$] and social pressure [$F(1, 450) = 19.72$, $p < .008$, partial $\eta^2 = .04$] dimensions of parenthood motivation. The post-hoc comparisons

revealed that ART-conceived women's overall parenthood motivation (m_{adj} = 3.44, sd = .60) was significantly higher than women who conceived naturally (m_{adj} = 3.18, sd = .48). Moreover, the participants who were impregnated via ART had significantly higher motivations for identity (m_{adj} = 3.59, sd = .98) and social pressure (m_{adj} = 2.67, sd = .89) as compared to naturally impregnated women (m_{adj} = 3.25, sd = .92 and m_{adj} = 2.21, sd = .75, respectively). In Table 7 the results of MANCOVA after controlling for the effect of covariates were presented with mean scores and standard deviations.

However, related to these findings it is important to note that if the covariate of the duration of struggle for having children was removed from the analysis and it was conducted with the rest of the covariates (i.e., age, education, duration of marriage and marital satisfaction level), except from the continuity factor, pregnant women with different conception types significantly differentiated on all remaining dimensions of parenthood motivation. In other words, in addition to overall parenthood motivation [$F(1, 451) = 32.98, p < .008$, partial $\eta^2 = .07$], and identity [$F(1, 451) = 14.44, p < .008$, *partial* $\eta^2 = .03$] and social pressure [$F(1, 451) = 37.99, p < .008$, *partial* $\eta^2 = .08$] dimensions, there was a significant difference between fertile and infertile expectant mothers in terms of their level of nurturance [$F(1, 451) = 17.96, p < .008$, partial $\eta^2 = .04$], relationship [$F(1, 451) = 12.95, p < .008$, *partial* $\eta^2 = .03$], and materialism [$F(1, 451) = 9.64, p < .008$, *partial* $\eta^2 = .02$] dimensions of PMS. For all of these factors, the parenthood motivation of women who conceived via ART was higher as compared to expectant mothers who conceived naturally. However, as mentioned before, for continuity factor there was no significant difference between the groups, $F(1, 451) = 6.82, p = .009$, partial η^2 = .01. Mean scores and standard deviations can be seen in Table 8.

Table 7. *Multivariate Analysis of Covariance for the Effects of Conception Method on Parenthood Motivation after Adjustment for Age, Educational Level, Duration of Marriage, Marital Satisfaction and Duration of Struggle for Having Children*

	Pregnant Women							
	Conceived Spontaneously (n = 272)		Conceived via ART (n = 185)		One-way MANCOVA			
	M_{adj}	SD	M_{adj}	SD	df	F	η^2	p
Continuity	3.54a	.71	3.70a	.75	1, 450	3.31	.01	.069
Nurturance	3.99a	.68	4.22a	.78	1, 450	6.39	.01	.012
Relationship	3.53a	.76	3.76a	.86	1, 450	5.36	.01	.021
Identity	3.25a	.92	3.60b	.98	1, 450	8.09	.02	.005
Social Pressure	2.21a	.75	2.67b	.89	1, 450	19.72	.04	.000
Materialism	1.99a	.66	2.12a	.70	1, 450	2.29	.01	.131
PMS	3.18a	.48	3.44b	.60	1, 450	14.59	.03	.000

Note 1. Multivariate $F(6, 445) = 3.86$, $p = .001$, *Wilk's* $\Lambda = .95$, *partial* $\eta^2 = .05$
Note 2. The mean scores were adjusted for covariates.
Note 3. The mean scores having different subscripts on the same row are significantly different from each other
Note 4. PMS: Parenthood Motivation Scale

Table 8. *Multivariate Analysis of Covariance for the Effects of Conception Method on Parenthood Motivation after Adjustment for Age, Educational Level, Duration of Marriage and Marital Satisfaction (After Excluding Duration of Struggle for Having Children as a Covariate)*

	Pregnant Women							
	Conceived Spontaneously (n = 272)		Conceived via ART (n = 185)		One-way MANCOVA			
	M_{adj}	*SD*	M_{adj}	*SD*	*df*	*F*	η^2	*p*
Continuity	3.52a	.71	3.72a	.75	1, 451	6.82	.02	.009
Nurturance	3.95a	.68	4.28b	.78	1, 451	17.96	.04	.000
Relationship	3.50a	.76	3.80b	.86	1, 451	12.95	.03	.000
Identity	3.23a	.92	3.61b	.98	1, 451	14.44	.03	.000
Social Pressure	2.18a	.75	2.71b	.89	1, 451	37.99	.08	.000
Materialism	1.95a	.66	2.17b	.70	1, 451	9.64	.02	.002
PMS	3.15a	.48	3.48b	.60	1, 451	32.98	.07	.000

Note 1. Multivariate $F(6, 446) = 7.84$, $p = .000$, *Wilk's* $\Lambda = .91$, *partial* $\eta^2 = .10$
Note 2. The mean scores were adjusted for covariates.
Note 3. The mean scores having different subscripts on the same row are statistically different from each other
Note 4. PMS: Parenthood Motivation Scale

Therefore, from the distinction between two aforementioned MANCOVA results, it can be seen that most of the motivational differences between spontaneous and ART-conceived expectant mothers can be explained with the differences between the groups in terms of how much time they spend for having children. In other words, since ART-women spent more years for having children, their parenthood motivation was significantly higher for all dimensions except continuity. Moreover, the results revealed that the differences between nurturance, relationship and materialism factors can be observed only if the duration of the participants' efforts for having children was not controlled. This finding means that the motivational differences between the group in terms of nurturance, relationship and materialism dimensions occurred because of the differences between duration of time they spent for getting pregnant. However, even after controlling the effects of duration of their struggle, overall parenthood motivation, and identity and social pressure factors remained significantly higher for the ART-conceived expectant mothers. These results highlighted the most important motivational distinctions between fertile and infertile women after adjusting the effects of age, education, duration of marriage, level of marital satisfaction and the time they spent for having children. Thus, it can be suggested that overall PMS and identity and social pressure dimensions of PMS can successfully differentiate the groups of pregnant women who were impregnated either naturally or via ART.

2.5. Discussion

The present study, first of all, aimed to make Turkish adaptation of Parental Motivation Scale (PMS) and examine its psychometric features in a sample of naturally and ART-impregnated Turkish women. Then, as the second aim, to investigate PMS's criterion related validity and examine if the scale successfully differentiates fertile and infertile women, these two groups of expectant mothers were compared in terms of dimensions of PMS.

2.5.1. Psychometric Features of PMS

In the study, with the first aim in mind, the original six-factor model of PMS was examined via CFA and the model revealed an acceptable fit. In terms of internal consistency, Cronbach's alpha coefficients showed that PMS is a reliable measure. Except for the *materialism* factor, the reliability of total scale and other five dimensions had good and acceptable values similar to the original study of Cassidy and Sintrovani (2008). However, contrary to their study, in present study materialism factor presented lower internal consistency. The results indicated that item 24 (i.e., "Want love and support in old age") revealed lower correlations with items 22 (i.e., "Child could help at home or work") and 23 ("Material benefits a child could bring"), which decreased the internal consistency of *materialism* dimension. Although item 24 was associated with the old age security value of children, which was discussed as an economic function of having children (Kagitcibasi, 1982; Kagitcibasi & Ataca, 2005), the participants of present study might have attributed more emotional values to this item. In addition, even though the mean scores of items 22 and 23 were quite similar and low, it was observed that the mean score of item 24 was higher. That is to say, the participants of the study were inclined to give higher scores to item 24 compared to other two items. This situation might have two reasons. First, as Kagitcibasi and Ataca (2005) highlighted, in recent years the economic value of children has been losing its importance for the parents while the psychological values have been increasing. Nowadays, instead of observing children as economic assets, the financial costs of having children are considered, and the emotional and psychological value of having children has been increasing (Bigner, 2010; Kagitcibasi & Ataca, 2005; Nock, 1987). Second, while answering the questions about materialism factor, even if they considered the economic value of having children, the participants might have been unwilling to represent their true opinions; thus, they might have given socially desirable answer to this question.

When intercorrelations among the factors of PMS were taken into consideration, it was observed that all the factors indicated significantly positive relations with each other. In other words, the results indicated that PMS included six positively associated motivational dimensions. However, it is important to note that the factors of *continuity* and *nurturance* revealed weak associations with both *materialism* and *social pressure factors*. These lower correlations between these factors were thought as relevant with the intrinsic and extrinsic motivational bases of these factors. Intrinsic bases of desire for having children were relevant with the desire for personal fulfillment, but the extrinsic bases were associated with the social influences related to individual's fertility decisions as Cassidy and Sintrovani (2008) presented. Similarly, for Miller (2009), even though intrinsic motivations of desire for children refer to inherent contentment, extrinsic motivations are related to rewards from external bases such as fulfilling societal expectations. From these perspectives, the factors of *continuity* and *nurturance,* which also revealed significantly moderate positive correlations with each other, can be categorized as intrinsic motivations; while the factors of *social pressure* and *materialism,* which also had significant and moderate positive relation with each other, can be categorized as extrinsic motivations. In terms of significant higher correlations between *continuity* and *nurturance* factors, it is also important to note that the items concerning these factors are related with emotional aspects of having children. As implied in the literature, providing continuance of family line can decrease individuals' existential anxiety (Solomon et al., 1991) and increase their self-worth (Wisman & Goldenberg, 2005). Nurturing and building up next generations can also provide personal enrichment (Erikson, 1963). Apart from this, for significant higher relation between *social pressure* and *materialism* factors it is important to note that, as presented in the literature, old age security value of children is under the roof of economic utility of having children (Kagitcibasi, 1982; Kagitcibasi & Ataca, 2005), and economic aspects of having children can vary depending on the

social environment and existing culture where people live in (Bigner, 2010; Boyacioğlu & Türkmen, 2008; Kağıtçıbaşı 2007).

The correlations among the factors also indicated that *identity* factor demonstrated higher positive correlation with *social pressure* and *materialism* dimensions. This finding was consistent with the fact that socio-cultural environment can also influence the women's identity and gender-role requirements (e.g., Boyacioğlu & Türkmen, 2008; Cassidy & Sintrovani, 2008; Choi et al., 2005), and direct women to describe their identity depending on motherhood (Glover et al., 2009). Moreover, *identity* factor revealed higher associations with *nurturance* and *relationship,* and in the analysis it was observed that the strongest positive correlation occurred among *relationship* and *identity factors.* These results are also meaningful when the cultural background of Turkey is taken into consideration. As presented in the literature, motherhood and nurturance are identified as duties of women in Turkey due to dominant conservative and patriarchal views, as criticized by profeminists (e.g., Abbott et al., 2005). It is believed that there is a hierarchy between genders in which women have lower value and power compared to men (Kagitcibasi, 1982), so they are expected to be submissive and dependent on their husbands (Boyacioğlu & Türkmen, 2008), and thus they believe that after having children they can maintain their husbands' fidelity (Kagitcibasi, 1981).

In addition to reliability measurements, to assess the psychometric properties of PMS, construct validity of the scale was examined through its correlations with the Survey of Parenthood Outlook (SPO; Kunt, 2011), and marital life scale (Tezer, 1996) which also measure similar or theoretically related constructs. Convergent validity of the scale was determined through significantly positive and negative correlations. It was found that as expected, PMS had significant positive relation with SPO, because the scales measure similar constructs. Moreover, PMS indicated significant positive association with three subscales of SPO, namely, *targets and*

ideals, opinions about children, and *social attitude*. This might be due to the fact that PMS also measures ideals and desires for having children, and have similar focuses with the factors of *targets and ideals, and opinions about children* (Kunt, 2011). Moreover, about positive correlation with *social attitude* it can be said that since Turkey has pronatalist characteristics, social motives have greater importance on women's desire for having children (van Rooij, Van Balen, & Hermanns, 2007). SPO also indicated significant positive association with three subscales of PMS which are *continuity, nurturance* and *relationship*, and presented that the scale is mostly relevant with emotional and intrinsic dimensions of PMS.

In terms of subscales of PMS, first, it was observed that continuity was positively correlated with all dimensions (i.e., *family environment, targets and ideals, opinions about children, physical sufficiency, opinions about marriage, economic status, social attitude, personal abilities*) of SPO and level of *marital satisfaction*. The *continuity* factor had significantly positive association with *family environment*, which can be regarded as a proof that people have a desire to recreate their childhood experiences while desiring for children as ego psychologists suggested (see Michaels, 1988), and it seems that they have a desire to provide the continuity of their family line in a similar direction. In terms of *targets and ideals*, it was observed that the subscale revealed significant and positive correlation not only with *continuity* but also with all the other factors (i.e., *nurturance*, *relationship*, *identity*, *social pressure*, *materialism*) of PMS. It is therefore apparent that all the motives of PMS are relevant with individuals' *targets and ideals* for having children. Apart from this, consistently with the literature findings, it was revealed that individuals' desire to carry on their family lines (i.e., *continuity* motive) can increase if people have positive *opinions about children* (e.g., Gerson, 1983; Razina, 2014); feel *sufficient in terms of physical* features and *personal abilities* (e.g., Olafsdottir et al., 2011); be *satisfied in their marriage* and have positive *opinions about marriage* (e.g., Olafsdottir et al., 2011); have enough economic

resources (e.g., Van Balen et al., 1997), and have positive *social attitudes* (e.g., Kagitcibasi & Ataca, 2005; Van Rooij et al., 2007).

Second, in addition to its positive relation with SPO and *targets and ideals, nurturance* also indicated positive association with *opinions about children, physical sufficiency, economic status, and social attitude*. These positive correlations demonstrated that if women have positive *opinions about children,* feel *physically sufficient* that they have "enough energy and patience" (Mynarska, 2010), have adequate economic resources (Bigner, 2010; Van Balen et al., 1997) and have positive *social attitudes* due to social importance of having children (Kagitcibasi & Ataca, 2005), their motives for *nurturance* become higher. As can be seen, personal, economic and social aspects of parenthood were associated with maternal desire for caring and loving children. These associations also seemed to be relevant with Cassidy and Sintrovani's (2008) explanations for collectivist cultures in which due to influences of extended family networks on personal decisions, women's idea on child-rearing and femininity can differentiate.

Third, as mentioned before, *relationship* revealed significantly positive correlation with SPO and the subscale of *targets and ideals* which are highly relevant constructs. Fourth, *identity* was positively related only with *targets and ideals,* and negatively related with *opinions about marriage* and *personal abilities*. In terms of these results it can be thought that if a woman has positive views about her marriage and personal resources, she would be negatively motivated for having children to fulfill her femininity, since her marital and personal experiences can enhance her identity. The findings confirm the idea that if women feel valuable, achieve fulfillment from their marriages (e.g., Boyacioğlu & Türkmen, 2008) and their personal development (Wu & Macneill, 2002), they would not be obsessed with having children to increase their feminine identity. For similar reasons, *social pressure* presented positive correlation again with *targets and ideals,* and negative

correlations with *opinions about marriage* and *personal abilities,* and level of *marital satisfaction.* The findings indicated that if women have higher feminine identity relevant with their positive *opinions about marriage*, higher levels of *personal abilities,* and higher levels of *marital satisfaction*, they would feel lower pressure from society (e.g., Colpin et al., 1998; Newton et al., 1992). Lastly, *materialism* factor was positively related only with *targets and ideals,* and negatively related with *physical sufficiency* and *personal abilities,* which revealed that if individuals feel sufficient for *physical* and *personal abilities* they place significantly lower importance to material values of children since they have alternative means and greater financial resources (Mcquillan et al., 2008). Therefore, these significant correlations demonstrated convergent validity of the scale with theoretically related constructs.

2.5.2. Group Comparison and Criterion-Related Validity

2.5.2.1. Preliminary Analysis

After testing the psychometric properties of PMS, regarding the second aim, the criterion related validity of the scale was examined among the expectant mothers. Similar to previous studies (e.g., Cassidy & Sintrovani, 2008; Langdridge et al., 2000) this study included two different samples as fertile and infertile women. However, compared to these studies, in present study both fertile and infertile women were pregnant. Therefore, in the study, the parenthood motivation of women impregnated via ART was compared with naturally conceived pregnant women. With this aim in mind, some preliminary analyses were conducted based on the information provided by literature related to parenthood motivation.

First of all, when the relation between age and dimensions of PMS was considered it was found that age had significantly negative correlation only with *relationship*. This means that when people are getting older, their motivation for having children

to create a whole family and improve their relationship is decreasing. This result was found consistent with the findings that age and marital satisfaction were negatively associated (e.g., Lee & Shehan, 1989). It is possible to say that since women may feel unsatisfied in their marriage, they do not want to have children for their relationship. Regarding this finding, Olafsdottir and colleagues (2011) also mentioned that if the couples are satisfied in their relationship they think about having children with the motivation of making their relationship much better. Apart from *relationship*, in present study, age did not reveal any significant correlation with other dimensions of PMS (i.e., *continuity, nurturance, identity, social pressure, materialism*). Since the data included both fertile and infertile women's responses, and the age of infertile women was higher, these non-significant findings make sense when the results of Van Balen (2005) were taken into consideration. In his study, although for fertile group younger women had higher parenthood motivation, for infertile group no significant differences were observed. The researcher argued that instead of group differences like age, infertility and involuntary childlessness create higher effects on parenthood motivation (Van Balen, 2005).

In terms of the relations between the factors of PMS and the women's duration of marriage, the results indicated that the longer they are married, the higher motivations they have in terms of *identity, social pressure,* and *materialism* dimensions. As mentioned before, these three motivational factors of PMS are strongly associated with socio-cultural environment. In many cultures, having children is accepted as an essential aspect of being married (Wu & Macneill, 2002). As highlighted by numerous Turkish studies (e.g., Boyacioğlu & Türkmen, 2008; Kağıtçıbaşı, 2007), societal expectations related to having children create pressure on couples soon after marriage and if a delay occurs for childbearing women are held responsible (Ayaz & Yaman Efe, 2010). Relevantly, the findings from other studies also emphasized that as the childless marriage years passes by social and

psychological pressures can increase (e.g., Ozkan & Baysal, 2006), since social motives of parenthood were highly dominant as implied by different studies (e.g., Kagitcibasi & Ataca, 2005; Van Rooij et al., 2007). Apart from this, there was no significant association between duration of marriage and *continuity*, *nurturance,* and *relationship* factors. Since *continuity* and *nurturance* are intrinsic motivations (Cassidy & Sintrovani, 2008; Miller, 2009) and *relationship* motive is relevant with the participants' desire to generate a whole family and share the role of parenthood (Cassidy & Sintrovani, 2008), these non-significant findings are meaningful concerning that rather than length of marriage, the quality of marriage is influential for emotional aspects of parenthood motivation. Relevantly, in the literature the results for the association between marriage duration and marital satisfaction are also controversial. Although for some studies there was a negative relation between length of marriage and marital satisfaction (e.g., Karney & Bradbury, 1995), as Xiaohe and Whyte (1990) presented, for instance, especially for arranged marriages, marital satisfaction could also increase with the increase in length of marriage. According to Gallimore, Hughes, and Geldhauser (2006), however, the length of marriage and marital satisfaction did not reveal any significant association.

When the participants' marital satisfaction levels were considered, it was found that the higher levels of marital satisfaction are associated with higher motivational bases for continuity and lower motivational bases in terms of social pressure. It seems that if women are satisfied in their marital life, they are motivated to provide continuation of their family line. Parallel with this finding, Olafsdottir and colleagues (2011) presented that if couples have stable relationship and believed that they have found the right partner, as the next step they wanted to have children to establish a whole family. Relevantly, studies revealed that there is a positive relation between marital satisfaction and desire for having children, and the effects of marital satisfaction was stronger than socioeconomic variables in explaining

fertility behavior (Beaujot & Tong, 1985). In addition, in the analyses marital satisfaction and social pressure were found to be negatively correlated, which means that lower level of marital satisfaction was linked to higher level of social pressure motives for parenthood. This finding indicated that although social and cultural environment create pressure on women to become mother (e.g., Russo, 1976) and motherhood is essential for social status of women (e.g., Ayaz & Yaman Efe, 2010), it was understood that if women were highly satisfied in their marital life, they feel lower levels of social pressure from friends or families to become mother. Apart from this, there was no significant relations between marital satisfaction and *nurturance*, *identity*, *relationship* and *materialism* motives for parenthood. Although these motives have both internal and external bases, relevant with the pronatalist and patriarchal nature of Turkish culture (see van Rooij et al., 2007), it was thought that they are strongly embedded in personal desires for parenthood. As mentioned before, in Turkey social motives are highly influential for couples' fertility decisions (e.g., Kagitcibasi & Ataca, 2005; van Rooij et al., 2007).

The participants' duration of struggle for having children was depicted as having positive correlations with all the factors of PMS except for *continuity*. This results bring to mind Rotkirch's (2011) proposal that longer unsuccessful trials create intense desire for having children and increase motivation for parenthood. Within this time, women's self-worth can decrease and perceived social pressure can increase (Newton et al., 1992). Also, their relationship can be negatively affected (Langdridge et al., 2000) and they can idealize parenthood (Hammarberg et al., 2008; Smorti & Smorti, 2012). For these reasons, parenthood and having children may have a function to compensate these necessities. Apart from this, as mentioned before, there was not any significant relation between *continuity* and duration of struggle for having children. This reveals that in spite of the time they spent for having children, women want to provide the continuation of family line. Like

Erikson (1963) stated, the result emphasized that when adults establish a truly intimate relationship, they focus on their responsibilities for next generations. Moreover, similar with the suggestion of Terror Management Theory (TMT; Solomon, Greenberg, & Psyszynski, 1991), children provide the continuity and symbolic immortality for their parents. All the people unconsciously have this desire to decrease their death related anxiety (Fritsche et al., 2007). This finding is also associated with the evidence that in Turkish culture people give greater emphasis on continuity of their family line (Van Rooij et al., 2007).

In addition to these correlations, under the scope of preliminary analyses, the effects of other demographical features namely, level of education, income, and place of living on women's motivations for parenthood were examined. The results presented that the level of education had significant influences, however level of income and place of living did not show any significant effects. In the literature, although the couples' parenthood motivation was influenced by their economic resources and the regions where they live (see Kağıtçıbaşı, 2007), the findings of present study were inconsistent with these results. On the other hand, it is important to note that the results of present study were consistent with the findings that irrespective of the participants' place of living, Turkish women's fertility related motivations remain similar (e.g., Ayaz & Yaman Efe, 2010; Van Rooij et al., 2007). From these non-significant findings, it was thought that regardless of income and place of living, Turkish women's parenthood motivations do not differentiate which may be due to pronatalist (e.g., van Rooij et al., 2006) and collectivistic (see Kağıtçıbaşı, 2007) nature of Turkish culture.

In terms of level of education, it was found that participants' education significantly influenced their motivations on *relationship, identity* and *materialism* dimensions. For *relationship* dimension, it was apparent that lower education levels were associated with stronger desire for having children to fulfill their relationship with

spouse. The women who were primary school graduates indicated significantly higher *relationship* motivation as compared to bachelor, master's and doctoral graduates, and the women who were high school or university graduates revealed significantly higher *relationship* motives as compared to master's and doctoral graduates. Similarly, in terms of *identity* dimension the results showed that for women who are primary school, high school or university graduates, the feminine basis of desire for having children was significantly higher as compared to women having master's or Ph.D. degree. Likewise, in *materialism* dimension, the material value of having children is significantly more important for primary school, high school, and university graduates as compared to women who have master's or Ph.D. degree.

From all these results it was apparent that lower level of education was associated with higher *relationship, identity,* and *materialism* bases of parenthood motivation. As an overall evaluation it seemed that the relations between these three factors and the participants' education level is highly relevant with the participants' socio-cultural worldview. In other words, the individuals who have lower education levels generally have more traditional cultural values, give importance to economic and old age security value of children, and place lower emphasis on female status (see Kağıtçıbaşı, 2007). In addition, lower educated women, become more submissive, identify themselves mostly as a mother and wife, feel worthy via having children (Boyacioğlu & Türkmen, 2008), and believe that children can improve their relationship, and increase their husbands' commitment to family (Kagitcibasi, 1981). In terms of identity, Newton and friends (1992) presented that if people have lower educational and career status they attach greater importance on having children as a sense of personal accomplishment. Moreover, as presented in the literature through increase in education women could feel more independent, and they could find alternative means to improve their self-esteem, instead of motherhood (Mcquillan et al., 2008). In addition to higher education level, Gerson

(1985) indicated that the career-minded women also consider the costs of having children, such as missing the career opportunities and social role changes from 'career women' to 'mother' (as cited in Dingle, 2002). In a similar way, for *materialism*, although for lower-educated people children's "help with household chores" and "material help" have greater values, increase in level of education is strongly associated with decreased utilitarian (see Kağıtçıbaşı, 2007, p.131) and increased psychological value of children (Kagitcibasi & Ataca, 2005).

Regarding the participants' level of education and parenthood motivations, it is also important to note that the degree of the *relationship, identity,* and *materialism* motives significantly decreased for the women who have master's or Ph.D. degree. This might be related to the fact that women who are master's or doctoral graduates delay childbearing until they feel prepared financially (e.g., Van Balen et al., 1997), feel independent from their husband, have some other descriptions for their identity before motherhood (Mcquillan et al., 2008), and realize the psychological value of having children (Kagitcibasi & Ataca, 2005). Moreover, as Wu and Macneill (2002) presented, this result also suggested that not only educational levels but also (academic) careers of women influence their motivations about having children. Apart from this, it is also important to note that there were no significant differences between master's and doctoral graduates, and primary school, high school and university graduates also did not differentiate in terms of *relationship* and *identity* factors. These results can be explained by Kağıtçıbaşı (2007), who stated that traditional views related to women's role can decrease with education. However, this decrement occurs only after graduate school which might be because of the reason that graduate school provides career for women, and as Mcquillan and colleagues (2008) highlighted these women can have alternative means to enhance their self-esteem, instead of motherhood. Additionally, in parallel with previous studies (e.g., Kagitçibaşi & Ataca, 2005; Kağıtçıbaşı, 2007), in terms of *materialism* dimension, high school graduates showed significantly higher material bases of

parenthood motivation, compared to women having bachelor' degree. However, inconsistent with previous findings, both high school and university graduates did not reveal any significant differences from primary school graduates, and among these three groups high school graduates revealed the highest *materialism* motives. Concerning this result, it was thought that since materialism value can be evaluated as making profit from having children, to create a good impression and present themselves in a socially desirable manner, primary school graduates might have given lower values to *materialism* dimension.

Lastly, based on level of education, the women's parenthood motivations of *continuity* and *nurturance* did not differentiate significantly. That was consistent with the Fawcett's (1983) suggestion that children's psychological values for the parents remain same (as cited in Kağıtçıbaşı, 2007). Also, the participants did not demonstrate any significant differences in terms of *social pressure* motives. This might be because of the reason that regardless of women's education level, due to pronatalist nature of Turkish culture, they were feeling similar social pressure. Besides, the non-significant finding for *social pressure* might also be related to Langdridge and colleagues' (2000) suggestion that to make a good impression people may conceal that their parenthood motivations are influenced by external pressures.

2.5.2.2. Multivariate Analysis of Covariance (MANCOVA)

In the light of the information given above, age, education level, duration of marriage, marital satisfaction and duration of struggle for having children were decided as the covariates while examining criterion related validity of the scale and investigating the group differences among fertile and infertile expectant mothers. After the effects of significant demographical features were controlled, it was found that the parenthood motivational bases of *identity* and *social pressure* can significantly differentiate pregnant women conceiving naturally and via ART. In

other words, in line with our hypothesis, the groups were significantly differentiated in terms of their overall parenthood motivational levels, and as expected, the women who were impregnated via ART presented significantly higher motivations for identity and social pressure factors. These findings were consistent with the results of Cassidy and Sintrovani (2008) who presented that in collectivist cultures (e.g., Greek culture in their study) where the extended family networks were more dominant, infertile women had significantly higher motives in terms of identity and social pressure dimensions. Since Turkish culture also has collectivist structure (e.g., Kağıtçıbaşı, 2007), infertile women's higher *identity* and *social pressure* motives seemed reasonable.

In terms of infertile expectant mother's higher parenthood motivations for *identity* factor, it can be suggested that for them the desire for having children was highly related to their motives for improving feminine gender identity. This finding is highly associated with the previous findings of Van Balen and Trimbos-Kemper (1993) in which due to their childlessness the infertile women felt as "fail to be a woman"; Newton and his friends (1992) in which having children was observed as the fulfillment of feminine role; Van Balen and Trimbos-Kemper (1995) in which the women undergoing IVF treatment revealed higher motivations concerning high femininity; and Colpin and friends (1998) in which IVF-mothers' higher motivations in terms of identity and motherhood dimensions were evaluated as the desire to be like a "real woman" through having children. In addition, as it was presented by Johansson and Berg (2005), having children might be a central issue, and being infertile negatively influences their feminine identity. Childbearing can become the core focus of infertile women and their other features like career or level of education can lose their significance for them (Johansson & Berg, 2005). This might be because of the fact that in many cultures motherhood is seen as a reflection of being a woman (Ussher, 1989) and many women identify themselves through motherhood (Glover et al., 2009). As criticized by feminist theory,

motherhood is accepted as the natural responsibility of women (see Neyer & Bernardi, 2011 for review), especially in conservative cultures dominated by patriarchy. For this reason, childless women may feel inadequate and abnormal (Choi, Henshaw, Baker, & Tree, 2005). As a traditional conservative culture, in Turkey having children has social value (Kagitcibasi & Ataca, 2005) and the childless women may feel useless, incomplete and anxious about losing their husbands (e.g., Boyacioğlu & Türkmen, 2008; Kagitcibasi, 1981). Therefore, when the effects of other significant variables were controlled, it seems reasonable that differently from fertile women, infertile women have a desire to fulfill their "decreased" feminine identity through having children.

Relevantly, in addition to higher basis of identity motive, in present study infertile pregnant women also presented higher parenthood motivation concerning *social pressure* factor. In the literature, although in many Western industrialized countries social pressure was found among the least important reasons for wanting children (Colpin et al., 1998; Langdridge et al., 2000; Van Balen & Trimbos-Kemper, 1995), which may be due to their individualistic structure; the studies conducted in collectivistic cultures (e.g., Dyer et al., 2008) revealed that social pressure is an important predictor that strengthen parenthood motivation. Although in the study of Colpin and colleagues (1998), social pressure was discussed as relevant with participants' higher age, not conception type; in present study it was associated with being infertile. In collectivistic cultures, the childless women could feel greater social pressure to become a mother as Cassidy and Sintrovani (2008) mentioned. Similar findings were also demonstrated by studies conducted in Turkey which were consistent with present study (e.g., Boyacioğlu & Türkmen, 2008; Kağıtçıbaşı, 2007).

As mentioned before, in the analysis when the effects of age, education level, duration of marriage, marital satisfaction, and duration of struggle for having

children were controlled, the groups significantly differentiated in terms of *identity* and *social pressure*, but did not differentiate in terms of *continuity, nurturance, relationship,* and *materialism* dimensions. However, if the effects of the duration of struggle for having children was not controlled and the analysis was conducted by controlling the influences of age, education, duration of marriage and marital satisfaction level, the expectant mothers who were conceived via ART showed significantly higher motivations in terms of *nurturance, relationship, identity, social pressure* and *materialism* but not for *continuity*. In this case, continuity remained as the only non-significant motive confirming the findings of Colpin et al. (1998) and proving that individuals have unconscious desire to provide symbolic immortality via having offspring (e.g., Fritsche, et al., 2007). In this analysis, it was revealed that the differences between fertile and infertile expectant mothers in terms of *nurturance*, *relationship* and *materialism* motives were associated with how many years they spent for having children, not the conception type. Since ART-mothers spent more years for having children, in addition to *identity* and *social pressure* motives, they showed significantly higher motivations in terms of *nurturance*, *relationship* and *materialism.* From these results it can be stated that within this period infertile women may experience countless unsuccessful trials and this may increase their parenthood motivation (Rotkirch, 2011), decrease their self-worth (e.g., Newton et al., 1992) and relationship quality with their husbands (e.g., Langdridge et al., 2000), and the trials may cause excessive money consumption (Van Balen & Visser, 1997). For these reasons, the bases of their parenthood motivations may function as compensation of these unfulfilled needs. Lastly, it is also important to note that although in the study of Cassidy and Sintrovani (2008) the group differences in terms of *materialism* was explained with cultural differences, in the present study ART-mothers' significantly higher scores in terms of *materialism* was found to be relevant with how long they have struggled for having children. The longer they have struggled for having children, the higher

motivations they had in terms of materialism dimension, which indicates the utilitarian value of having children.

2.5.3. Conclusion

In summary, in present study Turkish adaptation of PMS was conducted. The findings proved that Turkish version of the scale also is a reliable and valid assessment tool. Based on the results, it can be concluded that parenthood motivation can vary depending on person's age, education, duration of marriage, marital satisfaction and how many years they have spent for having children. When the effects of all these variables were controlled, it was observed that ART-conceived expectant mothers presented significantly higher motives in terms of their overall parenthood motivation, and *identity* and *social pressure* dimensions.

Among these covariates, if the effects of duration of struggle for having children is not controlled, the findings showed that except for *continuity*, ART-conceived expectant mothers had significantly higher motivation levels in all other dimensions (i.e., *nurturance*, *relationship*, *identity, social pressure*, and *materialism*). This means that significant differences in terms of *nurturance*, *relationship* and *materialism* dimensions can be explained mostly with infertile women's longer struggle for having children.

All in all, the findings of present study emphasized that Turkish version of PMS have good internal consistency reliability, convergent validity, and criterion related validity. The scale can successfully differentiate spontaneously and via ART conceived expectant mothers, in terms of total scores of PMS and all the dimensions expect for *continuity.*

2.5.4. Strengths of the Study

The current study has some strengths and important contributions to Turkish literature. First of all, this was the first study examining the Turkish adaptation of PMS which measures the participants' motivational bases for desiring parenthood. This was valid and reliable measure, and in terms of psychometric properties, overall scale revealed good internal consistency. For this reason, the use of this measure for research purposes can make contribution to Turkish literature concerning parenthood related studies.

As another important strength of the study, present study included clinical sample (i.e., ART-conceived women) and compared them with control group (i.e., naturally conceived women). For this reason, the scale can be practical in obstetrics and gynecology clinics both for fertile and infertile individuals. In addition to understand these groups' different motivational bases, studying with two different samples can provide generalizability of Turkish version of PMS. Moreover, the study included higher sample sizes, and participants have different age range, and various income and education levels. These factors can also increase the strengths of present study, and make it more generalizable.

2.5.5. Clinical Implications

The findings of present study suggested important points that might have some clinical implications. Consistent with previous studies (e.g., Cassidy & Sintrovani, 2008; Van Balen & Trimbos-Kemper, 1995; Langdridge et al., 2000), the results revealed that parenthood motivation of ART-conceived women was higher. Since these women's increased motivations can create stress and unrealistic expectations regarding motherhood and having children; working on infertile women's unrealistic expectations about having children can be beneficial for these group. Through individual or group-based therapies, providing awareness about the

patients' underlying motives for parenthood can be helpful for them. In this way, they can realize whether they are influenced by internal or external motives, the role of these motives on themselves throughout this process and reduce the pressure on themselves for having children.

In the study it was observed that when the effects of possible variables were controlled, ART-conceived expectant mothers' parenthood motivation was higher in terms of identity and social pressure dimensions. Since for infertile women parenthood means the fulfillment of "gender-role requirement" (Newton et al., 1992) and being a "real women" (Greil, 1991), in therapeutic interventions making a new definition of womanhood and finding alternative means for "ideal woman" can reduce these women's stress levels and increase their self-esteem even they do not have children.

In addition, the results revealed that social pressure is another important motivational basis for previously infertile women. However, it was also observed that marital satisfaction has significant negative association with social pressure. From these findings it can be thought that enhancing women's relationship with their husbands could reduce the effects of social pressure. For this reason, arranging couple-based therapies for these patients, and informing men about the importance of their role for their wife's psychological well-being throughout this process, can improve their marital relationship and be supportive for ART-conceived pregnant women.

Lastly, as emphasized by Brenning, Soenens, and Vansteenkiste (2015), intensity and basis of parenthood motivation can influence pregnant women's psychological well-being. For this reason, working on these external bases of parenthood motivations (i.e., identity and social pressure) can reduce patients' stress and positively influence their pregnancy and maternal adjustment.

2.5.6. Limitations and Directions for Future Studies

There are some limitations of the present study that should be noted. First, this was a survey based research and additional open-ended questions and qualitative studies might be supportive to understand the women's underlying reasons of parenthood and having children.

Second, present study focused only on pregnancy process and compared infertile and fertile women in terms of intensity of their motivations and their motivational bases. In further studies, investigating the parenthood motivation of men or both partners' interaction could provide information on the men's side and men's effects on women in terms of motivational bases of having children. Moreover, investigating the role of motivational bases in women's pregnancy and maternal adjustment can also provide broader knowledge about the topic. How the intensity of parenthood motives influences pregnant women's well-being and mother-infant relations; and whether these motivational bases create differences in postnatal process are suggested to be examined with longitudinal research design.

CHAPTER 3

STUDY II: THE EFFECTS OF PSYCHOSOCIAL FACTORS ON PREGNANCY ADAPTATION AND PRENATAL ATTACHMENT FOR PREGNANT WOMEN WHO CONCEIVED VIA ART

3.1. Introduction

Pregnancy is considered as a period of happiness and well-being. However, emotional complications such as depression, anxiety and stress can be highly prevalent within this process (Carter, 2005; Dunkel Schetter & Tanner, 2012). Most commonly, expectant mothers worry about issues that are related to giving birth and the health of their babies as well as adapting to the social and economic aspects of life with children (Green, Kafetsios, Statham, & Snowdown, 2003). Throughout this period, women's past emotional conflicts and psychological experiences can be reactivated and influence their psychological state (Dornelles, MacCallum, Lopes, Piccinini, & Passos, 2014). Studies revealed that how these pregnancy-related difficulties are handled has significant importance in one's life, because, as Della Vedova, Dabrassi, and Imbasciati (2008) mentioned, children's healthy psychological development depends highly on women's attachment towards their babies beginning from their pregnancy period.

In the case of conception via assisted reproductive techniques (ART), the effect of past experiences might be more noticeable and pregnancy process can be more difficult compared to natural conception (Harf-Kashdaei & Kaitz, 2007). These women are highly motivated for having children (Cassidy & Sintrovani, 2008), and until they get pregnant, they experience numerous failing trials, serious medical

problems and reproductive losses. Since these life events are likely to have negative impact on their mental health, psychology of women after assisted reproduction might have some unique characteristics (Colpin, De Munte, & Vandemeulebroecke, 1998; Yakupova, Zakharova, & Abubakirov, 2015).

Pregnancy via ART can be more emotionally demanding (Hjelmstedt, Widström, & Collins, 2006) and throughout their pregnancy, expectant mothers still feel like patients, make frequent doctor visits and are exposed to various medical techniques (Łepecka-Klusek & Jakiel, 2009). They cannot get rid of the psychology of being "infertile" regardless of the successful outcome of the treatment (Hjelmstedt, Widström, Wramsby, & Collins, 2004; Olhansky, 1990). For this reason, they cannot help feeling anxious and having no control over the process (Harris & Daniluk, 2010) and in order to prepare themselves for any potential losses, ART-conceived pregnant women can have pregnancy adjustment problems and show lower prenatal attachment towards the fetus (Hjelmstedt et al., 2006).

Understanding the factors influencing ART-expectant mothers' mental state can be helpful in terms of preventing their negative impact on women and babies, and their interactions. Based on this information, factors influencing ART-women's pregnancy adaptation and prenatal attachment are investigated in this chapter.

3.1.1. Pregnancy Related Stress

For previously infertile women, achieving pregnancy via ART does not mean that the stressful times are left behind. Since this is a long-awaited pregnancy, patients' negative psychological states concerning the treatment process can adversely influence the course and outcome of their pregnancy (Zakharova & Chuvaeva, 2011). The influence of previous investments such as time devoted to the treatment or financial costs can persist during the pregnancy process (Łepecka-Klusek & Jakiel, 2009). Understanding the dynamics of women's pregnancy-related-stress is

essential, because, as numerous studies revealed, women's prenatal distress can be a risk factor for adverse delivery outcomes such as preterm delivery, prematurity and lower birth weight (e.g., Copper et al., 1996; Dunkel-Schetter & Tanner, 2012; Hedegaard, Henriksen, Sabroe, & Secher, 1993; Rondó et al., 2003), and long-term developmental problems such as cognitive, behavioral and temperament problems (see Dunkel-Schetter & Tanner, 2012 for review).

In many studies, there were no significant differences between pregnant women who conceived naturally versus via ART in terms of general anxiety levels. However, regarding pregnancy related stress, ART-women's anxiety for losing their babies was significantly higher (McMahon, Ungerer, Beaurepaire, Tennant, & Saunders, 1997; Hjelmstedt, Widstrom, Wramsby, & Collins, 2004). Even after the successful treatment, previously infertile women's anxiety and depression symptoms and emotional problems could persist during pregnancy and also the postpartum process (Hjelmstedt, Widström, Wramsby, Matthiesen, & Collins, 2003). They demonstrate higher pregnancy related stress (Hjelmstedt, Widström, & Collins, 2006), become emotionally vulnerable, and feel anxious and fearful about the health and survival of the fetus (Hjelmstedt et al., 2003; McMahon et al., 1997). Hjelmstedt et al. (2003) stated that throughout their pregnancy these women could show perpetual and strong fear of losing their baby. In fact, their fear is not entirely irrelevant. For instance, as indicated by numerous studies, the probability of multiple births, mortality, miscarriage, prematurity and low birth weight is higher among the pregnancies after assisted reproduction (Doyle, Beral, & Maconochie, 1992).

According to Yakupova, Zakharova, and Abubakirov (2015), having a history of reproductive losses is an important factor increasing women's anxiety levels. Due to long and challenging life experiences prior to the pregnancy, women have intense fear of losing their babies, and to be able to cope with these feelings and thoughts

they conceal the news of achieving pregnancy. As the number of their losses/trials and the intensity of negative experiences increase, women's sense of control over the process decrease and this can increase their stress (Litt, Tennen, Affleck, & Klock, 1992) and anxiety levels (McMahon et al., 1997). Women who experience longer infertility periods tend to have higher pregnancy-related stress and birth fear (Poikkeus et al., 2006). They can demonstrate compulsive checking for vaginal bleeding, have stressful dreams, behave avoidant towards the fetus (Bernstein, Lewis, & Seibel, 1994), and have muscular tensions and irritability (Hjelmstedt et al., 2003). Due to their excessive anxiety about losing their baby, they try to postpone bonding with the fetus (Bernstein, 1990).

Women's adjustment problems and higher anxiety levels can also be observable in postpartum period (Tendais & Figueiredo, 2016). When they become a mother, they have lower self-efficacy and self-esteem in terms of parental competence (Gibson, Ungerer, Tennant, & Saunders, 2000). They show hypervigilant and overprotective attitudes and have greater expectations in terms of parenting abilities (Bernstein, 1990). It seems that ART-women's prenatal distress may cause various adverse outcomes during both pregnancy and postpartum periods. Understanding the effects of prenatal distress with its protective factors can be useful to reduce the negative consequences of stress and improve emotional well-being of pregnant women who conceived via ART.

3.1.2. Pregnancy Adaptation

Pregnancy adaptation, which refers to the acceptance of pregnancy-related changes and having positive attitudes towards the process (Łepecka-Klusek & Jakiel, 2009) is one of the pregnancy related aspects that can be negatively influenced by women's prenatal distress (Kuo, Wang, Tseng, Jian, & Chou, 2007). During pregnancy, expectant mothers experience a transition from being childless women to mothers and they mentally prepare themselves for motherhood. During this

preparation phase, in case they get into trouble and have difficulties for adapting to the certain aspects of pregnancy, they can experience excessive anxiety and physiological problems concerning pregnancy, birth, or postpartum (Lederman, 1990). However, if they live through this period without any major problems, this can be an indicator of a good relationship between the mothers and their infants (Beck, 1999). According to Lederman (1984) women's psychological adaptation in pregnancy should be taken into consideration based on seven psycho-social dimensions, which are; gaining pregnancy acceptance, identifying motherhood role, reviewing women's relationship with her mother, examining her relationship with her husband, getting ready for labor, coping with fear of pain and loss of control in birth, and concerning the well-being of baby and self. Depending on women's level of adaptation for these aspects, their physiological well-being can also show alterations. For instance, Kuo and colleagues (2007) showed in their study that if expectant mothers have higher "acceptance to pregnancy", their nausea and vomiting symptoms could be lower; if their "fear of helplessness and loss of control in labor" was higher, on the other hand, their symptoms could be more severe.

Studies revealed that stress and social support are important predictors of women's pregnancy adaptation (Kuo et al., 2007). While stress can reduce women's maternal adaptation (Reece, 1995), social support can increase it (Jesse, Walcott-McQuigg, Mariella, & Swanson, 2005), and as expected, the combination of higher stress and lower spousal support was correlated with lower maternal pregnancy adaptation (Norbeck & Anderson, 1989). Related to their higher levels of prenatal distress, after assisted reproduction, expectant mothers can experience difficulties in pregnancy adaptation (Łepecka-Klusek & Jakiel, 2009). As Łepecka-Klusek and Jakiel (2009) emphasized, these women could feel ambivalence; on one hand they become very happy for getting pregnant, and on the other hand, they feel worse about being conceived via ART and this situation could negatively influence their emotional adaptation.

On the contrary, it was emphasized in many studies about ART-conceived pregnant women's pregnancy adaptation that, regardless of their higher anxiety concerning the health of their babies, these women demonstrated more idealized and positive psychological states during pregnancy (McMahon, Tennant, Ungerer, & Saunders, 1999; Hjelmstedt et al., 2003). According to Golombok, MacCallum, and Goodman (2001), since they had higher motivations and invested more to have children, ART-conceived pregnant women could disregard the difficulties of pregnancy. If they complain after a long-awaited involuntary childlessness, they could feel guilty about it. Compared to women who conceived spontaneously, women who conceived via ART seemed more gratified to be pregnant and had fewer fears about the losses of independence (Klock & Greenfeld, 2000). They showed greater satisfaction and fewer complaints about their pregnancy (Ulrich, Gagel, Hemmerling, Pastor, & Kentenich, 2004), felt satisfied and became less uncomfortable towards pregnancy related problems (McMahon et al., 1999). From these findings it can be assumed that although conception via ART is a stressful process and requires more investment, women may benefit from the protective factors that can compensate the negative effects of their pregnancy-related distress during their pregnancy.

3.1.3. Social Support

Social support is one of the protector factors that can reduce the negative influence of stress, and increase individuals' adaptation to stressful situations such as infertility (e.g., Martins, Peterson, Almeida, Mesquita-Guimarães, & Costa, 2014). Typically, social support refers to individuals' perception of having a confidant and being taken care of by certain individuals (Cohen & Wills, 1985); family, friends and significant others can be regarded as the main sources of emotional social support (Helgeson, 2003). According to *stress buffer hypothesis*, receiving social support from these sources can buffer the negative influences of stress (Cohen &

Wills, 1985). The effects of social support on psychological adjustment have been studied for numerous life-stressors (see Uchino, 2006 for review). As De Ridder and Schreurs (1996) emphasized, especially for disease related stress, social support could be a safeguard for the patients.

Infertility-related stress is among these stressors and became the subject of many studies examining the effects of social support. In terms of overcoming infertility-related stress, social support can hold a moderator position (Verhaak et al., 2005). Literature findings demonstrated that when they perceived higher social support, infertile patients had lower levels of anxiety, depression, and infertility-related stress (Karlıdere et al., 2007; Lechner, Bolman, & van Dalen, 2007; Martins et al., 2003; Verhaak et al., 2005). Perceiving sufficient social support can relieve the patients' psychological pressure (Abbey, Halman, & Andrews, 1992). Infertile patients who had higher perceived social support reported fewer distress and greater sense of well-being (Amir, Horesh, & Lin-Stein, 1999). However, lower perceived social support was related to higher levels of psychological distress (Cassidy & Sintrovani, 2008). Lechner and colleagues (2007) emphasized that if they were more dissatisfied with the experienced social support, the negative influence of passive coping on health complaints could be intensified. This means that lack of social support could increase the possibility of negative health outcomes (Lechner et al., 2007). When the dimensions of perceived social support were investigated for infertile patients, it was found that all the dimensions, namely, perceived social support from partners (Gibson & Myers, 2002; Martins et al., 2011; Mindes, Ingram, & Covington, 2005), family (Gibson & Myers, 2002; Martins et al., 2011; Verhaak et al., 2005) and friends (Martins et al., 2011) could significantly reduce women's infertility-related stress levels. Health-care providers did also become an important source of psychosocial support (Brucker & McKenry, 2004). However, rather than professional support, social support from spouse and family was

perceived as more relieving for infertile patients (Boivin, Scanlan, & Walker, 1999).

When these women become pregnant via infertility treatment, the buffering role of social support can be seen for women's pregnancy and maternal adaptation process. In the literature, studies investigating previously infertile women's pregnancy and motherhood experiences demonstrated that perceiving social support could improve their maternal prenatal attachment (Hjelmstedt et al., 2006; Kuo, Bowers, Chen, Chen, Tzeng, & Lee, 2013), social functioning and physical well-being in pregnancy (De Pascalis et al., 2012), decrease maternal stress and facilitate emotional well-being (Baor & Soskolne, 2012). Although limited number of studies exist in the literature about ART-conceived pregnant women, the findings from naturally conceived expectant mothers also emphasized that social support could increase women's psychological adjustment to stressful situations (Glazier, Elgar, Goel, & Holzapfel, 2004) and pregnancy adaptation (Chou, Avant, Kuo, & Fetzer, 2008), intensify women's prenatal attachment (Metin, 2014), provide better neurological development for the baby, and decrease the possibility of experiencing postpartum depression (Collins, Dunkel-Schetter, Lobel, & Scrimshaw, 1993). Since emotional problems during pregnancy increase the possibility of negative outcomes for both expectant mothers (e.g., postpartum depression) and their babies (e.g., birth complications, poor neonatal development), understanding the role of social support in this relation can be protective (Glazier et al., 2004).

3.1.4. Attachment Styles

Similar to the buffering-effect of perceived social support, negative influence of stress could also be buffered by (secure) attachment styles. Attachment style is one of the factors that create individual differences and determine people's way of coping with a stressful situation (Bowlby, 1969). The "father" of attachment theory, Bowlby (1958) described that attachment is a system of evolutionary behaviors that

were originated from early years of life based on the children's relationship with their caregivers and shape people's thoughts, feelings and behaviors throughout their lives. According to this theory, depending on parental responsiveness and sensitivity, children develop "internal working models" and understand the world based on these early-developed inner structures (Bowlby, 1969, 1973). Ainsworth, Blehar, Waters, and Wall (1978) suggested three types of attachment styles, namely, secure, anxious/ambivalent, and avoidant. If the attachment figure is sensitive and responsive to infants' needs, children can develop a stable sense of security (i.e., secure attachment style) in their relations. However, if not, it means that their proximity seeking is failed, and in order to relieve their stress and provide emotional regulation, children explore the world in more insecure ways, by using anxious or avoidant attachment styles. In the anxious attachment style, people worry that an attachment figure will not be available and supportive in case it is sought. And in the avoidant attachment style, the infants do not trust the attachment figures and regulate their emotions by keeping themselves emotionally distant (Shaver & Mikulincer, 2008).

According to Hazan and Shaver (1987) through the effect of "internal working models", these childhood attachment patterns persist in adulthood and can be observable in one's romantic relationships and parenthood practices. Regarding this suggestion, it was demonstrated that individuals' adulthood attachment patterns towards their romantic partners are associated with their parenting (Rholes, Simpson, Blakely, Lanigan, & Allen, 1997) and parent-child relations (Priel & Besser, 2000). For Bowlby (1979), if a person has avoidant attachment style, s/he does not want to have children and may reject to be a caregiver. Studies revealed that parents who had avoidant romantic attachment pattern demonstrated more emotional detachment (Rholes, Simpson, & Blakely, 1995) and could be more stressful and dissatisfied in their relationships with children (Rholes, Simpson, & Friedman, 2006). In terms of anxious attachment style, Trillingsgaard, Elklit,

Shevlin, and Maimburg (2011) found that expectant mothers' anxious and avoidant attachment styles were significantly and positively associated with their pregnancy-related worries, and compared to avoidance, influences of anxious attachment pattern were stronger.

As a people's stress levels increase, the importance of attachment style and personality become visible. In other words, the effect of inner factors is less influential until people have problems in their lives (Amir, Horesh, & Lin-Stein, 1999). In many studies it was emphasized that people with secure attachment styles showed lower stress (Mikulincer & Florian, 1995) and were less worried during the prenatal period (Mikulincer & Florian, 1998). However, having an insecure attachment style can become a risk factor that can intensify the negative influences of psychological distress. For instance, Mikulincer and Florian (1995) stated that anxious-ambivalent individuals may use maladaptive coping styles and consider themselves as incapable of problem solving. For this reason, anxious-ambivalent attachment style is a factor that can increase individuals' stress and anxiety levels in the presence of problematic situations (Mikulincer & Florian, 1995; Mikulincer, Florian, & Weller, 1993).

Infertility is an important stressor that can activate a person's attachment styles (Van den Broeck, D'Hooghe, Enzlin, & Demyttenaere, 2010). The studies investigating the effects of attachment style on the psychology of infertile individuals demonstrated that secure attachment style could be a buffer against infertility-related stress (Amir et al., 1999), increase patients' well-being (Lowyck et al., 2009), and dyadic adjustment compared to avoidant and anxious ambivalent individuals (Mikulincer, Horesh, Levy-Shiff, Manovich, & Shalev, 1998). Conversely, insecure attachment styles had adverse effects by intensifying negative influences of stress and decreasing person's psychological adjustment to infertility (Amir et al., 1999). People with anxious (Bayley, Slade, & Lashen, 2009; Van den

Broeck et al., 2010) or avoidant (Schmidt, Holstein, Christensen, & Boivin, 2005) attachment styles, experienced severe infertility-related distress and had more negative outcomes in terms of psychological well-being. In many studies, both types of insecure attachment styles (i.e., anxious and avoidant) were found to be associated with lower well-being, higher levels of stress (Mikulincer et al., 1998), and more sexual and relationship concerns (Donarelli et al., 2012) for women who were undergoing infertility treatment.

Studies showed that the same tendency continues even after having a successful treatment outcome and achieving pregnancy. For instance, according to Hjelmstedt et al. (2004) previously infertile women showed resistance against their anxiety and as a way of coping with that, they avoided the fact that they were infertile. Numerous studies emphasized that ART-conceived pregnant women frequently used avoidant coping styles, showed denial and suppression of their high levels of anxiety, and appeared to have low anxiety levels as a consequence (e.g., Boivin, Takefman, Tulandi, & Brender, 1995; McMahon et al., 1997). However, as mentioned before, insecure attachment styles can only provide temporary solutions, and using avoidant coping creates low emotional adjustment in the long run (Mahajan et al., 2009).

3.1.5. Prenatal Attachment

Around the same years while Bowlby was developing his theory about human attachment, in order to describe the prenatal basis of mother–child relations, the psychoanalytical authors Benedek (1959), Bibring (1959), and Deutch (1945) emphasized that women make emotional investment towards the fetus during pregnancy, which was called as prenatal attachment. As the pregnancy progresses, this emotional tie could also be intensified, and expectant mothers would begin to personalize the fetus and perceive her/him as a separate individual (Deutsch, 1945). The expectant mothers' special psychological state was also implied by Winnicott's

(1956) concept of “primary maternal preoccupation” through which he emphasized the women’s initial emotional connection with the unborn baby. Based on the observation that postpartum mother and neonate could establish a bond immediately after the birth, Rubin (1975) suggested that this relationship could be a result of the pregnancy process, and women’s attachment to the baby and acquisition of the maternal role could start from the prenatal period. She realized that even before the childbirth, expectant mothers make self-sacrifices for the baby, think baby as a separate unit and develop “we-feeling” (Rubin, 1975).

After these leading explanations for prenatal attachment, Muller (1992, 1993) suggested a new definition concerning adult attachment theory. She stated that pregnant women’s relationship with their own mothers could also influence their emotional connection with their unborn babies (i.e., prenatal attachment) and pregnancy adaptation (Muller, 1992, 1993). Lastly, in a more recent study, Doan and Zimerman (2003) included behavioral, cognitive and emotional aspects of prenatal attachment and stated that, in order to create attachment with the fetus, women should conceptualize the unborn baby in their mind by using emotional and cognitive abilities. Through ultrasound imaging (Lumley, 1980) and observing the movements of the fetus (Brandon, Pitts, Denton, Stringer, & Evans, 2009; Mikhail et al., 1991), women can establish a reciprocal relationship with the baby, and this can increase their prenatal attachment. As the pregnancy progresses, movements of the fetus can increase, which in turn intensifies women’s level of prenatal attachment (Della Vedova et al., 2008).

Maternal prenatal attachment is a fundamental developmental task in terms of pregnancy and childbirth. In many studies it was demonstrated that mother’s care-giving capacity develops during the pregnancy period (Brandon et al., 2009). Lindgren (2001) found out that there was a positive correlation between prenatal attachment level and pregnancy health behaviors such as non-consumption of

tobacco, alcohol and illegal drugs; engaging in healthy eating, sleeping and fitness habits; receiving prenatal care and trying to teach themselves about pregnancy, childbirth, and infant care related subjects. Moreover, it was highlighted that women's prenatal representations of the unborn babies were stable and could affect mother-infant relationships after the birth (Fonagy, Steele, & Steele, 1991). Therefore, prenatal attachment and role of this bond on the mother-infant interaction also became the subject of neonatal studies. In terms of mothers' mental states, the findings highlighted that women's prenatal attachment has significantly positive effect on their postnatal attachment (Muller, 1996), motherhood attitudes (Condon & Corkindale, 1997), postnatal maternal sensitivity (Fuller, 1990; Ward & Carlson, 1995), good mother-child relations, and higher maternal involvement (Siddiqui & Hägglöf, 2000).

During pregnancy, women with more emotional intimacy towards the fetus and who dream about the unborn babies become more concerned about the babies after the birth. As a result of this positive interaction, baby's attentive behaviors are also positively affected (Siddiqui & Hägglöf, 2000). For instance, if expectant mothers were talking to the fetus twice or three times a day, the babies could show higher language comprehension (Della Vedova, Tomasoni, & Imbasciati, 2006). These results showed babies' uterus-based learning capabilities (De Casper & Spence, 1986) and emphasized that maternal antenatal attachment have an essential transitional role for maternal well-being and the development of emotional ties between the mothers and the infants (Priel & Besser, 2000). These findings also give rise to the thought that, beyond the measurement techniques, some fetal mechanisms are taking place at the background of maternal-prenatal attachment. However, since babies' contribution was invisible during pregnancy, the effect of prenatal period on postpartum might be purely related to maternal factors such as women's characteristics, style of attachment and mental representations (Brandon et al., 2009). Regarding women's personal features, it was noted that lower prenatal

attachment was found to be associated with higher depression and anxiety levels (Condon & Corkindale, 1997; Lindgren, 2001), lower support from their social environment, and higher control from the partner (Condon & Corkindale, 1997). Furthermore, in case expectant mothers were ambivalent about pregnancy or had higher detachment, their prenatal attachment could decrease (Hjelmstedt et al., 2006). Similarly, as Mikulincer and Florian (1999) emphasized, compared to securely attached women, avoidant and anxious-ambivalent individuals could display weak prenatal attachment towards the babies.

In many scientific studies it was highlighted that there were no significant differences between women who conceived naturally and via ART (Hjelmstedt et al., 2006; McMahon et al., 1997; Stanton & Golombok, 1993). However, due to their consistent fear of losing their baby, ART-conceived women can show lower prenatal attachment, delay sharing the news of being pregnant (Armstrong & Hutti, 1998; McMahon et al., 1997), make fewer talks with the fetus (McMahon et al., 1999), and postpone room preparation for the baby (Bernstein et al., 1994; McMahon et al.,1999). ART-conceived women’s such behaviors can also be evaluated as having lower emotional connection with the fetus. On the contrary, some other studies proposed that ART-conceived women might have intense protective attachment towards the fetus, as a consequence of their greater investment during the treatment process (Fisher, Hammarberg, & Baker, 2008). In these studies, it was emphasized that, because these women made more investment and experienced long-standing infertility process, the baby could be like a special gift for them (Levy, 1970). It seems that since ART-conceived women are highly motivated for having children and make a great effort for this desire, they can reveal more emotional involvement towards the fetus through the influence of their mental representations during pregnancy (Agostini et al., 2009).

3.1.6. Parenthood Motivation

Parenthood motivation is an important factor that can determine a person's intentions and behaviors regarding reproduction (Miller, 1994). These motivational bases have an impact on person's psychosocial adjustment to various reproductive events like pregnancy, transition to parenthood (Miller, Severy, & Pasta, 2004) and assisted conception (Cassidy & Sintrovani, 2008). In terms of women's psychological states during pregnancy, Raphael-Leff (1991) mentioned that expectant mothers' prenatal attachment had strong correlations with their motivations for having children and having room for these children within their family systems (as cited in Pajulo, Savonlahti, Sourander, Helenius, & Piha, 2001). Relevantly, Brenning, Soenens, and Vansteenkiste (2015) emphasized that women with greater internal motivations demonstrated higher psychological well-being and relationship quality during the pregnancy period. Moreover, having higher parenthood motivation can also be predictive for postpartum period. If women are strongly motivated for having children, they perceive parenthood as a more substantial and fulfilling experience (Rholes, Simpson, & Friedman, 2006). They can establish a more secure and stronger bond with their newborn babies and demonstrate greater maternal well-being (Brenning, Soenens, & Vansteenkiste, 2015).

It is important to note that parenthood motivation and desire for having children are not independent from a person's attachment pattern. Rholes, Simpson, Blakely, Lanigan, and Allen (1997) emphasized that individuals with more insecure attachment styles in their close adult relationships tend to have more negative attitudes towards parenthood and parent-child interactions. It was revealed in their study that both avoidant and anxious-ambivalent individuals have negative attitudes for having children, while only avoidant people were less interested in having

children. Anxious-ambivalent individuals were still more enthusiastic about having children (Rholes et al., 1997).

As mentioned in the previous chapter, compared to spontaneously conceived women, ART-conceived women have significantly higher motivation levels (Cassidy & Sintrovani, 2008). Their motivational basis could be more overt because they could actively think about the importance of having children when they were childless (Van Balen & Trimbos-Kemper, 1995). Both internal (e.g., feeling fulfilled) and external (e.g., social expectations) factors create the basis of desire for having children, and for infertile individuals, these factors can be other sources of stress (Langdridge et al., 2000). For instance, Cassidy and Sintrovani (2008) showed that people who were motivated by *social pressure* while desiring for children, demonstrated higher stress levels about having children. Because of their inability to conceive naturally, ART-conceived women feel like outsiders in their social environments (Amir, Horesh, & Lin-Stein, 1999), thinking that they cannot satisfy the social expectations with having children (Daniels, 1993), and get stressed as a result of these social interactions. In addition, depending on the basis of parenthood motivations, individuals' perceptions about social environments can also be affected. While people who had higher *identity* motives perceived lower social support, people who were motivated by *continuity* and *nurturance* perceived higher support from their social environments (Cassidy & Sintrovani, 2008).

3.2. The Aims and Hypotheses

3.2.1. The Aims of Present Study

Based on abovementioned literature findings it can be concluded that ART-conceived expectant mothers can have increased prenatal distress and parenthood motivation both of which can negatively influence their pregnancy adaptation and prenatal attachment in pregnancy period. Moreover, for these relations while

perceived social support buffer the negative influences of stress, insecure attachment style can intensify its adverse effects. Within this framework, in present study the predictive role of prenatal distress and parenthood motivation on pregnancy adaptation and prenatal attachment was aimed to be investigated. It was also aimed to examine the moderator roles of perceived social support, insecure attachment styles, and prenatal distress (only when parenthood motivation is independent variable) in these associations.

For these purposes, in the first set of moderation analyses for the relation between prenatal distress (IV) and pregnancy adaptation (DV), the moderator roles of perceived social support with its three dimensions (i.e., family, friends and significant other), and adult attachment styles (i.e., anxious and avoidant) were investigated separately based on each of the moderator. The proposed model (Model 1) was presented in Figure 3.

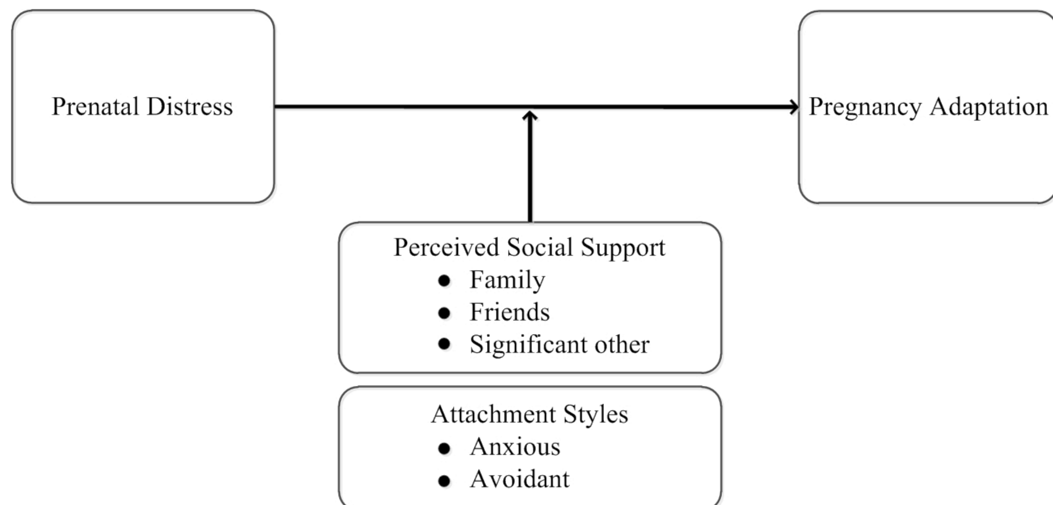


Figure 3. Proposed Model for Moderation Analyses (Model 1)

In the second set of moderation analyses, for the relation between prenatal distress (IV) and prenatal attachment (DV), the moderator roles of perceived social support with its three dimensions (i.e., family, friends and significant other), and adult attachment styles (i.e., anxious and avoidant) were examined separately, based on each of the moderator. The proposed model (Model 2) was presented in Figure 4.

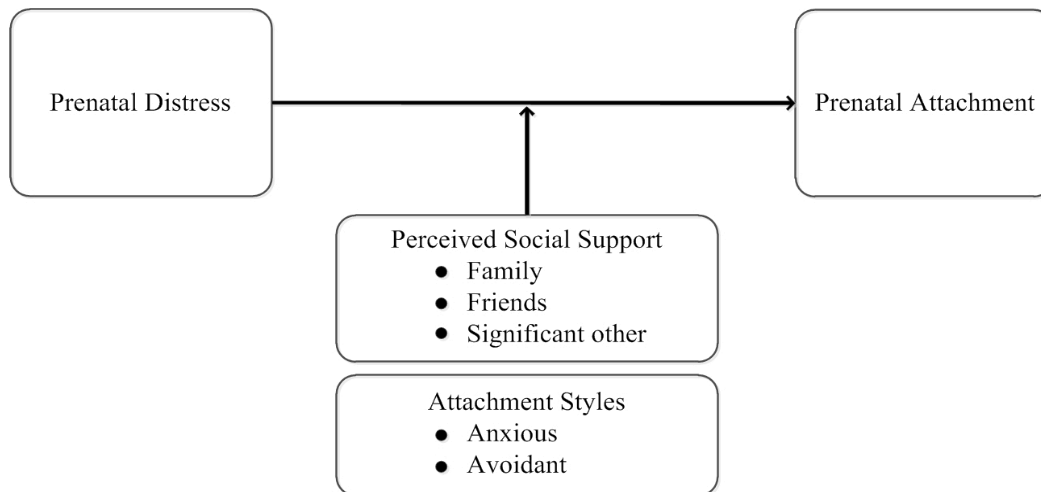


Figure 4. Proposed Model for Moderation Analyses (Model 2)

In the third set of moderation analyses, for the relation between parenthood motivation (IV) and prenatal attachment (DV), the moderator roles of prenatal distress, perceived social support with three dimensions (i.e., family, friends and significant other), and adult attachment styles (i.e., anxious and avoidant) were examined separately, based on each of the moderator. The proposed model (Model 3) was presented in Figure 5.

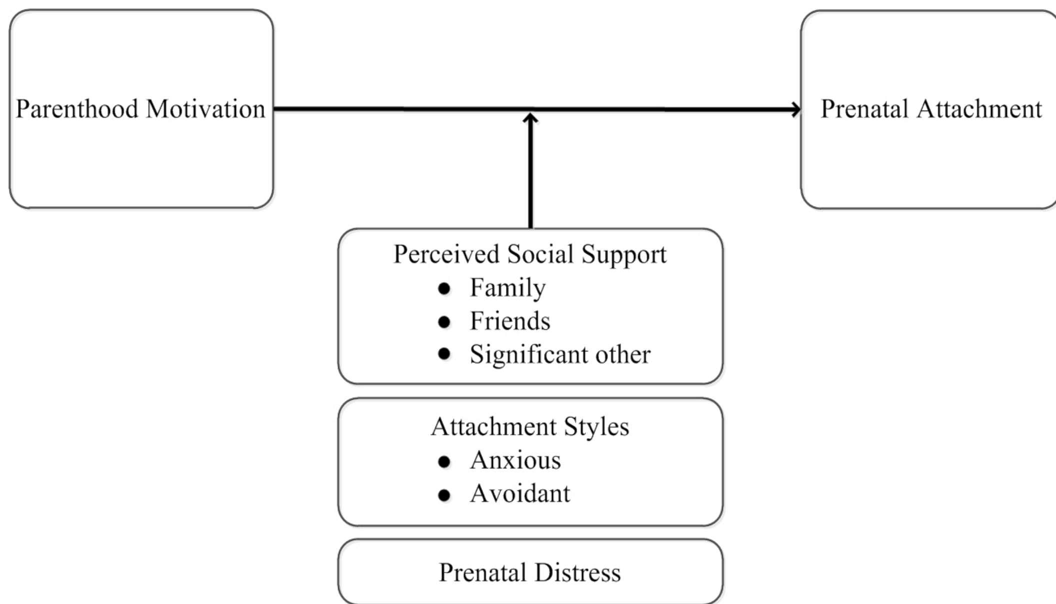


Figure 5. Proposed Model for Moderation Analyses (Model 3)

In the last set of moderation analyses, for the relation between parenthood motivation (IV) and pregnancy adaptation (DV), the moderator roles of prenatal distress, perceived social support with three dimensions (i.e., family, friends and significant other), and adult attachment styles (i.e., anxious and avoidant) were investigated separately, based on each of the moderator. The proposed model (Model 4) was presented in Figure 6.

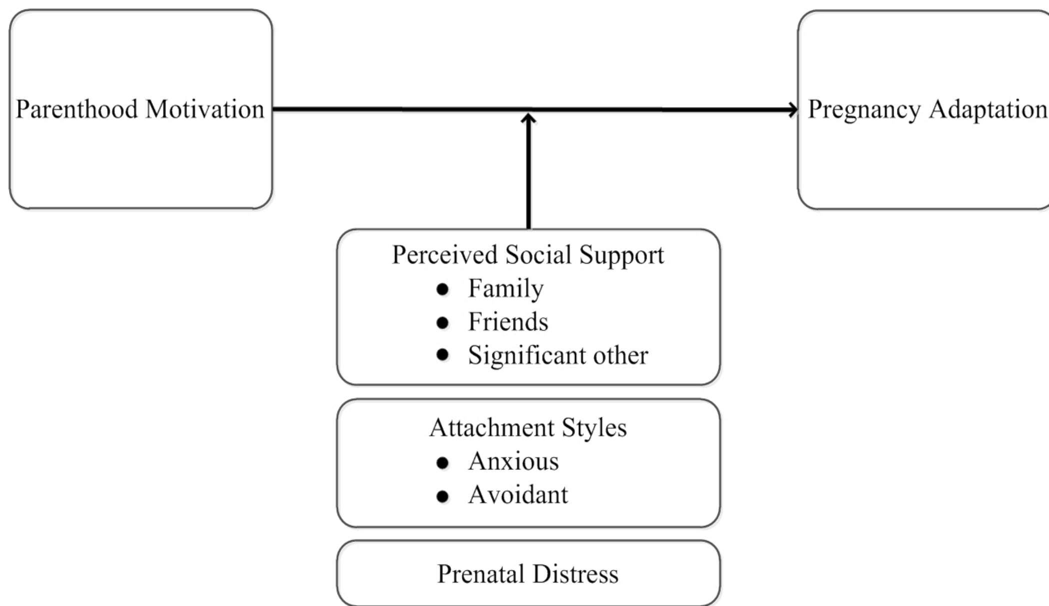


Figure 6. Proposed Model for Moderation Analysis (Model 4)

3.2.2. The Hypotheses of Present Study

In line with the aims mentioned above, the hypotheses of present study are as follows:

1) In terms of the relation between prenatal distress and pregnancy adaptation it was hypothesized that:

a. Perceived social support would moderate the relation between ART-conceived expectant mothers' prenatal distress and pregnancy adaptation. If women perceived higher social support, their prenatal distress would be buffered and they have better pregnancy adaptation.

i. Perceived social support from family would moderate the relation between ART-conceived expectant mothers' prenatal

distress and pregnancy adaptation. Perceiving higher social support from family, would buffer the effects of prenatal distress and lead better pregnancy adaptation.

ii. Perceived social support from friends would moderate the relation between ART-conceived expectant mothers' prenatal distress and pregnancy adaptation. Perceiving higher social support from friends, would buffer the effects of prenatal distress and lead better pregnancy adaptation.

iii. Perceived social support from significant other would moderate the relation between ART-conceived expectant mothers' prenatal distress and pregnancy adaptation. Perceiving higher social support from significant other, would buffer the effects of prenatal distress and lead better pregnancy adaptation.

b. Anxious adult attachment style would moderate the relation between prenatal distress and pregnancy adaptation. Higher anxious adult attachment styles can intensify the negative influences of prenatal distress and decrease ART-conceived expectant mothers' pregnancy adaptation.

c. Avoidant adult attachment style would moderate the relation between prenatal distress and pregnancy adaptation. Higher avoidant adult attachment styles can intensify the negative influences of prenatal distress and decrease ART-conceived expectant mothers' pregnancy adaptation.

2) In terms of the relation between prenatal distress and prenatal attachment it was hypothesized that:

a. Perceived social support would moderate the relation between ART-conceived expectant mothers' prenatal distress and prenatal attachment. If women perceived higher social support, their prenatal distress would be buffered and their prenatal attachment would increase.

   i. Perceived social support from family would moderate the relation between ART-conceived expectant mothers' prenatal distress and prenatal attachment. Perceiving higher social support from family, would buffer the effects of prenatal distress and lead increased prenatal attachment.

   ii. Perceived social support from friends would moderate the relation between ART-conceived expectant mothers' prenatal distress and prenatal attachment. Perceiving higher social support from friends, would buffer the effects of prenatal distress and lead increased prenatal attachment.

   iii. Perceived social support from significant other would moderate the relation between ART-conceived expectant mothers' prenatal distress and prenatal attachment. Perceiving higher social support from significant other, would buffer the effects of prenatal distress and lead increased prenatal attachment.

b. Anxious adult attachment style would moderate the relation between prenatal distress and prenatal attachment. Higher anxious adult attachment styles would intensify the negative influences of prenatal distress and increase ART-conceived expectant mothers' prenatal attachment.

c. Avoidant adult attachment style would moderate the relation between prenatal distress and prenatal attachment. Higher avoidant adult attachment styles would intensify the negative influences of prenatal distress and decrease ART-conceived expectant mothers' prenatal attachment.

3) In terms of relation between parenthood motivation and prenatal attachment it was hypothesized that:

a. Prenatal distress would moderate the relation between parenthood motivation and prenatal attachment in a negative way. Higher prenatal distress would intensify the negative influences of parenthood motivation and decrease ART-conceived expectant mothers' prenatal attachment. However, when people have higher parenthood motivation and higher distress levels, their prenatal attachment can have overprotective features.

b. Perceived social support would moderate the relation between ART-conceived expectant mothers' parenthood motivation and prenatal attachment. If women perceived higher social support, the stress resulted from parenthood motivation would be buffered and their prenatal attachment would increase.

i. Perceived social support from family would moderate the relation between ART-conceived expectant mothers' parenthood motivation and prenatal attachment. Perceiving higher social support from family, would buffer the negative influences of parenthood motivation and lead increased prenatal attachment.

ii. Perceived social support from friends would moderate the

relation between ART-conceived expectant mothers' parenthood motivation and prenatal attachment. Perceiving higher social support from friends, would buffer the negative influences of parenthood motivation and lead increased prenatal attachment.

iii. Perceived social support from significant other would moderate the relation between ART-conceived expectant mothers' parenthood motivation and prenatal attachment. Perceiving higher social support from significant other, would buffer the negative influences of parenthood motivation and lead increased prenatal attachment.

c. Anxious adult attachment style would moderate the relation between parenthood motivation and prenatal attachment. Higher anxious adult attachment styles would intensify the negative influences of parenthood motivation and increase ART-conceived expectant mothers' prenatal attachment.

d. Avoidant adult attachment style would moderate the relation between parenthood motivation and prenatal attachment. Higher avoidant adult attachment styles would intensify the negative influences of parenthood motivation and decrease ART-conceived expectant mothers' prenatal attachment.

4) In terms of relation between parenthood motivation and pregnancy adaptation it was hypothesized that:

a. Prenatal distress would moderate the relation between parenthood motivation and prenatal attachment in a negative way. Higher prenatal distress would intensify the negative influences of

parenthood motivation and decrease ART-conceived expectant mothers' pregnancy adaptation.

b. Perceived social support would moderate the relation between ART-conceived expectant mothers' parenthood motivation and pregnancy adaptation. If women perceived higher social support, the stress resulted from parenthood motivation would be buffered and their pregnancy adaptation would increase.

   i. Perceived social support from family would moderate the relation between ART-conceived expectant mothers' parenthood motivation and pregnancy adaptation. Perceiving higher social support from family, would buffer the negative influences of parenthood motivation and lead increased pregnancy adaptation.

   ii. Perceived social support from friends would moderate the relation between ART-conceived expectant mothers' parenthood motivation and pregnancy adaptation. Perceiving higher social support from friends, would buffer the negative influences of parenthood motivation and lead increased pregnancy adaptation.

   iii. Perceived social support from significant other would moderate the relation between ART-conceived expectant mothers' parenthood motivation and pregnancy adaptation. Perceiving higher social support from significant other, would buffer the negative influences of parenthood motivation and lead increased pregnancy adaptation.

c. Anxious adult attachment style would moderate the relation between

parenthood motivation and pregnancy adaptation. Higher anxious adult attachment styles would intensify the negative influences of parenthood motivation and decrease ART-conceived expectant mothers' pregnancy adaptation.

d. Avoidant adult attachment style would moderate the relation between parenthood motivation and pregnancy adaptation. Higher avoidant adult attachment styles would intensify the negative influences of parenthood motivation and decrease ART-conceived expectant mothers' pregnancy adaptation.

3.3. Method

3.3.1. Participants

The study consisted of 185 pregnant women who conceived via assisted reproductive technology (ART). The participants were the same women who were described as the second sample of Study 1. As mentioned previously, except for 9 participants who did not use the internet and filled the hard-copy questionnaire set, the data was collected via online survey program "Qualtrics". Data collection period took place between 23th February 2016 and 16th October 2017.

In addition to participants' aforementioned characteristics, regarding infertility and ART-specific features, it is important to note that 42.2% of participants (*n* = 78) were diagnosed with unexplained infertility, 25.4% of them (*n* = 47) had female factor infertility, 20.5% of them (*n* = 38) had male factor infertility, and 11.9% of them (*n* = 22) had both female and male related infertility. In terms of conception techniques, most of the participants (*n* = 169, 91.4%) conceived through in vitro fertilization, 6.5% of them (*n* = 12) conceived via microinjection techniques, 1.6% of them (*n* = 3) conceived through vaccination, and only one participant conceived through egg donation. Among these women, 74.1% of them (*n* = 137) had

singleton, and 25.9% of them (*n* = 48) had multiple pregnancy. The participants stated that they became pregnant at their first (*n* = 70, 37.8%), second (*n* = 48, 25.9%), third (*n* = 25, 13.5%), fourth (*n* = 17, 9.2%), and fifth (*n* = 15, 8.1%) trials. Among the rest of them (*n* = 10, 5.5%), the highest number of trial was 11 (*n* = 1). Apart from this, 133 women (71.9%) reported that they did not get pregnant before, while the other 52 of them experienced early pregnancy losses for one time (*n* = 32, 17.3%), two times (*n* = 10, 5.4%) or more (*n* = 10, 5.4%). The demographic characteristics of the sample were presented in Table 9.

Table 9. *Demographic Characteristics of Pregnant Women Conceived via ART (N = 185)*

	M	*SD*	*N*	%	Min-Max
Age	32.04	4.49			21.00- 42.00
Duration of marriage (year)	6.65	3.93			1.00- 25.00
Duration of struggle for children (month)	50.91	41.80			1.00- 276.00
Pregnancy weeks	19.34	9.45			5.00- 40.00
Education					
Primary Education			25	13.5	
High School			43	23.2	
University			95	51.4	
Master			16	8.6	
PhD			6	3.2	
Employment status					
Unemployed			76	41.1	
Break during pregnancy			36	19.5	
Employed			73	39.5	
Income					
Low			10	5.4	
Middle			152	82.2	
High			23	12.4	
Place of Living					
Village			8	4.3	
Town			14	7.6	
City			88	47.6	
Metropolis			75	40.5	
Cause of Infertility					
Unexplained			78	42.2	
Female factor			47	25.4	
Male factor			38	20.5	
Both Female and Male Factor			22	11.9	
Type of ART					
IVF			169	91.4	
Microinjection			12	6.5	
Vaccination			3	1.6	
Egg Donation			1	.5	

Table 9 (continued). *Demographic Characteristics of Pregnant Women Conceived via ART (N = 185)*

	M	*SD*	*N*	%	Min-Max
Number of Trials					
One			70	37.8	
Two			48	25.9	
Three			25	13.5	
Four			17	9.2	
Five			15	8.1	
Six or more			10	5.5	
Prior Pregnancy Experiences					
First Pregnancy			133	71.9	
Having Losses (one time)			32	17.3	
Having Losses (two times)			10	5.4	
Having Losses (more)			10	5.4	
Pregnancy Types					
Singleton			137	74.1	
Multiple			48	25.9	

3.3.2. Instruments

3.3.2.1. Demographic Information Form

The form had two parts including 42 questions in total. In the first part, the questions aimed to get some basic personal information in terms of participants' demographic characteristics (e.g., age, duration of marriage, employment status, socio-economic status, education level, residence, psychological and physical health status) and family relations (e.g., relationship quality with their husband). In the second part, the questions concentrated on pregnancy and treatment process (e.g., pregnancy week, cause of infertility, type of ART, type of pregnancy- singleton or twin, number of pregnancy, duration of struggle for having children, feelings about

treatment process, number of trials and number of prior losses, if any). In this part, the form also included some open-ended (e.g., importance of having children, whether they faced with any problems during pregnancy, expectations from their social environment) and Likert type (e.g., perceived spousal support, perceptions of infertility, readiness for motherhood) questions. Through these questions providing detailed information about the participants' perspectives on having a baby, their social relations and attitudes toward infertility and motherhood were aimed to be understood (see Appendix A).

3.3.2.2. Revised Prenatal Distress Questionnaire (NUPDQ 17-Item Version)

To measure the participants' prenatal distress concerning medical problems, physical symptoms, emotional symptoms, relations, maternity, body image and pregnancy, the scale was developed by Yali and Lobel (1999), and then revised by Lobel et al. (2008). The scale includes 17 items and participants are asked to respond how much they are feeling bothered, upset or worried about pregnancy specific situations. It is a 3-point Likert type scale ranging from 0 (not at all) to 2 (very much), and higher scores represent higher pregnancy-specific prenatal distress. It was reported that for three different time points the Cronbach's alpha of the scale were .59, .71, and .79, respectively. In terms of validity, it was found that the scale revealed positive correlations with perceived stress ($r = .51$, $p < .01$), state anxiety ($r = .47$, $p < .01$), prenatal life events ($r = .33$, $p < .01$), life event distress ($r = .24$, $p < .01$), cigarette ($r = .20$, $p < .01$) and caffeine ($r = .18$, $p < .01$) usage, and unhealthy eating ($r = .27$, $p < .01$). Moreover, it demonstrated negative correlations with healthy eating ($r = -.13$, $p < .05$), vitamin use ($r = -.15$, $p < .05$), exercise ($r = -.13$, $p < .05$), and pregnancy week ($r = -.15$, $p < .05$). Turkish adaptation of the scale was conducted by Yüksel, Akın and Durna (2011), and internal consistency reliability of the scale was found as .85. Moreover, test–retest reliability of Turkish version of the scale was .79 and item-total correlation coefficients were reported

between .20 and .78 (p = .001). In this study, the Cronbach's alpha of the scale was found as .80. The scale is presented in Appendix F.

3.3.2.3. Prenatal Self Evaluation Questionnaire

The scale was developed by Lederman (1979) to measure maternal adjustment of pregnant women. It consists of 79 items answered on a 4-point Likert type scale ranging from 1 (not at all) to 4 (very much so). Since in the scale higher scores represent lack of adaption, to interpret the findings parallel with other measures, in this study scoring was changed as "1" (very much so) to "4" (not at all). In Lederman's (1979) study the internal consistency of the scale was found as .92. In terms of seven domains of the scale strong internal consistency reliabilities were reported, namely, concern for the well-being of self and baby (α = .82), acceptance of pregnancy (α = .88), identification of a motherhood role (α = .89), preparation for labor (α = .79), fear of helplessness and loss of control in labor (α = .76), relationship with her mother (α = .77), and relationship with her husband (α = .82). Turkish adaptation of the scale was conducted by Beydağ and Mete (2008). In their study the internal consistency of the scale was also good (α = .81) and test-retest reliability was found as .84. In present study, internal consistency of the whole scale was excellent (α = .91) and in terms of subscales the scores were found as follows: concern for the well-being of self and baby (α = .84), acceptance of pregnancy (α = .79), identification of a motherhood role (α = .73), preparation for labor (α = .67), fear of helplessness and loss of control in labor (α = .70), relationship with her mother (α = .88) and relationship with her husband (α = .77). The scale is presented in Appendix G.

3.3.2.4. The Prenatal Attachment Inventory

The scale was developed and then revised by Muller (1993, 1996) to identify the expectant mothers' thoughts, feelings and experiences during pregnancy period and to measure their level of attachment to the fetus. The scale includes 21 items and scoring is based on 4-point Likert type scale ranging from 1 (almost never) to 4 (almost always). Higher scores on the scale represent higher prenatal attachment levels. Although Muller (1993) proposed a single-factor solution, in later studies a five-factor solution (*fantasy, interaction, sharing, attributing traits*, and *affection)* was suggested (Bielawska-Batorowicz & Siddiqui, 2008; Siddiqui & Hagglof, 2000). Turkish adaptation of the scale was conducted by Yılmaz and Beji (2013) and in their study, as a single-factor solution, the scale revealed good internal consistency (α =.84). In the present research Cronbach's alpha of the scale was found as .90. The scale is presented in Appendix H.

3.3.2.5. Multidimensional Scale of Perceived Social Support-Revised (MSPSS-R)

The scale was developed by Zimet, Dahlem, Zimet and Farley (1988) to measure individuals' perceived social support in three dimensions namely, supports from family, friends, and significant other. It is a 12-item, 7-point Likert-type scale ranging from 1 (strongly disagree) to 7 (strongly agree). Higher total scores on this scale represent higher levels of perceived social support. Turkish adaptation of the scale and revised version of the scale were performed by Eker and Arkar (1995) and Eker, Arkar, and Yaldız (2001), respectively. Since the term "significant other" created confusion for Turkish population, in the latest version its definition was specified with examples such as fiancé, relative, neighbor, and doctor. Moreover, in this version the term "family" was also explained as mother, father, spouse, and sibling. The scale revealed high internal consistency reliability for the total scale (α = .89) and subscales, namely, family (α = .85), friends (α = .88) and significant

other (α = .92). Moreover, total scale showed positive correlations with perceived social support from family (r = .61, $p < .001$) and friends (r = .59, $p < .001$), and negative correlation with hopelessness (r = -.45, $p < .001$), loneliness (r = -.63, $p < .001$), negative social interaction (r = -.56, $p < .001$) and symptom check list (r = -.58, $p < .001$). In terms of the three subscales, similar associations were also reported (Eker et al., 2001). In present study, total scale also revealed excellent internal consistency reliability (α = .90) and for the subscales the results were as follows: family (α = .93), friends (α = .91), and significant other (α = .86). The scale is presented in Appendix I.

3.3.2.6. Parenthood Motivation Scale (PMS)

The scale was developed by Cassidy and Sintrovani (2008) to measure individuals' motivational basis of desire for having children. PMS included 24 items measured on a 5-point Likert type scale ranging from *strongly disagree* (1) to *strongly agree* (5). In the original version, internal consistency reliability results of the six subscales were found as .89 for continuity, .78 for nurturance, .86 for relationship, .87 for identity, .82 for social pressure, and .81 for materialism. Turkish adaptation of the scale was conducted within the scope of present dissertation, as mentioned in the first study. For the Turkish version of the scale, Cronbach's alpha of the total scale was .88 and for the subscales the results were as follows: continuity (α =.74), nurturance (α =.82), relationship (α =.71), identity (α =.78), social pressure (α =.75), and materialism (α =.55). In terms of the scale's validity, it was found that the scale had positive association with views on parenthood (r = .19, $p < .01$), targets and ideals (r = .54, $p < .01$), opinions about children (r = .10, $p < .05$), and social attitudes regarding having children (r = .19, $p < .01$). In this part of the study, Cronbach's alpha of the scale was excellent (α =.90) and in terms of the six subscales Cronbach's alpha values were as follows: continuity (α =.78), nurturance (α =.87), relationship (α =.74), identity (α =.79), social pressure (α =.75) and

materialism (α =.52). Adapted version of PMS is presented in Appendix C.

3.3.2.7. Experiences in Close Relationships-Revised (ECR-R)

The scale was developed by Fraley, Waller, and Brennan (2000) and Turkish adaptation study of it was conducted by Selçuk, Günaydın, Sümer, and Uysal (2005). It consists of 36 items measuring adult attachment styles in which 18 items are used for anxiety dimension and the other 18 items are used for avoidance dimension. The participants rated their responses on a 5-point Likert type scale ranging from 1 (strongly disagree) to 5 (strongly agree). Internal consistency and test-retest reliabilities of the Turkish version were found as .86 and .82 for anxiety dimension and .90 and .81 for avoidance dimension, respectively. Moreover, in terms of validity of the scale, anxiety factor revealed significant negative associations with self-esteem (r = -.32, p < .01) and relationship satisfaction (r = -.23, p < .05) and significant positive associations with concern over approval (r = .55, p < .01), separation anxiety (r = .34, p < .01), and concern over acceptance (r = .44, p < .01). Similarly, avoidance factor also showed significant negative relations with self-esteem (r = -.19, p < .01) and relationship satisfaction (r = -.49, p < .01), while it had significant positive association with concern over approval (r = .17, p < .01) and concern over loneliness (r = .15, p < .05). In the current study, internal consistency reliabilities of anxiety and avoidance dimensions were .84 and .89, respectively. The scale is presented in Appendix J.

3.3.3. Procedure

In this study same procedures were applied with the first study of the present dissertation. Data collections of Study 1 (for via ART conceived pregnant women) and Study 2 were performed at the same time.

3.3.4. Data Analysis

After examining the correlations among the study variables through Pearson correlation coefficients, to test the hypotheses of present study series of moderation analyses were conducted. While performing moderation analyses, Process macro of Hayes and Matthes (2009) was used. Before the analyses, independent and moderator variables were mean-centered, and analyses were performed separately for each moderator variable. All the analyses were performed via IBM SPSS Statistics 20 software.

3.4. Results

3.4.1. Correlational Analyses

Correlations among the measures of present study with their subscales were examined through Pearson correlation coefficients. The findings revealed that prenatal distress, which was one of the independent variables, is negatively correlated with pregnancy adaptation (r = -.58, p < .01) and perceived social support (r = -.31, p < .01), and positively correlated with insecure attachment styles, namely, anxious (r = .39, p < .01) and avoidant (r = .19, p < .05) attachment styles. Parenthood motivation, the second independent variable, had significant associations with anxious attachment styles (r = .17, p < .05) and pregnancy adaptation measure in terms of acceptance of pregnancy (r = .18, p < .05), identity of motherhood role (r = .20, p < .01), and relationship with husband (r = -.15, p < .05). Perceived social support had significant negative relations with anxious (r = -.44, p < .01) and avoidant (r = -.49, p < .01) attachment styles, and positive relations with pregnancy adaptation (r = .43, p < .01). Lastly, pregnancy adaptation had negative correlations with anxious (r = -.40, p < .01) and avoidant (r = -.45, p < .01) attachment styles, and positive correlations with the other dependent variable, prenatal attachment (r = .27, p < .01). For detailed results please see Table 10.

Table 10. *Correlation Coefficients among the Measures and Their Subscales*

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1. Prenatal Distress	(.80)																						
2. PMS	.08	(.90)																					
3. PMS- Continuity	.07	.74**	(.78)																				
4. PMS- Nurturance	-.04	.77**	.60**	(.87)																			
5. PMS- Relationship	.03	.80**	.51**	.63**	(.74)																		
6. PMS- Identity	.13	.80**	.45**	.46**	.61**	(.79)																	
7. PMS- Social Pressure	.12	.65**	.25**	.25**	.34**	.54**	(.75)																
8. PMS- Materialism	.03	.61**	.29**	.25**	.38**	.51**	.51**	(.52)															
9. MSPSS	-.31**	-.08	.19**	-.03	-.04	-.17*	-.21**	-.15*	(.90)														
10. MSPSS- family	-.23**	-.09	.09	-.05	-.03	-.15*	-.19**	-.14	.81**	(.93)													
11. MSPSS- friends	-.29**	-.06	.16*	-.01	-.09	-.15*	-.14	-.09	.79**	.44**	(.91)												
12. MSPSS- sig. other	-.19**	-.03	.21**	-.02	.02	-.10	-.18*	-.13	.77**	.49**	.38**	(.86)											
13. Anxious Attachment	.39**	.17*	.01	-.00	.10	.16*	.28**	.29**	-.44**	-.28**	-.37**	-.39**	(.84)										
14. Avoidant Attachment	.19*	.01	-.19**	-.08	-.07	.11	.24**	.09	-.49**	-.30**	-.27**	-.62**	.48**	(.89)									
15. Prenatal Attachment	-.10	.08	.02	.06	.08	.11	.03	.07	.05	.04	-.01	.09	-.05	-.08	(.90)								
16. PSEQ	-.58**	.01	.14	.10	.02	-.07	-.14	-.09	.43**	.38**	.27**	.39**	-.40**	-.45**	.27**	(.91)							
17. PSEQ- AP	-.31**	.18*	.20**	.28**	.17*	.06	.01	-.01	.19*	.12	.12	.21**	-.19*	-.26**	.30**	.70**	(.79)						
18. PSEQ- CSB	-.64**	-.14	-.02	-.01	-.13	-.18*	-.17*	-.15*	.30**	.19**	.28**	.23**	-.42**	-.31**	-.04	.67**	.31**	(.84)					
19. PSEQ- IMR	-.32**	.20**	.23**	.26**	.15*	.09	.05	.03	.27**	.21**	.17*	.28**	-.15*	-.33**	.29**	.74**	.70**	.33**	(.73)				
20. PSEQ- PL	-.32**	-.04	.01	-.01	-.04	-.01	-.08	-.03	.14	.15*	.06	.13	-.12	-.17**	.40**	.62**	.33**	.25**	.34**	(.67)			
21. PSEQ- FL	-.53**	-.01	.07	.03	-.02	-.03	-.08	-.04	.24**	.18*	.18*	.20**	-.37**	-.21**	.19*	.78**	.47**	.60**	.46**	.55**	(.70)		
22. PSEQ- RM	-.19**	.01	.08	.01	.05	-.02	-.09	-.01	.39**	.57**	.14	.21**	-.10	-.17*	.05	.50**	.16*	.13	.27**	.21**	.21**	(.88)	
23. PSEQ- RH	-.26**	-.15*	.09	-.09	-.06	-.21**	-.24**	-.23**	.45**	.30**	.25**	.55**	-.48**	-.65**	.15*	.61**	.35**	.32**	.38**	.30**	.33**	.22**	(.77)

Note 1. $*p < .05$, $**p < .01$
Note 2. Scores shown within the parentheses on the diagonal indicate the Cronbach's alpha coefficients of the measures
Note 3. PMS: Parenthood Motivation Scale, MSPSS: Multidimensional Scale of Perceived Social Support, PSEQ: Prenatal Self Evaluation Questionnaire, AP: Acceptance of pregnancy, CSB: Concern about self and baby, IMR: Identification with motherhood role, PL: Preparation of labor, FL: Fear of labor, RM: Relationship with her mother, RH: Relationship with her husband

3.4.2. Moderation Analyses

3.4.2.1. Moderation Analyses Examining the Association between Prenatal Distress and Pregnancy Adaptation

In the first model, the moderator roles of perceived social support with its three dimensions (i.e., family, friends and significant other) and adult attachment styles (i.e., anxious and avoidant) were investigated for the relation between prenatal distress (IV) and pregnancy adaptation (DV). In order to test this model, a series of moderation analyses were performed for each of the moderator variable. According to the results, only two of the models were significant and only these significant findings were reported. These significant results were evaluated based on the critical value obtained via Johnson and Neyman (1936) technique and pick-a-point approach (Bauer & Curran, 2005). The summary of results can be seen in Table 11.

Table 11. *Summary of the Results for the First Moderation Model*

Independent Variable	Moderator	Dependent Variable	Moderation	Confidence Interval
Prenatal Distress	Perceived Social Support	Pregnancy Adaptation	No	Not Significant
Prenatal Distress	Perceived Social Support from Family	Pregnancy Adaptation	No	Not Significant
Prenatal Distress	Perceived Social Support from Friends	Pregnancy Adaptation	Yes	Significant
Prenatal Distress	Perceived Social Support from Significant Other	Pregnancy Adaptation	No	Not Significant
Prenatal Distress	Anxious Attachment	Pregnancy Adaptation	Yes	Significant
Prenatal Distress	Avoidant Attachment	Pregnancy Adaptation	No	Not Significant

3.4.2.1.1. Moderator Roles of Perceived Social Support

3.4.2.1.1.1. Moderator Role of Perceived Social Support from Friends on the Relation between Prenatal Distress and Pregnancy Adaptation

A moderation analysis was conducted to examine the moderator role of perceived social support on the association of pregnancy-specific prenatal distress and pregnancy adaptation. As the first analysis, the effect of perceived social support was tested based on full scale. The findings revealed that although overall model was significant (R^2=.41, $F(3, 181) = 42.22$, $p < .001$), the interaction was not significant ($B = -.10$, $SE = .06$, $p = .097$) for the whole scale of perceived social support. Then, based on three dimensions (i.e., family, friends, and significant other) of MSPSS further analyses were conducted. The results revealed that both overall model (R^2=.36, $F(3, 181) = 33.82$, $p < .001$) and interaction effect ($B = -.09$, $SE = .04$, $p < .05$) were significant only for the dimension of perceived social support from friends. After this significant finding, Johnson and Neyman (1936) method was used to examine the relation between prenatal distress (IV) and pregnancy adaptation (DV) for different scores of perceived social support from friends (M). From the results it was observed that if the scores of perceived social support from friends become lower than the critical value (-3.1537), the relation between prenatal distress and pregnancy adaptation is non-significant. When the scores of perceived social support from friends became higher than critical value (-3.1537), the relation between prenatal distress and pregnancy adaptation was significant and negative ($B = -.2771$, $SE = .1405$, p =.050, 95% CI [-.5543, 0]). It was demonstrated that as the participants' perceived friend support increases, negative influences of prenatal distress on pregnancy adaptation decreases and participants' adaptation level increases. In other words, higher levels of perceived social support from friends buffered the negative effects of prenatal distress on pregnancy adaptation (see Figure 7).

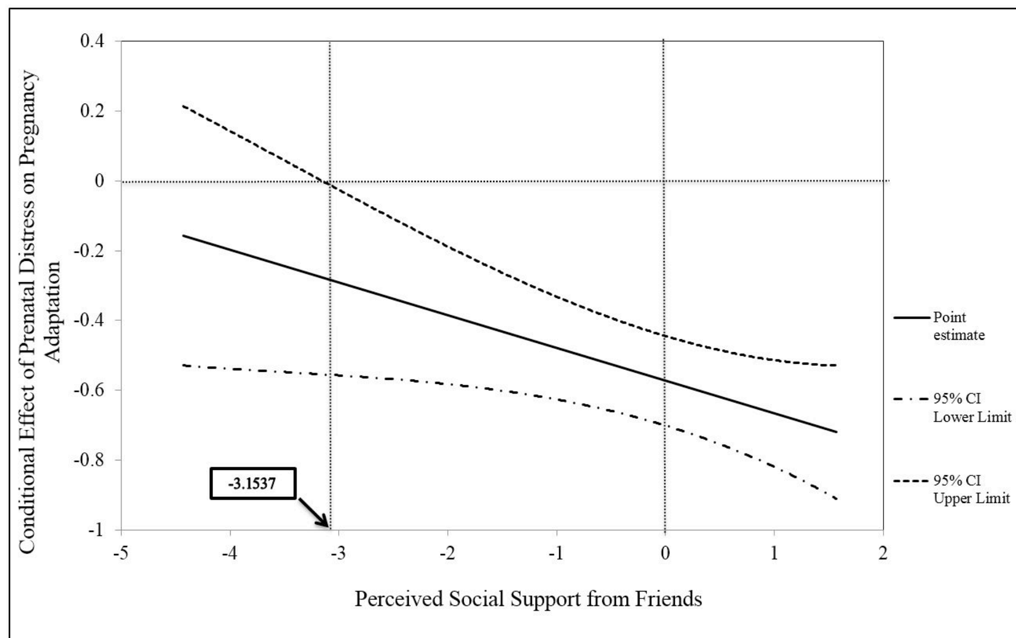


Figure 7. The relation between Prenatal Distress and Pregnancy Adaptation for Different Values of Perceived Social Support from Friends

Note 1. Critical point: -3.1537
Note 2. CI: Confidence interval

A similar trend can be seen in Figure 8 which was created based on pick-a-point approach (Bauer & Curran, 2005). It was demonstrated that there is a negative association between prenatal distress and pregnancy adaptation, and as the level of perceived friend support increases, the negative influences of prenatal distress are buffered and participants' level of pregnancy adaptation increases. However, if participants had higher levels of prenatal distress, perceived friend support did not provide any significant buffering effect in terms of women's pregnancy adaptation (see Figure 8).

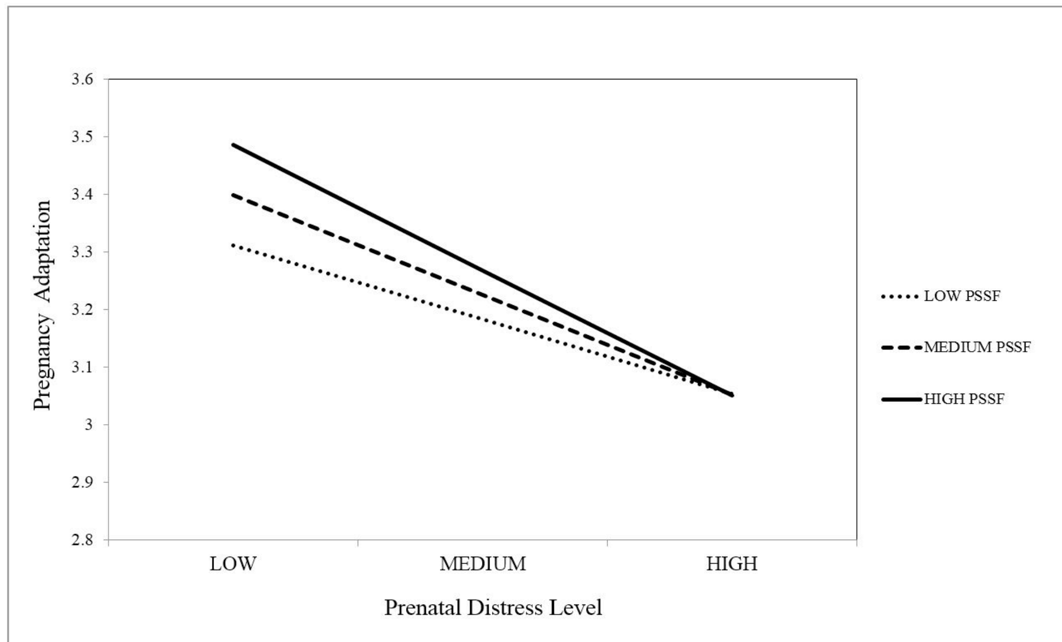


Figure 8. The relation between Prenatal Distress and Pregnancy Adaptation for Different Levels of Perceived Social Support from Friends

Note. PSSF: Perceived Social Support from Friends

When the moderator role of perceived social support was investigated for all the dimensions of pregnancy adaptation scale, it was observed that the model and interaction were significant only for “concern for the well-being of self and baby” and “fear of helplessness and loss of control in labor” subscales. In the following part, only these significant ones were reported. The summary of results can be seen in Table 12.

Table 12. *Summary of the Results for the Moderator Role of Perceived Social Support on the Relation between Prenatal Distress and Dimensions of Pregnancy Adaptation*

Independent Variable	Moderator	Dependent Variable	Moderation	Confidence Interval
Prenatal Distress	Perceived Social Support	Concern for the Well-being of Self and Baby	Yes	Significant
Prenatal Distress	Perceived Social Support from Family/ Significant Other	Concern for the Well-being of Self and Baby	No	Not Significant
Prenatal Distress	Perceived Social Support from Friends	Concern for the Well-being of Self and Baby	Yes	Significant
Prenatal Distress	Perceived Social Support/from Family/Friends/ Significant Other	Acceptance of Pregnancy	No	Not Significant
Prenatal Distress	Perceived Social Support/from Family/Friends/ Significant Other	Identification with Motherhood Role	No	Not Significant
Prenatal Distress	Perceived Social Support/from Family/Friends/ Significant Other	Preparation for Labor	No	Not Significant
Prenatal Distress	Perceived Social Support/from Family/ Significant Other	Fear of Helplessness and Loss of Control in Labor	No	Not Significant
Prenatal Distress	Perceived Social Support from Friends	Fear of Helplessness and Loss of Control in Labor	Yes	Significant
Prenatal Distress	Perceived Social Support/from Family/Friends/ Significant Other	Relationship with own Mother	No	Not Significant
Prenatal Distress	Perceived Social Support/from Family/Friends/ Significant Other	Relationship with Husband	No	Not Significant

3.4.2.1.1.1. Moderator Role of Perceived Social Support on the Relation between Prenatal Distress and Concern for the Well-being of Self and Baby

After the previous moderation analyses, the effect of perceived social support on the relation between prenatal distress and concern for the well-being of self and baby, which is one of the dimension of pregnancy adaptation, was examined through moderation analysis. The findings demonstrated that overall model (R^2=.43, $F(3, 181) = 46.28$, $p < .001$) and also the interaction are significant ($B = -.26$, $SE = .12$, $p < .05$) for the whole scale of perceived social support. The critical value was found as -2.5282 ($B = -.68$, $SE = .34$, $p = .05$, 95% CI [-1.3579,0]), and it was observed that when the scores of perceived social support (M) were above the critical value, the association between prenatal distress (IV) and concern for the well-being of self and baby (DV) is significant. Specifically, if the participants perceived higher social support, negative influences of prenatal distress on their concern for the well-being of self and baby decreased. In other words, high perceived social support buffered the negative effects of prenatal distress on participants' baby and self related concerns. As a result, women's pregnancy adaptation in terms of concern for the well-being of self and baby can increase. The relations can be seen in Figure 9 and 10.

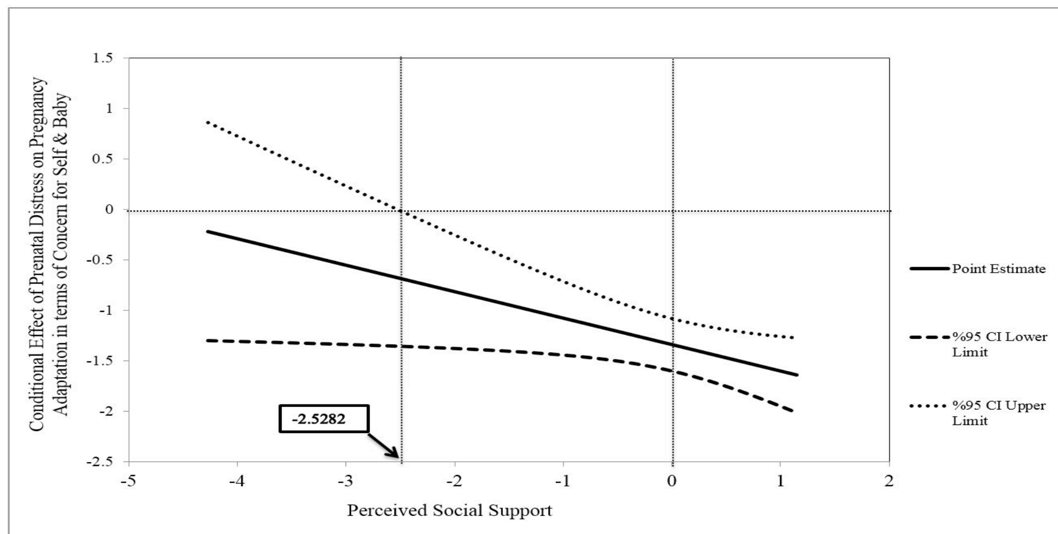


Figure 9. The relation between Prenatal Distress and Pregnancy Adaptation in terms of Concern for Self and Baby for Different Values of Perceived Social Support

Note 1. Critical point: -2.5282
Note 2. CI: Confidence interval

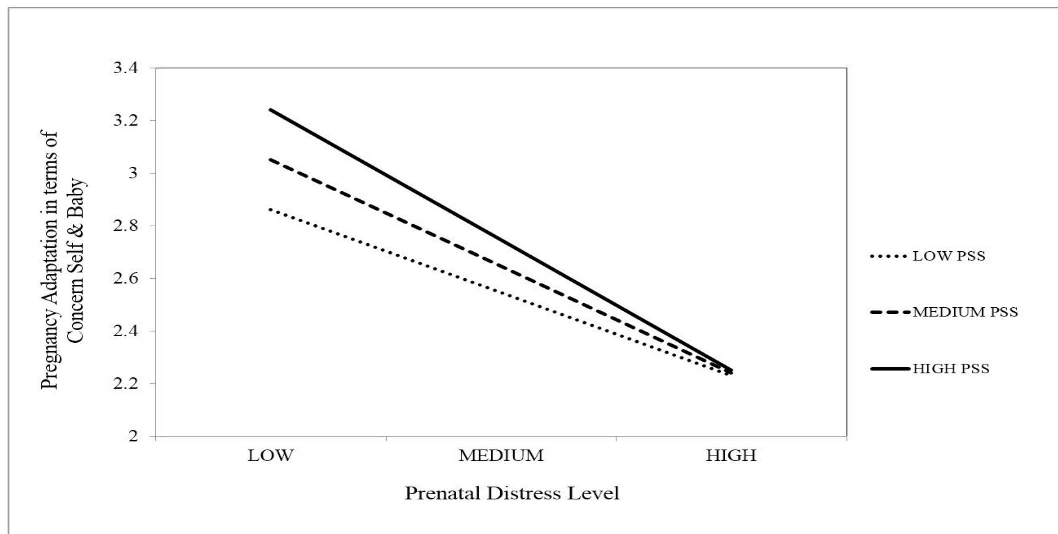


Figure 10. The relation between Prenatal Distress and Pregnancy Adaptation in terms of Concern for Self and Baby for Different Levels of Perceived Social Support

Note. PSS: Perceived Social Support

3.4.2.1.1.1.2. Moderator Role of Perceived Social Support from Friends on the Relation between Prenatal Distress and Concern for the Well-being of Self and Baby

When the association of prenatal distress and concern for the well-being of self and baby was examined based on effect of three dimensions (i.e., family, friends, significant other) of MSPSS, friend support was found as a significant moderator (overall model: R^2=.44, $F(3, 181) = 46.74$, $p < .001$; interaction effect: $B = -.21$, $SE = .08$, $p < .05$). Results demonstrated that as the scores of perceived social support from friends become higher than the critical value (- 3.6645), the negative effect of prenatal distress on women's concern for the well-being of self and baby becomes lower and significant ($B = -.64$, $SE = .32$, $p = .05$, 95% CI [-1.2788,0]). This finding emphasized that higher level of perceived friend support buffers the negative effect of prenatal distress on participants' concern for the well-being of self and baby and increases participants' pregnancy adaptation (see Figure 11 and 12).

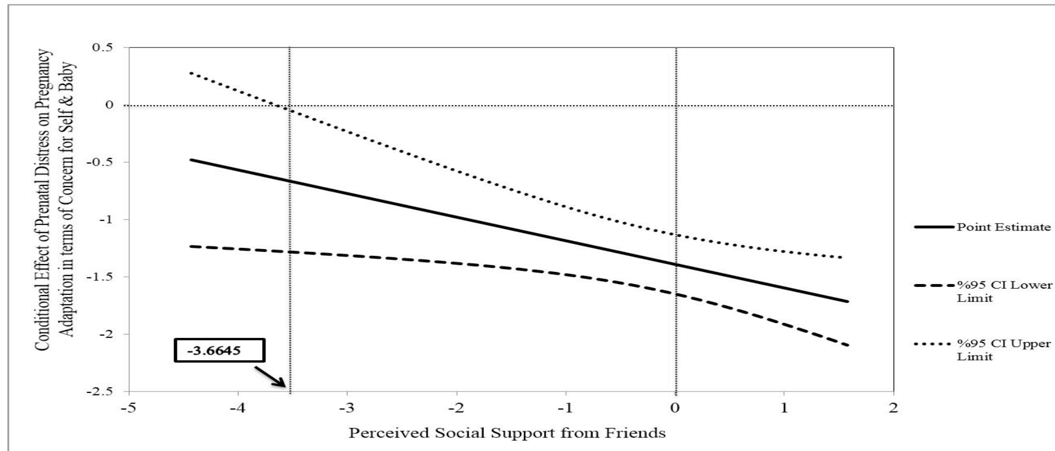


Figure 11. The relation between Prenatal Distress and Pregnancy Adaptation in terms of Concern for Self and Baby for Different Values of Perceived Social Support from Friends

Note 1. Critical point: -3.6645
Note 2. CI: Confidence interval

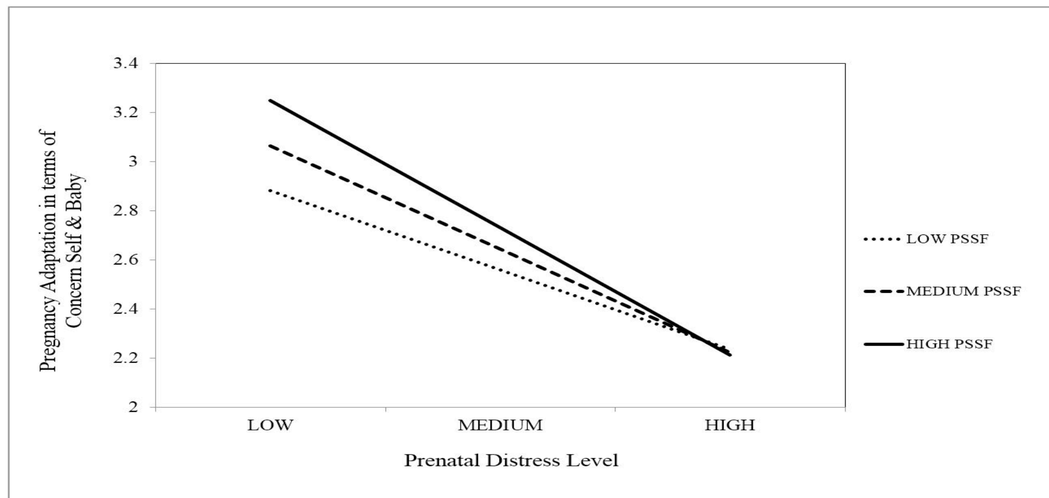


Figure 12. The relation between Prenatal Distress and Pregnancy Adaptation in terms of Concern for Self and Baby for Different Levels of Perceived Social Support from Friends

Note. PSS: Perceived Social Support from Friends

3.4.2.1.1.2. Moderator Role of Perceived Social Support from Friends on the Relation between Prenatal Distress and Fear of Helplessness and Loss of Control in Labor

Another moderation analysis was performed to examine the effect of perceived friend support on the association of prenatal distress with fear of helplessness and loss of control in labor, which is another dimension of pregnancy adaptation. It was shown that the overall model (R^2=.30, $F(3, 181) = 26.22$, $p < .001$) and interaction (B = -.16, SE = .07, $p < .05$) were significant. The conditional effect of prenatal distress on fear of labor was significant above the critical point of -2.8722 (B = -.43, SE = .34, p = .05, 95% CI [-.8670,0]). That is, as the participants' perceived social support from friends became higher than the critical value, the negative effect of prenatal distress on fear of labor decreased. In other words, if women perceived greater support from their friends, the negative effects of stress were buffered and

participants' pregnancy adaptation regarding fear of labor tended to increase despite their higher levels of prenatal distress (see Figures 13 and 14).

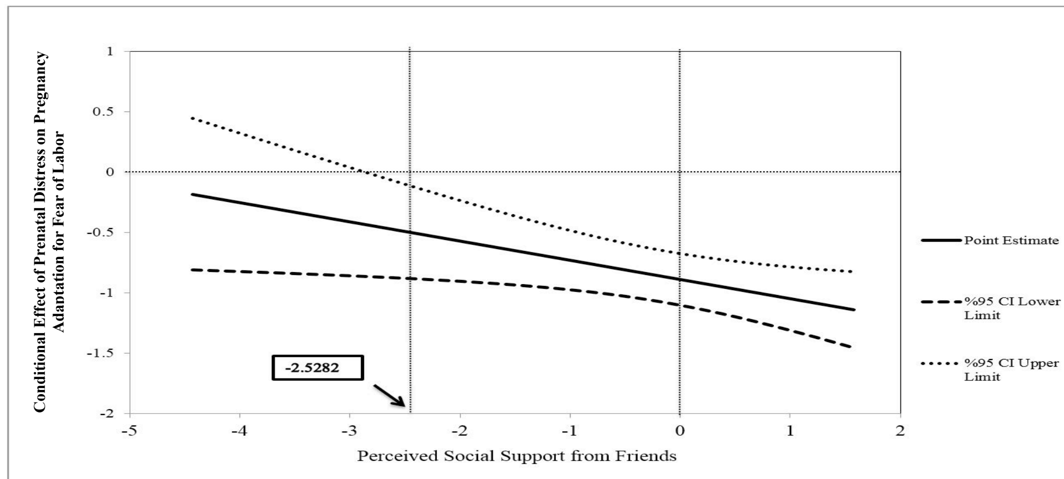


Figure 13. The relation between Prenatal Distress and Pregnancy Adaptation in terms of Fear of Helplessness and Loss of Control in Labor for Different Values of Perceived Social Support from Friends

Note 1. Critical point: -2.5282
Note 2. CI: Confidence interval

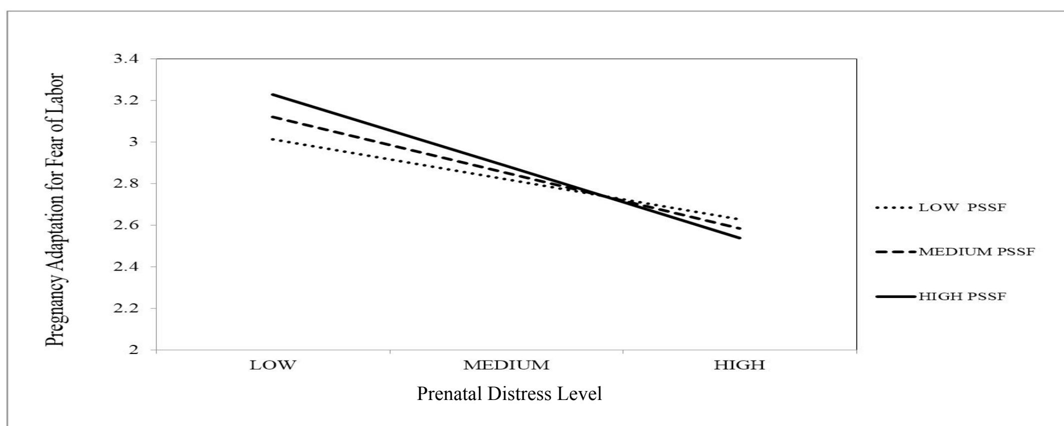


Figure 14. The relation between Prenatal Distress and Pregnancy Adaptation in terms of Fear of Helplessness and Loss of Control in Labor for Different Levels of Perceived Social Support from Friends

Note. PSS: Perceived Social Support from Friends

3.4.2.1.2. Moderator Roles of Anxious Attachment Style

3.4.2.1.2.1. Moderator Role of Anxious Attachment Style on the Relation between Prenatal Distress and Pregnancy Adaptation

As the second moderator, the role of adult attachment styles was investigated for the relation between pregnancy-specific prenatal distress and pregnancy adaptation. Results demonstrated that moderator role of anxious attachment style is significant for this relation (R^2=.38, $F(3, 181) = 37.13$, $p < .001$). The interaction was also significant ($B = .21$, $SE = .10$, $p < .05$). When the conditional effect of prenatal distress (IV) on pregnancy adaptation (DV) was investigated for different scores of anxious attachment style (M), it was observed that the critical point is 1.2005 ($B = -.26$, $SE = .13$, $p = .05$, 95% CI [-.5259,0]). If anxious attachment scores were below this critical value, the association between prenatal distress and pregnancy adaptation was negative and significant. That is, as the participants' anxious attachment levels became lower, the negative effect of prenatal distress on pregnancy adaptation also decreased and women's level of pregnancy adaptation tended to increase (see Figure 15).

This trend can be also seen from Figure 16. As the participants’ prenatal distress levels and the degree of anxious attachment style decrease, their pregnancy adaptation tended to increase. Depending on the degree of participants’ anxious attachment pattern, the negative influences of prenatal distress on pregnancy adaptation can be more disruptive (see Figures 15 and 16).

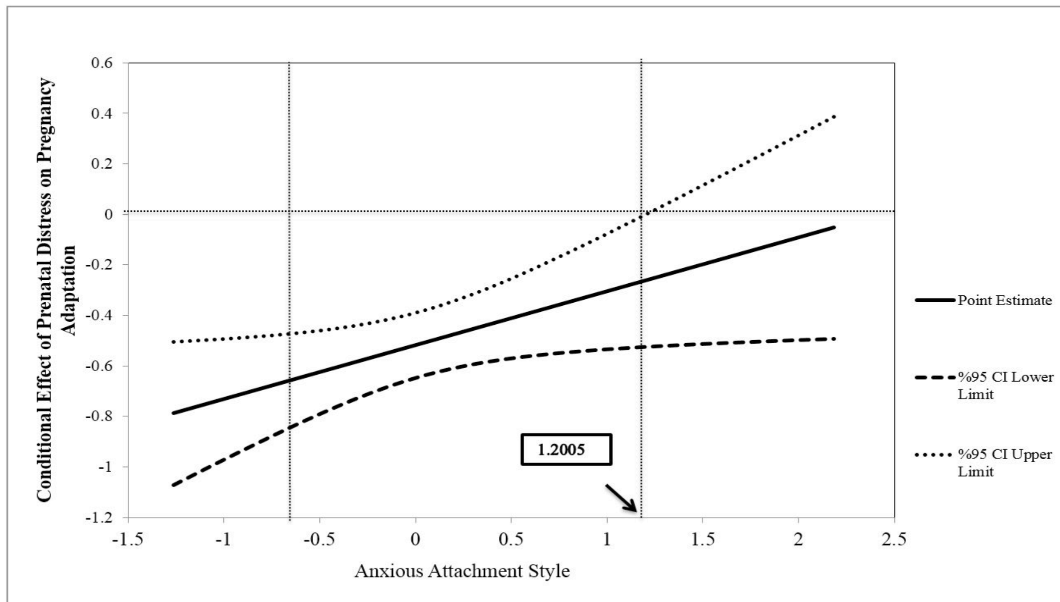


Figure 15. The relation between Prenatal Distress and Pregnancy Adaptation for Different Values of Anxious Attachment Style

Note 1. Critical point: 1.2005
Note 2. CI: Confidence interval

Figure 16. Relationship between Prenatal Distress and Pregnancy Adaptation for Different Levels of Anxious Attachment Style

After finding the significant moderator role of anxious attachment style, the same analyses were conducted for the dimensions of pregnancy adaptation scale. Results revealed that for the dimensions of “concern for the well-being of self and baby” and “fear of helplessness and loss of control in labor” the model and interaction were significant. In the following section, only these significant findings were presented. The summary of results can be seen in Table 13.

Table 13. *Summary of the Results for Moderator Role of Anxious Attachment Style on the Relation between Prenatal Distress and Dimensions of Pregnancy Adaptation*

Independent Variable	Moderator	Dependent Variable	Moderation	Confidence Interval
Prenatal Distress	Anxious Attachment	Concern for the Well-being of Self and Baby	Yes	Significant
Prenatal Distress	Anxious Attachment	Acceptance of Pregnancy	No	Not Significant
Prenatal Distress	Anxious Attachment	Identification with Motherhood Role	No	Not Significant
Prenatal Distress	Anxious Attachment	Preparation for Labor	No	Not Significant
Prenatal Distress	Anxious Attachment	Fear of Helplessness and Loss of Control in Labor	Yes	Significant
Prenatal Distress	Anxious Attachment	Relationship with own Mother	No	Not Significant
Prenatal Distress	Anxious Attachment	Relationship with Husband	No	Not Significant

3.4.2.1.2.2. Moderator Role of Anxious Attachment Style on the Relation between Prenatal Distress and Concern for the Well-being of Self and Baby

In terms of dimensions of pregnancy adaptation, moderator role of anxious attachment style was significant specifically for the relation between prenatal distress and women's concern for the well-being of self and baby. Results showed that overall model (R^2=.47, F(3, 181) = 53.08, p < .001) and interaction (B = .60, SE = .20, p < .01) were significant. In the analysis, the critical value was 1.2352 (B = -.54, SE = .27, p = .05, 95% CI [-.1.0804,0]) and it was observed that below this critical value, the association between prenatal distress and concern for the well-being of self and baby is negative and significant. Results demonstrated that as the participants' anxious attachment scores decrease, the negative effect of prenatal distress also decreases and women's adaptation in terms of concern for self and baby tend to be higher (see Figures 17 and 18).

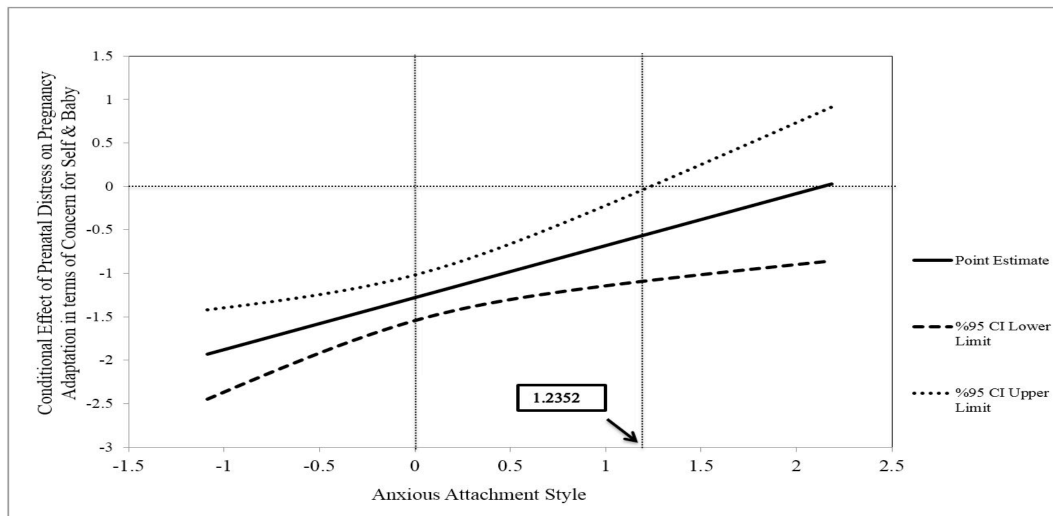


Figure 17. The relation between Prenatal Distress and Pregnancy Adaptation in terms of Concern for Self and Baby for Different Values of Anxious Attachment Style

Note 1. Critical point: 1.2352
Note 2. CI: Confidence interval

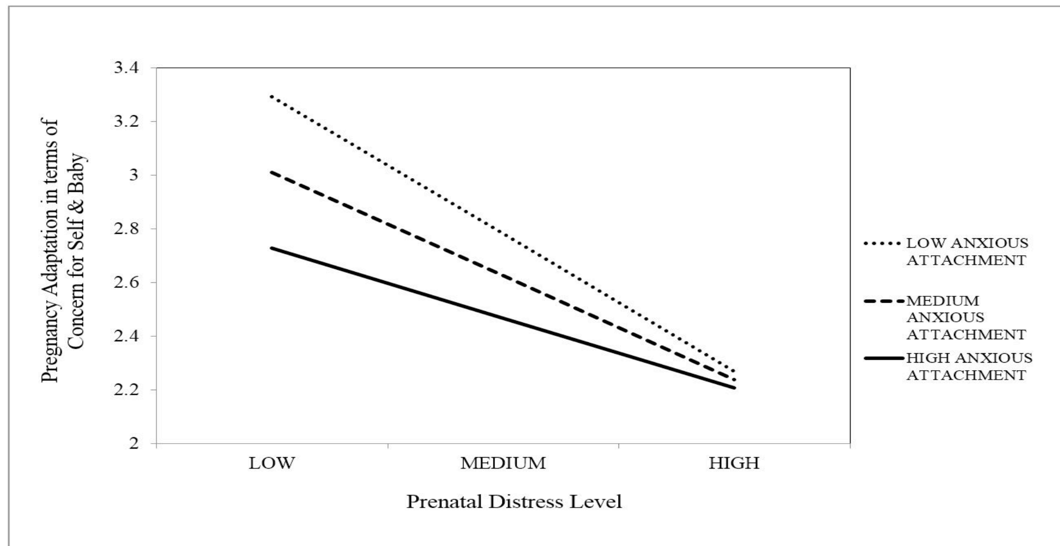


Figure 18. Relationship between Prenatal Distress and Pregnancy Adaptation in terms of Concern for Self and Baby for Different Levels of Anxious Attachment Style

3.4.2.1.2.3. Moderator Role of Anxious Attachment Style on the Relation between Prenatal Distress and Fear of Helplessness and Loss of Control in Labor

Moderator role of anxious attachment style was investigated also for the relation between prenatal distress and pregnancy adaptation in terms of fear of helplessness and loss of control in labor. The whole model (R^2=.33, $F(3, 181) = 30.08$, $p < .001$) and interaction ($B = .39$, $SE = .17$, $p < .05$) were significant. The critical value was .9987 ($B = -.39$, $SE = .20$, $p = .05$, 95% CI [-.7702,0]) and at this point the association between prenatal distress and psychological adaptation concerning fear of helplessness and loss of control in labor was negative and significant. Similar with previous patterns, as the anxious attachment scores become lower than critical value, the negative effect of prenatal distress tend to decrease, which in turn increases women's pregnancy adaptation for the dimension of fear of helplessness and loss of control in labor (see Figures 19 and 20).

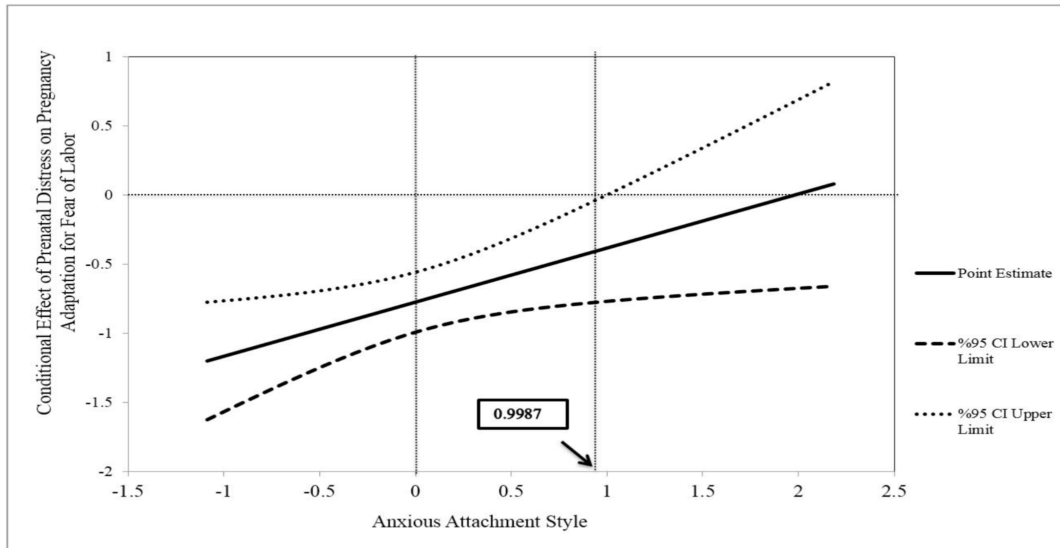


Figure 19. The relation between Prenatal Distress and Pregnancy Adaptation in terms of Fear of Helplessness and Loss of Control in Labor for Different Values of Anxious Attachment Style

Note 1. Critical point: 1.2352
Note 2. CI: Confidence interval

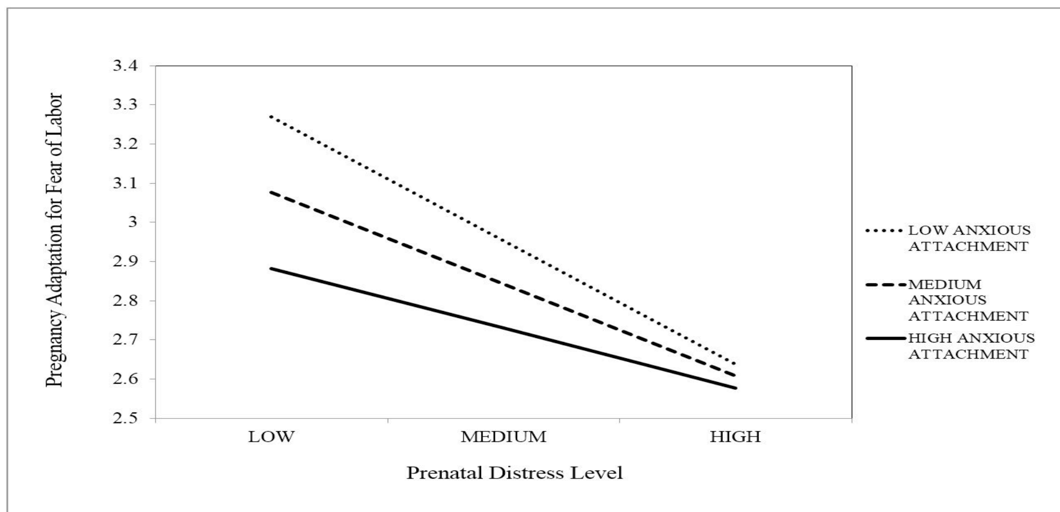


Figure 20. Relationship between Prenatal Distress and Pregnancy Adaptation in terms of Fear of Helplessness and Loss of Control in Labor for Different Levels of Anxious Attachment Style

3.4.2.2. Moderation Analyses to Examine the Relation between Prenatal Distress and Prenatal Attachment

In the second set of moderation analyses, the moderator roles of perceived social support with its three dimensions (i.e., family, friends and significant other) and adult attachment styles (i.e., anxious and avoidant) were investigated for the relation between prenatal distress (IV) and prenatal attachment (DV).

In this model, neither main effects nor interaction were found statistically significant. This means that prenatal distress did not have any influence on women's prenatal attachment levels; and for the relation between prenatal distress and prenatal attachment, perceived social support and insecure attachment styles did not create any moderator effect. The summary of analyses can be seen in Table 14.

Table 14. *Summary of the Results for the Second Moderation Model*

Independent Variable	Moderator	Dependent Variable	Moderation	Confidence Interval
Prenatal Distress	Perceived Social Support	Prenatal Attachment	No	Not Significant
Prenatal Distress	Perceived Social Support from Family	Prenatal Attachment	No	Not Significant
Prenatal Distress	Perceived Social Support from Friends	Prenatal Attachment	No	Not Significant
Prenatal Distress	Perceived Social Support from Significant Other	Prenatal Attachment	No	Not Significant
Prenatal Distress	Anxious Attachment	Prenatal Attachment	No	Not Significant
Prenatal Distress	Avoidant Attachment	Prenatal Attachment	No	Not Significant

3.4.2.3. Moderation Analyses Examining the Relation between Parenthood Motivation and Prenatal Attachment

In the third set of moderation analyses, the moderator roles of prenatal distress, perceived social support with three dimensions (i.e., family, friends and significant other) and adult attachment styles (i.e., anxious and avoidant) were examined for the relation between parenthood motivation (IV) and prenatal attachment (DV). For this aim, separate analyses were conducted for each of the moderator. Among these analyses two of them were found to be significant and only these significant findings were reported. The significant findings were evaluated based on the critical value obtained via Johnson and Neyman (1936) technique and pick-a-point approach (Bauer & Curran, 2005). The summary of results can be seen in Table 15.

Table 15. *Summary of the Results for Third Moderation Model*

Independent Variable	Moderator	Dependent Variable	Moderation	Confidence Interval
Parenthood Motivation	Prenatal Distress	Prenatal Attachment	Yes	Significant
Parenthood Motivation	Perceived Social Support	Prenatal Attachment	No	Not Significant
Parenthood Motivation	Perceived Social Support from Family	Prenatal Attachment	No	Not Significant
Parenthood Motivation	Perceived Social Support from Friends	Prenatal Attachment	No	Not Significant
Parenthood Motivation	Perceived Social Support from Significant Other	Prenatal Attachment	No	Not Significant
Parenthood Motivation	Anxious Attachment	Prenatal Attachment	No	Not Significant
Parenthood Motivation	Avoidant Attachment	Prenatal Attachment	Yes	Significant

3.4.2.3.1. Moderator Role of Prenatal Distress on the Relation between Parenthood Motivation and Prenatal Attachment

In the second proposed model, the analysis investigating the moderator role of prenatal distress on parenthood motivation and prenatal attachment association turned out to be significant (R^2=.05, F(3, 181) = 3.19, p < .05). The interaction was also significant (B = .43, SE = .17, p = .01). When the conditional effect of parenthood motivation (IV) on prenatal attachment (DV) was investigated for different levels of prenatal distress (M), it was observed that the critical point was .0649 (B = .13, SE = .07, p = .05, 95% CI [0, .2578]). It was revealed that at this critical value the association between parenthood motivation and prenatal attachment was positive and significant (see Figure 21). Results showed that if participants' prenatal distress level is higher than critical value, the effect of parenthood motivation on prenatal attachment tend to increase.

Moreover, as can be seen in Figure 22, if women had lower level of prenatal distress, their prenatal attachment was less influenced by their parenthood motivation level. In that case, regardless of their parenthood motivation level, women's prenatal attachment level was quite similar and high. However, moderator roles of moderate and high level of prenatal distress were more influential based on participants' parenthood motivation levels. In terms of participants' level of parenthood motivation, it was observed that if women had low or moderate parenthood motivation, having less prenatal distress led to more prenatal attachment. Nevertheless, if women's parenthood motivation was high, increased level of prenatal distress gave rise to more prenatal attachment that can be evaluated as preoccupied form of prenatal attachment (see Figure 21 and 22).

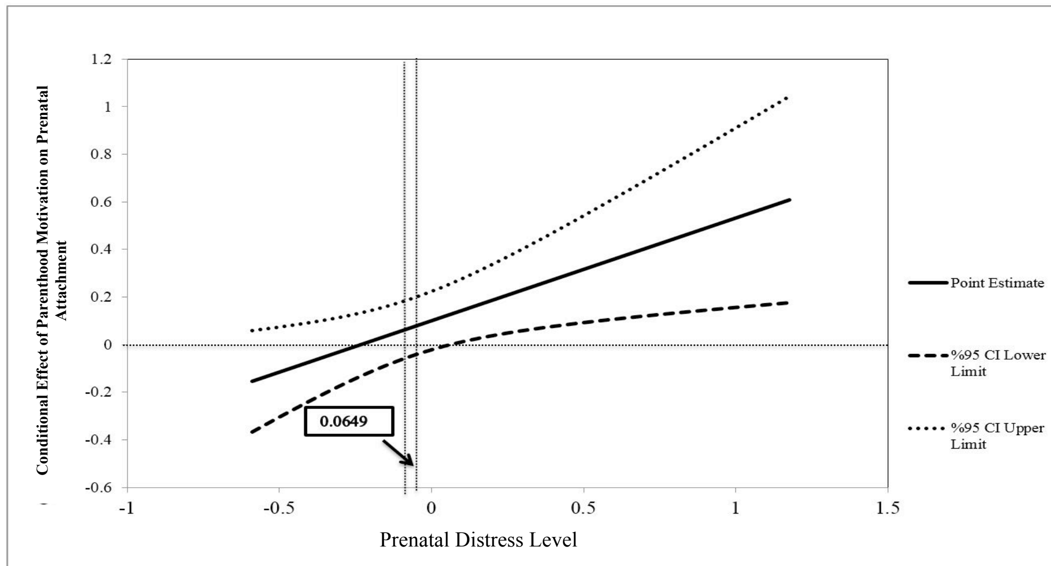


Figure 21. The Relation between Parenthood Motivation and Prenatal Attachment for Different Values of Prenatal Distress

Note 1. Critical point: .0649
Note 2. CI: Confidence interval

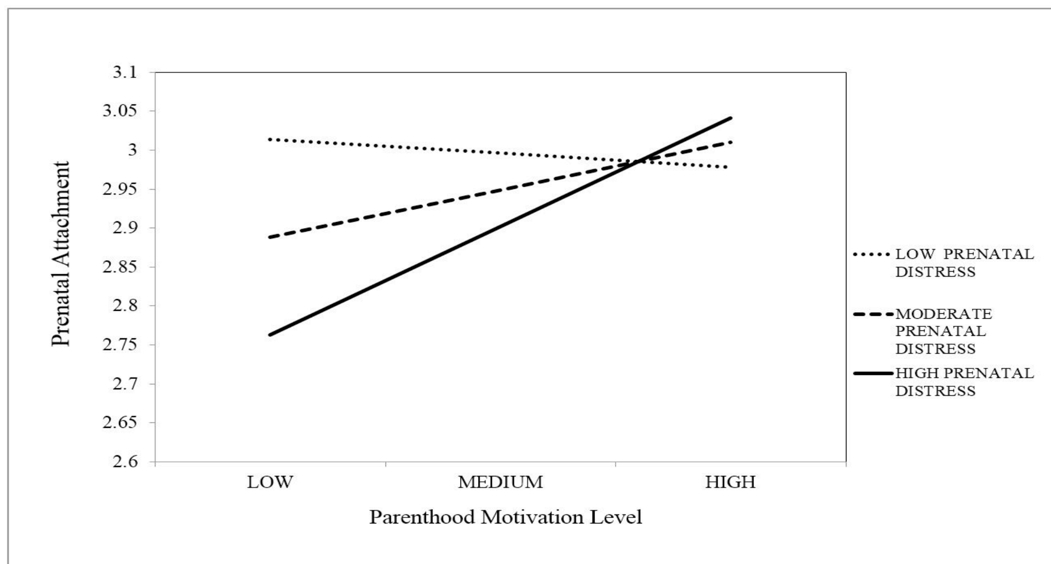


Figure 22. The relation between Parenthood Motivation and Prenatal Attachment for Different Levels of Prenatal Distress

3.4.2.3.2. Moderator Role of Avoidant Attachment Style on the Relation between Parenthood Motivation and Prenatal Attachment

The moderator role of avoidant attachment style was inspected on the association of parenthood motivation and prenatal attachment. Overall model was found to be significant (R^2=.05, $F(3, 181) = 2.87$, $p < .05$). The interaction was also significant (B = -.25, SE = .10, p = .01). The conditional effect of parenthood motivation (IV) on prenatal attachment (DV) for different levels of prenatal distress (M) revealed two critical points, which were -.1924 (B = .13, SE = .07, p = .05, 95% CI [0, .2636]) and 1.7898 (B = -.36, SE = .18, p = .05, 95% CI [-.7184, 0]). From the results it was observed that when the participants' scores of avoidant attachment are -.1924, the relation between parenthood motivation and prenatal attachment is positive and significant. Moreover, if their avoidant attachment scores were below this critical value (-.1924), the effect of parenthood motivation on prenatal attachment tended to increase. On the other hand, when the participants' scores of avoidant attachment were 1.7898, the association of parenthood motivation and prenatal attachment was also significant but at this time this relation was negative. As the participants' avoidant attachment scores became higher than this critical value (1.7898), the effect of parenthood motivation on prenatal attachment tended to decrease (see Figure 23).

Moreover, as can be seen in Figure 24, when women had low or moderate levels of avoidant attachment scores, their prenatal attachment levels tended to increase as their parenthood motivation increased. However, when they had high avoidant attachment scores, their prenatal attachment levels tended to decrease as their parenthood motivation increased (see Figure 23 and 24).

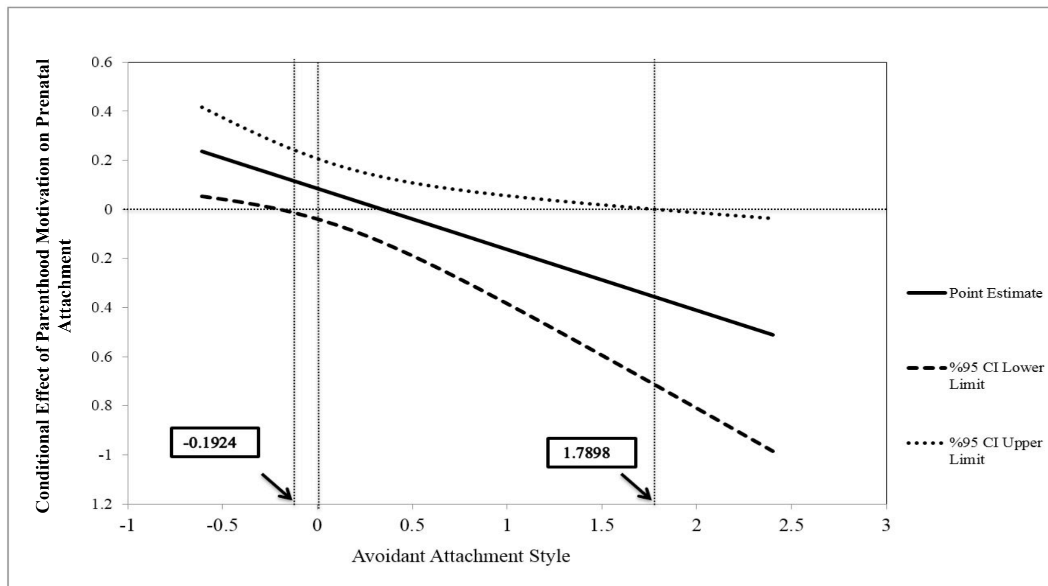


Figure 23. The relation between Parenthood Motivation and Prenatal Attachment for Different Values of Avoidant Attachment Style

Note 1. Critical points: -.1924, 1.7898
Note 2. CI: Confidence interval

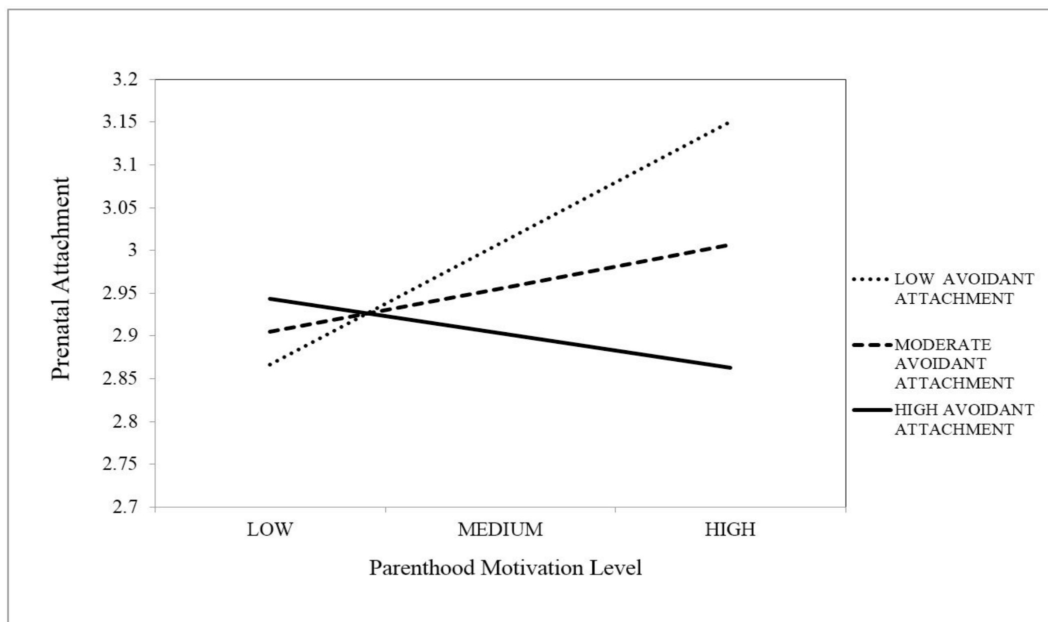


Figure 24. Relationship between Parenthood Motivation and Prenatal Attachment for Different Levels of Avoidant Attachment Style

3.4.2.4. Moderation Analyses Examining the Relation between Parenthood Motivation and Pregnancy Adaptation

The last set of moderation analyses were conducted to investigate the moderator roles of prenatal distress, perceived social support with three dimensions (i.e., family, friends and significant other) and adult attachment styles (i.e., anxious and avoidant) on the relation between parenthood motivation (IV) and pregnancy adaptation (DV). For this aim, separate analyses were conducted for each of the moderator.

The results demonstrated that neither of the interaction effects were found significant in terms of overall pregnancy adaptation scale. However, when these moderator effects were tested based on the dimensions of pregnancy adaptation, among all these analyses two of them were found to be significant. These significant findings were evaluated based on the critical value obtained via Johnson and Neyman (1936) method and pick-a-point approach (Bauer & Curran, 2005), and in the following part only these significant results were presented. The summary of all results concerning this model can be seen in Table 16.

Table 16. *Summary of Moderation Analyses for the Relation between Parenthood Motivation and Dimensions of Pregnancy Adaptation*

Independent Variable	Moderator	Dependent Variable	Moderation	Confidence Interval
Parenthood Motivation	Prenatal Distress	Concern for the Well-being of Self and Baby	Yes	Significant
Parenthood Motivation	Perceived Social Support from Family/ Friends/ Significant Other	Concern for the Well-being of Self and Baby	No	Not Significant
Parenthood Motivation	Anxious/Avoidant Attachment	Concern for the Well-being of Self and Baby	No	Not Significant
Parenthood Motivation	All moderator variables	Acceptance of Pregnancy	No	Not Significant
Parenthood Motivation	Perceived Social Support from Significant Other	Identification with Motherhood Role	Yes	Significant
Parenthood Motivation	Prenatal Distress/ Attachment Styles/ Perceived Social Support/from Family/Friends	Identification with Motherhood Role	No	Not Significant
Parenthood Motivation	All moderator variables	Preparation for Labor	No	Not Significant
Parenthood Motivation	All moderator variables	Fear of Helplessness and Loss of Control in Labor	No	Not Significant
Parenthood Motivation	All moderator variables	Relationship with own Mother	No	Not Significant
Parenthood Motivation	All moderator variables	Relationship with Husband	No	Not Significant

3.4.2.4.1. Moderator Role of Prenatal Distress on the Relation between Parenthood Motivation and Concern for the Well-being of Self and Baby

When the analyses were conducted based on dimensions of pregnancy adaptation, the moderator role of prenatal distress on the relation between parenthood motivation and women's concern for the well-being of self and baby was found significant (R^2=.44, $F(3, 181) = 46.99$, $p < .001$). In the analysis, the interaction was also significant ($B = -.44$, $SE = .17$, $p = .01$) and critical value was -.0174 ($B = -.12$, $SE = .06$, $p = .05$, 95% CI [-.2489,0]). The results revealed that when the scores of prenatal distress (M) were above this critical point, the relation between parenthood motivation (IV) and concern for the well-being of self and baby (DV) is significant. This means that increased prenatal distress levels can intensify the negative influences of parenthood motivation on pregnancy adaptation in terms of concern for self and baby (see Figure 25).

Similar trend can be also observed from Figure 26. When women had medium or high levels of parenthood motivation, experiencing higher prenatal distress decreased their pregnancy adaptation in terms of concern for well-being of self and baby. However, if they had lower motivation for parenting, the level of prenatal distress did not create any significant difference in terms of their pregnancy adaptation (see Figure 25 and 26).

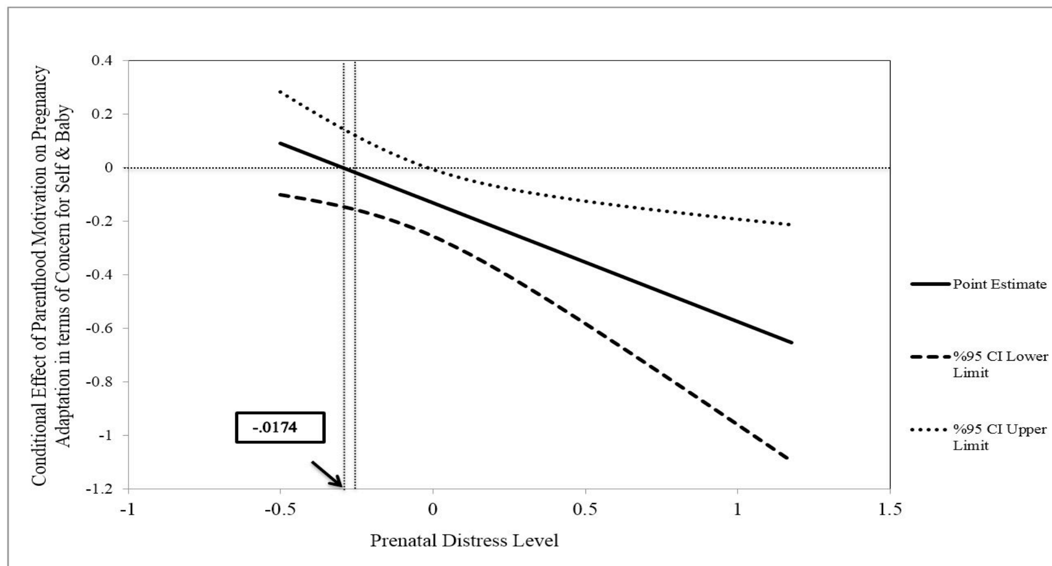


Figure 25. The relation between Parenthood Motivation and Pregnancy Adaptation in terms of Concern for Self and Baby for Different Values of Prenatal Distress Levels

Note 1. Critical point: -.0174
Note 2. CI: Confidence interval

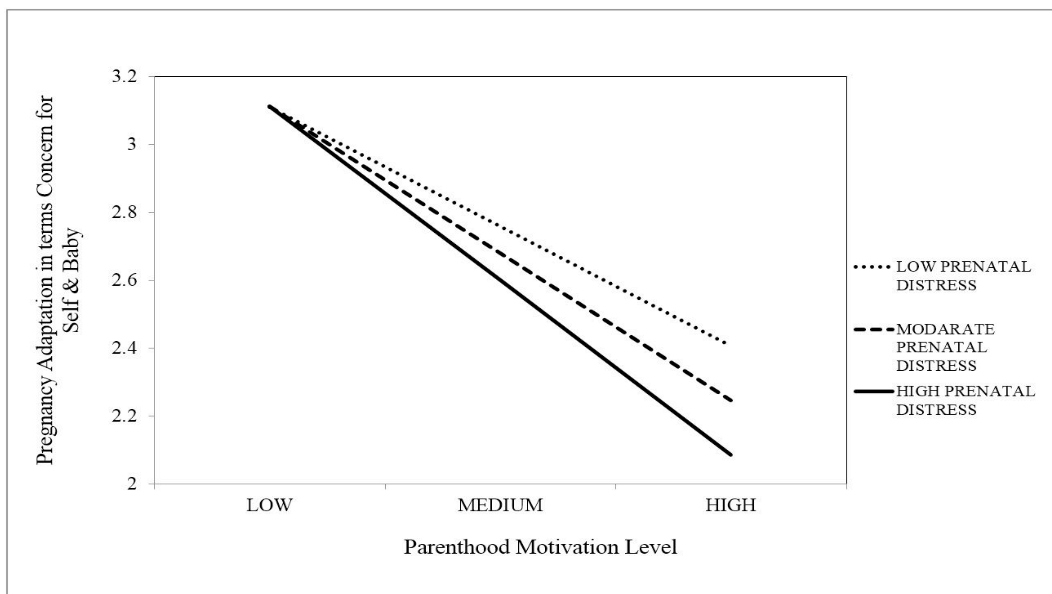


Figure 26. The relation between Parenthood Motivation and Pregnancy Adaptation in terms of Concern for Self and Baby for Different Levels of Prenatal Distress

3.4.2.4.2. Moderator Role of Perceived Social Support from Significant Other on the Relation between Parenthood Motivation and Identification with Motherhood Role

Lastly, the moderator role of perceived social support from significant other on the relation between parenthood motivation and identification with motherhood role which is another dimension of pregnancy adaptation, was investigated. Overall model (R^2=.14, $F(3, 181) = 9.74$, $p < .001$) and interaction ($B = -.07$, $SE = .03$, $p < .05$) were found significant. In the analysis, when the conditional effect of parenthood motivation (IV) on identification with motherhood role (DV) was investigated for different levels of perceived social support from significant other (M), the critical point was .5584 ($B = .09$, $SE = .04$, $p = .05$, 95% CI [0, .1719]). When the scores of social support from significant other is below this critical value, the conditional effect of parenthood motivation on pregnancy adaptation of identification with motherhood role increased significantly (see Figure 27).

In addition, as can be seen in Figure 28, for all the levels of parenthood motivation, as women's perceived social support from significant other increased, their pregnancy adaptation in terms of identification with motherhood role also tended to increase. In this relation, women's parenthood motivation levels revealed positive association with their pregnancy adaptation, and perceiving greater social support from significant other led to increased pregnancy adaptation in terms of identification with motherhood role.

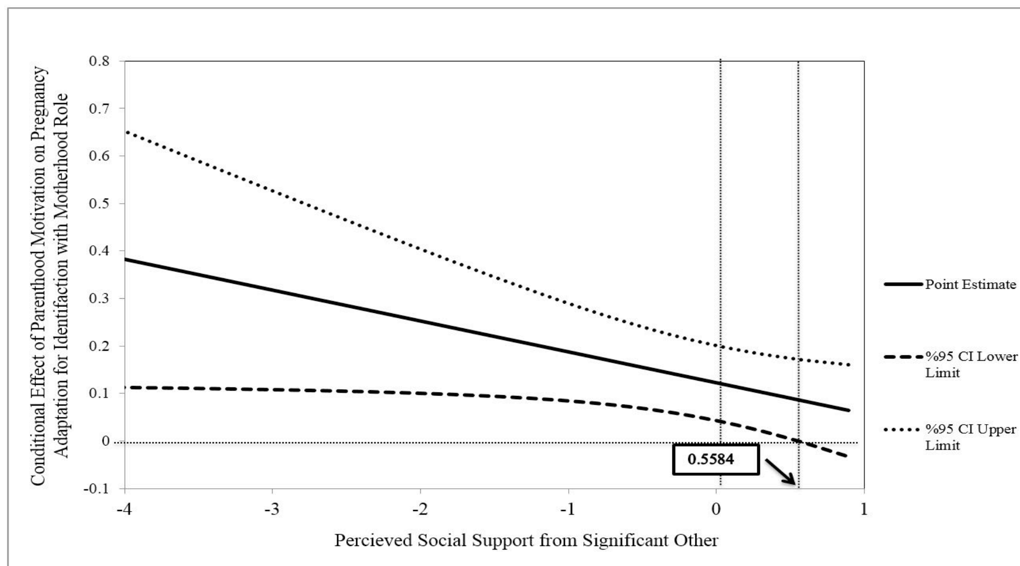


Figure 27. The relation between Parenthood Motivation and Pregnancy Adaptation in terms of Identification with Motherhood Role for Different Values of Perceived Social Support from Significant Other

Note 1. Critical point: .5584
Note 2. CI: Confidence interval

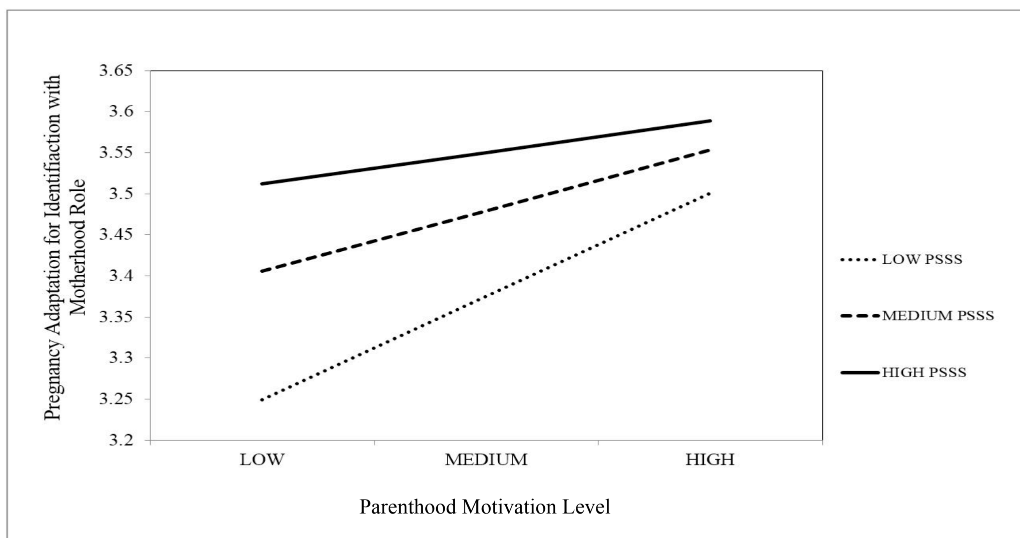


Figure 28. The relation between Parenthood Motivation and Pregnancy Adaptation in terms of Identification with Motherhood Role for Different Levels of Perceived Social Support from Significant Other

Table 17. *The Summary of all Significant Results*

Independent Variable	Moderator	Dependent Variable	Moderation	Confidence Interval
Prenatal Distress	Perceived Social Support from Friends	Pregnancy Adaptation	Yes	Significant
Prenatal Distress	Anxious Attachment	Pregnancy Adaptation	Yes	Significant
Prenatal Distress	Perceived Social Support	Concern for the Well-being of Self and Baby	Yes	Significant
Prenatal Distress	Perceived Social Support from Friends	Concern for the Well-being of Self and Baby	Yes	Significant
Prenatal Distress	Perceived Social Support from Friends	Fear of Helplessness and Loss of Control in Labor	Yes	Significant
Prenatal Distress	Anxious Attachment	Concern for the Well-being of Self and Baby	Yes	Significant
Prenatal Distress	Anxious Attachment	Fear of Helplessness and Loss of Control in Labor	Yes	Significant
Parenthood Motivation	Prenatal Distress	Prenatal Attachment	Yes	Significant
Parenthood Motivation	Avoidant Attachment	Prenatal Attachment	Yes	Significant
Parenthood Motivation	Prenatal Distress	Concern for the Well-being of Self and Baby	Yes	Significant
Parenthood Motivation	Perceived Social Support from Significant Other	Identification with Motherhood Role	Yes	Significant

3.5. Discussion

In this study, series of moderation analyses were conducted and the role of each moderator variable was investigated separately.

In the first two models, the moderator roles of perceived social support and insecure adult attachment styles were investigated with regards to the association of pregnancy specific prenatal distress with pregnancy adaptation and prenatal attachment. In the third and fourth models, prenatal distress was included as another moderator variable. In these models the moderator roles of prenatal distress, perceived social support, and insecure adult attachment styles were examined in the association of parenthood motivation with both prenatal attachment and pregnancy adaptation.

In this part, following a brief overview of correlational analyses, significant findings of moderation analyses were presented and discussed.

3.5.1. Correlational Analyses

The results of correlational analyses demonstrated that, in consistence with previous findings (e.g., Jesse et al., 2005; Łepecka-Klusek & Jakiel, 2009; Norbeck & Anderson, 1989; Reece, 1995), prenatal distress is negatively correlated with pregnancy adaptation and perceived social support, and there is a significant positive correlation between pregnancy adaptation and perceived social support. This means that, as women's prenatal distress levels increase, their pregnancy adaptation and perceived social support tend to decrease; in case women perceive greater social support, on the other hand, their pregnancy adaptation increases.

In terms of attachment styles, it was found that anxious and avoidant attachment styles have negative correlation with pregnancy adaptation and positive correlation with prenatal distress. As stated earlier, insecure attachment patterns are associated

with higher pregnancy related worries (Trillingsgaard, et al., 2011), higher levels of stress, and lower well-being in prenatal period (Mikulincer et al., 1998). Moreover, they had negative associations with perceived social support, because as Vogel and Wie (2005) also demonstrated, due to negative internal working models, insecure attachment styles are associated with having less supportive social relations. In addition, there was a positive correlation between anxious attachment style and parenthood motivation, which is parallel with the finding that anxious-ambivalent individuals are more enthusiastic about having children (Rholes et al., 1997).

In terms of dimensions of pregnancy adaptation, parenthood motivation revealed positive associations with acceptance of pregnancy and identification with motherhood role, which is parallel to the finding that having higher desire for having children is associated with perceiving parenthood as more substantial and fulfilling experience (Rholes et al., 2006). Moreover, there was a negative correlation between parenthood motivation and relationship with husband which may due to the finding indicating that as couples' relationship worsen, their parenthood motivation can increase, because women with infertility problems can think that having children will make their spousal relation better (Cassidy & Sintrovani, 2008; Van Balen & Trimbos-Kemper, 1995; Newton et al., 1992). Lastly, these analyses revealed that pregnancy adaptation and prenatal attachment, which were the dependent variables of the current study, are positively associated; as women's pregnancy adaptation increases, their maternal-fetal attachment can also increase (Hammarberg et al., 2008). Therefore, this can be the reason of why pregnancy adaptation interventions are prevalently used to intensify women's prenatal attachment levels (Baghdari, Sahebzad, Kheirkhah, & Azmoude, 2016).

3.5.2. Moderation Analyses Examining the Relation between Prenatal Distress and Pregnancy Adaptation

Moderation analyses conducted for the first model demonstrated that for the relation between prenatal distress and pregnancy adaptation, the moderator roles of perceived social support from friends and anxious attachment style are significant. In this section, these significant results will be discussed.

3.5.2.1 Moderator Roles of Perceived Social Support from Friends on the Relation between Prenatal Distress and Pregnancy Adaptation

In terms of significant role of perceived social support from friends, the results emphasized that higher levels of friend support buffer the negative effects of prenatal distress on pregnancy adaptation, which is in accordance with *stress buffer hypothesis* (Cohen & Wills, 1985). As participants perceived greater support from their friends, the influences of prenatal distress were decreased and women's pregnancy adaptation level was increased. Regarding this finding, it was previously mentioned that stress and social support are important predictors of women's pregnancy adaptation (Kuo, Wang, Tseng, Jian, & Chou, 2007), and social support could increase women's pregnancy adaptation by compensating the negative effects of stress (Jesse et al., 2005). Although some of the findings in literature emphasized that regardless of their higher anxiety levels, ART-conceived expectant mothers have positive psychological states (McMahon et al., 1999; Hjelmstedt et al., 2003) and they tend to underestimate the difficulties of pregnancy (Golombok et al., 2001); in this study, as hypothesized, it was found that prenatal distress have a negative impact on ART-conceived expectant mothers' pregnancy adaptation, which is parallel to the findings of Łepecka-Klusek and Jakiel (2009). Thus, by decreasing their level of distress, social support could increase women's psychological adjustment (Brown, 1986) and pregnancy adaptation (Chou, Avant, Kuo, & Fetzer, 2008), and make them have better psychological health (Glazier et

al., 2004). The more support the women have, the less stress they experience during their pregnancy (Chou et al., 2008).

In the analysis, perceived social support from friends was found to be the only significant source of support moderating for the relation between prenatal distress and pregnancy adaptation. Although partners are thought to be the primary means of social support, these findings confirmed that protective factors can also exist outside the home (Amir et al., 1999). Relevantly, Amir and colleagues (1999) showed that perceived social support from co-workers could become an important agent to buffer infertile individuals' stress levels. Martins and colleagues (2011) mentioned that unlike social support from family and spouse, friends could encourage infertile women by using active-confronting coping mechanisms such as reading about the subject they are concerned with or letting them express their emotional difficulties. Friends' encouragement and supportive recommendations can be useful also during ART-conceived women's transition to parenthood (Gameiro, Moura-Ramos, Canavarro, & Soares, 2010). With reference to the results of the present study, it was seen that perceiving these types of supportive attitudes from their friends can decrease ART-expectant mothers' prenatal distress and help them to better adapt to the pregnancy process.

Regarding this moderation analysis, it is important to note that, for participants who had higher prenatal distress levels, perceived friend support did not have any significant buffering effect. Moreover, in high stress condition there was no significant difference between low, moderate and high perceived social support in terms of pregnancy adaptation. These findings were inconsistent with the suggestion that as persons' stress level increase, they need higher social support to compensate negative influences of stress (Helgeson, 2003). However, as Quittner, Glueckauf, and Jackson (1990) mentioned, in the case of chronic stress and ongoing illnesses, receiving social support could disturb the patients and they could perceive

such supportive efforts as intrusion or as an indicator of their incompetence. Due to their excessive stress levels, perceiving social support and seeking help from others can be unhelpful for these patients and make them feel inadequate (Hobfall & Lerman, 1988). Since these women still feel like infertile (Hjelmstedt, Widström, Wramsby, & Collins, 2004; Olshansky, 1990) and have persistent stress, these explanations could be beneficial to understand as to why highly-distressed ART-conceived expectant mothers could not benefit from perceiving social support from their friends.

When the analyses were conducted for the dimensions of pregnancy adaptation, similar trends were also observed. In terms of participants' adaptation regarding their concern for the well-being of self and baby, both perceived general social support and perceived friend support revealed stress buffering effect. Higher social support buffered the negative effects of prenatal distress on participants' baby and self-related concerns. These findings are remarkably consistent with the literature findings. In many studies it was revealed that women who have complications during pregnancy (Yakupova, Zakharova, & Abubakirov, 2015) and/or who conceived via ART have frequent fears about having miscarriages or losing their baby, health related concerns about themselves and their baby, and worries about the childbirth (McMahon et al., 1997). These expectant mothers can be very anxious and fearful about the health and survival of the fetus (Hjelmstedt et al., 2003; McMahon et al., 1997), and through social support their psychological adjustment (Glazier et al., 2004) and emotional well-being can be regulated (Baor & Soskolne, 2012).

Another significant moderator role of perceived friend support was observed on the association between prenatal distress and participants' pregnancy adaptation in terms of fear of helplessness and loss of control in labor. Results revealed that perceiving greater support from their friends buffered the negative influences of

prenatal distress and increased women's adaptation in terms of fear of helplessness and loss of control in labor. As mentioned earlier, due to their past experiences, ART-conceived women can feel anxious and no control over the process (Harris & Daniluk, 2010) and this can also negatively influence their pregnancy adjustment (Hjelmstedt et al., 2006). Due to their higher levels of pregnancy-related stress, ART-conceived women can reveal increased birth fear (Poikkeus et al., 2006) and become anxious about the complications during childbirth and separating from the baby after the birth (McMahon et al., 1997). Based on this information, it can be evaluated that, through perceived friend support, women can feel in control over the process, and negative influences of stress about birth fear can be buffered. In addition to this, it is also important to note that this model also revealed that in the case of higher levels of prenatal distress, social support can be disruptive for people who have chronic stress. As emphasized in previous studies (Mindes et al., 2003; Quittner et al., 1990) it was observed that, if highly stressed women perceive higher social support from their friends, their adaptation for the fear of helplessness and loss of control in labor is negatively affected.

Regarding the significant findings of the present study, it should be noted that although in numerous infertility-related studies partner and family support were found as fundamental stress-buffering sources (e.g., Gibson & Myers, 2002; Martins et al., 2011) for present results this was not the case. In this study, perceived social support from family and significant other did not take any moderator role for ART-conceived women's pregnancy adaptation. This might be due to the fact that most of the time infertile couples keep their problems like a secret and share the bad news only with their partners and intimate family members, and they can obtain social support mainly from them (Peronace, Boivin, & Schmidt, 2007). Following the conception, however, the dynamics might be altered. It was thought that since families and partners take part in the infertility and treatment process, they can also be stressful during pregnancy and cannot manage the

expectant mothers' stress. For this reason, receiving social support from outside the home can be more helpful throughout the pregnancy process of previously infertile women (Amir et al., 1999). Apart from this, regarding unsupportive social relations, it is important to note that while having relation with infertile patients, sometimes people unintentionally fail to be supportive (Helgeson, 2003). With the purpose of being helpful, they advise patients to be optimistic, look at the better side of the situation, and be stress-free. Believing that talking can intensify patients' stress, some people do not tackle the patients' stress and abstain from talking about their problems. Although they have good intentions while behaving like this, their attitudes cannot be supportive (Helgeson, 2003). As observed also for cancer patients who experience chronic stress (Dakof & Taylor, 1990), these unsupportive social interactions can also be prevalent for infertile patients, which can intensify their emotional problems and decrease their psychological adjustment to the process (Mindes, Ingram, Kliewer, & James, 2003). Therefore, while considering the significant moderator role of perceived social support from friends, on the association between ART-conceived women's prenatal distress and pregnancy adaptation, these explanations can be useful in terms of understanding the relations.

3.5.2.2. Moderator Role of Anxious Attachment Style on the Relation between Prenatal Distress and Pregnancy Adaptation

Secondly, the moderator role of anxious attachment style on the relation between prenatal distress and pregnancy adaptation was found significant. Results demonstrated that anxious attachment style positively influence the effect of prenatal distress on pregnancy adaptation. In other words, higher level of anxious attachment style increased women's pregnancy distress and in this way decreased their pregnancy adaptation. In contrast, as participants' anxious attachment levels decreased, the impact of prenatal distress on pregnancy adaptation also decreased, which in turn increased their pregnancy adaptation level. As the attachment theory

suggested, anxious-ambivalent attachment pattern becomes a risk factor increasing person's stress and anxiety levels, in the presence of a problem (Mikulincer & Florian, 1995; Mikulincer, Florian, & Weller, 1993). Moreover, as earlier studies indicated, anxious attachment style can have a stronger influence on expectant mothers' pregnancy-related distress (Trillingsgaard et al., 2011), decrease their psychological adaptation (Amir et al., 1999) and emotional well-being (Mikulincer et al., 1998).

In accordance with the first set of analyses, when the study was conducted for the subscales of pregnancy adaptation, significant moderator role of anxious attachment style was found for "concern for the well-being of self and baby" and "fear of helplessness and loss of control in labor" dimensions. More precisely, as the participants' anxious attachment levels decreased, the negative effect of prenatal distress also decreased. In addition, women's adaptation in terms of concern for self and baby and fear of helplessness and loss of control in labor tended to be better. These findings suggested that anxiously attached individuals' excessive worries about losing their attachment figure (Shaver & Mikulincer, 2008) interact with previously infertile women's excessive fear of losing their baby (McMahon et al., 1997; Hjelmstedt et al., 2004) and sense of loss of control over the process (Litt et al., 1992). These expectant mothers can display greater adaptation difficulties in terms of health related concerns and birth fear.

It is important to note that while investigating the moderator role of insecure attachment styles, avoidant attachment did not reveal any significant effect on the relation between prenatal distress and pregnancy adaptation. This might be associated with the finding that women with avoidant coping strategies can suppress their high levels of anxiety and pretend as having low anxiety levels (e.g., Boivin, Takefman, Tulandi, & Brender, 1995; McMahon et al., 1997). For this reason, ART-conceived expectant mothers with avoidant attachment styles can ignore their

prenatal distress and may not reveal any significant differences concerning pregnancy adaptation.

3.5.3. Moderation Analyses Examining the Relation between Parenthood Motivation and Prenatal Attachment

When the moderator roles of prenatal distress, perceived social support, and insecure attachment styles were investigated in terms of the relation between parenthood motivation and prenatal attachment, results revealed that prenatal distress and avoidant attachment styles have significant moderator effects. In this section these findings were discussed.

3.5.3.1. Moderator Role of Prenatal Distress on the Relation between Parenthood Motivation and Prenatal Attachment

The results concerning the significant moderator role of prenatal distress on the relation between parenthood motivation and prenatal attachment showed that, as participants' distress levels increased, so do the effects of parenthood motivation on prenatal attachment. Moreover, the findings emphasized that, for low and moderate levels of parenthood motivation, as participants' prenatal distress levels increased, their prenatal attachment tended to decrease. This suggested that higher stress level is associated with lower prenatal attachment (Condon & Corkindale, 1997; Lindgren, 2001), which is aligned with earlier findings. Since ART-conceived expectant mothers have negative experiences during infertility and treatment process, these life events can negatively influence their prenatal attachment level (Armstrong & Hutti, 1998). For this reason, as noted in previous studies, they can delay having emotional connection with the fetus (McMahon et al., 1997, 1999) and postpone preparation for the baby (Bernstein et al., 1994; McMahon et al.,1999). However, in the present study, these types of behaviors concerning low prenatal

attachment were observed only when the participants had low or moderate levels of parenthood motivation.

In the analyses, for the participants with higher parenthood motivation levels it was observed that the results revealed counter slope. This means that in the case of higher parenthood motivation, increased prenatal distress level could generate higher prenatal attachment, which can be evaluated as unhealthy or a preoccupied form of prenatal attachment. This finding is also consistent with the existing literature. ART-conceived expectant mothers crave for having children and until they get pregnant they are exposed to long-standing infertility periods (Levy, 1970). Since they make a great effort to achieve this pregnancy and are highly motivated for having children, they can be excessively anxious about the infant's well-being (Gibson, Ungerer, McMahon, Leslie, & Saunders, 2000) and have increased fear of losing their baby (e.g., Litt et al., 1992; Yakupova et al, 2015). Accordingly, to protect their unborn baby they can have preoccupied attitudes towards their unborn baby and display more emotional involvement and protectiveness towards the fetus (Agostini et al., 2009; Van Balen, 1996; Fisher et al., 2008).

3.5.3.2. Moderator Role of Avoidant Attachment Style on the Relation between Parenthood Motivation and Prenatal Attachment

The results of analyses concerning the moderator role of avoidant attachment style on the relation between parenthood motivation and prenatal attachment emphasized that if women have high or low levels of avoidant attachment, the results are significant. It was found that when women have high avoidant attachment, there is a negative association between parenthood motivation and prenatal attachment: As motivation increased, prenatal attachment decreased. It can be said that higher avoidance can suppress the relation between higher desire for having children and prenatal attachment. Even though these women can be highly motivated for parenthood, due to their consistent fear of losing their baby, they can delay relating

with the baby (Bernstein et al., 1994; McMahon et al., 1997). Having higher parenthood motivation can also be another source of stress (Langdridge et al., 2000), and when these highly motivated women have avoidant attachment styles, they can build lower prenatal attachment with the fetus to be able to cope with this stressful situation. According to Bowlby (1973), due to insufficient attachment relations in their childhood and adolescence years, individuals with more avoidant attitudes do not make effort to get engaged in any intimate relationships; especially in stressful situations, they refrain from attachment-related behaviors. Having distant relations with children can be emotionally comfortable for them, because they see themselves as incapable of taking care of a baby. For this reason, these women's desire for having children can be negatively affected by their avoidant attachment style (Rholes, Simpson, Blakely, Lanigan, & Allen, 1997). They can be more emotionally detached (Rholes et al., 1995), excessively stressful and dissatisfied in their relationships with children (Rholes et al., 2006).

As the second significant finding for this association, it was revealed that when women have low levels of avoidant attachment, the relation between parenthood motivation and prenatal attachment is positively affected. In this case, lower avoidant attachment pattern had an intensifier role and as the women's parenthood motivation levels increased, their prenatal attachment also increased. In fact, this result was in the same direction with aforementioned finding: while higher avoidance can decrease the well-being of ART-conceived expectant mothers, lower avoidance can lead to positive psychological states. Therefore, this finding demonstrated that higher avoidant attachment style can decrease women's emotional adjustment (Amir et al., 1999) and lead them to perceive parenting as more stressful (Rholes et al., 2006). However, in the case of lower avoidance because of having more secure attachment pattern, the negative influences of stress could be buffered (Mikulincer & Florian, 1995); they could have less worries regarding prenatal period (Mikulincer & Florian, 1998) and display more emotional

well-being (Lowyck et al., 2009). When these women are strongly motivated for parenting, they establish more secure and stronger bonds with their baby, as Brenning and colleagues (2015) suggested.

3.5.4. Moderation Analyses Examining the Relation between Parenthood Motivation and Pregnancy Adaptation

As the last series of moderation analyses, the moderator roles of prenatal distress, perceived social support with its three dimensions (i.e., family, friends and significant other), and adult attachment styles (i.e., anxious and avoidant) were examined for the relation between parenthood motivation and pregnancy adaptation.

In this model, based on the dimensions of pregnancy adaptation, two significant findings were discovered. In this part, these two models were discussed.

3.5.4.1. Moderator Role of Prenatal Distress on the Relation between Parenthood Motivation and Concern for the Well-being of Self and Baby

Significant moderator role of prenatal distress on the relation between parenthood motivation and concern for the well-being of self and baby emphasized that, as participants' prenatal distress levels increased, the negative relation between parenthood motivation and pregnancy adaptation in terms of concern for the well-being of self and baby intensified. Moreover, this trend was observed only when women's parenthood motivation levels were high or moderate. As mentioned before, higher parenthood motivation can also be a source of stress for ART-conceived women (Langdridge et al., 2000), and while desiring for having children, they were commonly motivated by *social pressure* (Cassidy & Sintrovani, 2008). For this reason, when these women experience higher levels of prenatal distress, their pregnancy adaptation can be negatively influenced (Kuo et al., 2007) and they can reveal increased concerns for health, well-being and survival of self and baby (Harf-Kashdaei & Kaitz, 2007; Hjelmstedt et al., 2003).

3.5.4.2. Moderator Role of Perceived Social Support from Significant Other on the Relation between Parenthood Motivation and Identification with Motherhood Role

Lastly, significant moderator role of perceived social support from significant other demonstrated that, as women perceived greater support, the association between parenthood motivation and pregnancy adaptation in terms of identification with motherhood role was intensified. Women with higher parenthood motivation demonstrated greater pregnancy adaptation for motherhood identification; and if they perceived higher social support from the significant other, their adaptation became higher. Consistence with the *stress buffer hypothesis* (Cohen & Wills, 1985), this finding indicated that social support increases women's psychological adjustment (Brown, 1986), pregnancy adaptation (Chou et al., 2008), adjustment to parenthood (Jacobson & Frye, 1991), and maternal confidence (Cronenwett, 1985). The results also revealed that perceiving social support from significant other is among the main sources of emotional support (Helgeson, 2003) and has an important place in ART-conceived women's pregnancy period in terms of achieving motherhood identification. Since the term "significant other" refers to the person other than family or friends, such as relative, neighbor, and doctor (Eker et al., 2001), the results were in line with Brucker and McKenry's (2004) finding, which suggested that health care providers can become an important source of psychosocial support for infertile individuals. Moreover, present study also confirmed the notion that protective factors can also exist outside the home for this group (Amir et al., 1999).

Although numerous studies emphasized that partners and families provide relief for infertile women (Boivin, Scanlan, & Walker, 1999; Martins et al., 2011) in the present study it was found that ART-conceived pregnant women mostly benefit from outside sources. This situation can have number of reasons. First of all, as

mentioned earlier, these people might have involuntary unsupportive behaviors (Helgeson, 2003). Secondly, due to partners' own stress and different coping-strategies (Wright et al., 1991; Williams, 1997), women may not perceive their attitude as supportive. Apart from the mothers, negative experiences or losses in the past can also adversely influence the psychology of expectant fathers, which can hamper them from being supportive towards their wives (Armstrong, 2002). Lastly, due to the Turkish cultural structure, people have strong affiliation with extended family network and these women perceive families as a source of social pressure instead of a support agent (Ayaz & Yaman Efe, 2010; Kağıtçıbaşı, 2007; Boyacioğlu & Türkmen, 2008).

3.5.5. Conclusion

This study revealed that, while investigating ART-conceived pregnant women's pregnancy adaptation and prenatal attachment, prenatal distress and parenthood motivation had predictive roles, and women's perceived social support and their own adult attachment style moderated these associations.

The first model indicated the stress-buffering role of perceived social support from friends for the relation between prenatal distress and pregnancy adaptation. It was observed in this model that, in addition to total pregnancy adaptation, ART-conceived expectant mothers' prenatal distress can negatively influence their pregnancy adaptation in terms of self and baby related concerns and birth fear. Perceiving social support from friends could buffer these adverse effects of prenatal distress, but only when women do not have high levels of prenatal distress. In high distress condition, perceiving support can make women feel insufficient, thus decrease their adaptation.

In the second set of analyses, it was apparent that, contrary to the buffering role of perceived friend support, having anxious attachment style can intensify the negative

effects of prenatal distress on pregnancy adaptation. Similar with the previous model, anxious attachment style moderated the relation between prenatal distress and women's adaptation in terms of health related concerns and fear of birth.

In the third model, the hypothesized relations between pregnancy distress and prenatal attachment, and moderator roles of social support and attachment style could not be found. Although this finding was inconsistent with our hypothesis, other literature findings also emphasized that pregnancy related distress do not change women's level of prenatal attachment (Armstrong, 2002).

In the study, the last two models were related to women's parenthood motivation. From these results, it was apparent that if motivation interact with prenatal distress, ART-conceived expectant mothers' prenatal attachment was adversely affected. On the other hand, if motivation interact with avoidant attachment style, in high avoidance condition this could reduce prenatal attachment as parenthood motivation increased. In low avoidance condition, however, since they were more securely attached and as parenthood motivation increased, women's prenatal attachment also increased. In the final model, although the findings were not significant for total pregnancy adaptation score, in terms of its dimensions the results were significant. It was found that prenatal distress deteriorates the relation between parenthood motivation and concern for the well-being of self and baby; and perceived social support from significant other can buffer this relation in terms of identification with motherhood role. All in all, these findings indicated that although ART-conceived expectant mothers' insecure attachment style is a factor that can deteriorate their prenatal attachment and pregnancy adaptation, social support, especially from the outside sources, can buffer their stress and positively influence their psychology in pregnancy.

3.5.6. Strengths of the Study

Having studied with a clinical sample and collecting data from an infertility clinic were two of the strongest aspects of the present study. It can be thought that the findings can be applicable in treatment settings. Moreover, the participants who contributed to this study were living in different regions of Turkey, and in terms of demographical characteristics they were varying in age, education, income, and number of negative trials, which made the study findings more representative.

In terms of participants and extent of the research topic, this study differs from the already-existing literature. Although ART-conceived expectant mothers' prenatal distress, prenatal attachment, and pregnancy adjustment have been investigated in many studies, neither of them have examined the moderator roles of women's adult attachment style and perceived social support while examining these relations. Similarly, studies in Turkish literature most commonly focused on comparison studies of the psychology of infertile women. It should be noted that understanding these women's pregnancy adjustment after successful infertility treatment is a newly developing research trend and to the best of my knowledge a similar comprehensive study has not been conducted yet.

3.5.7. Clinical Implications

In terms of clinical and health psychology practices, present study provided various implications. First, since social support had stress-buffering role and it increased ART-conceived women's pregnancy adaptation, it can be suggested that providing social support can enhance these women's psychological adjustment. In the study, significant moderator effect of perceived social support from friends and significant others revealed that, assembling support groups with other ART-conceived women in company with a health care provider and a clinical psychologist can be beneficial for these women; this can reduce their distress and unrealistic motivations for

having children, and can increase their prenatal attachment and adaptation. Moreover, since support from partners and family members cannot provide any buffering effect, organizing psycho-educational groups for the families and spouses might be helpful for them to realize their own role in ART-conceived women's pregnancy process.

From the results it was understood that, contrary with the effect of perceived social support, insecure attachment styles have negative influence on these women's pregnancy process. For this reason, while working with women conceived with ART, making an assessment in terms of their attachment style could be beneficial. As Wei, Heppner, and Mallinckrodt (2003) emphasized, although changing the patients' attachment pattern could not be possible via short-term counseling, clinicians should consider the patients' insecure attachment and try to provide an insight about the role of their attachment styles in this process.

Lastly, results revealed that ART-conceived women's increased parenthood motivation can also negatively influence them during the pregnancy process, especially when they have increased prenatal distress and anxious attachment style. As mentioned in the first study, women sometimes can have unrealistic and idealized motivations for having children. Until they hold the baby in their arms, these motivations put pressure on them and decrease their pregnancy adaptation. Therefore, providing psychological support and dealing with these increased expectations from having children can be helpful for these women, from treatment process to birth.

3.5.8. Limitations and Directions for Future Studies

Although the present study has outstanding strengths and important contributions to the existing literature, it also has certain limitations.

To begin with, present study solely focused on the psychological states of ART-conceived pregnant women and disregarded the psychology of close family members or partners. Since families and partners could not be found as sources of social support, differently from the infertility-oriented literature, it seems that understanding the psychology of close family members (i.e., mother, father or sibling of the women) and expectant fathers, or counting on the couples' relationship satisfaction could also be beneficial to understand as to why these women could not perceive support from these sources. Similarly, partners' attachment style was not taken into consideration in the study, but as Donarelli et al. (2012) emphasized infertile women's stress level could be correlated with the attachment anxiety of their partner. This situation can be valid even after achieving pregnancy via infertility treatment.

Lastly, since this was a survey-based study, participants' answers were within the boundaries of presented questions. However, apart from aforementioned predictors, there can be some other factors that can influence ART-conceived women's psychology during pregnancy. For this reason, enhancing these findings with qualitative studies can also be useful to understand how the experiences of ART-conceived women influence their pregnancy process and their predictions about motherhood. Therefore, the last limitation shed light on the third study of present dissertation.

CHAPTER 4

STUDY III: FOCUS GROUP INTERVIEWS ON EXPERIENCES OF PREGNANT WOMEN WHO CONCEIVED VIA ART

4.1. Introduction

Infertility and involuntary childlessness are among the most devastating and stressful situations in patients' life. Studies revealed that couples with infertility problem have higher anxiety and depression levels, which is very much alike having other serious diseases such as cancer and cardiac problems (Domar, Zuttermeister, & Friedman, 1993).

When couples receive the bad news, they take yet another turn in their lives; the compelling treatment procedures and numerous medical trials that they undergo give rise to psychological and physical hardships for them. This process affects all aspects of their lives and replace their routines with doctor appointments, by focusing on the women's menstrual cycle and having monthly hope-loss cycle (Cooper-Hilbert, 1998). Throughout this period, they are exposed to long and difficult procedures, experience repetitive trials and failures (Colpin et al., 1998), spend an emotionally compelling treatment process (e.g., Newton, Hearn, & Yuzpe, 1990) and may think about drawing away from the treatment process (Domar, Smith, Conboy, Iannone, & Alper, 2010).

As mentioned in the previous chapter, even if the treatment process had concluded successfully and the conception had occurred, the patients tend to label themselves as "infertile". Sometimes, they would have felt neither infertile nor fertile, and they could have been torn between them (Olshansky, 1990). In this respect, the literature

revealed that the negative effects of previous experiences could be proceeded regardless of successful treatment outcome and achieving pregnancy. For this reason, pregnancy and motherhood periods could also be emotionally compelling for previously infertile women (Hjelmstedt, Widström, Wramsby, & Collins, 2004). However, there are some other findings which disaffirms this notion and states that regardless of the conception type the expectant mothers' psychological states would not be differentiated (e.g., Klock & Greenfeld, 2000).

Based on this knowledge, the present study started out with the research question of "What are the experiences of pregnant women who conceived via assisted reproductive techniques?". With this aim, two focus group interviews were conducted to explore the previously infertile expectant mothers' experiences and attitudes towards the process. In this respect, before presenting the findings of current study, in this part, infertile patients' emotional experiences concerning the diagnosis and treatment process, psychological conditions after successfully getting pregnant via ART (assisted reproductive techniques), and attitudes on motherhood will be covered through the information provided by literature.

4.1.1. Infertility and Treatment Process

Infertility diagnosis can make the couples' plans upside down and change their life expectations. With their disrupted plans, the couples begin to think about new directions for their life and relationship, and consider the significance of parenthood for them (Glover et al., 2009). As mentioned in previous sections, since until they feel ready for children they arrange themselves based on the assumption that they can have children whenever they want, facing infertility creates range of emotions (e.g., Glover et al., 2009; Papaligoura, Papadatou, & Bellali, 2012; Olafsdottir, Wikland, & Möller, 2011).

When people are diagnosed with infertility, their initial reaction is the feeling of threat. Then, as the time progresses without having children the grieving process begins and they feel as if they have lost a loved one (Lazarus & Folkman, 1984; as cited in Dunkel-Schetter & Lobel, 1991). The patients get disappointed and fall into similar emotional stages with mourning and grief for the loss of their much desired baby (Atwood & Dobkin, 1992). The feeling of loss in the face of infertility is similar to the emotional stages of grief described by Kübler-Ross (1969), namely, shock, denial, anger, bargaining and acceptance. The literature about the most frequent emotional reactions of infertility suggested that after infertility diagnosis, people could follow the emotional stages of "surprise/shock, denial, anger, isolation, guilt, grief/depression, and acceptance or resolution" (Dunkel-Schetter & Lobel, 1991, p. 33).

Since being fertile is taken for granted, initial confrontation with infertility creates shock and disbelief in many couples (Atwood & Dobkin, 1992; Cooper-Hilbert, 1998). For patients, it is difficult to make sense and cope with infertility (Harris & Daniluk, 2010). At this emotional stage, people use denial as a coping mechanism. In this way, they block out the reality of this undesired situation and feel numbness and absence. Their sleep and appetitive tendencies may also be negatively affected (Atwood & Dobkin, 1992). Although initially denial seems to be useful to decrease the devastating and compelling influences of diagnosis and treatment process, in the long term it is not adaptive (Cooper-Hilbert, 1998).

As the time progresses, their feelings of helplessness rise to the surface and people reflect their emotions as a burst of anger. Their anger is mostly relevant with their ruined plans of having children. They may project their anger either towards medical team or their spouse, and/or blame their spouse for postponing child decision, or for their partner's fertility problems, if any (Cooper-Hilbert, 1998). In addition, the patients may also feel anger towards the people who can easily be

impregnated (Domar et al., 2012). As revealed in the study of Domar and Gordon (2011), 65% of participants reported anger and frustration in terms of others' easy conception, while 49% of them reported that they were uneasy about being together with pregnant women or couples having children. The patients believe that although having children is a common desire and people who have children do not take care of their children properly, being infertile is an injustice to them, indeed they would be a better mother (Glover et al., 2009). As it was stated in the qualitative study of Redshaw, Hockley, and Davidson (2007), the patients defined this situation as "unluckiness" and "unfairness", since other people could easily have children.

In addition to injustice, sometimes the patients have mixed feelings about the situation that they are in. Their emotions may be unpredictable and they may not be able to identify what they are feeling. They can feel angry for a while, and then guilty because of their temper. Each month they experience emotional rise and falls regarding menstruating (Atwood & Dobkin, 1992), because the onset of menstruation is among the most stressful situations of the treatment process (e.g., Boivin & Takefman, 1995). Not only menstruating but also treatment process puts a strain on patients. Within a short span of time, patients experience excessive emotional fluctuations like an "emotional roller-coaster". In this process they may feel intense level of stress, emotional fluctuations and loss of control (Mahlstedt, Macduff, & Bernstein, 1987). It is important to note that fluctuations and unpredictability of the patients' emotions can also be related to uncontrollability and unpredictability of the treatment process. After getting the bad news, the process makes people feel out of control and increases their level of stress. The couples begin to arrange their life based on infertility examinations and in this process, their personalities, decisions and choices lose their significance (Cooper-Hilbert, 1998). Glover and colleagues (2009) stated that during the treatment process patients try to regain the control over their lives, and improvements in medical technology gave them hope for future. However, the unpredictability of

treatment outcome and biologically based situations could also intensify their feeling of loss of control. In their study, to define the treatment process the participants used the idioms of “blindfold” and “conveyor belt” which represented their inability to control the process (Glover et al., 2009). For this reason, the treatment process could threaten patients’ self-esteem and personal adequacy (Cooper-Hilbert, 1998). As Domar and colleagues (2012) demonstrated, being in this process decreased patients’ self-esteem and made people feel shamefaced and perceive themselves as “flawed” and “inadequate” as women.

Relevant with their feeling of loss of control and decreased self-esteem, the couples may begin to feel as sexually inadequate and unattractive, and this can also hinder their desire for having sex (Cooper-Hilbert, 1998). The spontaneity of their sexual relationship is disrupted and the couples become anxious about how their spousal relationship would proceed (Cooper-Hilbert, 1998; Domar et al., 2012). Moreover, due to differences between the couples’ stress related responses and coping strategies, they may feel that they are not understood by each other (Peterson, Newton, Rosen, & Schulman, 2006). For instance, as Andrews, Abbey, and Halman (1992) demonstrated, in the face of infertility while men respond like to other stressors in their lives, women perceive this situation as a threat to their sexual identity and self. Although the couples’ coping styles were useful individually, due to this difference, men might have negative influences towards their partner (Beaurepaire, Jones, Thiering, Saunders, & Tennant, 1994). In this respect, Peterson and colleagues (2006) also found that as an emotional coping mechanism men highly use distancing and do not take infertility seriously. However, since women uncommonly use distancing as a coping mechanism, this discrepancy may cause difficulties in their relations. Thus, women can evaluate these attitudes as their partner’s being neglectful, and so they feel alone and unsupported (Williams, 1997). The literature findings showed that loneliness and isolation are more common among primary infertile women than men (Gokler, Unsal, & Arslantas, 2014), and

experiencing hope-loss cycle in each month could intensify women's feelings of loneliness and desperation (Jirka, Schuett, & Foxall, 1996). As a result of this process, the couples can be estranged from each other.

In addition to their spousal relationships, women can also isolate themselves from their social environment. Sometimes patients feel jealousy about pregnant women and try to abstain from babies and pregnant friends (Berg, Wilson, & Weingartner, 1991; Glover et al., 2009). They feel uncomfortable with their family and friends, especially if they become pregnant easily within this process. Due to their self-criticizing attitudes and feelings of embarrassment, they feel like bothering them with own infertility related problems. For these reasons, they cannot share their experiences with families and friends, they choose isolation and alienation, and so, cannot receive and request the social support they need (Cooper-Hilbert, 1998). Women in the study of Harris and Daniluk (2010) stated that during the treatment process or after they had a pregnancy loss, they chose social isolation because they "felt awkward" and did not want to answer the questions of people who were around them. For them, talking about problems was as difficult as having miscarriage, but this could also normalize their feelings and help them to decrease their negative emotions (Harris & Daniluk, 2010). It seems that although seeking social support is necessary for dealing with emotional problems, patients choose isolation and avoidance, which in turn, can further increase their level of stress (Jordan & Revenson, 1999).

The infertile patients' need of social isolation can also be related to their feeling of guilt. Csemiczky, Landgren, and Collins (2000) stated that guilt and suspicion were among the most common feelings of infertile women undergoing assisted conception. They can feel guilty because of not being able to fulfill the social and cultural expectations regarding having children (Cooper-Hilbert, 1998). They feel like they are frustrating their spouse' desire for parenthood, and if the women have

previous abortion this may also increase their feeling of guilt (Cooper-Hilbert, 1998). Moreover, due to abortion or their other "mistakes", they may think as being punished and tested by God (Cooper-Hilbert, 1998; Harris & Daniluk, 2010).

The patients believe that each trial is a new hope for achieving a better outcome. However, after each negative result their feelings of disappointment and anxiety become exacerbated (Cooper-Hilbert, 1998). Since beginning of each new treatment is a potential for experiencing negative outcome and miscarriage, it also increases their level of anxiety (Harris & Daniluk, 2010). Due to having intense psychological stress (Olivius, Friden, Borg, & Bergh, 2004), higher levels of anxiety and depression (Smeenk, Verhaak, Stolwjk, Kremer, & Braat, 2004) and burden of treatment because of physical and psychological difficulties (Verberg et al., 2008), some patients may refrain from future treatment cycles or begin to think about adoption (Harris & Daniluk, 2010). After repeated trials people sink into despair and become hopeless and depressed about the future. Their initial feelings of denial give place to grief and increased feelings of loss of loved one. For them, this situation does not only mean not being able to have children, but also refers to loss of their idealized family life. Each negative outcome increases their emotional emptiness and without children they begin to feel purposeless. The unpredictability and non-controllability of the process can make patients unwilling and powerless for future treatments (Cooper-Hilbert, 1998). According to Glover and colleagues (2009) this situation could be associated with becoming desperate about future trials. In their qualitative study they found that when the patients were undergoing treatment, they felt threat towards their femininity/masculinity and life goals. Then, after they had experienced successive negative trials, their feelings of threat gave way to feelings of loss and mourning due to their feelings of hopelessness (Glover et al., 2009). This reveals that sometimes patients' grief and depression levels can increase as the treatment proceeds (Lukse & Vacc, 1999).

As people recharge their emotional batteries, they get strength for going into next medical intervention and maintain the vicious cycle (Cooper-Hilbert, 1998). Emotional repair seems to be a prerequisite for proceeding treatment cycle, because the literature findings depicted that negative treatment outcomes are associated with increased depression and anxiety levels (Verhaak et al., 2001). Even 6 months after the last unsuccessful trial, more than 20% of women had clinical levels of depression and anxiety, and they could not demonstrate recovery (Verhaak, Smeenk, Van Minnen, Kremer, & Kraaimaat, 2005). Moreover, the grief in infertility is different from the other losses because of the fact that infertile couples also grieve for the loss of their identity, dreams, and need for parenthood (Atwood & Dobkin, 1992). They feel like losing their social status, self-worth and confidence, and due to invisible nature of these loses, patients' needs might be disregarded. The patients can be under the risk of delayed or unfinished healing of grief (Cooper-Hilbert, 1998). However, when the patients decide for a new treatment cycle, it seems that focusing on new life goals can decrease their anxiety and depression levels (Verhaak, Smeenk, Nahuis, Kremer, & Braat, 2007). For this reason, an intervention based on the grief model was not recommended for the patients who were undergoing treatment (Glover et al., 2009), because being in the treatment process can also create positive emotions such as hope and optimism for some of them (Domar & Gordon, 2011; Domar et al., 2012).

At the last stage of grief, couples begin to feel relief and accept their infertility. If they maintain their marital relations after experiencing repetitive negative trials, they look for solutions such as adoption or remaining childless (Atwood & Dobkin, 1992). In healthy resolutions infertile couples accept their infertility, maintain their marriage even if they do not have a child, or look for other treatment alternatives; however, many patients still think that infertility reflects their own defect, inadequacy and abnormality. Thus, the following process is not always easy for infertile couples (Cooper-Hilbert, 1998). Due to their vulnerability, even if the

treatment process ends up with positive outcome, the negative influences of diagnosis and trials may still persist and women's psychological adaptation during pregnancy might be adversely affected (Hjelmstedt, Widström, Wramsby, Matthiesen, & Collins, 2003).

4.1.2. Pregnancy Process

Pregnancy process after a long-awaited involuntary childlessness can be emotionally challenging for women who conceived via ART (Hjelmstedt, Windström, & Collins, 2006). Since they made both emotional and economical investments on this pregnancy and experienced numerous difficult experiences, until they take the baby in their arms sometimes women try to overlook the fact that they are pregnant (Harris & Daniluk, 2010). In many studies it was emphasized that women who had longer infertility period are more likely to have stronger fear of childbirth (Poikkeus et al., 2006). Especially if they experienced more than two treatment trials (McMahon, Ungerer, Beaurepaire, Tennant, & Saunders, 1997), the negative influences of treatment process persist and women who conceived via ART tend to be more anxious in their pregnancy period (e.g., Hjelmstedt, Widström, Wramsby, & Collins, 2003; Hjelmstedt et al., 2003). Due to prior repetitive losses, in their pregnancy process women can feel as having no control over the process and afraid of not being able to sustain their pregnancy (Harris & Daniluk, 2010). Studies revealed that either during the first (Reading, Chang, & Kerin, 1989) or third (McMahon et al., 1997) trimester these anxious and fearful attitudes can be observed.

In the literature, it was depicted that previously infertile and ART-conceived pregnant women's excessive anxiety is mostly concerned with fear of losing their baby (Hjelmstedt et al., 2003). It was presented that these women are anxious about whether their baby would live and be normal, and they have fears concerning childbearing and separation from the baby. As a result of their consistent fear about

loss of their pregnancy, after achieving pregnancy, they may delay sharing the news of their pregnancy with others (McMahon et al., 1997), and avoid from establishing a bond with the baby and getting ready for parenting roles (McMahon, Tennant, Ungerer, & Saunders, 1999). As Armstrong (2004) stated, having prior loss during pregnancy period is associated with higher level of pregnancy related anxiety which is also associated with having lower levels of prenatal attachment (Hjelmstedt et al., 2006). The impact of previous miscarriages is maintained for ongoing pregnancies and prevent women from establishing prenatal attachment. For this reason, women try to take precaution against the potential loss and do not want to get prepared for the baby (Harris & Daniluk, 2010).

The women have excess fear about losing their baby because even after achieving pregnancy they sustain the feeling of loss of control. Due to uncontrollability of the treatment, sometimes they need isolation and separateness, and they feel lack of autonomy (Redshaw, Hockley, & Davidson, 2007). For them the treatment is like "gambling or lottery" and they have chances of both winning and losing (De Lacey, 2002). Since they are lucky, they made right choices (i.e., clinic, doctor) and are awarded with pregnancy (Redshaw et al., 2007). Nevertheless, as observed in the study of Redshaw and colleagues (2007), despite their successful conception, they can still be critical about the unfairness of the treatment process. They feel emotional and physical pain, stressful, and wounded because of being exposed to difficult treatment conditions. For this reason, irrespective of the treatment outcome, routine psychological support during and after the infertility treatment seems to be necessary for the patients (Poikkeus et al., 2006; Redshaw et al., 2007).

Despite aforementioned studies in which ART-conceived pregnant women were found as having higher anxiety and depression scores, some other literature findings stated that pregnant women who conceived spontaneously and through ART did not differentiate in terms of anxiety, depression (Joelsson et al., 2017, Raguz,

McDonald, Metcalfe, O'Quinn, & Tough, 2014), pregnancy related anxiety and delivery fear (Poikkeus et al., 2006). According to Klock and Greenfeld (2000), there are no significant differences between these groups in terms of their anxiety, depression and self-esteem levels both at the first and third trimesters. Moreover, in the same study, ART-conceived expectant mothers demonstrated psychological improvement during pregnancy. In other words, as their pregnancy proceeded, their self-esteem increased and their anxiety decreased as compared to initial measurement at the first trimester (Klock & Greenfeld, 2000).

Due to their previous investments on this pregnancy, ART-women have a tendency to overlook the negative aspects of pregnancy such as weight gain or being restricted through pregnancy. For them pregnancy is a reward and compared to naturally conceived women they are highly satisfied with being pregnant (Klock & Greenfeld, 2000). In relation to this, other results demonstrated that conceiving via ART can also lead to positive emotions. For instance, according to Repokari and colleagues (2007), after successful treatment pregnant women might have lower depression and anxiety levels as compared to women conceiving spontaneously. Similarly, Harf-Kashdaei and Kaitz (2007) found that pregnant women who conceived via IVF had positive emotional states towards themselves, their babies and spouses; and their marital adjustment was not negatively affected (Repokari et al., 2007). It was stated that the participants' positive attitudes might be explained in two ways. On the one hand, this situation might be associated with their thankfulness for achieving their much desired pregnancy. On the other hand, the women's negative emotions might be concealed through their avoidant coping skills, because denial of stress and anxiety suppression are among the commonly used coping strategies for this population (Harf-Kashdaei & Kaitz, 2007). Regarding the latter explanation, previously McMahon et al. (1997) also mentioned that due to their avoidant attitudes sometimes women could demonstrate lower anxiety levels.

The findings mentioned above can be summarized that experiencing involuntary childlessness and being exposed to medical procedures may differentially influence the women during pregnancy process. Although in some studies they did not reveal any significant differences from naturally conceived expectant mothers, other studies found that in pregnancy period previously infertile women might have either more positive or more negative psychological states compared to naturally-conceived expectant mothers. It was observed that these differences could be associated with number of trials and difficulties they experienced in treatment process, having different coping skills, or some unknown reasons that should be investigated.

4.1.3. Motherhood Process

The literature findings regarding parenthood behaviors and parenting stress of previously infertile women are also contradictory. Some findings revealed that at postpartum period there were no significant differences between naturally and ART conceived mothers in terms of anxiety and depression levels (e.g., Gibson, Ungerer, Tennant, & Saunders, 2000; Raguz, McDonald, Metcalfe, O'Quinn, & Tough, 2014), parenthood related stress (Colpin & Soenen, 2002; Gibson et al., 2000; Hjelmstedt et al., 2004; Verhaak et al., 2001), parental attitudes and goal adjustments (Colpin & Soenen, 2002), general psychological adjustment to parenthood, maternal self-esteem, parenting attitudes (i.e., warmth, rigidity, and hearten children for being autonomous), protectiveness and attachment towards children (Gibson et al., 2000). Also, in terms of their children's behavioral (Colpin & Soenen, 2002; Golombok, Cook, Bish, & Murray, 1995), emotional and relationship patterns (Golombok et al., 1995), there were no significant differences between natural and ART-conceived mothers. It is important to note that as Ross, McQueen, Vigod, and Dennis (2011) emphasized in their study, although the literature findings suggested that little or no increased risk of postpartum depression

exist for women who conceived via ART, since those studies mostly consist of small sample sizes and do not have control groups, these findings might not reflect the reality and further research is necessary about this topic (Ross et al., 2011).

The other findings stated that women who had children via ART demonstrate different features compared to naturally conceived women. Since before they achieved successful pregnancy they idealized motherhood and life with children, if these expectations would not be met, they may experience mental health problems (Fisher, Hammarberg, & Baker, 2008). For instance, Hjelmstedt and colleagues (2004) interviewed IVF-conceived parents within 2 to 6 months postpartum. When they were thinking about their past experiences, although as an adaptive coping some of them admitted that they had infertility problems, others tried to keep themselves aloof from the thoughts of infertility and IVF process. Although they had achieved motherhood, some IVF mothers still presented excessive negative attitudes on infertility. According to authors, this could be an indication of patients' destructive self-image in terms of being incapable of natural conception (Hjelmstedt et al., 2004). Even though they have given birth to children, they could still feel like "infertile" (Braverman, Boxer, Corson, Coutifaris, & Hendrix, 1998). Relevant with these emotional bases, in terms of parenthood abilities they show decreased self-esteem and self-efficacy (Gibson et al., 2000). Moreover, for these mothers, higher levels of parenting stress could be highly common (Cook, Bradley & Golombok, 1998), and of these mothers the ones having multiple births demonstrated greater level of parenting stress and dysfunctional parent–child relationships (Glazebrook, Sheard, Cox, Oates, & Ndukwe, 2004). Since conception was difficult for them, they may also expect difficulties in infancy period (McMahon, Tennant, Ungerer, & Saunders, 1997). For this reason, they perceive that their own children would be more difficult (Glazebrook et al., 2004), more vulnerable and "special" than other's children (Gibson et al., 2000).

In contrast, many other studies indicated that infertility treatment does not cause any problems in parenthood (Repokari et al., 2007). Since they made a great effort to become a mother, ART-conceived mothers have positive attributions to themselves and perceive motherhood as more rewarding (Glazebrook et al., 2004). Their parenting morale could be higher and experiencing postpartum stress might be less likely for them (Raguz et al., 2014). Moreover, their parenthood experiences are affected in a positive way; they have more intense emotions, show overindulgence (Hjelmstedt et al., 2004), and try to present higher quality of parenthood towards their children (Golombok et al., 1995).

As can be seen, in terms of previously infertile women's motherhood experiences, again the findings were differentiated into three groups, although for some studies there were no significant differences between the mothers conceiving naturally and ART, for some others infertility treatment could influence the psychology of mothers for better or for worse. Although infertility diagnosis creates excessive stress as in the other serious health conditions such as cancer and cardiac problems (Domar et al., 1993), the responses regarding following process could differentiate. In many studies it was stated that due to difficult experiences in diagnosis and treatment process, the women can experience anxiety both in the pregnancy (e.g., McMahon et al., 1997; Hjelmstedt et al., 2003) and motherhood (e.g., Hjelmstedt et al., 2004) periods. However, the other studies proposed that despite the difficulties experienced in infertility process, the following process might be perceived like a reward and this would lead to better moods for pregnant women (Klock & Greenfeld, 2000) and mothers (Glazebrook et al., 2004).

4.2. The Aim of Present Study

In the light of before mentioned literature findings, in the present study, to provide a better understanding of previously infertile pregnant women's experiences from diagnosis to motherhood ideals, a qualitative approach was used. For this aim, the

research question was "What are the experiences of pregnant women who conceived via assisted reproductive techniques?" It was thought that compared to quantitative studies, qualitative data would provide richness of information with participants' own words and lead to a broader insight to women's emotional dynamics regarding treatment and following processes.

4.3. Method

4.3.1. Participants

The participants of the present study were eight pregnant women conceived via assisted reproductive techniques (ART). All of them were former patients of aforementioned IVF Clinic in Ankara. While determining the participants of the study, the purposeful sampling method was taken as a basis to create a homogenous group and to provide the richness of data. The data were collected via two separate focus group interviews. Based on the convenience of pregnant women who wanted to attend the group, the first group was arranged for 29th July 2017. Although the appointment was made for eight women, five of them participated in the session, and the other three ART-women made excuses due to their urgent medical problems such as bleeding and contraction.

After Group 1, the second group meeting was decided as 13th October 2017 and six women implied that they would participate in the group. However, yet again, three women made last minute cancellation because of their physical (e.g., uteralgia, weakness) and psychological (e.g., excessive anxiety to go out) problems within that day. For this reason, Group 2 gathered with three ART-conceived pregnant women. Since the topic was highly emotional and included the women's negative experiences before the pregnancy, as Litosseliti (2003) mentioned, it was thought that a smaller sample size became more functional for this special group. The basic information about the participants is presented in Table 18.

Table 18. *Demographic Characteristics of the Participants*

Participants (Anonymized Names)	Age	Week of Pregnancy	Occupation
Group 1			
Gamze	28	18	Unemployed
Yasemin	28	16	House wife
Fatma	32	6	House wife
İpek	33	16	Teacher
Selma	34	14	Accountant
Group 2			
Zehra	28	21	House wife
Meral	33	21	Architect
Ceyda	37	25	Editor

4.3.2. Instrument

4.3.2.1. Demographic Information Form

A brief 14-question demographic information form was prepared in order to get information about the participants' demographic characteristics (i.e., age, duration of marriage, education level, occupation, employment status) and pregnancy process (i.e., pregnancy week, twin or singleton pregnancy, number of trials, duration of struggle and treatment for having children).

4.3.3. Data Collection: Focus Group Interview

In the study, two focus group interviews were conducted with the research question of "What are the experiences of pregnant women who conceived via assisted reproductive techniques?". Krueger and Casey (2000) defined that focus group was "a carefully planned discussion designed to obtain perceptions on a defined area of

interest in a permissive, non-threatening environment" (p.5). In the present study focus group interview was chosen as an appropriate data collection method because it was thought that group interaction could provide different perspectives and a broader understanding of the topic. Also, the participants could relax during the discussion and they could have an impact on each other (Krueger & Casey, 2000). As presented in the literature, focus groups can be advantageous in terms of exploring new perspectives about a topic, understanding the reasons behind the person's thoughts and feelings, observing opinions, behaviors and thoughts of individuals while finding out their shared experiences with a particular group, and examining confusing and touchy subjects (see Litosseliti, 2003). For these reasons, while exploring the experiences of women who were impregnated via ART, focus group discussion was thought as an appropriate data collection method.

As mentioned before, while collecting data, the participants' experiences were explored via two focus groups in which five and three women participated. Regarding the number of participants for focus groups, although six to ten participants were recommended in general, in different studies it was revealed that the group size can also be four (e.g., Kitzinger, 1995) or three (e.g., Morgan, 1997) in order to provide a deeper dialogue. In addition, it was emphasized that smaller groups can provide a chance to speak more, and can be useful especially for complex, sensitive and personal subjects (Krueger, 2006; Litosseliti, 2003). Moreover, in terms of the saturation of data, Guest, Namey, and McKenna (2017) revealed that two or three focus groups can be necessary for smaller studies and for finding out more than 80% of all the themes. Therefore, based on these explanations, for the present study it was thought that the group sizes and the number of participants were sufficient for deeper understanding and data saturation.

4.3.4. Procedure

Institutional Review Board (IRB) approval was obtained from the Middle East Technical University (METU) Human Subjects Ethics Committee. In order to organize the focus groups, the patients living in Ankara and nearby cities were called, informed about the aims of the study and invited to the study. The interviews took place at the convention hall of the Clinic. On the interview day, before starting the groups, informed consent and demographic information forms were given to the participants. If they had any questions about the study, they were answered before the interviews. After they filled up the forms, the interview was opened with "ice-breaker" questions and the participants were asked to introduce themselves. Then, the discussion was started with the aim of understanding experiences of pregnant women who conceived via ART. With the aim of gaining a richer and a deeper understanding of the participants' experiences, a semi-structured interview style was used. The main questions of the study are presented in Table 19.

Each session took approximately two hours and it was audio recorded after asking for permission from the participants. The interviews were conducted in the presence of an assistant moderator who was a fourth grader psychology student at the time of the interview. During the groups, she did not join the discussions, but she took notes about the participants, managed audio devices and other technical equipment, and after the sessions, she gave feedback to the moderator. After the sessions, as an incentive, the researcher made a 15-minute informative presentation to the participants. In this presentation, firstly, in order to normalize the feelings of the participants, based on the information provided by the literature, the emotional and psychological consequences of pregnancy via ART were presented. Secondly, some advices related to pregnancy process were given. Some of these advices were about how they can express their needs and feelings, manage their fertility related stress, establish healthy communication with their social environment, and improve their

attachment with the baby. Lastly, in terms of motherhood and healthy psychological development of the baby, some important points (e.g., attachment, maternal responsiveness, mirroring) regarding mother-infant relationship were mentioned briefly. After the presentation, the participants' questions were answered, and the session was ended.

Table 19. *Sample Questions of Semi-Structured Focus Group Interview*

Research Question: What are the experiences of pregnant women who conceived via assisted reproductive techniques?
1. How do you evaluate your process of conceiving via assisted reproductive techniques?
2. How was your feeling about being infertile?
3. What was your motivation to have children?
4. How were your experiences during the treatment process?
a. How did you overcome your negative feelings?
5. How was your relationship with your husband within this process?
6. How was your relationship with your social environment? (e.g., families, friends)
7. How do you feel about being pregnant today?
8. How is your pregnancy going?
a. What are your experiences during routine controls?
b. Do you communicate with your baby?
9. What do you think about motherhood?
10. What are your dreams about the future with your baby?

4.3.5. Data Analysis: Thematic Analysis

The analysis of the transcribed focus group data was done through thematic analysis which is a commonly preferred tool for analyzing qualitative information (Boyatzis, 1998). Different from the other qualitative methods, such as interpretative phenomenological analysis and grounded theory, thematic analysis does not cling to any theoretical framework. It is more flexible and enables wealth of information even in the complex data, emphasizes the important points of a comprehensive data, and is useful for the data from the collaborative participants (Braun & Clarke, 2006). In addition, studies revealed that thematic analysis is a widely-used method for analyzing focus group discussions (e.g., Giacco, Dirik, Kaselionyte, & Priebe, 2017; Karlström, Nystedt, & Hildingsson, 2015; Segar, Taber, Patrick, Thai, & Oh, 2017). Based on this knowledge, thematic analysis was thought as an appropriate method for the analysis of data obtained from focus group discussions.

While analyzing the data, inductive thematic analysis was used for data coding. In other words, instead of relying upon prevalent coding structure or the researcher's own theoretical approach, themes were shaped based on the data itself. Moreover, themes were determined according to latent and interpretative level of content. Rather than semantic content, underlying meanings were evaluated (Boyatzis, 1998; Braun & Clarke, 2006). During the analysis, the six steps presented by Braun and Clarke (2006) were followed: Firstly, familiarization of data was achieved through transcribing, reading and writing first opinions. Secondly, initial codes were created. Thirdly, the relevant codes were gathered for searching for themes. Fourthly, a map of themes was organized. Fifthly, meaningful definitions and names of themes were decided. And lastly, the themes were reported.

4.3.6. Trustworthiness of the Study

Different from the quantitative research, subjective information is essential for qualitative studies and subjectivity, reflexivity, adequacy of data and adequacy of interpretation are important determinants of the trustworthiness of the study (Finlay, 2002). Morrow (2005) also mentioned that in qualitative studies, the researcher also becomes a tool of the research and "researcher's reflexivity" enables to realize how the experiences and world-view of the researcher influence the course of the study. In addition, in this process, the researchers can understand their own latent assumptions and prejudices, and demonstrate them to themselves and others as "bracketing" (Fischer, 2009; Morrow, 2005). Based on this notion, as the researcher of present study, I took a reflexive diary which included notes about my feelings, observations about and relationship with participants. My theoretical and clinical understanding could also affect my views and interpretations about the topic and generated themes. As a clinical psychologist, my clinical orientation is based on an eclectic approach and in my practice I integrate psychoanalytic, cognitive-behavioral, and schema therapy approaches. For this reason, while evaluating the women's experiences, these approaches may also have influenced my point of view.

Apart from this, as Elliot, Fischer, and Rennie (1999) stated, in order to check "credibility", working with a research team or a supervisor is also fundamental for qualitative studies. With this notion in mind, the themes were negotiated with a research team including the researcher, her supervisor and four graduate students who are experienced in qualitative research. The transcripts, the researcher's memos and the possible themes were reviewed and audited by the research team. During the analyses, the participants' context and socio-cultural background were also taken into consideration. Based on their ideas, the themes took their final forms.

In the study, as a newlywed woman I was an "outsider" because I was not even thinking about having children. I believe that this could be an advantage for me in

terms of objective evaluation of participants' experiences, but also could be a disadvantage in terms of gaining a deeper understanding of the women's perspectives, as presented in the literature (see Kerstetter, 2012). However, as a childless woman living in Turkey, I tried to understand the participants' point of view and considered their experiences within our cultural context. Moreover, as a clinical psychologist, I thought that understanding the experiences of women who were impregnated via ART is important for both the well-being of these expectant mothers and the healthy development of their babies. For instance, during the group interviews I observed that although the participants were pregnant, they still maintained the mourning of their previous miscarriages. They have cried for past experiences and postponed the happiness of being pregnant. This made me very upset and I felt helpless, because due to the nature of the focus group I only moderated the group and did not make any psychological intervention during the interviews. In addition to the feeling of helplessness, listening to the women's negative attributions to themselves sometimes made me feel angry. I was annoyed with the fact that the society imposes women that they are valuable only if they become mother, and with women's internalization of this attitude. After the groups, I thought that organizing psychological support groups is necessary for this population from infertility to motherhood. Therefore, while considering the results of the study, these abovementioned influences should not be underestimated.

4.4. Results

During the analyses the themes were constructed based on three time periods which were past (i.e., infertility and treatment periods), present (i.e., pregnancy period), and future (i.e., projections about motherhood). The first superordinate theme was related to infertility and treatment periods, and it was named as *feeling like an "empty can"*. The theme was divided into three subordinate themes, namely,

idealization of life with children, intense negative feelings, and *maladaptive coping strategies* including *social withdrawal, faith or confusion,* and *masking weaknesses.*

The second superordinate theme was related to pregnancy period, and it was named as *"what if I have a miscarriage"*, and this theme was divided into three subordinate themes, namely*, being stuck with the past miscarriages, perpetual apprehension* including *preoccupation with baby* and *avoidance and ignorance of baby\pregnancy,* and finally *progress towards completion.*

The third superordinate theme was named as *despair and hope* and it comprised the participants' projections about motherhood. This theme consisted of two subordinate themes which were *carrying the burden of the past* including *worries about motherhood* and *avoidance from the idea of motherhood*, and secondly *hope despite the pain of past memories.*

The superordinate themes and their subordinate themes were presented in the Table 20. All these themes with some quotations of the participants are explained in this section.

Table 20. *The Experiences of Pregnant Women Who Conceived via ART*

Superordinate Theme I. Infertility & Treatment Process: Feeling Like an "Empty Can"
1.1. Idealization of Life with Children
1.2. Intense Negative Emotions
1.2.1. Feeling Aggrieved
1.2.2. Feeling Alone and Misunderstood
1.3. Coping in Maladaptive Ways
1.3.1. Social Withdrawal
1.3.2. Faith or Confusion
1.3.3. Masking Weaknesses
Superordinate Theme II. Pregnancy Process: "What If I Have a Miscarriage"
2.1. Being Stuck with the Past Miscarriages
2.2. Perpetual Apprehension
2.2.1. Preoccupation with Baby
2.2.2. Avoidance and Ignorance of Baby\Pregnancy
2.3. Progress Towards Completion
Superordinate Theme III. Projections About Motherhood: Despair and Hope
3.1. Carrying the Burden of the Past
3.1.1. Worries about Motherhood
3.1.2. Avoidance from the Idea of Motherhood
3.2. Hope Despite the Pain of Past Memories

4.4.1. Superordinate Theme I. Infertility & Treatment Process: Feeling Like an "Empty Can"

Most of the women stated that when they learned that they were infertile and should start treatment in order to have a baby, they felt insufficient, worthless and useless, like an "empty can." They thought that since they were women and had uterus, they should bear a child. Otherwise their uterus seemed useless and as a thing that could be chucked off. For them, childbearing was essential for womanhood, this was a norm and general expectation. However, since they could not met this expectation naturally, even they did not feel any direct pressure from their social environment, they put pressure on themselves and felt incomplete.

> It's just struck me that the doctor asked me: "How do you feel?" And I said: I feel like an empty can. You know, an empty can. Straight up, I mean, whatever it is, just like something useless... Indeed, nobody made me feel this way, I mean neither my husband nor the people around me, but you feel this feeling all by yourself... You say: What if I took my uterus and chucked it off, cause this organ does not work and it probably will not work at all. As I say, you think so nonsense, like you are useless at all (Meral).
>
> *Şimdi aklıma geldi, doktor şey dedi bana: "Kendini nasıl hissediyorsun?" Boş teneke gibi hissediyorum, dedim. Bildiğiniz yani boş teneke. Hakikaten yani ne olursa olsun, işe yaramaz gibi... Yani kimse bu duyguyu bana hissettirmedi, yani ne eşim, ne etrafımdaki insanlar ama yani sen kendi kendine o duyguyu hissediyorsun... Sanki rahmimi alıp çekip atsam yani hiçbir işe yaramıyor bu organ, herhalde hiçbir işe yaramayacak diyorsun. Ya diyorum ya, çok saçma sapan fikirlere giriyor insan, bir işe yaramıyormuş gibi (Meral).*
>
> Not having your own baby, this was causing a great sense of being incomplete... (İpek)
>
> *Kendi çocuğunun olmaması, o çok eksiklik yaratıyordu… (İpek)*
>
> Yeah, I agree with my friends, I mean you feel yourself incomplete without having a child of yours (Zehra).
>
> *Evet katılıyorum arkadaşlara yani insan çocuğu olmadan kendini bir eksik hissediyor (Zehra).*

Relevantly, Ceyda presented that since continuity of lineage is believed as a responsibility of women, going against this expectation and not having children in a natural way, made them feel inadequate, unable and unnatural. This also intensified their feeling of worthlessness.

> Feeling incomplete... So, what is your natural process or the thing conveyed to you, I mean, conveyed to you from past to present? You know, a woman gets married and naturally has a baby after a period of time... well, keeping the family name alive all rests with you, I mean it is the woman who can continue the lineage. And you cannot. Maybe, we all wanted that baby since this was the thing conveyed to us. And when we couldn't manage to do it, we looked at ourselves, this is what I believe ... That's what's natural, what's natural is the emergence of that baby. But I cannot do this, I cannot cause that baby to emerge (Ceyda).
>
> *Eksik hissetme... Yani doğal süreciniz ya da size aktarılan, geçmişten günümüze size aktarılan şey nedir? Hani kadın evlenir onun doğal, hani belli bir süre sonra çocuk olur... ya hani şeyi, nesli devam ettirme olayı aslında sizde bitiyor, hani kadında bitiyor o nesli devam ettirme olayı. Neslinizi devam ettiremiyorsunuz. Belki de hani bize hep aktarılan şey bu olduğu için biz o bebeği istedik. Yapamayınca da biz kendimizde sorun aradık ben öyle düşünüyorum ... Doğal olan şey bu, doğal olan şey o bebeğin ortaya çıkması. Ama ben yapamıyorum, o bebeği ortaya çıkaramıyorum (Ceyda).*

Based on the focus group discussions it was thought that the theme of “feeling like an empty can” included some underlying subordinate themes. It was observed that the women undergoing infertility treatment idealize the life with a child, they have intense negative emotions related with feeling of aggrievedness and not feeling understood by their husbands and families. Moreover, while they were trying to cope with these emotions, they used complicated strategies which seemed ineffective. These subordinate themes will be discussed in the following sections.

4.4.1.1. Idealization of Life with Children

For the participants, having children was an ideal situation and this was the first subordinate theme of “feeling like an empty can”. During infertility period since they could not achieve this ideal, their feeling of worthlessness was intensified. They felt inadequate, because they believed that if they had children, life would be

better for them. Idealizing life with children, they thought that having children would improve their relationship with their husband, make them a complete family, and provide emotional support.

> I guess it's a totally different thing to experience that feeling (Yasemin).
>
> *Yani o duyguyu tatmak başka bir şey sanırım (Yasemin).*
>
> I guess I wanted a child to be a complete family (Meral).
>
> *Sanırım ben tam bir aile olabilmek için çocuk istedim (Meral).*
>
> I personally think that when you have children, you will have at least a port of refuge. Because, at one point, you want to see someone else at home, since you share the life of a twosome. It just seems as if you feel relieved in it (relationship) when you have children (İpek).
>
> *Çocukların olunca en azından sığınacağın bir liman olacak, yani ben öyle düşünüyorum. Çünkü bir yerden sonra iki kişi, iki kişi paylaşıyorsun ya hani, biraz insan başka kişiler görmek istiyor evde. Hani çocuklar olursa belki biraz daha (ilişkiyi) rahatlatır gibi geliyor (İpek).*

For the women, their idealization of life with children might also be related to the Turkish socio-cultural environment. Due to explicit or implicit influences of social values, the women's views about having children might have been affected. For this reason, they saw that having children was a duty of being married. They thought that they would be completed and become a whole family only after having children.

> And also, I think having a child is very important in our society due to our family values and so; becoming whole, becoming a family... I think this also impose something upon you, and also the pressure, you know... Personally I've never experienced such a thing, yet, if you married a man that you're really in love with, you just want to become a family, become whole (Meral).
>
> *Bir de sanırım bizim toplumda çocuk çok önemli, aile değerlerimiz vesairemiz, böyle bir bütün olmak, bir aile olmak… Onun vermiş olduğu bir şey de var zannediyorum, hani bir baskı da var ... Hani ben böyle bir şey yaşamadım hiç ama, yine de sen istiyorsun ki hani çok sevdiğin bir insanla evlenmişsin, bir aile olalım, tam olalım (Meral).*

In addition, some of the participants believed that children not only make them a complete family, but also become the representation of themselves. For instance, İpek idealized that a child would demonstrate how good she is and would become her "masterpiece". Her ideas bring to mind the idea that children may have a function of being the narcissistic extensions of their parents.

> This is just like a must for being a family... I mean something that is supposed to be, something like an absolute must. I was saying 'no! never twosome'. At least we would adopt a child, so it goes... A child... If only I raise a child, in the way I was raised, if only she/he becomes a good one, if only I protect her/him from evil, I mean if only I have something, a work of art, something from myself… (İpek)
>
> *Bir aile olmanın zorunluluğu gibi… hani olması gerekiyor olmazsa olmaz gibi bir şey yani. İki kişi olmaz, diyordum. İlla ki hiç olmazsa evlat ediniriz öyle gider... Çocuk… bir çocuk yetiştireyim benim gibi yetişsin, iyi bir çocuk olsun kötülüklerden koruyayım yani bir şeyim olsun, bir eserim olsunmuş gibi, benden bir şey olsunmuş gibi… (İpek)*

From the participants' ideals for having children it was understood that involuntarily childless women had some unrealistic expectations regarding having children. Since they felt themselves away from these ideals, this situation increased their feelings of worthlessness and created intense negative emotions.

4.4.1.2. Intense Negative Emotions

Due to being infertile and feeling worthless and useless like an "empty can", the participant women had intense negative emotions towards divine justice and their social environment. In the group discussions it was realized that the feelings of *aggrieved* and *alone and misunderstood* were their most apparent emotions which contained anger, sadness, hopelessness, and frustration within themselves.

4.4.1.2.1. Feeling Aggrieved

With respect to the participants' intense negative emotions, it caught my attention that most of them perceived that the life has always been hard and unfair to them. They questioned why they deserved that much difficulty. For instance, before the infertility treatment process, Yasemin was also diagnosed with multiple sclerosis. She stated that due to her illness beginning from her younger ages, she suffered from extreme hardship. Since life has always been difficult for her, she was hopeless about conceiving naturally and her fears came true. She told that after deciding for having children, she understood that she had to undergo in vitro fertilization treatment.

> It was not easy at all, I mean my life up to now, because my troubles started already after the age of 19 or something, and no diagnosis was made for a certain period of time. It was always long-drawn-out. I mean it was a very difficult time for me. Then I was diagnosed when I was 21, a year after I was married. It was so hard... On top of that, about the baby… I said, if only it could be the normal way at the very least, it would be easy for me. But that didn't happen either... (Yasemin)
>
> *Hiç kolay olmadı yani şimdiye kadar hayatım, çünkü 19 yaşından sonra falan başladı zaten sıkıntılarım, belli bir zaman teşhis konulamadı hep sürüncemede geçti. Hani çok zor bir zaman geçti benim için. Sonra işte 21 yaşında teşhis konuldu, evlendikten bir sene sonra. Çok zor geçti… Üstüne bebek konusunda… Hani ola ki normal olabilse, o bari kolay gelseydi keşke bana, dedim. O da olmadı… (Yasemin)*

In the same manner, Selma struggled with vaginismus for 5 years. She believed that she had difficulties in many aspects of life including being a 'woman'. Infertility is also among those aspects but she realized that everything was much easier for the other people who do not have problems like her. She felt being treated unfairly because she thought that despite her excessive efforts, the other women could get pregnant quickly.

> You know all those around you are getting pregnant easily, I mean this happens to them out of the blue... Also, I realize that even those who ask me questions and learn from me about the pregnancy can become pregnant in a

> short span of time! And so, they give birth to their babies before you can…This is never jealousy, but at the same time I ask myself why am I struggling so much doing this? Yeah, I’ve also had so much trouble in life, I've always struggled to achieve something, I mean everything… Ranging from my job, my marriage, including being a woman, to that I tried to do that ‘thing’ (sexual intercourse) for 5 years... I experienced a hand-wringing process, including being a mother. The things that everyone gets easily, I mean the things that one should has in a normal life... in such a difficult way ... Yet it's not clear if I’m going to get it, even so, thank God I have a chance, but why is it so hard? (Selma)
>
> *Böyle herkes rahat bir şekilde hamile kalıyor ya, hani böyle hatta sürpriz oldu filan şeyi oluyor… hatta, bana işte sorular soran, hamilelikle ilgili bilgi alan insanlar bir bakıyorum ondan sonra hamile! İşte çocuklarını doğurdu üstüne… Bu asla kıskanma değil, ama bir taraftan da neden diyorum hani neden bu kadar zorlanıyorum? Evet hayatta ben de çok zorlandım bir şeyleri hep böyle mücadele, her şeyi ama… Hani mesleğimden tutun da, evliliğimden tutun da, hani kadın olmak da dahil olmak üzere buna, hani 5 yıl “şey” olsun diye uğraştım... Zor hani şey süreçler yaşadım, anne olmak da dahil. Herkesin böyle rahat rahat, hayatta hani normal hayatında olması gereken şeyleri bu kadar zor bir şekilde... Elde edeceğim de belli değil henüz, hani o yoldayım çok şükür ama niye bu kadar zorladı? (Selma)*

Even for the loved ones, witnessing someone’s fast and easy conception, made them feel downtrodden and intensified their feelings of sadness and helplessness, as understood from the words of Meral:

> ... and I want to mention, for example, my cousin is 41 years old, a woman, she got married at the age of 40. And there it is, she got pregnant three months later. She is my closest one, because, me and my cousins, we were raised as if we were sisters. For instance, I started to cry when I heard it first ... This is not because of jealousy or ... you know, you become very happy for her but, at one point, you become so resentful to your own helplessness (Meral).
>
> *... ve şeyi söylemek istiyorum mesela kuzenim var 41 yaşında, 40 yaşında evlendi, bayan. İşte 3 ay sonra da hamile kaldı. Benim en yakınım, çünkü biz kardeş gibi büyüdük kuzenlerimle. Mesela ben duyduğumda ağlamıştım mesela… Bu ağlamak kıskançlıktan veya… ya onun için çok seviniyorsunuz ama bir yerde hani kendi acizliğinize o kadar içerliyorsunuz ki (Meral).*

Apart from this, in addition to being infertile, conceiving via ART was also perceived as unfair for them. The participants presented that during fertility treatment process they made a great deal of investment in terms of time, energy

(both emotional and physical), and also money. In order to have children, they spent excessively and for them the treatment process seemed like a gambling game. They thought that the more money they spend; the more chance of getting pregnant they will have. However, having children was “costless” and “free” for others who do not know the children’s value. In other words, they believed that despite their so many efforts and sacrifices, the ones who behave abusively and do not deserve to have children, can easily have their own kids. When they were talking, the participants seemed very frustrated because of this “injustice”.

> **Selma:** I’m not sure if it’s the right thing to compare but it’s just like gambling, I mean *(laughs)* you save money and you always bet that money to… I mean you consider the money as baby after a certain time. I said injustice, you know, this is also weird to me. That is, people are having children at no cost, also in financial terms… I say, ‘be it so, let everything go right in a healthy way, and I also say: ‘we are young, we would work’, and I encourage myself saying: ‘we can gain that money again’. But of course, there is also a financial aspect of this situation, you have to sacrifice some of the things. You have to sacrifice so many things.
>
> ***Selma:*** *Benzetmek doğru mudur bilmiyorum da kumar gibi böyle hani (Gülüyor) böyle para biriktireyim, yani şu parayı hep oraya… Yani parayı da bebek olarak görüyorsunuz belli bir süreden sonra. Hani haksızlık demiştim ya, hani bana o kısım da tuhaf geliyor. Yani insanlar bedavadan çocuk sahibi oluyor, hani maddi açıdan bakınca da. ... Hani olsun, her şey sağlıklı olsun, hani genciz çalışırız diyorum, yine kazanırız diye kendi kendimi o şekilde telkin ediyorum ama tabii olayın maddi kısmı da, bazı şeylerden fedakarlık etmek zorunda kalıyorsunuz. Birçok şeyden fedakarlık etmek zorunda kalıyorsun.*
>
> **İpek:** As she said, others somewhere else have children at no cost and you see them despising their children... They chuck them away, hither and thither... But, on the other side, you are trying to, but cannot have one.
>
> ***İpek:*** *Bir yerde insanlar, dediği gibi, insanlar bedavadan buluyor ve çocukları ne kadar hor görüyorlar onları görüyorsun... İşte atıyorlar sokağa, oraya buraya… Bir yandan da sen o kadar çabalıyorsun, olmuyor.*
>
> **Selma:** Instead, for example, I’d buy a baby’s crib.
>
> ***Selma:*** *Onun yerine çocuk beşiği alırım ben mesela.*

In terms of treatment process, besides spending too much money, they also perceive it unfair that whole treatment process proceeded in their own body. The women

were subjected to all injections and intervention techniques which could also harm their health and cause diseases like cancer. Moreover, after those trials if pregnancy did not occur, they also felt responsible as if they could not hold the baby in their uterus. I saw that they felt as being the only responsible person within the treatment process and felt aggrieved due to this situation.

> Because, at one point, only you know those details, you undergo all those processes... After all, all the drugs and injections are causing a cancer effect in the future. At one stage I had that on the brain, namely I was thinking that I would definitely get cancer in the future, I was sure that all those procedures would one day blow up in my face. I was questioning: 'Why am I the only one to undergo those procedures, why only the woman?' (İpek)
>
> *Çünkü hani belli bir noktada sadece sen biliyorsun o detayları, sen yapıyorsun bütün işlemleri… Sonuçta bütün ilaçlar, iğneler kanser etkisi yapıyor ilerde. Bir ara da ona takmıştım mesela ilerde kesin kanser olacağım, işte bunlar mutlaka bir yerden çıkacak hasta olacağım. Niye hep ben görüyorum, niye hep kadın görüyor, öyle şeylerim vardı (İpek).*
>
> Really, why am I the only one to be give those injections, I mean, over and over? It is already a difficult process. We all are given a billion injections. I said: It's a bit much! Why does this always happen to me? (Yasemin)
>
> *Hakikaten, yani niye sürekli hep bana yapılıyor, hani bu kadar üst üste zaten zor bir süreç. Bir milyar iğne yiyoruz hepimiz. Yani dedim ki bu kadar olmaz artık yani. Sürekli mi bu benim başıma gelir? (Yasemin)*
>
> All the treatment is done on me. This time I feel like I am trying to heal myself, so maybe the problem is me (Ceyda).
>
> *Her şey benim üzerimde yapılıyor, bu defa sanki ben kendimi iyileştirmeye çalışıyorum, demek sorun bende (Ceyda).*

Infertility and treatment processes were also perceived as uncontrollable for the women and this could have also intensified their feelings of being treated unfairly. The participants experienced that although the whole treatment procedures proceeded in their own body, they did not have control over the process. From the comments of the participants, I realized that regardless of the women's psychological readiness, the treatment began based on their physiological state. This

could have created the feeling of helplessness, unfairness and being downtrodden because rather than their personality, their uterus took the attention.

> I couldn't understand what was going on. When I first came here, I learnt that I came here in the very nick of time. Since I don't know anything about this thing, I learnt that I was here in the very nick of time, I mean on the day that the treatment should be started (in terms of ovulation), that's to say, it was at the very right time to come here. However, I was not aware of it, I just came here and they said: 'We are going to start the treatment now'. Right at that moment, I never had a chance to think about it, I mean I actually came here for a preliminary interview but at that day, the treatment process was started ... I don't know however, I don't know if I had no time to think of it or comprehend it, I don't know what happened, but it seemed to me like it was one thing after another. I mean it was at a moment's notice, like a flash (Yasemin).
>
> *Ne olduğunu anlamadım, ben buraya ilk geldiğim gün tam zamanında gelmişim, hiç bilmediğim için bu konuyla alakalı bir şey, tam gününde gelmişim, tedaviye başlanacak zamanda gelmişim, (yumurtlama bakımından) yani her türlü tam zamanında gelmişim. Bilmiyorum tabii ben bunu, geldim o gün 'tedaviye başlıyoruz' denildi. Hemen yani hiç düşünme fırsatım bir şeyim olmadı yani ben aslında buraya ön görüşme diye gelmiştim ama direkt o gün tedaviye başlandı. ... Ama işte yani ne bileyim ya düşünmek için idrak etmek için mi fırsatım olmadı, ne oldu bilmiyorum ama her şey üst üste geldi gibi bir şey oldu bende. Hani apar topar, çar çabuk oldu her şey (Yasemin).*
>
> You are acting in the right time, coming here, everything is planned and ready this time, but gosh! One of your hormones is found to be high, it is all left for another time. Then you have to postpone it one more time, you have to take time off from work, you have to calculate menstrual cycle... (İpek)
>
> *Şimdi tam denk getiriyorsun geliyorsun buraya her şey planlı, hazır bu sefer, hoop bir hormonun yüksek çıkıyor, başka zamana. İşte sonra bir daha ertelemek zorundasın, izin almak zorundasın, adetini hesaplamak zorundasın... (İpek)*
>
> This is something like failing, I mean you are doing everything you can, but this is not happening (Meral).
>
> *Sanki yani sen elinden gelen her şeyi yapıyorsun ama olmuyor bir türlü (Meral).*
>
> I mean, as you say, it is now the ovulation period, you cannot go *(they laugh).* Your sexual intercourse is really going on with a certain plan, I mean this is in fact something bad (Ceyda).

> *Yani sizin de dediğiniz gibi: 'artık yumurtlama dönemi, gidemezsin.' (Gülüyorlar). Gerçekten, cinsel ilişkileriniz belli bir periyodda devam ediyor, yani hani bu kötü bir şey aslında (Ceyda).*

Infertility and feeling loss of control also made women feel like being tested or punished by God. When they could not find any explanation for the unfairness of being infertile, they thought that this could be the punishment by the God and felt guilty about their previous doings.

> When I got the negative (pregnancy test) result, I said I was being punished, Allah was punishing me (Meral).
>
> *Ben negatif sonucu alınca dedim ki yani ben ya cezalandırılıyorum, Allah beni cezalandırıyor (Meral).*
>
> My mother was unaware that she was pregnant with my fourth sibling. I wasn't happy at all, I never wanted that! I even went back to those days; I always had guilt feelings, just like: Is this happening to me since I didn't want my sibling? (İpek)
>
> *Dördüncü kardeşim olduğunda annem habersizdi. Hiç sevinmemiştim, hiç istememiştim! Oraya kadar gitti bende, hep suçluluk psikolojisi vardı, onu istemediğim için mi böyle oldu, gibi… (İpek)*

Therefore, during the discussions it was thought that experiencing difficulties in many aspects of life, witnessing others' easy conception, spending too much money for having children, and feeling loss of control due to treatment procedures made infertile women feeling unfairly treated. For this reason, all these negative emotions regarding infertility and treatment processes were contained within the theme of feelings of aggrievedness.

4.4.1.2.2. Feeling Alone and Misunderstood

Related to their feeling of aggrievedness, during infertility treatment women did not feel that they are being understood by their husband and their social circle (e.g., families, relatives, friends) and this could have exacerbated their feeling worthless like an "empty can." They thought that nobody could understand how hard the

treatment was and how they felt during that process. It seemed that this situation also intensified their negative emotions within this process. When the husbands' role and their relations were asked, most of the participants stated that they did not feel being understood by their husband and they felt left alone. The women believed that although they were the ones who were subjected to whole treatment procedures, their husbands were disinterested, avoidant and neglectful towards themselves. The women were angry about their husband's lack of empathy and being treated as if she were making the child by herself. For the participants, when they considered the operations to which they were exposed, the process was easier for the men. Nevertheless, the women observed that the men still complained about the procedures and the necessary postponements of what they had to do during the trials. All these attitudes of men made women feel alone and misunderstood.

> And also, there were times when I was very angry with my husband. I mean, you get up for injection, you proportion it correctly and then fill the injection syringe, but your man is nowhere to be found! *(they laugh)* Why? Because he does not like seeing injection... I'm going to inject it myself and he does not like to see it, because he feels a pang of sorrow in his heart. But I say: No, you will be there right beside me! I mean why am I doing this by myself? I just want him to see it too. For example, the one that must be given at 12:00 a.m... you set the alarm, you wake up and blah blah. I want him to wake up too, because I do not want to be alone. So, in this case, I become the one who is trying to have that baby (Ceyda).
>
> *Ya bir de benim eşime çok öfke duyduğum zamanlar oldu. Yani iğne vurulurken kalkıyorsun, işte dozajı işte ilacı çekiyorsun hani, yani adam ortada yok! (Gülüyorlar) Niye? Yani çünkü iğne görmekten hoşlanmıyor… Kendime iğne yapacağım ve o bunu görmekten hoşlanmıyor, içi cız ediyor. Ama diyorum ki: Hayır, yani sen benim yanımda olacaksın. Yani tek başıma ne yapıyorum, onun da görmesini istiyorum. Mesela gece 12'de vurmamız gereken… mesela saat tutuyorsun uyanıyorsun işte ne bileyim falan filan. Onun da uyanmasını istiyorum, çünkü ben tek başıma kalmak istemiyorum. E şimdi ne olmuş oluyor, çocuğu tek başıma yapmış oluyorum (Ceyda).*
>
> I too thought that I was the only one to suffer the pain. I look at him, I look this way, and he does not feel anything! (Yasemin)
>
> *Bütün eziyeti ben çekiyorum, diye düşünmedim değil yani. Bakıyorum ona, böyle bakıyorum, o hiçbir şey hissetmiyor! (Yasemin)*

> On the day of procedure, he came to give sperm. For example, he becomes so uptight about it, and I go crazy when he arrives. I mean I say: Yeah, you are alone at that room, so imagine the position I am in for an examination! I mean, this is the 3rd doctor treating me, do you think I really enjoy this? They really need to perceive this, but they cannot… (*gets angry, flushing*) I mean, you are alone at that room, there is nobody, you don't undergo an examination, nobody is seeing any part of you. You will just give it and go your way, this is the only thing you are asked to do! (Meral)
>
> *İşlem günü sperm vermeye gelmişti. Mesela şey o gün o kadar gergin oluyor ki, yani ben çıldırıyorum o geldiğinde. Yani diyorum ki: Evet yalnızsın odada, yani benim bir de muayene olduğum pozisyonu düşün! Yani bu benim 3. Doktorum, yani benim çok mu hoşuma gidiyor yani mesela? Bunu hakikaten algılamaları gerekiyor, bunu algılayamıyorlar. (Öfkeleniyor, yüzü kızarıyor) Yani yalnızsın o odada, ya yani hiç kimse yok yani, muayene olmuyorsun yani hiç kimse hiçbir yerini görmüyor hani vereceksin ve çıkacaksın üzerine düşen tek vazife bu! (Meral)*

In fact, some of the participants stated that their husbands tried to behave supportive and acknowledge them to be right. However, it was realized that the women still felt left alone and misunderstood. I thought that this situation might be relevant to the women's projections of treatment related tension and aggression towards their husband. In other words, due to being the subject and the "sole" person who are in charge of the treatment process, the women might have reflected their anger towards their husband and they did not feel understood, even when the men were caring.

> My husband was always there for me, in the treatment process, but I always thought that he did not understand me. Even I always used to tell him: I have a dream, I will make you sit on that birth stool… *(they laugh)* you feel alone, because you are in that room all by yourself. During the whole process, nothing happens without you. All in all, he only gives sperm and his duty is thus over (İpek).
>
> *Eşim hep yanımdaydı ama hani hep tedavi sürecinde, yine de beni anlamadığını düşünürdüm. Hatta hep diyorum ona: bir hayalim var seni o doğum koltuğuna oturtturacağım... (Gülüyorlar) kendini yalnız hissediyorsun, çünkü o odaya giriyorsun tek başınasın. Bütün süreçte sen olmadan hiçbir şey olmuyor. Sonuçta o sadece bir sperm veriyor ve işi bitiyor (İpek).*
>
> Of course, they acknowledge you to be right when talking. I mean, my husband, at every process, really... Well, I am complaining in a heat now,

> but he was always beside me when going and returning from there during the whole process. I mean he was there for me during my examination, he comes with me for baby control, he is taking me here and so on. Okay, we don't have any problem regarding this. Also, while talking, yes, he is aware how much I suffer from pain and how much I get upset. I mean, he says: I did not marry you for the baby, I married you for loving you, I do not want baby. I mean, this is OK, but at that moment, I mean the moment you give yourself injection, you feel anger and somehow, you want him to understand it more (Ceyda).
>
> *Tabii konuşurken hak veriyorlar. Yani benim eşim her süreçte gerçekten… Şimdi böyle öfkeyle falan şey yapıyorum ama her süreçte benimle beraber geldi, gitti. Kendi muayenemde yanımda oldu işte bebek kontrolünde yanımda işte, buraya getiriyor vesaire. Eyvallah o konuda zaten bir sıkıntımız yok. Konuşurken de, evet benim canımın çok acıdığının farkında, benim çok üzüldüğümün farkında. Yani ben bebek için seninle evlenmedim, ben seni sevdiğim için seninle evlendim, ben istemiyorum bebek, diyor. Yani bunlar evet ama yani o anda, yani o iğneyi vururken o öfkeyi duyuyorsunuz yani bir şekilde ne bileyim daha fazla anlasın istiyorsunuz (Ceyda).*

It is important to note that in both focus groups the women who were more conservative and had traditional family values were less angry towards the men. They were more acquiescent and they did not question the behaviors of their husband. They believed that it was a duty of women and men could not make anything in the treatment process. In my opinion, due to their male dominant point of views, they might have hidden their anger and feelings of being misunderstood by their husband. For instance, although their childlessness was related to male infertility, Zehra did not get angry towards her husband. She stated:

> But what can I do to him? I mean, he cannot come to give me injection... I already can give myself those injections (Zehra).
>
> *Ama işte hani ona ne yapabilirim ki, yani benim iğnelerimi vurmaya da gelemez ki… İğneleri yani kendim vurdum zaten (Zehra).*

As with their husband, the women also did not feel understood by their families and friends. The participants said that their families behaved and thought as if they understood them, and empathized with them. They tried to console the women, however those consolations were unhelpful and increased women's despair. Moreover, sometimes those individuals behaved either intrusively and tried to

interfere in the treatment process, or uninterested, ignorant, and as if nothing had happened. All these attitudes irritated women and made them feel lonely, desperate and miserable.

> My parents are like this all the time: Make Ahmet (her husband) eat that and so this happens, and you should eat that, always something new... 'It's no go, you don't make an effort to make it happen, you have to do that to make effort.' Well, my sister-in-law also had the eager to make us eat something such as pastes. I used to insist on not eating them. Indeed, she doesn't do anything bad, it's us who misunderstand everything, we misunderstand literally everything. We want them to lay their hands off, but at the same time, on us… (Ceyda)
>
> *Annemler, sürekli böyle işte Ahmet'e (eşi) şunu yedir böyle olsun, sen bunu ye, ya sürekli bir şey sen bunu ye... 'Olmuyor, olması için çaba göstermiyorsun, çaba göstermen için şunları yapman gerekiyor.' Ha, benim görümcemde de mesela bir şeyler yedirme hevesi, macunlar yedirme hevesi vardı. Ben ısrarla yemiyordum onları. Yani kadın aslında kötü bir şey yapmıyor, sadece biz her şeyi yanlış anlıyoruz, ama her şeyi yanlış anlıyoruz. O süreçte bize dokunmasınlar ama aynı zamanda dokunsunlar… (Ceyda)*
>
> My family has already stood by me until now, and they also stand by me in this case, but you cannot speak to them. For example, you say what you think, you say: I feel thus and so… and they react 'Come off it! Don't think so'... I believe they do not understand me. Indeed, those are what I really think, what I really feel (Yasemin).
>
> *Ailem yanımdaydı zaten şimdiye kadar bunda da yanımdalar ama konuşamıyorsunuz, mesela içinden geçeni söylüyorsun 'ben böyle böyle hissediyorum', 'yaa saçmalama, böyle düşünme' yani direkt aldığımız tepki bu. ... Anlamadıklarını düşünüyorum. Aslında hakikaten düşündüğüm şeyler onlar, hissettiğim şeyler (Yasemin).*
>
> My mother-in-law used to act as if nothing had happened, as if she wasn't caring about it (Zehra).
>
> *Kayınvalidem hiç sanki bir şey yokmuş gibi, umurunda değilmiş gibi davranıyordu (Zehra).*
>
> She used to tell us stories about "this and that", over and over, but always changing the channel. I mean, you don't even care about what they say, neither those words of comfort nor those exemplary stories and all. Also, the way that people try to comfort you, you feel like a wretch. I mean, to speak honestly, I'm 33 years old and I've never felt so helpless and so incapable... I was feeling desperate and miserable, and I found myself wondering if people were regarding me as a wretched one (Meral).

> *"O öyle olmuş, onun komşusu böyle olmuş da bilmem neymiş de..." ya anlatıyor anlatıyor ama oradan giriyor buradan çıkıyor. Yani hiç umurunuzda bile değil, ne o teselliler, ne o örnek verilen hikayeler şunlar bunlar. Bir de insanların sizi böyle teselli etmesi, ya kendini zavallı gibi hissediyorsun. Yani Allah var hani 33 yaşındayım hani hiçbir zaman kendimi bu kadar çaresiz bu kadar aciz bu kadar hiç öyle hissetmedim… Kendimi çok çaresiz, hani zavallı, insanlar bana zavallı, gözüyle mi bakıyor acaba diyorum (Meral).*

Some women also experienced situations in which their relatives kept their pregnancy hidden with the aim of not upsetting them. However, the women stated that despite their good intentions, getting the news later became more disappointing. The participants stated that these types of attitudes and behaviors made them angry and feel that they seem "unable".

> For example, I heard that my co-sister-in-law's sister was pregnant, I used to spend three to four days of a week with her. She was 5-month pregnant at that time, and they didn't tell me that. Everybody knew that. You should have seen the way she told me that, without wishing to sendup, 'I heard that whatshername is pregnant blah blah...' *(imitating, looking nervous)* and I said: Great, congratulations. Where's the harm? Will I go and throw myself from the sixteenth floor? Good luck with it. May Allah destine for her, and for everybody, to give birth to healthy babies. Believe it or not, it's not jealousy. I wish the best for everyone, surely. In this process, I myself only say, 'oh God, then I look pitiful, I look incapable, although I never reflect this way.'... I mean this is the most horrid and arrogant way that one can act. There are many such people, and this makes you feel more like a wretch... (Meral)

> *Mesela eltimin kız kardeşi hamileymiş, ki biz haftanın üç-dört günü beraberiz. Çocuk 5 aylık olmuş, söylemiyorlar. Herkesin haberi vardı. Şimdi bana öyle bir söyleyişi var, taklit yapıyor gibi olmasın da 'Ya işte bilmem kim hamileymiş de falan.' (taklit yaparak, sinirli görünüyor) E dedim, hayırlı olsun. Yani ne ne zarar? Gidip 16. Kattan kendimi atacak mıyım? Allah hayırlı uğurlu etsin. Sağlıkla insanlara kucağına almak nasip etsin, hani herkes için. İnanın hani kıskançlık falan değil herkes için en iyisini dilerim, yani hakikaten öyle. Bu süreçte sadece kendimi 'Allah diyorum ya, o zaman ben zavallı gözüküyorum, aciz gözüküyorum, ki hiç yansıtmamama rağmen.' ... yani bence yapılabilecek en çirkin en küstahça davranış diyeceğim bunun için. Çok insanı var ya böyle daha bir şey yapıyor insanı böyle zavallı hissettiriyor… (Meral)*

> You know that facial expression, I mean, the expression 'she will get upset'. We do not perceive it like that. They are hiding it from us, because we would be jealous of it. *(The others confirm this saying 'yes')* It is perceived this way, because we cannot have a baby. She has managed to do this, but I cannot (Ceyda).

Hani o duyunca 'üzülecek' ifadesi var ya. Biz onu öyle algılamıyoruz. Bizden saklanıyor, çünkü biz kıskanacağız. (Diğerleri 'evet' diye onaylıyor) Bu şekilde algılanıyor, çünkü benim olmuyor. Onun oldu ama benim olmuyor (Ceyda).

My co-sister-in-law is pregnant. She came and told me 'I have done such a (pregnancy) test, and so on', and I said: Well, great. I mean they thought that I would do, I mean, I would be jealous of it, I would do something... After that, we go elsewhere to see somebody, and we cannot talk about it, they don't talk about it at all. After that, I say 'thus and so', and they brush off saying 'yes, it is'. I mean they think that I will get upset and be jealous of it. Why am I supposed to get upset? (Zehra)

Eltim hamile, geldi bana söyledi işte 'böyle böyle test yaptım falan' diye, ben de 'iyi ne güzel' dedim. Yani benim şey yapacağımı düşündüler, kıskanacağımı, şey yapacağımı... Ondan sonra başkalarının yanına gidiyoruz hiç yani o konuda konuşamıyoruz, bahsetmiyorlar. Ondan sonra işte ben diyorum hani 'böyle böyle', 'he öyleymiş' deyip kestirip atıyorlar. Yani beni sanıyorlar ki, üzülecek, kıskanacak. Niye üzüleyim ki? (Zehra)

The participants also felt irritated because of excessive questions of their families and friends. This also made them feel alone and misunderstood. Although people seemed well-intentioned, again, they could not touch on women's feelings. Due to those questions, women felt interrogated, exhausted and not being taken care of.

Indeed, those around me were thoughtful, but I was bothered even by the questions asked in good faith (İpek).

Yani çevremdeki insanlar anlayışlıydı hani ama iyi niyetle sorulan sorulardan bile rahatsız oluyordum (İpek).

People are well-intentioned as they say, they ask all those to show their interest while talking, but they ask so weird questions. Even such questions as 'How many times did your embryo split?'. Among them, there are also those who had test-tube babies, and this exhausted me (Serap).

Dedikleri gibi insanlar iyi niyetli hani bunları konuşurken ilgilenmek için soruyorlar ama o kadar acayip sorular geliyor. Embriyon kaça bölünmüş diye bile hani, tüp bebek yaptıranlar da var içlerinde bu beni çok yordu (Serap).

The women mentioned that since they felt alone and did not feel understood, they also felt pressured because of the attitudes of those individuals. For instance, in their social environment women could feel uneasy if they met someone's baby. On the one hand, if they behaved sympathetically, they thought that others would feel

sorry for them, and on the other hand if they behaved carelessly they thought that others would condemn them. In both cases, they felt that people would accuse them. With respect to these thoughts, it was observed that these feelings of loneliness and being misunderstood could also be related to women's mind readings and negative attributions for others' attitudes.

> **Ceyda:** You get afraid; can you imagine this? You get afraid of two things: When you stroke (the baby), stroke (him/her) much, they will say 'what a pity, you know she cannot have a baby.' and when you don't stroke (him/her), they will say 'do you see this? she doesn't stroke the baby because she doesn't have one'. As you see, you are accused in both situations.
>
> ***Ceyda:*** *Ya korkuyorsunuz düşünebiliyor musunuz? İki türlü korkuyorsunuz: Sevdiğiniz zaman, çok sevdiğiniz zaman size diyecekler ki 'yazık bebeği olmuyor ya.' Bir de hani kucağınıza almadığınız zaman, 'görüyor musun kendi bebeği yok ya.' Şimdi iki taraflı da siz suçlanıyorsunuz bir şekilde.*
>
> **Zehra:** For example, my co-sister-in-law had, I mean, gave birth to a son, and I considered him as my own son. And we live close to each other, that is to say, one upstairs and the other downstairs, I mean we are consistently in contact. I mean, I regarded him as my own child, and I still regard him so, I so love him. I mean I still regard him as a part of me. But the way people perceive this, the same as you say, I mean 'she doesn't have a baby of her own, this is why she loves him so much, poor thing', yeah this is what it is.
>
> ***Zehra:*** *Mesela benim eltimin oğlu oldu, doğurdu yani kendi çocuğum gibi gördüm onu. Yani bir de biz beraber oturuyoruz, yani altlı üstlü oturuyoruz, yani sürekli görüşüyoruz. Yani kendi çocuğum gibi gördüm, yani hala onu öyle görüyorum öyle severim mesela. Yani hala kendi parçam olarak görüyorum onu. Hani insanların öyle görmesi bu defa da, senin dediğin gibi aynı, 'hani bak bebesi yok da, nasıl seviyor da, yani yazıktır' evet öyle oluyor işte.*

Thus, the participants' reports about the attitudes of their social environment revealed that during infertility and treatment process women felt alone and misunderstood by their spouse, family and friends. Although sometimes these people tried to behave supportively, they created social pressure on infertile women. For this reason, to estrange themselves from social life and to feel better, women required some ways of coping.

4.4.1.3. Coping in Maladaptive Ways

In order to get rid of these negative emotions and to feel worthy, participants used some coping strategies and in my opinion most of these practices were dysfunctional and temporary solutions. I drew this conclusion since through these strategies women's negative emotions could not be ameliorated and their feelings of being like an "empty can" remained similar.

4.4.1.3.1. Social Withdrawal

Since women perceived social pressure and did not feel understood, as a way of coping they isolated themselves from their social environment. During infertility and treatment processes, some of them quit their jobs and locked themselves into their house. The others moved away from their neighborhood in order not to see anyone and talk about their trials. In these ways, they tried to avoid from negative thoughts and feelings.

> Well you know we all have very big troubles at that period, you experience this. You are at home, and also staying at home all alone while you were someone working constantly was somehow (weird). You need to sleep but you cannot even get your mother in. Indeed, my mother lives close to me... it's been a such a rough time (Gamze)
>
> *Ya o sıra zaten çok büyük sıkıntılar hepimiz yaşıyoruz, yaşıyorsun. Evdesin, bir de sürekli çalışan biriyken evde tek kalmak biraz şey geldi. Yatman gerekiyor ve yanına anneni bile çağıramıyorsun. Annem yakınımda halbuki… öyle zor zamanlar geçti (Gamze).*
>
> For example, I personally stopped making eid visits, I mean I didn't visit those whom I don't want to see and those who annoy me. I so isolated myself that the number of my friends went down. I never met people whom I didn't want to, so this made me somehow unsocial but this was better for me. I especially didn't go to those places where there were children, I preferred not to visit new moms and participate in the invitations where you are supposed to go with your spouse, friends and children (İpek).
>
> *Mesela ben bayram ziyaretlerini kestim, yani istemediğim kişilere gitmedim, beni rahatsız edecek insanlara gitmedim. Öyle kendimi soyutladım, arkadaş sayım azaldı. İstemediğim kişilerle hiç görüşmedim yani biraz asosyal yaptı ama kendim için o daha iyiydi. Özellikle*

çocuklu yerlere hiç gitmedim, çocuk görmelere, işte eşli, arkadaşlı, çocuklu yerlere çok gitmemeyi tercih ettim (İpek).

Yeah, I downsized my social circle, I wrote off many people, I generally do not come up with an explanation to others (Yasemin).

Çevreyi evet daralttım, birçok insanı hayatımdan çıkardım, insanlara açıklama yapmıyorum genelde (Yasemin).

I stayed here for three months during my pregnancy, because when I go back to Düzce, many visit us, and they are asking such sick questions. I mean 'how was it?', 'what will happen now?', 'what's going on?' I mean they are very curious but when I'm here, at least I don't hear all those questions even if they ask them there (Fatma).

Ben üç ay burada kaldım hamileliğim boyunca çünkü hani Düzce'ye gittiğimde hani yanımıza gelen giden çok oluyor işte insanlar hani böyle çok dengesiz sorular soruyor. İşte, 'nasıldı', 'ne olacak', 'ne gitti' çok yani meraklı oluyorlar ama burada olunca en azından orada sorsalar da ben burada duymuyorum (Fatma).

I locked myself in the house more when I felt worse... Especially after those failed trials, everybody is calling me, our relatives and the kith and kin, they all hear about it, I mean that I was trying out to have a test-tube baby, they all wonder if it was successful or failed. For example, they all know that I will be examined that day, they all call, and I don't answer the phone at all. It was ringing and ringing, and at the very least, ten people were calling. 'What happened?', 'What is the result?' But I was not answering the phone. I mean, I was reluctant to answer and talk to them. I mean, I didn't want to talk about this. Then I was calling back only my mother. I've had those things too, I locked myself in the house more, I preferred not to go out. You feel like somebody will see you out and then feel pity for you. It was also happening to me, I mean it seemed to me that they will feel bad for me, they will do that thing. I prefer to undergo that process at home. I was always at home until I forget about it and gather myself up, I preferred to be at home (Zehra).

Daha çok öyle eve kapattım kendimi kötü olduğum zamanlarda… Yani hele ki o denemelerde başarısız olduktan sonra herkes beni arıyor, akraba eş dost duyuyor hani tüp bebek yaptırdığımı, hani oldu mu olmadı mı? Mesela o gün de tahlil vereceğimi biliyorlar, arıyorlar telefona bakmıyordum ben mesela. Çalıyordu, çalıyordu telefon yani hani aramasa on kişi arıyordu. 'Ne yaptın?', 'Sonuç ne çıktı?' Ama ben telefonu açmıyordum. Yani açıp da onlarla konuşmak istemiyordum. Yani bu şeyi konuşmak istemiyordum. Ondan sonra sadece anneme dönüyordum. Ben de yaşadım o şeyleri daha çok eve kapandım, evden çıkmamayı tercih ediyordum. Herkes böyle görüp de acıyacakmış gibi oluyor. Hani o şey oluyor insanda böyle acıyacakmış gibi, şey yapacakmış gibi geliyordu bana. O süreci evde

> *geçirmeyi tercih ediyordum. Böyle sürekli ben unutana kadar toparlayana kadar sürekli evdeydim evde olmayı tercih ediyordum yani (Zehra).*

From the participants' sayings it was thought that although social withdrawal may help women in avoiding from the negative feelings in the short run, this tendency prevented them from receiving support from their social environment and increased their loneliness.

4.4.1.3.2. Faith or Confusion

As another coping mechanism, it was observed that due to the unfairness of being infertile, some of the women felt like being tested and punished by God. They thought that they did not have control over this situation. For this reason, some of the participants surrendered more; they complied and resigned their fate. They began to pray and worship, and leave the rest to God. These women also experienced that this routine reduced their anxiety and calmed them down.

> Thank God, I do not have that much worry for it and, for lack of a better word, since I go to mosque or read the Noble Qur'an so much, I get strength from them (Fatma).
>
> *Allah'a çok şükür yani hani o kadar kaygım yok ve hani böyle nasıl diyeyim cami falan, Kur'an falan çok okuduğum için, ben yani ondan çok rahatlık aldığım için… (Fatma)*
>
> As the treatment starts, you start to pray more and more. Let me wake up and pray at this hour, and then wake up at that hour... and pray... this just happens, I don't know, I have never lost my faith, nor have I lost my hope (Zehra).
>
> *Hani tedaviye başlayınca böyle daha bir insan şey oluyor dua ediyor. Şu saatte kalkayım dua edeyim, bu saatte kalkayım… dua edeyim… öyle şey de oluyor ama bilmiyorum yani hiç inancımı da kaybetmedim, umudumu da kaybetmedim (Zehra).*
>
> I guess I always leave it all to Allah in some matters. My Lord will give it if it is good for me. Let me put it this way, I do not worry too much about what goes beyond my power. I mean, I usually feel sorry for the things for which I am capable enough and I can prevent. I mean, if something can be done and I cannot fix it, this gets me down the most, and those are the things that I

> think hard the most. And I leave all other things to Allah. So, this is why I can embrace many things (Gamze).
>
> *Yani ben sanırım bazı konularda hep Allah'a bırakıyorum her şeyi, Rabbim hayırlısıysa verecek. Yani şöyle söyleyeyim, gücümün yetmediği şeye çok fazla endişelenmiyorum. Yani gücümün yetip de engelleyebileceğim şeylere genelde üzülüyorum. Yani yapılabilecek bir şeyse ve ben bunu düzeltemiyorsam en çok onlara üzülüyorum en çok onlara kafa yoruyorum yani bilmiyorum. Diğer türlü Allah'a bırakıyorum. Yani ki birçok şeyi kabullenmemde de bu sebep olmuştur (Gamze).*

However, some other participants realized that despite their religious rituals they could not get pregnant. In other words, they could not find "their expectations from God". This situation confused them, for this reason, they gave up praying and became mistrustful against the religious beliefs.

> Yeah, at some time I didn't use to perform prayer, that ain't no lie, and my mother said 'you would get relaxed, turn towards it (religion)'. OK, I'm performing, I'm praying in every way, and trying to keep my mind on it but at some point, when I see that my problems are not over, I get confused (Yasemin).
>
> *Bir ara evet namaz kılmıyordum yalan yok yani ama annem dedi: 'rahatlarsın bir dene, yönel.' Tamam, hani yapıyorum dua ediyorum yani her şekilde, kafamı oraya vermeye çalışıyorum ama bir yerde sıkıntıların bitmediğini görünce kafam karışıyor (Yasemin).*
>
> At the very first time, I prayed too much. I was getting up to perform the dawn prayer, I was reading the 'Yasin' book and keep on praying and praying. But, for example, when I got the negative result (at the pregnancy test), I turned into a mess. For instance, my colleagues at work say, 'you are being tested (by Allah)'. But, I do not think so anymore, because personally speaking, thinking this way tarnishes you, I mean, your spirituality (Meral).
>
> *İlk sefer olduğunda işte mesela çok dua etmiştim. Her sabah işte sabah namazına kalkıyordum, açıyordum Yasin kitabını işte ediyordum, ediyordum. İşte mesela orada negatif sonucu aldığımda benim kafa allak bullak oldu. Yani mesela bu konuda şimdi bizim iş yerimizden arkadaşlar filan işte 'bu senin imtihanın' diyorlar. Ya artık onu öyle düşünmüyorum çünkü bunu öyle düşünmek insanı, yani maneviyatını bence zedeliyor (Meral).*

Moreover, when they experienced that they could not get any answer to their prayers, as Ceyda stated, they felt guilty about "bribing God". Ceyda thought that since she had never prayed before the infertility and only prayed for wanting a

baby, the “God” might get angry with them. She told that this situation created confusion and in order to get free from this complication, like Meral and Yasemin did, she tried to relax herself considering that infertility was independent from the religious affiliation.

> As if you were bribing Allah. In your daily life, you don’t pray that much, you don’t perform five-time prayer in a day but just for this, I mean, to have a baby, you start to perform prayers and to constantly pray and read the Noble Qur’an. Then you say, when it is negative, something to Allah, something... I mean, you think that all your prayers to Allah would come true, you say ‘yeah, I prayed, I performed the prayers and Allah would accept my prayers.’ But he didn’t... That’s to say, I tried to bribe him, because you are doing something that you did not use to do in your normal life... I’ve also experienced it the same way, I’ve gone through it, I mean, for all someone knows, read this (i.e., prayer, Surah etc.) and then it happens, read that (i.e., prayer, Surah, etc.) and then it happens. You read but it’s no go, so you’re doing something wrong. I mean this is not something you want, you just bribe, you are expecting something in return. You say ‘he (Allah) will respond’, but then you say... then this becomes revolt (Ceyda).
>
> *Sanki Allah’a rüşvet veriyormuşsun gibi. Normal hayatında bu kadar dua etmiyorsun, normal hayatında beş vakit namaz kılmıyorsun ama sırf bunun için, yani çocuk olsun diye namaz kılmaya başlıyorsun ve sürekli olarak namaz kılmaya Kur’an okumaya başlıyorsun. Bu kez olmayınca da diyorsun ki evet ben Allah’a bir, bir şey… Yani ben Allah’a aslında dualarımı kabul edecek düşüncesi var ya, hani ‘evet ben dua ettim demek ki namaz kıldım, kabul edecek.’ Ama kabul etmedi… Demek ki ben ona rüşvet vermeye çalıştım, hani hiç normal hayatında yapmadığın bir şeyi yapıyorsun…. Ben de yaşadım yani aynı şekilde, ben de yaşadım işte ne bileyim şunu okursan olur, işte bunu okursan olur falan. Okuyorsun olmuyor, demek ki yani şey yapıyorsun. Yani sen onu içten gelen bir şey değilmiş de bir rüşvet gibi karşılığını bekliyorsun. ‘İlla bir karşılık gelecek yani bu kez’ diyorsun ki işte isyana gidiyor (Ceyda).*

When they were talking, I thought that since they did not feel control over infertility, they were in search of a “power” to take refuge in. However, if they could not find any sources to devote themselves, their need of being protected could not be fulfilled and they might have felt insecure. Therefore, it seemed that in order to overcome their negative feelings, the infertile women chose compliance with or abandonment of religious beliefs as the ways of coping.

4.4.1.3.3. Masking Weaknesses

As the last coping strategy, it was noticed that women hid their weakness and negative feelings, and as overcompensation, they tried to represent themselves as strong as possible. Within this framework, for instance, they overstrained their body and after each negative trial they wanted to try over and over again without giving a break. They thought that their body liked hardness. Moreover, they had a positive approach related to their abilities, and believed that they could achieve it regardless of how hard the task was. They thought that they were "strong" while fighting against infertility even without their husband. Relevant to their tendency to mask their weaknesses, during the discussions it was also observed that although they were talking about negative life events, most of the time women tried to suppress and hide their sadness behind the mask of smiling.

> When the last frozen ones responded, as you know the frozen ones have the least chance, when they responded, I said 'Maybe my body is a glutton for punishment'. I just rejoiced and began to hope (İpek).
>
> *Sonra dondurulmuşlarda yanıt verince hani normalde dondurulmuşun şansı daha az, onlarda yanıt verince dedim ki 'benim vücudum zoru seviyor demek ki' hani öyle bir sevindim umutlandım (İpek).*
>
> Even all these stuffs have been so tough for me. I mean, I was anaesthetized even in all transfers. I got anaesthetized ten times, I was here, on and on. As my friend said, I used to say 'it is all over for me', so I was mourning during that day, I used to mourn for a few days. But this passion becomes such a crazy addiction. I say 'Doc, I will come (for treatment)', then the doctor says 'no, stop and wait' *(some of them laughs).* At one point, I even said: Doc... please place the other embryos' while I was undergoing a curettage (Selma).
>
> *Benim şeylerim bile çok zorlu geçti. Yani, bütün transferlerde bile anestezili girdim. On kez anestezi aldım, hani sürekli buradayım. Hani arkadaşın dediği gibi de diyorum ki 'bitti benim için bitti' filan, o gün yas tutuyorum birkaç gün yas tutuyorum. Ama bir tutku, böyle deli gibi bir bağımlılık haline geliyor. 'Hocam geleceğim ben hocam', hoca diyor ki 'bekle, yapma' (Aradan gülme sesleri). Hani şunu bile dedim o zaman: Hocam…ya kürtaj olurken, yani olduğum anda 'hocam diğer embriyoları da koyun' bile dedim yani (Selma).*
>
> Indeed, yeah, I never talked about this, about my feelings when I was with him (her husband), he even doesn't know anything about what I'm talking

> about here right now, I never reflected (anything) to him. I went to the doctor all by myself, I've searched for it, etcetera, I didn't reflect anything, that is... I go there and return all by myself, all the results and the processes are something that I've done all my own *(they laugh)*. Really, I feel like I made it happen all by myself, because I have not included him in the process (Meral).
>
> *Yani ben hiç evet yani (eşimin) yanında hiç konuşmadım, yaşadığım hislerimi benim şu anda burada anlattığım hiçbir şeyden yani haberi yok, şey yapmadım hiç yansıtmadım. Tek başıma doktora gittim geldim, araştırdım işte vesaire, yansıtmadım yani hiçbir şeyi….Ben gider gelirim bütün sonuç süreç tamamen benim tek başıma yaptığım başardığım (Gülüyorlar)... Hakikaten yani tek başına olmuş bir şey gibi hissediyorum çünkü hiçbirine dahil etmedim (Meral).*

Therefore, in terms of infertility and treatment process it was realized that infertile women felt like being unable to satisfy the expectations of "womanhood", felt distant from their ideal life due to childlessness, and experienced intense negative emotions. Although they used some coping strategies to preserve themselves from the adverse effects of these circumstances, in the long run these "solutions" increased their feelings of worthlessness and they continued to feel like an "empty can".

4.4.2. Superordinate Theme II. Pregnancy Process: "What If I Have a Miscarriage"

After these stressful infertility and treatment processes, it was realized that during pregnancy, women had constant anxiety about losing their baby. For this reason, they were constantly thinking about their past miscarriages and worried about their current pregnancy. This situation also inhibited their excitement for being pregnant. Although they were excited about progressing towards filling the emptiness of childlessness, it was realized that they postponed their happiness with the fear of miscarriage again.

4.4.2.1. Being Stuck with the Past Miscarriages

In both groups, when the questions were focused on the pregnancy process, it was realized that the participants still had a tendency to talk about their negative experiences and past miscarriages. Their mind was stuck on the bad memories and they were anxious about the fact that something bad was going to happen again. For this reason, they always compared their present state with their past experiences. Based on those events, they determined some milestones and waited for getting through that time point. Being stuck with negative trials and past miscarriages also prevented women from enjoying their pregnancy. They postponed the happiness of being pregnant and could not go with the flow.

> Having begun this process in this way, maybe this is why I haven't become so happy for my pregnancy. Let me put it this way, when I wasn't pregnant, I was thinking that I would be on a complete high if I learnt that I was pregnant, I was thinking that this would make me the happiest one in the world. I'm not even happy now, and I am very baffled at this. I have concerns about the twin babies, and all those I have gone through during the test-tube baby procedures. And I feel like I will not manage to give birth, I mean I feel like I will not be able to accomplish this. This is why I cannot be very happy for this... I think that something bad is going to happen (Selma).
>
> *Bu sürece bu şekilde başlamak, belki de ondan dolayı ben hamileliğime çok fazla sevinemiyorum. Yani şöyle söyleyeyim ben hamile değilken hani hamile olduğumu bilsem herhalde uçarım havalarda filan diye düşünüyordum, çok hani aşırı mutlu olacağımı düşünüyordum. Ben yani mutlu bile değilim hani ve buna da çok şaşırıyorum. Hem ikiz bebekle ilgili kaygılarım, hem tüp bebek tedavi sürecinde yaşadıklarım... Sanki bir de hani doğuramayacakmışım gibi geliyor bana hani sonunu getiremeyecekmişim gibi geliyor o yüzden hani şey yapamıyorum çok sevinemiyorum... Kötü bir şey olacakmış gibi düşünüyorum (Selma).*
>
> For example, I'm researching after how many weeks a baby can be kept alive in an incubator. This is the point where I am for now. Week by week, I say, 'let's get through this week' and 'let's get through that week'. I wish I could let the river flow. But these concerns never stop… (Meral)
>
> *Mesela şeyi takip ediyorum ben, kaç haftadan sonra kuvözde yaşatılabiliyor şimdi o dönemdeyim ben. Hafta hafta 'hadi şu haftayı da kurtaralım', 'bu haftayı da kurtaralım'. Halbuki bir akışına bıraksam. Ama bu şey hiç bitmiyor, bu kaygı… (Meral)*

> Now, they say the honeymoon of pregnancy is the 5th, 6th and 7th months, those three-month period is the most enjoyable time during the pregnancy. I am six-month pregnant now, but I still have the same fear and I don't know how many websites I visited to learn about 'what happens in the 25th week', I'm constantly doing this thing. I mean, every week, what kind of developments occur in the baby, what kind of discomforts can occur during this period... Last week I read that the baby could survive in the incubator from then on... I have a feeling that 'even if the baby is born, (s)he can live in the incubator, I mean I can keep her/him alive from now on, (s)he can survive.' That fear of death so disappears (Ceyda).
>
> *Şimdi şey diyorlar, hamileliğin balayı 5. Ay, 6. Ay, 7. Ay'a kadar, o üç ay en keyifli dönemmiş. Ben şu an 6. Aydayım ama ben hala aynı korkuyu yaşıyorum ve ben de bilmem kaç tane siteden '25. Haftada neler olur', sürekli onun şeyindeyim. Yani, her haftayı çocukta ne tür gelişmeler oluyor, hangi tür rahatsızlıklar bu dönemde çıkabiliyor… geçen hafta okudum işte, bundan sonra çocuk kuvözde yaşayabilirmiş… o kadar şey olmuş ki, 'çocuk doğsa bile kuvözde yaşayabilirmiş, hani yaşatabilirim onu ben artık, yaşayabilir. O ölüm korkusu ortadan kalkıyor (Ceyda).*
>
> A friend of mine had twins, she said 'one died in the 36th week but the other could survive'... At that point, a fear of 36th week has emerged in my mind. And another friend of mine had a miscarriage while she was 4-month pregnant, and now I have a fear of fourth month, 'let's get over the fourth month'... And another friend had a miscarriage when she was six-month pregnant, 'let's get over the sixth month'... I have such targets at hand (İpek).
>
> *Bir arkadaşımın ikizi vardı, '36. Haftada biri öldü ama biri yaşadı', dedi. ... Şimdi bu sefer de kafamda şey, 36. Hafta şeyi, korkusu oluştu. Bir arkadaşım da dört aylıkken kaybetti, şimdi dört aylık korkum var, 'dört ayı bir geçeyim'... Sonra biri altı aylıkken kaybetti, 'altı ayı bir geçeyim'… Böyle hedefler var önümde (İpek).*

As it can be understood from the participants' discussion, the negative influences of prior losses have continued in the pregnancy period and increased expectant mothers' anxiety and fear of losing their baby.

4.4.2.2. Perpetual Apprehension

Since in the pregnancy process the women had constant anxiety about losing their baby, it was observed that they had a tendency to build either preoccupied or avoidant attachment with their baby.

4.4.2.2.1. Preoccupation with Baby

Due to their perpetual apprehension, most of the women were preoccupied with their baby and frequently control whether s/he was alive. They were always thinking about the baby and trying to perceive her/his movements. However, if they could not feel the baby at anytime, in order to check and be sure about their existence, they tried different alternatives such as having excessive ultrasound scan and visiting different clinics in more frequent periods. In this way, they tried to bring the possibility of losing their baby under control and reduce their anxiety.

> The first question I ask when I visit the doctor for the examinations is: Is the baby alive, doctor? Is the baby alive… This is the first thing I wonder about. It's something like there's always a feeling inside that the baby's heart will stop (Selma).
>
> *Zaten muayenelere girdiğimde ilk sorduğum soru: Hocam yaşıyor mu? Hani ilk yaşıyor mu… Sanki hep böyle kalbi duracakmış gibi bir hissiyat oluyor (Selma).*
>
> **Ceyda:** So sometimes you think 'I will find an excuse and go to the emergency service', you want to have the baby checked up and come back.
>
> ***Ceyda:*** *Yani bazen şey düşünüyorsunuz, bir bahane bulup acile gideyim, bebeği kontrol ettirip geri gelmek istiyorsunuz.*
>
> **Meral:** Yeah, yeah…
>
> ***Meral:*** *Evet evet…*
>
> I also have those fears, the fear of losing. I am always following the baby's movements, always wondering if something bad happened to her/him. I mean, when I feel no movement for an hour or so, I believe that something bad happened, and then feel that panic. I also listen to my body, so I have that thing too... I always think that if there was a heart-listening device at home... (Zehra)
>
> *Bende de var yani o kaygılar, kaybetme korkusu. Ya sürekli hareketini dinleme, ya acaba bir şey mi oldu azıcık bir hareketini hissetmeyeyim böyle bir saat felan bir şey oldu, diye hemen panik şeyine geçiyorum. Kendimi dinlemeye böyle geçiyorum, yani bende de var o şey. …Hep şey derim evde şöyle bir kalbi dinleme cihazı olsa… (Zehra)*

> You know, all those you have lost in the past make you restless... I even wish I had an ultrasonic device at home... My husband is a veterinarian, he tried to check me using the one (ultrasound device) that he uses for animals *(laughs)*. He also somehow wishes 'if we had one (ultrasound device) at home and checked it by ourselves', so he's just like me for the moment. They (the doctors) ask us to visit them every two weeks, and during the week passing in-between, I go to a state hospital to see if they are alive. They don't show much of it (the ultrasound imaging), but they say, 'they are OK!' and I feel relaxed... I only have that restlessness (İpek).
>
> *Ama işte geçmişteki kayıplar insanı çok tedirgin yapıyor. ... Hatta mümkünse keşke evde ultrason cihazım olsa…Eşim veteriner hekim, hayvanlara bakılandan falan bakmaya çalıştı bir ara (Gülerek anlatıyor). O da bir şekilde hani 'evde olsa biz baksak' falan diye, yani o da benim gibi şu anda. İşte hani iki haftada bir gel diyorlar, ben o aradaki hafta bir devlete (devlet hastanesi), hani an azından yaşıyorlar mı, diye. Hani onu da çok göstermiyorlar ama, iyiler diyorlar ben rahatlıyorum... Sadece o tedirginliğim var hani (İpek).*

Relevant to their over concern with the baby, it was also observed that although it was impossible to feel the baby because of the size of the fetus, as understood from the words of Fatma, sometimes women believed that they could perceive the fetal movements:

> Of course, I have been talking since the day I underwent the transfer (Fatma).
>
> *Tabii ki yani ben transfer olduğu günden beri konuşuyorum yani (Fatma).*

Moreover, the participants described overprotective attitudes towards their baby. For instance, Gamze stated that she perceived the love of her mother-in-law as a threat for her babies. She looked for ways to protect her babies from her potential negative influences.

> For example, I want to protect her/him from everybody. One day I went to the doctor for examination along with my mother-in-law, and I even feel like their love may hurt her/him, I mean I want to protect the baby from everything (Gamze).
>
> *Böyle herkesten koruyasım geliyor mesela oraya kayınvalidemle gitmiştik bir keresinde ya onların sevgisi bile böyle dokunuyor gibi geliyor, yani her şeyden koruyasım geliyor (Gamze).*

4.4.2.2.2. Avoidance and Ignorance of Baby\Pregnancy

As another reaction of women's apprehension, some of the participants' avoidant and ignorant attitudes drew the attention. It was observed that due to their past miscarriages, they had excessive anxiety about and fear of losing their baby. For this reason, in order not to get disappointed they prevented themselves from thinking about pregnancy. They did not pay attention to the movements of the fetus and did not build any attachment with it. They believed that if they established a bond with the baby, something bad would happen as occurred in the past.

> Since I felt the connection with that baby, I mean the first baby, it backfired. So, I'm very afraid to feel that connection again with them (twins). I'm afraid if something bad happens, you know I take a turn for the worse if that happens... I don't want to become mentally so ill. This is why... this is why I hold myself back (Selma).
>
> *Yok hani işte o bağı kurdum yani o bebekle, o ilk bebekle bağ kurdum ve olumsuz sonuçlandığı için yani bunlarla da şu an çok korkuyorum bağ kurmaya. Hani sanki kötü bir şey olursa çünkü çok çok kötü oluyorum yani… Hani çok kötü olmak istemiyorum. Bu yüzden…bu yüzden kendimi çok sınırlandırıyorum (Selma).*
>
> At first, I was feeling that connection, I mean I was talking, and I was making plans. I mean, like 'I will do this and that at birth' blah blah... Then it was fun, but later all was gone away. Now, I do not know why but I'm trying not to think about it. Because when I think about it, it goes wrong (Yasemin).
>
> *İlk başlarda bağ kuruyordum, yani konuşuyordum, hatta ben de plan yapıyordum. Yani doğumunda şunu yapacağım bunu yapacağım, diye... O zaman çok eğlenceli geliyordu ama sonrasında hepsi gitti. Şu an neden bilmiyorum ama düşünmemeye çalışıyorum. Yani düşünürsem arkasından kötü sonuçlanıyor (Yasemin).*
>
> Exactly the same, I don't want to think about anything, even if indeed I want to think, I keep myself as far away from thinking as I can... You know they say 'talk to your baby' etcetera, but I don't even want to talk to. Because, it seems like there is a spell, and I feel like as if that spell would be broken, I just feel this way... I mean as if something will go wrong, as if it will go downhill... that is to say, this is all about not to have a disappointment at the end, nothing else. Because, after all this struggle, I mean, it happens to everyone but since we fought hard here, we made a lot of effort and we experienced so much disappointment, we have no more endurance left. I

mean, getting so attached to her/him and then losing it can tear you up, just because of that I do not want to create that connection. I do not want to talk to her/him, I mean I feel like I'm buggering around when I talk to her/him. I don't know, yeah, I look for baby clothes, but I do not buy them. I still have not bought baby clothes (Meral).

Valla aynen, hiçbir şey düşünmek istemiyorum, hani düşünmek istesem de istemiyorum, kendimi olabildiğince o düşünceden… böyle şey diyorlar ya 'bebeğinizle konuşun' vesaire, konuşmak bile istemiyorum. Çünkü yani sanki bir tılsım var, sanki o tılsım bozulacakmış gibi, öyle hissediyorum ... Yani bir şeyler ters gidecekmiş, olumsuz gidecekmiş… yani tamamen özünde hayal kırıklığı yaşamamakla yani başka hiçbir şey değil. Çünkü bu kadar zorluktan sonra yani dediğim gibi bu herkesin başına geliyor ama yani biz çok burada savaştığımız için çok çaba sarf ettiğimiz için çok hayal kırıklıkları yaşadığımız için bir tanesine daha tahammülümüz yok. Yani iyice bağlanıp kaybetmek insanı çok daha yıkar sırf bu yüzden o şeyi kurmak istemiyorum. Onunla konuşmak istemiyorum yani konuşunca saçmalamış gibi hissediyorum kendimi aslında biraz da. Ne bileyim işte, evet bebek kıyafetlerine çok bakıyorum ama almıyorum. Hala ben bebek kıyafeti almadım (Meral).

Like Meral stated, most of the participants had not shopped for the baby, because they did not want to concretize the baby. As a part of their avoidant attitudes, they believed that if they did not buy anything for the baby, did not talk with the baby, and did not choose any name, these could prevent them from personalizing the baby. Since they were afraid of losing their baby, thinking baby as an abstract concept seemed less threatening for the women. They postponed building attachment after the birth of baby.

I don't want to do anything much before I get closer. I want that time to get closer, and give birth to the baby, so I will buy the clothes and take them to the home, I always have that thing in my mind. It seems like I somehow try to keep it away. For example, I recently listened to lullabies and said 'I will learn those lullabies and sing them to my baby, and so my baby can listen to them with me.' Then I turned it off after a few minutes. Because s/he is not listening to it, I mean I feel like it is not doing so, or I don't want to personify her/him. I feel like there's no personality there, or I do not want to give him that personality thing until s/he is born. I do not even want to give it a name. Those things will happen once it is born, it is the same as you see, I don't want to get attached to it (Ceyda).

İyice yaklaşmadan çok bir şey yapmak istemiyorum. İyice yaklaşsın, çocuğu doğurayım, kıyafetleri alayım, eve getireyim hep böyle bir şeyim var. Hep bir şekilde uzaklaştırıyorum sanki. Geçen müzik ninni dinledim mesela dedim ki 'bu ninnileri ben öğreneyim çocuğuma da söyleyeyim, işte çocuğum da benimle beraber dinlesin.' İki-üç dakika sonra kapattım.

Yani çünkü dinlemiyor, yani dinlemiyormuş gibi geliyor ya da onu kişileştirmek istemiyorum. Ortada bir kişilik yokmuş gibi hissediyorum ya da o kişiliği ona vermek istemiyorum doğana kadar. Ona isim dahi vermek istemiyorum. Doğduktan sonra olur, aynı işte, bağlanmak istemiyorum (Ceyda).

Relevantly, despite their excessive struggle for having baby, since they could not build a close relationship with the fetus, this situation made them feel guilty. Although their attitudes were associated with their previous miscarriages, they accused themselves as being a bad mother. They also blamed themselves for being undeserving for having children. Their avoidant attachment style was closely associated with previous losses. However, it was also observed that the participants did not have compassion and empathy for themselves.

Ceyda: I blame myself; because I see everybody talking to their babies so much, I mean they are saying 'yeah my son/my girl', 'I did this and that for you today', 'we will go to see granny' blah blah, and I don't do anything. Then I say myself 'you don't even deserve this baby, because you don't love her/him, you don't get ahold of her/him. Indeed, you're too scared to love her/him'. I mean, since I am scared to love her/him right now, I will do all those things once s/he is born.

***Ceyda:** Ben kendimi çok suçluyorum, çünkü herkeste görüyorum insanlar böyle çok konuşuyorlar yani evet oğlum/evet kızım işte şunu yaptım sana bugün, seninle ananeni görmeye gideceğiz falan konuşuyor insanlar, yani ben hiçbir şey yapmıyorum. Bu kez diyorum ki yani 'ben bu çocuğu hak etmiyormuşum ki zaten' hani 'çünkü onunla iletişim kurmuyorsun onu sevmiyorsun. Aslında sevmekten çok korkuyorsun.' Yani şu anda sevmekten çok korktuğum için bir doğsun, bir doğsun ondan sonra diyorum.*

Meral: I suffer a pang of conscience, because I don't talk to her/him at all, I don't do anything.

***Meral:** Vicdan azabı duyuyorum hani çünkü hiç konuşmuyorum etmiyorum vesaire.*

Therefore, it was observed that pregnant women who conceived via ART have been experiencing constant anxiety about losing their baby due to the effects of previous life events. To handle these feelings, women showed either preoccupied or avoidant attachment styles towards their baby. The differences in their attachment styles can be regarded as different ways of coping with stress.

4.4.2.3. Progress towards Completion

Despite the women's perpetual apprehension, it was realized that some of the women were also proud of being pregnant and felt as progressing towards completion of themselves. They thought that pregnancy was their success and by means of this success, their self-esteem increased. For this reason, they had a desire to show off their pregnancy and welcome pregnancy irrespective of its negative aspects such as weight gain and difficulties of motherhood.

> It gives me pleasure as my belly gets bigger. It gives me pleasure to gain weight, for example, they say 'you'll gain weight, you'll gain weight that much, you'll take care of twins, this will be hard' blah blah. And I say 'no problem.' I say 'let me gain weight too much.' At least 15 kilos, I want my belly to get bigger. I consciously put on close-fitting clothes, I don't want to hide it (belly) (İpek).
>
> *Karnımın büyümesi bana zevk veriyor. Kilo almak bana zevk veriyor, mesela hani böyle görüyorlar, 'kilo alacaksın, şimdi şu kadar kilo alacaksın, ikizlere nasıl bakacaksın, çok zor olacak' falan. Ben hiç problem yok, diyorum. Ben çok kilo alayım diyorum şişeyim, diyorum. 15 kilo alayım en az, böyle karnım şişsin. Hatta özellikle dar şeyler giyiniyorum, hiç öyle saklama şeyim yok yani (İpek).*
>
> I feel like I've found my missing part (Zehra).
>
> *Şey gibi oluyor, eksik yanım tamamlanmış (Zehra).*
>
> Indeed, we are completing ourselves. I mean, we manage to make ourselves a whole again by giving birth to the baby, I mean, by making her/him come out. That's why we (become) self-confident... For example, I like to show that I'm pregnant while walking. I like being pregnant because I feel like I'm a whole (Ceyda).
>
> *Aslında biz kendimizi tamamlamış oluyoruz. Yani çocuğu doğurarak çocuğu ortaya koyarak kendimizi tamamlamış oluyoruz. Bu yüzden özgüven sahibi… Şimdi ben mesela yürürken hamile olduğumu göstermekten hoşlanıyorum. Hamile olmak benim hoşuma gidiyor, yani hani tamamlanmış hissediyorsunuz (Ceyda).*

Moreover, after getting pregnant, the women also felt worthy and gained self-confidence about their marital life. For instance, Meral stated that although she was

afraid of losing her husband because of being childless, through the agency of pregnancy, she overcame her fears and felt more comfortable.

> Of course, you become much more self-confident. For example, this was true for me, because I was the most miserable woman in the world five months ago. I was feeling really miserable. That means that you have more confidence in yourself. ... This is because I used to believe that the problem was me, fortunately, I am more comfortable now. Because I'm not afraid of losing my spouse anymore, of course I've overcome something. Because this is happening; no matter how much your spouse supports you, you can say 'what if someday this man can give up on me' (Meral).
>
> *Valla insanın kendine daha çok güveni geliyor. Yani benim mesela öyle oldu, çünkü yani bundan beş ay öncesine kadar dünyanın en zavallı insanıydım. Hani çok zavallı hissediyordum kendimi. Yani insanın kendine kesinlikle daha çok güveni geliyor. ... Bu sıkıntı rahatsızlık kendimde gibi düşündüğüm için, şu anda çok şükür daha rahatım. Çünkü eşimi kaybetme korkum yok, hani tabii bazı şeylerin üstesinden geldim. Çünkü bir insanda oluyor o, eşin ne kadar destek olursa olsun 'ya bir gün bu adam benden vazgeçerse' diyebiliyorsun (Meral).*

As a result, from the subordinate themes of pregnancy process, it can be observed that this period included both negative and positive subordinate themes together. Although they had perpetual apprehension about losing their baby, they were still excited about progressing through completion and felt that they were overcoming their deficiencies. A similar tendency with respect to participants' projections about motherhood attracted the attention.

4.4.3. Superordinate Theme III. Projections about Motherhood: Despair and Hope

When the participants' projections for and dreams about motherhood were discussed, it was apparent that due to their negative life events, they still hesitated about the future. Namely, they worried about the health of the baby and being a mother, and in order to distance themselves from this anxiety some of them avoided thinking about postnatal process. However, since their pregnancy occurred as a

result of their excessive trials for having baby, despite all unfortunateness, they were feeling successful and hopeful about the future.

4.4.3.1. Carrying the Burden of the Past

While talking about the future, the women had a tendency of carrying the burden of the past. They thought that like the difficulties of infertility process, future would also be hard for them. Based on these thoughts the participants had different tendencies. It was observed that some of them brought out their worries about the future explicitly, while the others had avoidant attitudes and tried to keep themselves aloof from thinking about the baby and motherhood.

4.4.3.1.1. Worries about Motherhood

The participants were pessimistic and anxious about future. Because of their negative experiences during the treatment process, they were afraid that they will not be able to a good mother. They worried about whether their motherhood abilities would be sufficient for the baby. Since everything was difficult during the treatment process, they feared that the problems, such as postpartum depression, would continue even in the future. In this sense, these women were hesitant about how to carry out their motherhood roles such as childbearing, holding and nurturing their baby.

> Now I've started to worry about 'what if I suffer from puerpera syndrome?' Will I go into depression? ... I am very afraid of these mental things. Since we have gone through so much trouble, I ask myself: Will I experience such things? ... But this doesn't happen to everyone, does it? (Meral)
>
> *Şimdi bende şey korkusu başladı: Acaba ben lohusa sendromuna girecek miyim? Bunalıma mı gireceğim? ... Ben bu ruhsal şeylerden çok korkuyorum. Bir de yani çok şey yaşadığımız için böyle arka arkaya, diyorum ki: Öyle bir şey yaşayacak mıyım? ... Ama herkeste olacak diye bir şey yok değil mi? (Meral)*

> What kind of mother will I be in the eyes of my children? What kind of a dad will take care of them? I mean, I think too much worrisome stuff (Gamze).
>
> *İşte yani çocukların karşısında nasıl bir anne olacağım? Onlar nasıl bir babaya emanet olacak yani çok fazla kaygılı şeyler düşünüyorum (Gamze).*
>
> I've heard so much about that delivery psychology from others, which are really experienced. I am particularly afraid of this. I say 'if I am experiencing this, feeling this that much, perhaps I would experience it more intensely.' I've heard about rejecting taking care of the baby, breastfeeding her/him, taking her/him on the lap, etcetera. There are people around, who have experienced these. I am especially afraid of it; I fear that it will also happen to me (Yasemin).
>
> *O doğum psikolojisi denilen şeyde birkaç etrafımdan duyduğum yaşanmış şeyler de var. Bundan özellikle çok korkuyorum. Bunu yaşıyorsam, diyorum, bu kadar çok hissediyorsam herhalde, diyorum, onu da çok yoğun yaşarım. Hani bebeğine sahip çıkmama, emzirmeme, kucağına almama, bunları duydum. Etrafımda yaşanmışlıklar da var. Bundan özellikle aşırı korkuyorum; başıma gelecek diye korkuyorum (Yasemin).*

Relevantly, they maintained their anxious attitudes of pregnancy process and had concerns about their baby's health. For them, caring for and raising a baby seemed difficult, and they could not trust their own abilities as a mother. For this reason, thinking about the babyhood - in terms of both birth and growth of the baby- was worrisome for them. When they were dreaming about the future, they chose thinking about toddlerhood or adolescence periods. This might be because of the fact that during infancy period the babies are dependent only on their mothers. However, beginning from the toddlerhood, children become more self-sufficient and they begin to separate from their mothers.

> In terms of motherhood… Yeah, I also think of being a mother, indeed, not exactly about the baby but I want them to instantly turn to three or four years old, and then I want to spend time with them, teach them something, play games with them and so on. What scares me to death is raising something. This is even the same when they are inside my belly, I wonder 'will I manage to raise them, will they really grow up?' I rather imply their physical development... I rather mean 'are they healthy?', 'will they be healthy?', 'will I be able to manage to make them grow up?', I mean that part of growing up. But I wish we could quickly get over that childhood part, I just

want this way, that part is very hard for me. ... I mean the early phases, I will deliver the babies and they will grow up. I mean, I want to pass on that infancy part. I am so worried about this (Selma).

Anneliğe dair… Evet ya düşünüyorum ama böyle şey gibi, bir taraftan da hani böyle bebek kısmı değil de, daha çok hani böyle iki yaşında, üç yaşında olmuş olsunlar hemen, ben onlarla böyle vakit geçireyim, onlara bir şeyler öğreteyim oyun oynayayım filan. O şey kısmı beni çok korkutuyor, o bir şeyi büyütmek. Hani karnımdayken de öyle hani büyütebilecek miyim, hani büyüyebilecekler mi? Yani bendeki daha çok fiziksel olarak büyümeleri… Yani daha çok, sağlıklılar mı, sağlıklı olacaklar mı, ben onları büyütebilecek miyim, hani o büyüme kısmı. Ama o çocukluk kısmını keşke geçsek hemen öyle istiyorum, o kısım bana çok zor geliyor. ... Yani o ilk kısımlar, doğum yapacağım, işte çocuk büyüyecek. Hani o bebek olma kısmını geçmek istiyorum ben nedense. Böyle o beni çok kaygılandırıyor (Selma).

I think of long-term things, rather than 'I will do this and that for my baby when s/he is born' or 'I will buy that for her/him', I have extended the life of my child so much (*laughs*), I think of my child's 20s and dream of that s/he will receive music education at that age (Ceyda).

Uzak şeyleri düşünüyorum, hala 'çocuğum doğunca şunu yapacağım' falan değil de, 'ona şunu alacağım' falan filan değil ama böyle çocuğumun çok ömrünü uzattım ben (gülerek) geldi yirmi yaşına işte müzik eğitimi aldı (Ceyda).

4.4.3.1.2. Avoidance from the Idea of Motherhood

Due to their excessive worries about the future, it was observed that some of the participants avoided the idea of motherhood. Similar to their avoidant prenatal attachment towards the baby, they did not think themselves as a mother and did not dream about the future before the birth of the baby. It was realized that the influences of previous life events have been continuing, and since they were afraid of losing their baby, they did not want to be hooked on that the idea of being a mother.

For example, that has not happened to me yet, I mean the sense of motherhood, I sometimes weighing it (sense of motherhood) but no, I don't feel it yet. I am rather neutral about it (Selma).

Yani şu anda mesela o yok, annelik duygusu hatta onu da tartıyorum bazen, ya diyorum öyle bir şeyim yok. Nötr, yani daha nötrüm (Selma).

Do you dream of being a mother? (researcher)

Ceyda: We have problems at that point (*laughs*). I mean, we are still, you know, even though we say we got over it.

Ceyda: *Bizim orada problemimiz var (gülüyor). Yani biz hala hani ne kadar 'atlattık' falan desek de…*

Meral: We cannot imagine it.

Meral: *Hayal edemiyoruz.*

Ceyda: You still do not even imagine it, because this may also make you attach yourself to the baby.

Ceyda: *Hala onu da hayal etmiyorsun ki, çünkü o da bir şekilde seni çocuğa bağlayacak.*

Meral: I don't dream of it either.

Meral: *Düşünmüyorum valla ben de.*

Ceyda: I think we say 'if only s/he is born'…

Ceyda: *Biz herhalde 'hele bir doğsun da'…*

Meral: Exactly, we say 'if only s/he is born, then every other thing happens easily and quickly…'

Meral: *Aynen biz 'hele bir doğsun, sonra her şey sanki çorap söküğü gibi gelecekmiş gibi…'*

(…)

Meral: I sometimes dream of it, then I just say: forget about it, just forget about it...

Meral: *Bazen kuruyorum, sonra hemen böyle: unut, unut, unut…*

Ceyda: Anyway, let's see what happens then.

Ceyda: *Neyse, o güne bir gelelim.*

Meral: Exactly the same, I always fill my cart with stuff (for baby shopping) on Internet and then I empty it.

Meral: *Aynen sürekli böyle internette (bebek alışverişi için) sepetim doluyor, sonradan siliyorum.*

Ceyda: Exactly the same.

Ceyda: *Aynen aynen…*

Meral: I fill my cart, add (stuff) to it, then I empty it again. I sometimes continue until the payment process then clear it all up.

Meral: *Sepetim doluyor, atıyorum sepete tekrar siliyorum sepeti şeye kadar geliyorum ödeme kısmına kadar, ondan sonra tekrar sepeti yok ediyorum.*

Zehra: I also dream of it like my friends, and then back saying 'I won't think of it anymore, until that day comes…' Already, I will undergo an abdominal delivery, I mean I dream of it like 'we would go there, do this and that, we would get ready...' and then I tell myself 'whatever, I would think about this once that day comes.' I don't either want to be fascinated with this, like all of you.

Zehra: *Ben de arkadaşlar gibi kuruyorum, hemen geri 'neyse düşünmeyeyim, o güne geleyim.' ... Zaten sezaryen olacak yani hep mesela öyle bir hayal kuruyorum, 'gideriz, şöyle yaparız böyle yaparız hazırlanırız…' hani böyle bu sefer de 'aman neyse, tamam o güne gelelim bir düşünürüz' bu defa da öyle falan diyorum kendime. Ben de yani sizler gibi kendimi kaptırmak istemiyorum.*

Although all the participants have been carrying the burden of the past, while some of them revealed explicit worries about motherhood, the others had avoidant attitudes. As observed in the pregnancy period, the differences between these expressions can be regarded as women's use of different strategies for coping with stress about the future.

4.4.3.2. Hope Despite the Pain of Past Memories

Despite all the difficulties and disappointments, some of the participants were still hopeful about future. They believed that everything would go well and they would be a sufficient mother. Since they made a great effort for having baby, they believed that they could overcome the probable problems emerging in the future. Moreover, they believed that their baby would be healthy and with the birth of baby, their family would be complete. They felt that everything would be great by having a baby.

> There is a deep hope inside of me: Yeah, it will go right this time, even if it is early, this will happen ... Then I will have feel no fear, if only they are born healthy... I think I'm going to be a good mother; I think I will manage to get along ... Given that I've waited for so long, I can get along everything. Of course, I have some concerns, but even if I cannot breastfeed, I would feed them with baby food (İpek).
>
> *İçimde çok derin bir umut var: Evet olacak bu sefer, erken de olsa devam edecek ... Sonrasında zaten hiç korkum yok, bir doğsunlar hani sağlıklı sıhhatli… Ben iyi bir anne olacağımı düşünüyorum, yetebileceğimi düşünüyorum. ...Bu kadar beklemişim, hepsine yeterim. Ha şöyle tabii ki kaygılarım var ama emziremesem de mamayla beslerim (İpek).*
>
> It feels like this (house) will be a real home when the baby is born. Rather than the house, I will then cook more, and I would also prepare breakfast in the morning. However, that makes no sense in fact, you are not getting married for the child, but I just feel it now, it seems to me as if I have just married and we will just build a family, and everything will be very different. ... It feels like everything will go right, we will become a full family, that's how it makes you feel (Meral).
>
> *Şey gibi hissediyorum, sanki bebek olunca tam bir ev olacak burası. Hani sanki ev değildi de işte daha çok yemek yapacağım, o zaman ben sabah kahvaltı da hazırlarım. Halbuki, yani ne kadar saçma sonuçta çocuk için de evlenmiyorsun ama işte tam yeni yeni hissediyorum, yeni yeni evlenmişiz de bir aile olacakmışız her şey çok farklı olacakmış gibi geliyor. ... Her şey daha yoluna girecekmiş gibi, tam aile olacakmışız gibi öyle bir duygu hissediyor insan (Meral).*

Therefore, it was observed that due to their negative past experiences, although some of the participants were still hopeless about the future, some of them got strength from those memories. The latter ones believed that since they overcame so many difficulties to have a baby, they could also handle the possible problems that would arise in future.

4.5. Discussion

The present study aimed to explore the experiences of pregnant women who conceived via assisted reproductive techniques. With this aim in mind, two separate focus group interviews were arranged with totally eight pregnant women who had been treated successfully. The results of thematic analysis demonstrated that the emergent themes could be classified according to three different episodes of having

children, namely, infertility and treatment process, pregnancy process, and projections about motherhood.

4.5.1. Superordinate Theme I. Infertility & Treatment Process: Feeling Like an "Empty Can"

When the participants were talking about their experiences regarding infertility and treatment process, one woman used the metaphor of *feeling like an "empty can"* to explain her feelings such as uselessness, insufficiency and worthlessness during that process. On the basis of this metaphor, first superordinate theme was named as *feeling like an "empty can"*, because from the group discussions it was understood that this feeling could contain the participants' infertility related experiences within itself. The literature findings proved that similar types of comments and metaphors were also used in previous studies. For instance, in the study of Mazor (1978) infertile women said that they were feeling "empty" and like having "a 'black hole' space" in the place of their uterus (as cited in Dunkel-Schetter & Lobel, 1991). As Domar and colleagues (2012) stated when they were infertile, women perceived themselves as "flawed" and "inadequate", and the feelings of shame and decreased self-esteem accompanied these perceptions. From one of the participants' saying, these feelings of inadequacy and incompleteness seemed to be highly relevant with women's feeling of being unable to carry out the "natural process" of continuity of the lineage. Since being a mother was accepted as nature and norm of being a woman, childless women could feel inadequate and criticize themselves for being abnormal (Choi et al., 2005). Consistently, Mahlstedt (1985) mentioned that after discovering their infertility, the women perceived that they "couldn't accomplish something as 'natural' as conceiving a baby". After the diagnosis, their "sense of self-worth was shaken", they had lower self-esteem and they felt "defective" (p.338). It seems that regardless of when and where the studies were conducted, the

women's feelings have remained the same and they used similar descriptions to define their infertility.

From the focus group discussions, it was realized that the feelings of inadequacy, insufficiency, worthlessness and uselessness corresponded to patients' all the experiences regarding infertility and treatment process. Under the roof of *feeling like an "empty can"* three subordinate themes were determined, namely, *idealization of life with children, intense negative feelings* including *feeling aggrieved and feeling alone and misunderstood*, and *maladaptive coping strategies* including *social withdrawal, faith or confusion* and *masking weaknesses.* All these emergent themes were strongly associated with or triggered by their underlying feelings of being worthless and useless like an *"empty can"*.

4.5.1.1. Idealization of Life with Children

Idealization of life with children was the first subordinate theme of *feeling like an "empty can"*. In the study it was realized that all the participants were believing that life would be better when they have children. As Eibach and Mock (2011) indicated, despite the costs of having children, people idealize the joys of having children and found it as an emotionally rewarding experience. However, it seemed that since the participants could not achieve this ideal, their feeling of worthlessness increased and they felt like an "empty can". Regarding this theme, the literature findings confirmed that for infertile people having a child represented having an idealized family life (Cooper-Hilbert, 1998). Until achieving successful pregnancy, women idealize motherhood and life with children (Fisher et al., 2008; Smorti & Smorti, 2012); this increases their parenthood motivation (Rotkirch et al., 2011) and creates higher expectations regarding having children (Bernstein, 1990). Similarly, in current study childless women stated that life would be better when they have a child. They thought that after having children their relationship with their spouse would improve, they would become a complete family, and the child would provide

emotional support for them. As revealed in previous studies, women also believed that a child could be a cure for their loneliness (Karaca & Ünsal, 2015), provide a satisfying relationship with their husband, improve their social status as women, and make them feeling successful (Papaligoura, Papadatou, & Bellali, 2012).

Accordingly, infertile women's feelings of inadequacy and ideals for having children are also associated with the fact that as a social construct motherhood is accepted as an essential part of feminine gender identity (Gillespie, 2003). In many cultures, women frequently identify their self-based on motherhood (Glover et al., 2009). Especially in conservative cultures where the effects of patriarchy are dominant, childless women feel as inadequate and abnormal (Choi et al., 2005). Studies revealed that due to pronatalist and patriarchal characteristics of Turkey, social motives had greater importance on women's desire for having children (Van Rooij et al., 2006). Numerous Turkish studies highlighted that societal expectations related to having children created pressure on women (e.g., Ayaz & Yaman Efe, 2010; Boyacioğlu & Türkmen, 2008; Kağıtçıbaşı, 2007). For this reason, childless women can feel "worthless", inadequate, unfulfilled and guilty especially in Eastern parts of Turkey where having children is accepted as a duty of being married and being a woman (Boyacioğlu & Türkmen, 2008). They believe that they cannot satisfy the primary duty of being a woman as determined by society (Karaca & Ünsal, 2015). It is important to note that although in present study the participants were educated and living in urban regions of Turkey, they have also identified their "womanhood" based on motherhood. This finding demonstrated that regardless of their education level and employment status, infertile women could feel insufficient, like "less women". They thought that they could not meet the norms and general expectations regarding traditional gender role of woman.

Since infertility made women feel insufficient, from the participants' ideals for having children, it was also observed that most of the participants accepted having

children as a demonstration of their personal accomplishment. For instance, as stated by one of the participants (i.e., İpek), they believed that a child could be representation of how good she is, like her "masterpiece". This utopia brings to mind the theoretical explanation that desire for children is essentially a narcissistic need (Michaels, 1988) and children would reveal the goodness of the person (Bigner, 2010). From the psychoanalytic point of view this case can be evaluated that children may have a function of being the narcissistic extensions of their mothers. As Freud (1914) stated women reflect their self-love towards the baby and children to assure "revival and reproduction of their own narcissism" (p. 91). Since throughout the diagnosis and treatment process women's self-esteem was decreased (e.g., Domar et al., 2012; Newton et al., 1992) and they had negative self-concept (e.g., Karaca & Ünsal, 2015), having children could be thought as a way of increasing women's self-esteem and self-worth (Hansen, Slagsvold, & Moum, 2009).

4.5.1.2. Intense Negative Emotions

The feelings of worthlessness and uselessness because of infertility and not being able to achieve their idealized life created *negative emotions* in infertile women. Regarding infertility and treatment process having *intense negative emotions* was found as the second subordinate theme. The literature findings demonstrated that the negative feelings such as anger (Domar et al., 2012), intense level of stress, loss of control (Glover et al., 2009; Mahlstedt et al., 1987), frustration (Domar & Gordon, 2011), loneliness, desperation (Jirka et al., 1996), guilt and suspicion (Csemiczky et al., 2000), higher levels of anxiety and depression (Harris & Daniluk, 2010; Smeenk et al., 2004; Verhaak et al., 2001) and grief (Lukse & Vacc, 1999) were highly common during infertility and treatment process, and through consecutive unsuccessful trials these emotions could intensify (Berg & Wilson, 1991; Verhaak et al., 2007). Under this theme it was realized that the participants'

negative emotions concerning involuntary childlessness can be grouped as *feeling aggrieved* and *feeling alone and misunderstood*.

4.5.1.2.1. Feeling Aggrieved

Regarding the participants' *feelings of aggrievedness* it was realized that most of the women thought that life had always been hard and unfair for them and infertility is also among these difficulties. They believed that although they spent so much effort and they sacrificed a lot, having children is "free" and easy for others who behave abusively and do not deserve to have their own kids. Being in that position made women feeling aggrieved and downtrodden, and intensified their feeling of helplessness. Since other people could easily have children, being infertile was "unluckiness" and "unfairness" for them (Redshaw et al., 2007). Moreover, for them not only being infertile but also exposing assisted reproductive treatment was perceived as unfairness. It was unfair because regardless of their great deal of investments in terms of time, energy and money, they could not feel as having control over the process. For this reason, the treatment process seemed like a gambling game. For them, the more money they spent, the more chance of getting pregnant they would have. Similarly, in the study of De Lacey (2002) the participants believed that treatment process was like "gambling or lottery" in which they have both chances of winning and losing "the game" and have no control over the process.

Relevantly, uncontrollability and unpredictability of the treatment process also increased the women's feelings of aggrievedness. Although the whole treatment procedure proceeded on their body and they were exposed to so many injections and operations, they could not bring the process under control. During that period women's decisions have lost its significance and the treatment process mostly pursued depending on the physiological state of women. For this reason, they felt like they had no choice on how the treatment would proceed and "like going into a

dark tunnel" during the treatment process (Redshaw et al., 2007, p.298). Glover and colleagues (2009) presented that because of unpredictable and biologically oriented treatment process, women's feeling of loss of control could be intensified and they could feel as "blindfold" in the whole process. These situations made women feel as having no control over the process (e.g., Cooper-Hilbert, 1998; Harris & Daniluk, 2010). Concerning their feelings of aggrievedness and loss of control, some of the participants thought that infertility could be a test of whether they deserve children (Cooper-Hilbert, 1998; Harris & Daniluk, 2010). For this reason, the participants told that they had felt guilty about their previous actions and felt like being tested or punished by God, parallel with the finding of a recent Turkish study conducted by Karaca and Ünsal (2015).

4.5.1.2.2. Feeling Alone and Misunderstood

Feeling alone and misunderstood was determined as another common feeling under the roof of *intense negative emotions.* During infertility and treatment process women felt alone and misunderstood by their spouse and social circles (e.g., families, relatives, friends) and these negative emotions also aggravated their feelings of worthlessness like an "empty can." For this reason, although women were in need of communication and social support, they kept themselves aloof from their families and friends (Davis & Dearman, 1991). As depicted in the literature, the feelings of loneliness and isolation were among the most common emotions that people experience in the face of infertility, and women were more negatively affected compared to men (Gokler et al., 2014; Jirka et al., 1996). In this study, women felt left alone and as shouldered all responsibilities during the treatment process; and thus, they were furious at their husband. Although the husbands were also described as an important source of social support (e.g., Karaca & Ünsal, 2015), in current study most of the participants complained that their husbands could not understand how hard the treatment process was going for them.

Consistent with earlier studies (e.g., Mahlstedt, 1985), the women were angry towards their spouse, felt lack of emotional understanding and support, and believed that the men's contribution over the process was scarce. Even if the men tried to behave supportively, women perceived their husbands as disinterested, avoidant and neglectful towards themselves, and this made them feel alone and unsupported. In the literature, it was presented that men's these types of behaviors might be associated with their use of distancing as a coping strategy (Williams, 1997). Distancing was useful for decreasing men's stress level, but this could also make women feel alone (Peterson, Newton, Rosen, & Skagg, 2006). Although men try to forget the problem through denial, women can show repetitive thinking (Wright et al., 1991). Therefore, as observed in present study, men's coping style was evaluated as neglectfulness by infertile women, and because of this, women could feel alone and misunderstood.

In regard to women's perceptions about their husband's behaviors it is also important to note that more conservative participants did not question their husband's attitudes and they were more submissive compared to other women. For instance, in this study, although their problem was defined as male-factor infertility, one of the participants (i.e., Zehra) believed that the treatment process was a duty of women and men could not make anything for them. From the participant's attitudes it was observed that as Wright and colleagues (1991) implied even if the source of problem was associated with men, women took the responsibility of infertility process. This tendency might be related to the fact that irrespective of the source of infertility, treatment proceeds on woman body. Moreover, in line with social role theory (Eagly & Steffen, 1984), since in terms of social roles women are responsible from conception and childbearing, regardless of the source of infertility they can feel as having more responsibility (Wright et al., 1991). From the participants' attitudes it was also thought that women having this type of male dominant point of view might have suppressed their anger, and they did not

consider whether their husband could understand the difficulties they had been exposed to. This is because women having traditional gender roles identified themselves with more submissive roles and supposed that men had higher social status, as implied by numerous Turkish studies (e.g., Boyacioğlu & Türkmen, 2008; Kagitcibasi, 1981).

In addition to their feelings towards their husband, the theme *feeling alone and misunderstood* also comprised the women's feelings towards their social environment. Some of the participants groused about their families' intrusive attitudes, while the others were annoyed with their uninterested and ignorant behaviors as if nothing had happened. From the things the participants told it was understood that although most of the time the people around them tried to be supportive and oversensitive, the women felt uneasy and believed that others took pity on them. It seems that regardless of the individuals' reactions, they felt lonely, desperate and miserable because of the infertility itself (Jirka et al., 1996). Social stigmatization of infertility (Whiteford & Gonzalez, 1995), excessive questions from social environment (Karaca & Ünsal, 2015), women's feelings of "awkwardness" (Harris & Daniluk, 2010) and their self-criticizing attitudes made them feel alone and misunderstood and prevented them from social interactions, especially if other people had small children (Berg, Wilson, & Weingartner, 1991; Davis & Dearman, 1991; Glover et al., 2009). For these reasons, although seeking social support was essential for dealing with emotional problems during infertility and treatment process, the patients choose isolation and avoidance, and this might have also increased their level of stress and loneliness (e.g., Davis & Dearman, 1991; Jordan & Revenson, 1999).

4.5.1.3. Coping in Maladaptive Ways

While talking about these negative emotions, it was realized that women used some strategies to overcome or move away from these feelings. Although for them these strategies were among the ways of coping, these practices were effective in the short term and did not seem to be useful over the long run. For this reason, these "coping" mechanisms were regarded as both causes and results of their feelings of worthlessness, and drawn together with the theme of *coping by maladaptive ways* as the last subordinate theme of *feeling like an "empty can"*. Three types of coping strategies were identified, namely, *social withdrawal*, *faith or confusion* and *masking weaknesses*. Based on schema therapy model, it was thought that these coping strategies had similar features like schema coping styles of avoidance, surrender and overcompensation, respectively (Young, Klosko, & Weishaar, 2003).

4.5.1.3.1. Social Withdrawal

Among these coping mechanisms, the first one was *social withdrawal* which can be thought as a way of avoiding from the feeling of being like an "empty can". As previously mentioned, since women did not feel understood and felt social pressure because of not being able to satisfy the expectations of society, establishing social relations might have triggered their sense of worthlessness and insufficiency. To overcome their infertility related stress, they found a way of coping through *social withdrawal*. For this aim, they isolated themselves from their families and friends, locked themselves into their house, and avoided from social relations. Consistent with the literature findings (e.g., Berg et al., 1991; Cooper-Hilbert, 1998; Glover et al., 2009), women told that they were feeling uncomfortable in social environment, because people were asking countless questions that made them feel like being criticized. Moreover, being together with women who have children or became pregnant easily also increased their negative emotions and made them "feel awkward" (Harris & Daniluk, 2010). However, as mentioned before, although this

was a prevalently used coping mechanism, social withdrawal was ineffective because for infertile women emotional support from their partners, families and friends could be helpful to overcome and adjust the negative influences of diagnosis (Gibson & Myers, 2002). Through social withdrawal they had also prevented themselves from receiving social support and they further increased their feelings of loneliness (Jirka et al., 1996).

4.5.1.3.2. Faith or Confusion

Second coping mechanism was named as *faith or confusion* and it was related to the participants' attitudes towards the feeling "like being tested and punished by God". Since for them infertility was from God, to overcome their feeling of helplessness some of the participants had faith in God, they showed compliance and obedience to God. They tried to relieve themselves by praying and worship, then left the rest to God. Literature findings showed that the use of spiritual coping was highly common in Turkey (e.g., Karaca & Ünsal, 2015) and other Muslim countries. For instance, in a study from Iran it was demonstrated that believing in God and praying were frequently used as a coping strategy (Farzadi, Mohammadi-Fosseini, Seyyed-Fatemi, & Alikhah, 2007). According to Karaca and Ünsal (2015), the belief that "the ones bowing without rebelling will be rewarded by God" can reduce the patients' hopelessness and preserve their self-respect (p. 248). Moreover, religion could also increase the patients' sense of controllability over infertility, improve their well-being and acceptance of the being infertile (Latifnejad Roudsari et al., 2014). Also, people having religious beliefs do not use denial as a coping mechanism (Grinstein-Cohen, Katz, & Sarid, 2017). Relevantly, in each group it was observed that religious women had more positive attitudes towards the process.

Apart from this, in the groups while some women engaged in religious activities and demonstrated compliance, others questioned the meaning of their infertility. In this case, when the women could not achieve their goals of being pregnant, they got

disappointed and confused; because, they thought that regardless of their worship, God did not give them any reward. Since these women's fatalistic belief that "God rewards good deeds and punishes misdeeds" (Karaca & Ünsal, 2015, p. 248) could not be supported, this situation created confusion. Moreover, since they did not worship before the infertility diagnosis, they felt guilty. During the focus groups it was observed that to get rid of this confusion, in the end, some of these women tried to relax themselves considering that infertility was independent from the religious affiliations.

4.5.1.3.3. Masking Weaknesses

The third coping mechanism was named as *masking weakness.* From schema therapy perspective masking weakness was thought as an overcompensation of women's feelings of worthlessness and behaving oppositely to their underlying beliefs (Young, Klosko, & Weishaar, 2003). Mahmoudi, Mirzaian, and Hassanzadeh (2015) emphasized that overcompensation was common among infertile women, particularly in the case of lack of social support. Although the women told that during their infertility period they had experienced hard times and lots of negative emotions, it was realized that they behaved like a "strong women" regardless of their internal weaknesses. Moreover, during the group discussions, despite the negative content of the things they told, the participants tried to reveal themselves as strong as possible. Consistent with prior findings (Katiraei, Haghighat, Bazmi, Ramenzanzadeg, & Bahrami, 2010), they frequently used repression and compensation as defense mechanisms. In relation to these coping strategies, they tried to laugh and used "mask" of smiling. Sometimes they took no notice of own emotional necessities and treated themselves like a "machine" or "robot". They thought that their body like difficulties. For this reason, if the doctor had given permission, they would like to continue trials without giving a break.

Therefore, as understood from the participants' infertility and treatment related experiences, after the diagnosis, women got disappointed, felt as losing their idealized life and experienced range of negative emotions. To overcome or to lessen the intensity of those emotions they used some coping strategies such as withdrawal, religiosity, and suppression and compensation. It was observed that the effects of these prior experiences can maintain even after successful treatment. These experiences can influence the women's perceptions on pregnancy process and their antenatal relations with the fetus

4.5.2. Superordinate Theme II. Pregnancy Process: "What If I Have a Miscarriage"

The second superordinate theme was related to pregnancy process and named as *"what if I have a miscarriage"*. Through the effects of previous negative experiences, after they became pregnant, women begun to have constant anxiety about losing their baby. During the discussions it was observed that the women had constant fears about losing their baby and these fears inhibited their excitement for being pregnant. From the participants' attitudes it was understood that consistent with the previous findings (e.g., Hjelmstedt et al., 2003; McMahon et al., 1997), the negative influences of treatment process have persisted and women inclined to be anxious and fearful about losing their baby. As presented in the study of Monti and colleagues (2008), although both ART-conceived and spontaneously conceived pregnant women had similar types of anxiety at unconscious level, ART-expectant mothers revealed higher manifest anxiety which was experienced at the conscious level, and influence these women until the birth of the baby.

This superordinate theme was divided into three subordinate themes, namely*, being stuck with the past miscarriages, perpetual apprehension* including *preoccupation with baby* and *avoidance and ignorance of baby\pregnancy,* and *progress towards completion.*

4.5.2.1. Being Stuck with the Past Miscarriages

Being stuck with the past miscarriages was determined as the first subordinate theme of this process. As a result of their experiences during infertility period, they have kept their mind that something bad would happen again. For this reason, they tried to prepare themselves for possible negative situations; in this way they have kept their anxiety alive and could not enjoy being pregnant. Regarding this subordinate theme, the literature findings indicated that even if a successful pregnancy was ensued, ART-conceived pregnant women saw themselves as an "injured" person who perpetuate the negative feelings and adverse influences of treatment process (Redshaw et al., 2007). They showed higher levels of anxiety (e.g., Hjelmstedt et al., 2003; Hjelmstedt et al., 2003), especially if they had more than two trials (McMahon et al., 1997). This result demonstrated that negative treatment experiences had negative effects on patients' anxiety level, because as Harris and Daniluk (2010) mentioned, prior repetitive losses decreased women's perceived control over their pregnancy and increased their fear of losing their baby. Similarly, in focus groups it was observed that depending on prior losses and disappointments, women set some time points and until that certain time they experienced extreme anxiety about whether the baby was alive. In this way, they may feel as having control over the progress of their pregnancy. In present study, most of the participants were in the second trimester, and according to McMahon et al. (1997) the expectant mother's higher concern about well-being of the baby can show continuity until the third trimester.

4.5.2.2. Perpetual Apprehension

In addition to excessive anxiety in ART pregnancies, Monti and colleagues (2008) emphasized that since during the treatment process women experienced countless difficulties and the grief of diagnosis, having excessive emotional stress and worry about their pregnancy were "normal" for their situation. During the discussions it

was understood that as a result of their pregnancy related stress, expectant ART-mothers had *perpetual apprehension* related to pregnancy process. As Hjelmstedt and colleagues (2006) stated, pregnancy after a long-awaited involuntary childlessness was emotionally challenging for them. To protect themselves potential disappointments, ART-conceived pregnant women could demonstrate various psychological responses (McMahon et al., 1999). Within this scope, it was thought that to handle their feelings of apprehension, the participants showed either preoccupied or avoidant attachment towards their baby.

4.5.2.2.1. Preoccupation with Baby

Regarding their *preoccupation with baby*, it was realized that some of the participants were frequently checking whether their baby was still alive and healthy. They demonstrated overprotective attachment to their unborn baby (Fisher, Hammarberg, & Baker, 2008). Since they worried about losing their baby and could not feel control over the baby's living, to reduce their anxiety and bring their pregnancy under control they tried to be sure about the baby's existence via excessive checking. In the study of Bernstein, Lewis, and Seibel (1994) a similar tendency was observed from women's compulsive control for vaginal bleeding. Moreover, due to their over concern for and preoccupation with the baby, although this could not be possible in terms of development of the fetus, some of the participants claimed that they were perceiving the baby's movements. For instance, although Fatma was 6 weeks pregnant, she thought that she was recognizing the movements of her baby. In the literature it was indicated that mothers' these types of overprotective attitudes were strongly associated with experiencing prior losses during pregnancy period (Warland, O'Leary, McCutcheon, & Williamson, 2011).

4.5.2.2.2. Avoidance and Ignorance of Baby\Pregnancy

As another tendency to overcome their anxiety of losing their baby, women demonstrated avoidant attitudes and behaved like they were not pregnant. Due to their *avoidance and ignorance of baby/pregnancy*, they did not pay attention to the movements of the fetus, because they thought that establishing a bond with the baby would increase their disappointment if they lose the baby. As Harf-Kashdaei and Kaitz (2007) emphasized, avoidant coping skills, through denial of stress and anxiety suppression, were common among previously infertile population. McMahon et al. (1999) stated that due to their fear of losing their unborn baby, with the aim of protecting themselves from potential disappointments, ART-conceived expectant mothers tried to holding back from the baby and made fewer talks with the fetus. They believed that to overcome pregnancy related stress these types of avoidant attitudes might be useful (McMahon et al., 1999). Similarly, in present study concerning their avoidant attitudes, the participants mentioned that they did not buy anything for the baby, did not talk with the baby, delayed preparation of kid's room and did not choose a name for the baby. They stated that they did not want to personalize the baby. According to McMahon and colleagues (1999), women's these types of attitudes could also be evaluated as an indicator of their lower prenatal attachment. Hjelmstedt and colleagues (2006) mentioned that their negative prior experiences might be the cause of their lower prenatal attachment. They always keep their mind to the possibility of losing their baby, for this reason, as a defense they do not want to get prepared for the baby (Harris & Daniluk, 2010). Moreover, as observed in the current study, since women made heavy investments for their pregnancy, having avoidant attitudes also made them feel guilty; they blamed themselves thinking that their avoidant attitude was why they did not deserve having children.

4.5.2.3. Progress towards Completion

Apart from these anxious attitudes, although throughout their pregnancy women have worried about having miscarriages, for some participants being pregnant was also a source of pride and they attributed that pregnancy was a *progress towards completion*. McMahon and colleagues (1999) stated that despite their higher levels of anxiety, ART-women could have positive feelings about being pregnant. For these women, pregnancy could refer to positiveness and fulfilment (McMahon et al., 1999). For this reason, in current study some of the participants had a desire to show off their pregnancy and welcome it irrespective of its negative aspects. As observed in the study of Klock and Greenfeld (2000) as a result of their previous investments, pregnancy could be like a reward and ART-women might have a tendency to overlook the negative aspects of pregnancy such as weight gain. Some of the participants had a desire to reveal their pregnancy, because in this way they could demonstrate their fecundity (Papaligoura et al., 2012). For them, achieving pregnancy could represent overcoming the obstacles and make them feel triumph and satisfaction (Redshaw et al., 2007). Similarly, in this study it was realized that women believed that becoming pregnant represented their success and because of this success their self-esteem was increased, they felt worthy and gained self-confidence about their marital life. This result confirmed the evidence that conceiving via ART creates positive emotions; while women's self-esteem increases, their depression and anxiety levels decrease as their pregnancy proceeds (Klock & Greenfeld, 2000; Repokari et al., 2007).

To sum up, from the participants' pregnancy related experiences it was observed that due to their prior experiences they were very anxious about losing their pregnancy and as a response they attached to their baby with either preoccupied or avoidant style. In spite of all these anxious attitudes, they were still excited about

progressing through completion. A similar tendency was observed also in terms of their projections about motherhood.

4.5.3. Superordinate Theme III. Projections about Motherhood: Despair and Hope

The third and last superordinate theme was related to the participants' projections about motherhood, and it was observed that as a result of prior phases they had both *despair and hope* about future. It was observed that with the influence of negative life events, they still had hesitations about the future. However, similar to the tendency of pregnancy process, despite those unfavorable events they were still hopeful about the future. This superordinate theme included two subordinate themes, the first one was *carrying the burden of the past* including *worries about motherhood* and *avoidance from the idea of motherhood*, and the second one was *hope despite the pain of past memories.*

4.5.3.1. Carrying the Burden of the Past

For the first one, it was observed that as they were stuck with the past miscarriages in the pregnancy period, when they were talking about the motherhood it was observed that they had been *carrying the burden of the past.* They feared that like difficulties of infertility period, future would also be difficult for them. As observed in the study of Redshaw and colleagues (2007), regardless of successful treatment outcome and giving birth, ART-conceived women maintained the offense and remorse about being infertile and they were still angry about the necessity of receiving treatment to have a child. This situation led to two different tendencies. While some of them explicitly told their *worries about motherhood*, the others tried to *avoid from the idea of motherhood*, parallel with their attitudes regarding pregnancy period.

4.5.3.1.1. Worries about Motherhood

In the focus groups it was understood that participants' *worries about motherhood* was mostly related to whether they would be a good mother and their motherhood abilities would be sufficient. As a consequence of their previous disappointments, women had fears about the difficulties of motherhood. As it was presented, higher levels of parenting stress were highly common for these women (Cook et al., 1998). McMahon and colleagues (1997) implied that since conception was difficult for these women, they were afraid of childbirth and delivery complications, and they expected difficulties in infancy period of their baby. For this reason, when they were dreaming about the future, women preferred toddlerhood or adolescence periods. This might be associated with the fact that from birth to toddlerhood the babies are more dependent to their mother and mother's responsibilities are at the highest level. To avoid their fears about this period, the women might have skipped over birth and infancy on their dreams. This finding could also be an indication that for ART-conceived expectant mothers their children would be more difficult (Glazebrook et al., 2004; McMahon et al., 1999) and more vulnerable (Gibson et al., 2000). It was stated that waiting for difficult children could also provide emotional control for ART-conceived women. In this way, they believe that they are taking precaution for possible losses and disappointments (McMahon et al., 1999).

4.5.3.1.2. Avoidance from the Idea of Motherhood

The second subordinate theme of *carrying the burden of the past* was women's *avoidance from the idea of motherhood.* Due to their avoidant prenatal attachment attitudes, these women did not want to dream about the baby and motherhood. They had always kept in their mind the idea of losing their baby; for this reason, they did not want to attach themselves to the idea of having children. According to Bernstein and colleagues (1994), ART-expectant mothers' avoidant attitudes and lack of

fantasy about future could be dysfunctional for their adjustment to motherhood. For this reason, pregnancy and motherhood adjustments of this group can proceed differently from naturally conceived mothers (McMahon et al., 1999).

4.5.3.2. Hope Despite the Pain of Past Memories

The last theme of projections about motherhood was named as *hope despite the pain of past memories.* As their feeling of completeness because of being pregnant, expectant mothers had a deep hope regarding future. They believed that all the difficulties remained behind and even if a problem would occur in the future, they will have a strength to overcome them. Glazebrook et al. (2004) showed that since these women made a great effort to become a mother, motherhood would be more rewarding for them. Moreover, studies supporting this assumption proposed that compared to naturally conceived mothers, ART-mothers' parenting morale might also be higher and the possibility of experiencing postpartum stress would be less likely for them (Raguz et al., 2014). However, this assumption is still controversial and there is a need of further investigation for clarification.

4.5.4. Conclusion

In conclusion, through this qualitative study it was observed that during infertility and treatment process women experience excessive emotional difficulties and feel like an "empty women". They felt inadequate since they could not achieve their idealized life with a child. Moreover, they had intense negative emotions; due to these feelings and maladaptive coping mechanisms their feeling of "emptiness" increased.

When these women became pregnant with these negative emotions and underlying "emptiness", it was observed that their infertility related experiences still had an influence on them. Due to their prior disappointments these women had consistent fears about losing their baby and as a result of their anxious attitudes they

demonstrated either preoccupied or avoidant type of prenatal attachment. During the focus group discussions, it was observed that although they were anxious and fearful about the health of their baby, the women who have avoidant prenatal attachment styles did not realize their negative emotions. This might be the reason why in some quantitative studies previously infertile women did not differentiate in terms of pregnancy related anxiety and birth fear (e.g., Poikkeus et al., 2006). It was thought that due to their avoidant attitudes these women might not have realized their negative emotions and they could not reflect their anxiety while answering the questions. Even so, the themes of pregnancy process revealed that since they were proceeding towards “sufficiency”, they felt as progressing towards completion.

Lastly, while discussing about ART-conceived women’s projections about motherhood it was observed that they had similar tendencies with pregnancy process. As observed during the pregnancy process, they were still carrying the burden of the past and their reactions were either excessive worry or avoidance from the idea of motherhood. However, it was observed that despite the negative influences of painful memories, they have still tried to be hopeful about the future.

4.5.5. Strengths of the Study

Concerning the strengths and contributions of present study, as mentioned in previous parts, studying with a clinical sample is one of the important strengths of present study. In this way, the findings of study provided knowledge about infertile and ART-conceived women’s experiences and can be applicable in clinical health psychology practices. For clinicians, it is an important study to understand the psychological needs of infertile women based on different time points (i.e., infertility and treatment, pregnancy, motherhood).

In addition, in Turkish literature this is the first study examining the experiences of pregnant women who conceived via ART. Although qualitative studies focusing on

infertility and treatment process is more common in the literature, the studies investigating ART-conceived women's experiences from infertility to motherhood are scarce also in global literature.

Lastly, although in the literature prior studies concerning infertility and pregnancy process are commonly conducted by nurses, this study provided an insight about the subject from a psychological point of view. For instance, from the emergent themes it was understood that during infertility period psychotherapeutic interventions should be the essential part of the treatment process. Since the participants' psychological states concerning pregnancy process revealed that if the patients' infertility related emotional difficulties are not handled by therapists or support groups, they can experience adjustment problems in pregnancy and motherhood periods. Therefore, through this qualitative study it was emphasized that for this clinical population psychological support is indispensable at every stage of treatment.

4.5.6. Clinical Implications

After the emergent themes of present qualitative study, I thought that since being infertile might have triggered the women's "early maladaptive schemas" (according to schema therapy perspective; Young et al., 2003) or infertility might have led numerous dysfunctional beliefs (according to cognitive behavioral therapy perspective; Beck, 2011), working on these bases of their feelings of worthlessness through individual psychotherapies could be helpful for infertile women. Moreover, since the groups were almost homogenous and prior experiences of women were alike, while talking to each other during the focus group discussions they felt understood, they saw that they were not alone and after the groups all of them felt relieved. Although I did not make any therapeutic intervention, from this observation I thought that support groups or interpersonal group therapies (Yalom,

1983) could also be beneficial for infertile women during treatment as well as pregnancy process.

With respect to participants' pregnancy related experiences it was apparent that due to their trauma of infertility, ART-conceived pregnant women's anxiety and fear of losing their baby negatively affected their emotional states during pregnancy. Regarding this result the literature findings also emphasized that pregnant women's higher depression and anxiety levels were also found predictive for postpartum depression (Beck, 2001; Robertson, Grace, Wallington, & Stewart, 2004), relationship problems between mother and children (Halligan, Murray, Martins, & Cooper, 2007) and some problems in child psychology such as negative behavioral reactivity (Davis et al., 2004), hyperactivity/attention deficiency, and emotional and behavioral problems (O'Connor, Heron, & Glover, 2002). For these reasons, this study also highlighted that previously infertile women's pregnancy period anxiety also should not be underestimated and should be intervened.

In the present study, it was also observed that participants' infertility experiences negatively influenced not only their pregnancy period but also their projections about motherhood. When the women's projections about motherhood were discussed it was thought that infertile women's prior anxiety could also be a risk factor for women' perceptions on motherhood and their postpartum psychological well-being (Monti et al., 2008). Regarding their anxious attitudes, it was observed that pregnant women projected similar tendencies (i.e., avoidance or preoccupation) towards their parenthood ideals. Apart from this, it is also important to note that since before having children women had unrealistic expectations from their "ideal" baby, after the birth their adjustment to the "real" baby would also put a strain on them (Monti et al., 2008). For this reason, through psychotherapeutic interventions, working on the infertile women's idealizations about having children would also be helpful to prevent them from forthcoming disappointments.

Therefore, in present study the themes regarding these three time points emphasized that the effects of trauma of infertility might show persistence even during motherhood. For this reason, this study highlighted that psychological support seemed to be as an essential part of infertility treatment at each time point (i.e., infertility and treatment, pregnancy, motherhood). As mentioned previously (e.g., Peddie, van Teijlingen, & Bhattacharya, 2005; Slade, Emery, & Lieberman, 1997), this study supported that whether or not a successful pregnancy takes place understanding and working on ART-women's emotional needs should be a part of infertility treatment process. This is because of the fact that the course of ART-mothers' pregnancy and motherhood adjustments might be different from naturally conceived mothers (McMahon et al., 1999).

4.5.7. Limitations and Directions for Future Studies

The current study is not without its limitations. First of all, because of having pregnancy related complications, excessive anxiety, and being pregnant by itself, only a few number of women participated to the study. Some patients of the clinic did not want to attend the group because they thought that talking about prior experiences could negatively influence them. In other words, they refused to participate the focus groups to not to remember the infertility process. Moreover, in present study each focus group discussion was conducted only once. In further studies making a longitudinal research design and conducting group sessions at three time points (i.e., infertility and treatment, pregnancy, motherhood) with more participants would provide a rich seam of information. Third, due to the nature of focus groups no therapeutic intervention was applied to the participants. As a moderator, I did not make any therapeutic intervention, but I have realized that women saw the benefit of group discussion. Based on this observation it can be recommended that organizing support groups or interpersonal group therapies (Yalom, 1983) could also be beneficial during treatment as well as pregnancy

process. As the last limitation, it is important to note that the subjects of present study were only females. However, from diagnosis to pregnancy process men also closely witness this situation and men’s attitudes and reactions throughout this process can also influence women’s experiences. For this reason, to observe the men’s psychological experiences and their point of view throughout this process, in further qualitative studies men can also be included. Understanding the men’s side can also be healing for previously infertile women.

CHAPTER 5

GENERAL CONCLUSION

The present dissertation aimed to achieve a deeper understanding of the psychology of pregnant women who conceived via assisted reproductive techniques (ART). The idea of this study was originated from the assumption that regardless of the successful treatment outcome, women with infertility history continue to perceive themselves as “infertile” and cannot get rid of the negative emotional states of being infertile (e.g., Braverman et al., 1998; Hjelmstedt et al., 2004; Olshansky, 1990). As a result of their past experiences, these women are likely to have higher levels of pregnancy distress, anxiety for losing their baby (Hjelmstedt et al., 2004; McMahon et al., 1997), and they experience adjustment problems during both pregnancy (Łepecka-Klusek & Jakiel, 2009) and motherhood (Gibson et al., 2000; Glazebrook et al., 2004). Based on this knowledge, to be able to understand how these past experiences influence the psychology of ART-conceived pregnant women, a mixed-method design was employed and three separate studies were conducted within the scope of this dissertation. In Study 1, Turkish adaptation of Parenthood Motivation Scale (PMS) was carried out; in Study 2, the effects of parenthood motivation and prenatal distress on pregnancy adaptation and prenatal attachment were investigated, while also investigating the moderator roles of perceived social support, insecure attachment styles and prenatal distress; and in Study 3, ART-conceived pregnant women’s experiences from the infertility diagnosis towards their pregnancy process were tried to be understood. In this chapter, the findings of these three studies will be concluded together.

In the first study, the results of Turkish adaptation of PMS revealed that the scale is a reliable and a valid assessment tool, and similar to the original version, it consisted of six dimensions, namely *continuity, nurturance, relationship, identity, social pressure,* and *materialism.* When the motivational bases of naturally- and via ART-conceived expectant mothers were compared, it was found after controlling the effects of various demographical characteristics (i.e., age, education level, duration of marriage, marital satisfaction and duration of struggle for having children) that ART-women demonstrated significantly higher motivation levels in terms of overall PMS, and identity and social pressure dimensions. This result was in line with prior findings, which indicated that childlessness was a direct threat for identity of infertile women (Greil et al., 2018), and in collectivist cultures, due to extended family networks, infertile women could have significantly higher parenthood motivation in terms of identity and social pressure dimensions (Cassidy & Sintrovani, 2008).

The present findings related to parenthood motivation revealed that, as emphasized by Langdridge et al. (2000), higher motivation bases could negatively influence the ART-conceived women and increase their stress levels. Regarding the effects of ART-women's parenthood motivation on their prenatal attachment, it was observed in the second study that higher parenthood motivation was a risk factor for having lower levels of prenatal attachment. Moreover, if these women had higher prenatal distress levels or avoidant attachment pattern, the intensity of this negative relation could increase. In terms of the moderator role of prenatal distress on this association, it is important to note that in the case of having higher parenthood motivation and increased prenatal distress, the relation between parenthood motivation and prenatal attachment revealed a counter slope. This means that due to their higher motivations and excessive fear about losing their baby (Gibson et al., 2000; Litt et al., 1992; Yakupova et al, 2015), these women demonstrated preoccupied and overprotective attitudes towards their unborn baby and showed

more emotional involvement (Agostini et al., 2009; Van Balen, 1996; Fisher et al., 2008). In consistence with these findings, ART-women's preoccupied tendency was also observed in the third study. It was noticed throughout the focus group discussions that, since they were highly motivated for having children but also fearful about having miscarriages, some participants showed preoccupied attachment towards their baby. They revealed over-concern for the baby and felt the movements of the baby even if the baby was smaller than they could feel (e.g., as observed in a participant who was pregnant for only 6 weeks).

In addition to this, in the second study, the results that are related to the moderator role of avoidant attachment style on the relation between parenthood motivation and prenatal attachment were also backed up by the data from the third study. Regarding this association, in Study 2, the findings revealed that, in case the women had higher parenthood motivation and higher avoidant attachment patterns, their prenatal attachment was decreased. Similarly, in Study 3, participants' avoidant attitudes and lower prenatal attachment levels became visible through their lack of preparation for the baby and not paying attention to the movements of the fetus. Although ART-women use these avoidant attitudes to overcome their pregnancy related stress (McMahon et al., 1999), the results from Study 2 and 3 demonstrated that these avoidant tendencies decreased women's prenatal attachment, and in this way became a risk factor for the problems concerning postnatal attachment (Muller, 1996) and mother-child relations (Siddiqui & Hägglöf, 2000).

A similar trend was observed for women's anxious attitudes. In the second study, with regards to the relation between prenatal distress and pregnancy adaptation, women with higher anxious attachment patterns demonstrated lack of adaptation. Moreover, in the third study, it was observed during the discussions with ART-conceived women concerning their pregnancy period experiences that, as they could not feel in control over the baby's living, to be able to overcome their excessive

anxiety, they frequently checked whether their baby was still alive and healthy. When these results are evaluated together, to decrease the adverse effects of this combination (i.e., higher prenatal distress and higher anxious attachment pattern) on women's psychological adaptation, it can be recommended that ART-conceived women's excessive prenatal distress and anxious attachment style should be handled in conjunction with psychotherapeutic interventions or support groups.

Stress buffering mechanism of perceived social support was another essential point of the present dissertation. In the second study, regarding the relation between prenatal distress and pregnancy adaptation, the moderator role of perceived social support from friends was found to be the only significant finding. Moreover, when the association between parenthood motivation and women's pregnancy adaptation in terms of identification with the motherhood role was considered, it was found that the moderator role of perceived social support from the significant other (i.e., doctor, nurse, relatives etc.) could significantly enhance this relation. When these two findings were taken together, it was concluded that rather than family members (e.g., spouse, mother and father), ART-conceived women commonly benefited from the outside sources. In the study, the non-significant role of perceived social support from family members was found interesting at first. However, when a comprehensive information related to participants' experiences was achieved from the third study, it was observed that, since ART-conceived pregnant women felt *alone and misunderstood* by their spouse, mother and father, they could not feel as supported from these sources. Consistent with earlier findings (e.g., Cooper-Hilbert, 1998; Mahlstedt, 1985), in the third study ART-women were angry towards their spouse; they felt lack of emotional understanding and support from them, and believed that the men's contribution over the process was scarce. Regarding these findings, it is important to note that due to men's different coping strategies such as use of distancing, they might not be perceived as supportive (Williams, 1997). Furthermore, in terms of other family members such as mothers or fathers, the

uselessness of their support might be associated with cultural structure of Turkish society (see Kağıtçıbaşı, 2007). Since extended family networks are more intrusive in Turkey, it seems that rather than becoming a source of social support, these people could create social pressure on ART-women.

In conclusion, from the first to the third studies, present dissertation was a comprehensive study where each part completed the other. Working with a clinical sample, using a mixed method research design, and comprehensive consideration of the subject can be regarded as the strong aspects of this dissertation. The outcome of each study emphasized the importance and value of having children in Turkish culture. Moreover, it was observed that having children was perceived to be a crucial part of these women's gender role and to satisfy this societal expectation, women were highly motivated for motherhood. Although they had higher motivation levels and were enthusiastic about this pregnancy, due to the negative experiences throughout the treatment process, the results emphasized that ART-conceived women had increased prenatal distress levels that could reduce their pregnancy adaptation and prenatal attachment.

As the last word, the findings of present dissertation demonstrated that providing psychological support at each stage of the treatment seems to be essential for this clinical group. While working with ART-conceived women, the results of the present dissertation might be useful for clinical health psychology practices in Turkey.

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APPENDICES

APPENDIX A: DEMOGRAPHIC INFORMATION FORM

GEBE BİLGİ FORMU

<u>GENEL BİLGİLER</u> **Tarih:**

1. Yaşınız: ....

2. Kaç yıllık evlisiniz? ....

3. Nasıl evlendiniz?

Aşık olarak □ Arkadaşlığın sevgiye dönüşmesiyle □ Birilerinin tanıştırmasıyla

Görücü usulü □ Diğer □........

4. Eşinizin ve\veya sizin başka bir evlilik geçmişiniz var mı?

Eşimin var □ Benim var □ İkimizin de yok □

5. Eşinizin ve\veya sizin daha önceki evliliklerinizden çocukları var mı?

Eşimin var □ Benim var □ İkimizin de yok □

6. Eşiniz ile nasıl bir ilişkiniz var?

Oldukça Kötü □ Kötü□ Orta□ İyi □ Oldukça iyi □

7. Tanı aldığınız herhangi bir psikolojik rahatsızlığınız var mı?

Hayır □ Evet □ ise kısaca açıklayınız.

....

8. Tanı aldığınız herhangi bir fiziksel rahatsızlığınız var mı?

Hayır □ Evet □ ise kısaca açıklayınız.

....

9. En son mezun olduğunuz okul:

İlköğretim□ Lise□ Üniversite □ Master □ Doktora□

Diğer□.........

10. Çalışma durumunuz:

Çalışıyorum □ Gebelik döneminde ara verdim □ Çalışmıyorum □

11. Eşinizin en son mezun olduğu okul:

12. Eşinizin çalışma durumu: **Çalışıyor □** **Çalışmıyor □**

13. Gelir durumunuz nedir? **Düşük □** **Orta □** **Yüksek □**

14. Hayatınızın en uzun süresini nerede geçirdiniz?

Köy □ **Kasaba □** **Şehir □** **Metropol □**

15. Annenizin eğitim durumu nedir?

Okur-yazar değil □

Okur-yazar □

İlkokul mezunu □

Ortaokul mezunu □

Lise mezunu □

Üniversite mezunu □

Lisansüstü eğitim mezunu □

16. Babanızın eğitim durumu nedir?

Okur-yazar değil □

Okur-yazar □

İlkokul mezunu □

Ortaokul mezunu □

Lise mezunu □

Üniversite mezunu □

Lisansüstü eğitim mezunu □

<u>GEBELİK ÖYKÜSÜ</u>

17. Gebeliğinizin kaçıncı haftasındasınız? .... **hafta**

18. Hangi yardımcı üreme tekniğiyle gebe kaldınız?

Aşılama □ **IVF (tüp bebek) □** **Mikroenjeksiyon teknikleri □** **Diğer □** ....

19. Gebeliğinizin türü nedir?

Tekil □ **Çoğul □**

20. Bebeğinizin\bebeklerinizin cinsiyeti nedir?

Kız □ **Erkek □** **(Çoğul gebelik durumunda kutuların yanına rakam yazınız.)**

21. Vücut ağırlığınız: Şimdiki …… kg **Gebelik öncesi: …... kg**

22. Gebeliğinizdeki kilo değişiminden şikayetçi misiniz? Hayır □ **Evet □**

23. Gebeliğiniz süresince gebeliğe bağlı bir sağlık problemi ile karşı karşıya kaldınız mı?

Hayır □ **Evet □ ise kısaca açıklayınız.**

…………………………………………………………...

24. Bu kaçıncı gebeliğiniz?…….…

25. Varsa, kaybedilen bebek sayısı: …………

26. Şu ana kadar geçirdiğiniz gebeliklerde bir sorun yaşadınız mı?

Hayır □ **Evet □ ise kısaca açıklayınız.**

………………………………...….................……..

27. Çocuk sahibi olamama nedeniniz size ne olarak açıklandı?

Kadına ait infertilite□ Erkeğe ait infertilite□ Nedeni bilinmeyen infertilite□

28. Kaç yıl önce infertilite (kısırlık) tanısı aldınız? ....

29. Kaç senedir çocuk sahibi olmak için uğraşıyorsunuz? ....

30. Kaç senedir tedavi görüyorsunuz? ....

31. Kaçıncı deneme sonrası bu gebelik gerçekleşti? ....

32. Çocuk sahibi olmanın sizin için önemi nedir? Kısaca açıklayınız.

………………………………..……..................……..

………………………………..……..................……..

33. Gebe kalma sürecinde yaşadığınız problemler nelerdi? Kısaca açıklayınız.

………………………………..……..................……..

………………………………..……..................……..

34. Bu süreçte, hangi alanlarda ve kim tarafından size destek verilmesini isterdiniz? Kısaca açıklayınız.

………………………………..……..................……..

………………………………..……..................……..

35. Gebeliğinizde ve gebe kalma sürecinizde en çok desteği kimden ya da kimlerden gördünüz? Kısaca açıklayınız.

………………………………..……..................……..

………………………………..……..................……..

36. Eşinizin gebeliğiniz boyunca size verdiği desteği nasıl tanımlarsınız?

Hiç Destek Olmadı	Biraz Destek Oldu	Orta Derecede Destek Oldu	Çoğunlukla Destek Oldu	Her zaman Destek Oldu
1	2	3	4	5

37. Sizce infertilite (kısırlık) ne kadar ciddi bir sağlık problemidir?

Hiç	Biraz	Orta Derecede	Çok	Son Derece
1	2	3	4	5

38. Sizce infertilite (kısırlık) ne kadar tedavi edilebilir bir sağlık problemidir?

Hiç	Nadiren	Orta Derecede	Çoğunlukla	Her zaman

39. Gebe kalmanın ve çocuk sahibi olmanın sizin için önem derecesi nedir?

Hiç Önemli değildir 1   **Biraz Önemlidir** 2   **Orta Derecede Önemlidir** 3   **Çok Önemlidir** 4   **Son Derece Önemlidir** 5

40. Gebe kalma ve çocuk doğurma konusunda üzerinizde bir baskı oluştu mu?
Hayır □ Evet □

Cevabınız "Evet" ise,

Ne derece baskı hissettiniz?

Hiç 1   **Biraz** 2   **Orta** 3   **Fazla** 4   **Oldukça Fazla** 5

Bu baskıyı en çok kim veya kimler tarafından hissettiniz?

………………………………………………………………………………………………….

………………………………………………………………………………………………….

41. Gebeliğiniz süresince bebeğinize bir şey olacağından ya da onu kaybedeceğinizden ne kadar korkuyorsunuz?

Hiç Korkmuyorum 1   **Biraz Korkuyorum** 2   **Orta Derecede Korkuyorum** 3   **Çok Korkuyorum** 4   **Son Derece Korkuyorum** 5

42. Kendinizi anneliğe ne kadar hazır hissediyorsunuz?

Hiç Hazır değilim 1   **Biraz Hazırım** 2   **Orta Derecede Hazırım** 3   **Çok Hazırım** 4   **Son Derece Hazırım** 5

APPENDIX B: PARENTHOOD MOTIVATION SCALE (ORIGINAL FORM)

The following statements refer to how you feel about having a child. Please indicate the score for each which best reflects how you feel. Thank you for your time.	Strongly disagree	Disagree	Neither	Agree	Strongly agree
Continuity					
Own experience of being a child	1	2	3	4	5
Carry on the family line	1	2	3	4	5
Can give a child a good home	1	2	3	4	5
Shape the next generation	1	2	3	4	5
To guide and help a new person	1	2	3	4	5
Nurturance					
To give love to a child	1	2	3	4	5
Could bring up a child well	1	2	3	4	5
Deep need for a child	1	2	3	4	5
To receive love from a child	1	2	3	4	5
Enjoyment a child could give	1	2	3	4	5
Relationship					
To have something that is a part of both us	1	2	3	4	5
To make us a family	1	2	3	4	5
To cement relationship with partner	1	2	3	4	5
Very important to partner	1	2	3	4	5
Identity					
One of the most worthwhile things a person can do	1	2	3	4	5
Part of a women's role	1	2	3	4	5
To enhance femininity	1	2	3	4	5
Social pressure					
Most friends have children	1	2	3	4	5
Religious beliefs/ philosophy of life	1	2	3	4	5
Pressure from family	1	2	3	4	5
Pressure from friends	1	2	3	4	5
Materialism					
Child could help at home or work	1	2	3	4	5
Material benefits a child could bring	1	2	3	4	5
Want love and support in old age	1	2	3	4	5

APPENDIX C: PARENTHOOD MOTIVATION SCALE (TURKISH FORM)

Aşağıda çocuk sahibi olmakla ilgili ifadeler bulunmaktadır. Lütfen her bir ifade için sizi en iyi yansıtan seçeneği işaretleyiniz. Zaman ayırdığınız için teşekkür ederiz.	Kesinlikle Katılmıyorum	Katılmıyorum	Ne katılıyorum, ne de katılmıyorum	Katılıyorum	Kesinlikle Katılıyorum
Çocuk sahibi olma isteğimde ...					
Neslin Devamı					
Kendi çocukluk deneyimlerimin etkisi vardır.	1	2	3	4	5
Neslimi devam ettirme isteğimin etkisi vardır.	1	2	3	4	5
Bir çocuğa iyi bir ev ortamı sağlayabilecek olmamın etkisi vardır.	1	2	3	4	5
Gelecek nesilleri şekillendirme isteğimin etkisi vardır.	1	2	3	4	5
Bir bireyin yetişmesine yardım ve rehberlik edecek olmamın etkisi vardır.	1	2	3	4	5
Yetiştirme					
Bir çocuğa sevgi verme isteğimin etkisi vardır.	1	2	3	4	5
Bir çocuğu iyi yetiştirebilecek olmamın etkisi vardır.	1	2	3	4	5
Çocuk sahibi olmaya duyduğum yoğun ihtiyacın etkisi vardır.	1	2	3	4	5
Bir çocuk tarafından sevilme isteğimin etkisi vardır.	1	2	3	4	5
Bir çocuğun verebileceği keyfin etkisi vardır.	1	2	3	4	5
İlişki					
İkimizin de bir parçası olan bir şeye sahip olma isteğimin etkisi vardır.	1	2	3	4	5
Çocuğun bizi tam bir aile yapacak olmasının etkisi vardır.	1	2	3	4	5
Eşimle ilişkimizi sağlamlaştırma isteğimin etkisi vardır.	1	2	3	4	5
Eşim için çocuk sahibi olmanın çok önemli olmasının etkisi vardır.	1	2	3	4	5
Kimlik					
Çocuğun bir insanın yapabileceği en değerli şeylerden biri olmasının etkisi vardır.	1	2	3	4	5
Çocuk sahibi olmanın kadınlık rolünün bir parçası olmasının etkisi vardır.	1	2	3	4	5
Kendimi tam bir kadın gibi hissetme arzumun etkisi vardır.	1	2	3	4	5
Sosyal Baskı					
Çoğu arkadaşımın çocuk sahibi olmasının etkisi vardır.	1	2	3	4	5
Dini inançlarımın/hayat felsefemin etkisi vardır.	1	2	3	4	5
Aile baskısının etkisi vardır.	1	2	3	4	5
Arkadaş baskısının etkisi vardır.	1	2	3	4	5
Materyalizm					
Çocuğun evde ya da iş yerinde yardımcı olabilecek olmasının etkisi vardır.	1	2	3	4	5
Çocuğun bana sağlayacağı maddi kazançların etkisi vardır.	1	2	3	4	5
Yaşlandığımda sevgi ve destek görme arzumun etkisi vardır.	1	2	3	4	5

APPENDIX D: THE SURVEY OF PARENTHOOD OUTLOOK

EBEVEYNLİĞE BAKIŞ ANKETİ

1. **Annemle babam hiç geçinemezdi.**
   I( ) Hiç Katılmıyorum II( )Katılmıyorum III[ ]Kararsızım IV( ) Biraz katılıyorum V( )Kesinlikle Katılıyorum
2. **Çocuk evin neşesidir.**
   I( ) Hiç Katılmıyorum II( )Katılmıyorum III[ ]Kararsızım IV( ) Biraz katılıyorum V( )Kesinlikle Katılıyorum
3. **Çocuk sahibi olmak mesleki başarımı engeller.**
   I( ) Hiç Katılmıyorum II( )Katılmıyorum III[ ]Kararsızım IV( ) Biraz katılıyorum V( )Kesinlikle Katılıyorum
4. **Anne-baba olmak için çok yaşlıyım.**
   I( ) Hiç Katılmıyorum II( )Katılmıyorum III[ ]Kararsızım IV( ) Biraz katılıyorum V( )Kesinlikle Katılıyorum
5. **Evlilik hayatımdan çok memnunum.**
   I( ) Hiç Katılmıyorum II( )Katılmıyorum III[ ]Kararsızım IV( ) Biraz katılıyorum V( )Kesinlikle Katılıyorum
6. **Çocuk yetiştirmek için gerekli maddi imkanlara sahibim.**
   I( ) Hiç Katılmıyorum II( )Katılmıyorum III[ ]Kararsızım IV( ) Biraz katılıyorum V( )Kesinlikle Katılıyorum
7. **Sosyal aktivitelere katılmayı çok severim.**
   I( ) Hiç Katılmıyorum II( )Katılmıyorum III[ ]Kararsızım IV( ) Biraz katılıyorum V( )Kesinlikle Katılıyorum
8. **Sosyal olarak yalnız bir insanım.**
   I( ) Hiç Katılmıyorum II( )Katılmıyorum III[ ]Kararsızım IV( ) Biraz katılıyorum V( )Kesinlikle Katılıyorum
9. **Çocukluğum çok iyi geçti.**
   I( ) Hiç Katılmıyorum II( )Katılmıyorum III[ ]Kararsızım IV( ) Biraz katılıyorum V( )Kesinlikle Katılıyorum
10. **İnsan ileride gurur duyacağı bir evlat yetiştirmeli.**
    I( ) Hiç Katılmıyorum II( )Katılmıyorum III[ ]Kararsızım IV( ) Biraz katılıyorum V( )Kesinlikle Katılıyorum
11. **Çocuk yetiştirmek için hiç sabırlı değilim.**
    I( ) Hiç Katılmıyorum II( )Katılmıyorum III[ ]Kararsızım IV( ) Biraz katılıyorum V( )Kesinlikle Katılıyorum
12. **Sağlık endişelerim sebebiyle çocuk sahibi olmak istemiyorum.**
    I( ) Hiç Katılmıyorum II( )Katılmıyorum III[ ]Kararsızım IV( ) Biraz katılıyorum V( )Kesinlikle Katılıyorum
13. **Evlilik hayatımda çok problemlerim var.**
    I( ) Hiç Katılmıyorum II( )Katılmıyorum III[ ]Kararsızım IV( ) Biraz katılıyorum V( )Kesinlikle Katılıyorum
14. **Maddi imkanlarım yeterli değil.**
    I( ) Hiç Katılmıyorum II( )Katılmıyorum III[ ]Kararsızım IV( ) Biraz katılıyorum V( )Kesinlikle Katılıyorum

15. **Sosyal faaliyetler insanı hayata bağlar.**
I( ) Hiç Katılmıyorum II( )Katılmıyorum III[ ]Kararsızım IV( ) Biraz katılıyorum V( )Kesinlikle Katılıyorum

16. **Ben çok beceriksiz biriyim.**
I( ) Hiç Katılmıyorum II( )Katılmıyorum III[ ]Kararsızım IV( ) Biraz katılıyorum V( )Kesinlikle Katılıyorum

17. **Çocuk yetiştirmekle ilgili olarak ailemden çok şey gördüm.**
I( ) Hiç Katılmıyorum II( )Katılmıyorum III[ ]Kararsızım IV( ) Biraz katılıyorum V( )Kesinlikle Katılıyorum

18. **Evlilik çok kutsal bir müessesedir.**
I( ) Hiç Katılmıyorum II( )Katılmıyorum III[ ]Kararsızım IV( ) Biraz katılıyorum V( )Kesinlikle Katılıyorum

19. **Çocuğum olursa beni çok yoracağını düşünüyorum.**
I( ) Hiç Katılmıyorum II( )Katılmıyorum III[ ]Kararsızım IV( ) Biraz katılıyorum V( )Kesinlikle Katılıyorum

20. **Ebeveyn olmak için gerekli sağlık şartlarına sahibim.**
I( ) Hiç Katılmıyorum II( )Katılmıyorum III[ ]Kararsızım IV( ) Biraz katılıyorum V( )Kesinlikle Katılıyorum

21. **Keşke hiç evlenmeseydim.**
I( ) Hiç Katılmıyorum II( )Katılmıyorum III[ ]Kararsızım IV( ) Biraz katılıyorum V( )Kesinlikle Katılıyorum

22. **Ailemizin geliri çocuk yetiştirmeye elverişlidir.**
I( ) Hiç Katılmıyorum II( )Katılmıyorum III[ ]Kararsızım IV( ) Biraz katılıyorum V( )Kesinlikle Katılıyorum

23. **Hedef ve idealler hayata hayat katar.**
I( ) Hiç Katılmıyorum II( )Katılmıyorum III[ ]Kararsızım IV( ) Biraz katılıyorum V( )Kesinlikle Katılıyorum

24. **Arkadaş edinmekte zorluk çekiyorum.**
I( ) Hiç Katılmıyorum II( )Katılmıyorum III[ ]Kararsızım IV( ) Biraz katılıyorum V( )Kesinlikle Katılıyorum

25. **İçinde yetiştiğim aile ortamımı çok beğeniyorum.**
I( ) Hiç Katılmıyorum II( )Katılmıyorum III[ ]Kararsızım IV( ) Biraz katılıyorum V( )Kesinlikle Katılıyorum

26. **İyi çocuk yetiştirmek çok önemli bir hedeftir.**
I( ) Hiç Katılmıyorum II( )Katılmıyorum III[ ]Kararsızım IV( ) Biraz katılıyorum V( )Kesinlikle Katılıyorum

27. **Çocuk sahibi olmak sosyal yönden beni kısıtlar.**
I( ) Hiç Katılmıyorum II( )Katılmıyorum III[ ]Kararsızım IV( ) Biraz katılıyorum V( )Kesinlikle Katılıyorum

28. **Sağlığım ve sıhhatim yerindedir.**
I( ) Hiç Katılmıyorum II( )Katılmıyorum III[ ]Kararsızım IV( ) Biraz katılıyorum V( )Kesinlikle Katılıyorum

29. **Bekarlık sultanlıkmış.**
I( ) Hiç Katılmıyorum II( )Katılmıyorum III[ ]Kararsızım IV( ) Biraz katılıyorum V( )Kesinlikle Katılıyorum

30. **Çocuk yetiştirmek için yeterli gelirim yok.**
I( ) Hiç Katılmıyorum II( )Katılmıyorum III[ ]Kararsızım IV( ) Biraz katılıyorum V( )Kesinlikle Katılıyorum

31. **Sosyal yönden kendimi yeterli hissediyorum.**
I( ) Hiç Katılmıyorum II( )Katılmıyorum III[ ]Kararsızım IV( ) Biraz katılıyorum V( )Kesinlikle Katılıyorum

32. **İçine kapanık bir insanım.**
I( ) Hiç Katılmıyorum II( )Katılmıyorum III[ ]Kararsızım IV( ) Biraz katılıyorum V( )Kesinlikle Katılıyorum

33. **Ben çok baskı altında büyüdüm.**
I( ) Hiç Katılmıyorum II( )Katılmıyorum III[ ]Kararsızım IV( ) Biraz katılıyorum V( )Kesinlikle Katılıyorum

34. **Ben çocukları çok severim.**
I( ) Hiç Katılmıyorum II( )Katılmıyorum III[ ]Kararsızım IV( ) Biraz katılıyorum V( )Kesinlikle Katılıyorum

35. **Çocuk gürültüsünü hiç çekemem.**
I( ) Hiç Katılmıyorum II( )Katılmıyorum III[ ]Kararsızım IV( ) Biraz katılıyorum V( )Kesinlikle Katılıyorum

36. **Bir sürü sağlık problemlerim var.**
I( ) Hiç Katılmıyorum II( )Katılmıyorum III[ ]Kararsızım IV( ) Biraz katılıyorum V( )Kesinlikle Katılıyorum

37. **Eşimin ailesi ile problemlerim var.**
I( ) Hiç Katılmıyorum II( )Katılmıyorum III[ ]Kararsızım IV( ) Biraz katılıyorum V( )Kesinlikle Katılıyorum

38. **İnsan sosyal bir varlıktır.**
I( ) Hiç Katılmıyorum II( )Katılmıyorum III[ ]Kararsızım IV( ) Biraz katılıyorum V( )Kesinlikle Katılıyorum

39. **Çocukluğumda ailem benimle hiç ilgilenmedi.**
I( ) Hiç Katılmıyorum II( )Katılmıyorum III[ ]Kararsızım IV( ) Biraz katılıyorum V( )Kesinlikle Katılıyorum

40. **Her insanın mutlaka bir hayat arkadaşı olmalı.**
I( ) Hiç Katılmıyorum II( )Katılmıyorum III[ ]Kararsızım IV( ) Biraz katılıyorum V( )Kesinlikle Katılıyorum

41. **Çocuk sahibi olmak ideallerimi gerçekleştirmemi engeller.**
I( ) Hiç Katılmıyorum II( )Katılmıyorum III[ ]Kararsızım IV( ) Biraz katılıyorum V( )Kesinlikle Katılıyorum

42. **Evlilikten beklediğimi bulamadım.**
I( ) Hiç Katılmıyorum II( )Katılmıyorum III[ ]Kararsızım IV( ) Biraz katılıyorum V( )Kesinlikle Katılıyorum

43. **Anne ve babam çok iyi birer ebeveyndi.**
I( ) Hiç Katılmıyorum II( )Katılmıyorum III[ ]Kararsızım IV( ) Biraz katılıyorum V( )Kesinlikle Katılıyorum

44. **Çocuk sahibi olmak gibi bir idealim yok.**
I( ) Hiç Katılmıyorum II( )Katılmıyorum III[ ]Kararsızım IV( ) Biraz katılıyorum V( )Kesinlikle Katılıyorum

45. **Çocuklar bu zamanda maddi-manevi külfettir.**
I( ) Hiç Katılmıyorum II( )Katılmıyorum III[ ]Kararsızım IV( ) Biraz katılıyorum V( )Kesinlikle Katılıyorum

46. **Evlilik özgürlüklerimi kısıtladı.**
I( ) Hiç Katılmıyorum II( )Katılmıyorum III[ ]Kararsızım IV( ) Biraz katılıyorum V( )Kesinlikle Katılıyorum

47. **Anne baba şefkati hiç görmedim.**
I( ) Hiç Katılmıyorum II( )Katılmıyorum III[ ]Kararsızım IV( ) Biraz katılıyorum V( )Kesinlikle Katılıyorum

48. **Hayırlı evlat yetiştirmek çok güzel bir şeydir.**
I( ) Hiç Katılmıyorum II( )Katılmıyorum III[ ]Kararsızım IV( ) Biraz katılıyorum V( )Kesinlikle Katılıyorum

APPENDIX E: MARITAL LIFE SCALE

EVLİLİK YAŞAMI ÖLÇEĞİ

Aşağıda evlilik yaşamına ilişkin 10 cümle bulunmaktadır. Bu cümlelerden her birinin altında da "kesinlikle katılmıyorum", "katılmıyorum", "kararsızım", "katılıyorum" ve "kesinlikle katılıyorum" seçenekleri yer almaktadır. Her cümleyi dikkatle okuyunuz ve sizin evlilik yaşamınıza uyan seçeneği çarpı (X) koyarak işaretleyiniz.

1. Evlilikten beklediklerimin çoğu gerçekleşti.
( ) Kesinlikle katılmıyorum ( ) Katılmıyorum ( ) Kararsızım ( ) Katılıyorum ( ) Kesinlikle katılıyorum

2. Evliliğimizdeki engellerin aşılamaz olduğunu düşünüyorum.
( ) Kesinlikle katılmıyorum ( ) Katılmıyorum ( ) Kararsızım ( ) Katılıyorum ( ) Kesinlikle katılıyorum

3. Evliliğimizi çok anlamlı buluyorum.
( ) Kesinlikle katılmıyorum ( ) Katılmıyorum ( ) Kararsızım ( ) Katılıyorum ( ) Kesinlikle katılıyorum

4. Evliliğimizde giderek eksilen heyecan beni rahatsız ediyor.
( ) Kesinlikle katılmıyorum ( ) Katılmıyorum ( ) Kararsızım ( ) Katılıyorum ( ) Kesinlikle katılıyorum

5. Evliliğimiz zaman zaman bana bir yük gibi geliyor.
( ) Kesinlikle katılmıyorum ( ) Katılmıyorum ( ) Kararsızım ( ) Katılıyorum ( ) Kesinlikle katılıyorum

6. Huzurlu bir ev yaşamım var.
( ) Kesinlikle katılmıyorum ( ) Katılmıyorum ( ) Kararsızım ( ) Katılıyorum ( ) Kesinlikle katılıyorum

7. Evliliğimiz her geçen gün daha iyiye doğru gitti.
( ) Kesinlikle katılmıyorum ( ) Katılmıyorum ( ) Kararsızım ( ) Katılıyorum ( ) Kesinlikle katılıyorum

8. Bizim ilişkimiz ideal bir karı-koca ilişkisidir.
( ) Kesinlikle katılmıyorum ( ) Katılmıyorum ( ) Kararsızım ( ) Katılıyorum ( ) Kesinlikle katılıyorum

9. Eşim benim için aynı zamanda iyi bir arkadaştır.
( ) Kesinlikle katılmıyorum ( ) Katılmıyorum ( ) Kararsızım ( ) Katılıyorum ( ) Kesinlikle katılıyorum

10. Başbaşa kaldığımız zaman benim canım hiç sıkılmaz.
( ) Kesinlikle katılmıyorum ( ) Katılmıyorum ( ) Kararsızım ( ) Katılıyorum ( ) Kesinlikle katılıyorum

APPENDIX F: REVISED PRENATAL DISTRESS QUESTIONNAIRE

PRENATAL DİSTRES ÖLÇEĞİ (Revize Versiyon)

Gebelikte bir takım durumlar bazı kadınlar için rahatsızlık verici veya tedirgin edici olabilir. Ancak, başka kadınlar aynı şeylerden rahatsız olmayabilir. Biz, sizin gebeliğiniz süresince şu ana kadar endişe duyduğunuz ya da rahatsız olduğunuz şeyleri öğrenmek istiyoruz. Gebeliğinizin bu döneminde, kendinizi **rahatsız, endişeli** ya da **üzgün hissettiğiniz** durumları lütfen aşağıda yer alan **"0-Hiç"**, **"1-Biraz"** ve **"2-Çok Fazla"** seçeneklerden birini işaretleyerek cevaplayınız.

1. Gebeliğinizin bu döneminde **yeni doğan bebeğin bakımı** konusunda kendinizi **rahatsız**, **üzgün** ya da **endişeli** hissediyor musunuz?

0	1	2
Hiç	Biraz	Çok Fazla

2. Gebeliğinizin bu döneminde **yüksek tansiyon veya şeker hastalığı gibi devam eden sağlık sorunlarınızın gebeliğinize etkisi** konusunda kendinizi **rahatsız**, **üzgün** ya da **endişeli** hissediyor musunuz?

0	1	2
Hiç	Biraz	Çok Fazla

3. Gebeliğinizin bu döneminde **enerjinizin düşük olması ve kendinizi yorgun hissetmeniz** konusunda kendinizi **rahatsız**, **üzgün** ya da **endişeli** hissediyor musunuz?

0	1	2
Hiç	Biraz	Çok Fazla

4. Gebeliğinizin bu döneminde **doğum sırasında hissedeceğiniz ağrı/sancı** konusunda kendinizi **rahatsız**, **üzgün** ya da **endişeli** hissediyor musunuz?

0	1	2
Hiç	Biraz	Çok Fazla

5. Gebeliğinizin bu döneminde **aldığınız sağlık bakım hizmetleri için yaptığınız harcamalar** konusunda kendinizi **rahatsız**, **üzgün** ya da **endişeli** hissediyor musunuz?

0	1	2
Hiç	Biraz	Çok Fazla

6. Gebeliğinizin bu döneminde **kilonuzda ve vücudunuzun görünümünde oluşan değişiklikler** konusunda kendinizi **rahatsız**, **üzgün** ya da **endişeli** hissediyor musunuz?

0	1	2
Hiç	Biraz	Çok Fazla

7. Gebeliğinizin bu döneminde **bebeğin beklenenden çok erken doğma olasılığı** konusunda kendinizi **rahatsız**, **üzgün** ya da **endişeli** hissediyor musunuz?

0	1	2
Hiç	Biraz	Çok Fazla

8. Gebeliğinizin bu döneminde **gebelikte ortaya çıkan kusma, ayaklarda şişlik veya bel ağrısı gibi bedensel şikayetler** konusunda kendinizi **rahatsız**, **üzgün** ya da **endişeli** hissediyor musunuz? (**Evet ise**; hangi şikayetler? …..……………........................………)

0 1 2
Hiç Biraz Çok Fazla

9. Gebeliğinizin bu döneminde **aldığınız tıbbi bakımın kalitesi** konusunda kendinizi **rahatsız**, **üzgün** ya da **endişeli** hissediyor musunuz?

0 1 2
Hiç Biraz Çok Fazla

10. Gebeliğinizin bu döneminde **bebeğin doğumu nedeniyle diğer insanlarla olan ilişkilerinizde yaşayacağınız değişiklikler** konusunda kendinizi **rahatsız**, **üzgün** ya da **endişeli** hissediyor musunuz? (**Evet ise**; özellikle kiminle?…………………………….)

0 1 2
Hiç Biraz Çok Fazla

11. Gebeliğinizin bu döneminde **sağlıksız bir bebeğiniz olabileceği** konusunda kendinizi **rahatsız**, **üzgün** ya da **endişeli** hissediyor musunuz?

0 1 2
Hiç Biraz Çok Fazla

12. Gebeliğinizin bu döneminde **doğum sırasında neler olacağı** konusunda kendinizi **rahatsız**, **üzgün** ya da **endişeli** hissediyor musunuz?

0 1 2
Hiç Biraz Çok Fazla

13. Gebeliğinizin bu döneminde **çalışma yaşamınız** veya **ailenizin bakımı** konusunda kendinizi **rahatsız**, **üzgün** ya da **endişeli** hissediyor musunuz?

0 1 2
Hiç Biraz Çok Fazla

14. Gebeliğinizin bu döneminde **bebeğin giysileri, beslenmesi ve sağlık bakımı için yapacağınız harcamalar** konusunda kendinizi **rahatsız**, **üzgün** ya da **endişeli** hissediyor musunuz?

0 1 2
Hiç Biraz Çok Fazla

15. Gebeliğinizin bu döneminde **bebeğin doğumundan sonra bir işte çalışmak durumunda olmanız** konusunda kendinizi **rahatsız**, **üzgün** ya da **endişeli** hissediyor musunuz?

0 1 2
Hiç Biraz Çok Fazla

16. Gebeliğinizin bu döneminde **bebeğin doğumundan sonra bebeğin günlük bakımı, diğer bakım konuları ve bebek bakımında destek alınan kişiler** konusunda kendinizi **rahatsız**, **üzgün** ya da **endişeli** hissediyor musunuz?

0 1 2
Hiç Biraz Çok Fazla

17. Gebeliğinizin bu döneminde **kullandığınız sigara, alkol ya da ilaçlardan bebeğin etkilenmiş olup olmadığı** konusunda kendinizi **rahatsız**, **üzgün** ya da **endişeli** hissediyor musunuz?

0 1 2
Hiç Biraz Çok Fazla

APPENDIX G: PRENATAL SELF EVALUATION QUESTIONNAIRE

Prenatal Kendini Değerlendirme Ölçeği (PKDÖ) Türkçe Formu

Aşağıdaki ifadeler hamile kadınlar tarafından oluşturulmuştur. Her ifadeyi okuyarak hangi yanıtın sizin duygularınızı en iyi şekilde tanımladığına karar verin. Daha sonra her ifadeye uygun gelen seçeneği işaretleyin.

	Çok fazla tanımlıyor	Kısmen tanımlıyor	Biraz tanımlıyor	Hiç tanımlamıyor
1. Gebe olmak için iyi bir zaman.				
2. Anne-babaları, çocukları ile birlikteyken izlemek hoşuma gidiyor.				
3.Gebeliğim süresince ortaya çıkabilecek rahatsızlıkların üstesinden gelebilirim.				
4. Eşimle doğacak bebeğimiz hakkında konuşuyoruz.				
5. Eşim gebeliğim süresince beni eleştirdi.				
6. İçimde bir çocuk büyütmenin bir ödül olduğunu düşünüyorum.				
7. Doğum konusunda çok şey bilmem gerektiğini düşünüyorum.				
8. Ağrı ile baş edebilirim				
9. Gebeliğim nedeniyle meydana gelen değişiklilere alışmakta zorlanıyorum.				
10. Üzgün olduğumda eşim bana anlayış gösterir.				
11. Stresli olduğum zaman bu durumun üstesinden gelebilirim.				
12. Doğumumun sağlıklı bir şekilde ilerleyeceğini düşünüyorum.				
13. Doğuma hazırlanmak için yapabileceğim çok az şey var.				
14. Annem doğacak olan bebeğimle ilgileniyor.				
15. Birçok durumda sakinliğimi koruyabileceğime inanıyorum.				
16. Bebeğimin sağlıklı olmayacağı konusunda endişelerim var.				
17. Ne zaman ağrı yaşasam bunun en kötü şey olduğunu düşünürüm.				
18. Doğumun, sonu olduğunu bilmek benim kendimi kontrol etmeme yardım edecektir.				
19. Bebeğime bakmayı dört gözle bekliyorum.				
20. Annem gebe olmamdan mutlu.				
21. Annem yararlı önerilerde bulunur.				
22. Gebeliğimden zevk alıyorum.				
23. Eşim benimle gebeliğim hakkında konuşmayı seviyor.				
24. Doğum sırasında yaşayacaklarım konusunda iyi şeyler düşünüyorum.				

(Continued)

	Çok fazla tanımlıyor	Kısmen tanımlıyor	Biraz tanımlıyor	Hiç tanımlamıyor
25. Doğum sırasında ağrılarım olduğunda ne yapmam gerektiğini biliyorum.				
26. Bir an önce doğum yapmayı istiyorum.				
27. Doktor ve hemşirelerin doğum sırasındaki sorunlarımla ilgilenmemesinden korkuyorum.				
28. Annemle problemlerim hakkında rahatlıkla konuşabiliyorum.				
29. İyi bir anne olup olamayacağım konusunda kuşkularım var.				
30. Sık sık bebekte olabilecek sorunları düşünüyorum.				
31. Annem torununu sabırsızlıkla bekliyor.				
32. Hamile olmaktan memnunum.				
33. Etrafımda çocukların olması hoşuma gidiyor.				
34. Çocuk bakımı ile diğer sorumluluklarımı ve işlerimi dengelemem zor olacak.				
35. Eşim, ihtiyaç duyduğumda ev işlerinde yardım eder.				
36. Gebelik süresince cinsel hayatımızdaki değişiklik konusunda, eşimle konuşmakta zorlanırım.				
37. Annem yanımda olduğunda kendimi iyi hissediyorum.				
38. Doğumda iyi olmak için kendi kendimi hazırlıyorum.				
39. Doğum sırasında kontrolümü kaybedeceğimden eminim.				
40. Doğumum sırasında eşimin bana destek olacağına inanıyorum.				
41. Doğumda bana kötü şeyler olabileceğinden korkuyorum.				
42. Bebek bakımının o kadar da eğlenceli olmadığını düşünüyorum.				
43. Eşim duygularım ve sorunlarımla onu sıktığımı düşünüyor.				
44. Annem ve ben ne zaman bir araya gelsek tartışırız.				
45. Bebeğe yeterli dikkati / özeni göstermek benim için zor olacak.				
46. Bebeğin, bana bir yük olacağını düşünüyorum.				
47. Doğumda olacaklara kendimi hazır hissediyorum.				
48. Doğumda kendi kendime yardımcı olabilmek için yapabileceğim bazı şeyler biliyorum.				
49. Doğum zamanı geldiğinde, ağrılı olsa bile tüm gücümle ıkınabilirim.				
50. Nasıl bir anne olmak istediğim konusunu düşünüyorum.				
51. Doğumda oluşabilecek sorunlar hakkında endişelerim var.				
52. Doğum stresinin benim baş edebileceğimden çok daha fazla olacağını düşünüyorum.				
53. Doğum sırasındaki rahatsızlıklara dayanabilirim.				

(Continued)

	Çok fazla tanımlıyor	Kısmen tanımlıyor	Biraz tanımlıyor	Hiç tanımlamıyor
54. Bebek bakımı için ayırdığım zaman nedeniyle kendime çok az zaman kalacağından endişeliyim.				
55. Kendimle ilgili şüphelerim olduğunda annem beni rahatlatır.				
56. Doğum hakkında yeterli bilgim olduğumu düşünüyorum.				
57. Doğum sırasında bazı şeylerin kötü gitmesinden korkuyorum.				
58. Bu hamileliği kabul etmek benim için zor.				
59.Annem bildiğim şekilde davranmam konusunda beni destekliyor.				
60. Eşimin gebeliğim süresince cinsel hayatımızla ilgili benimle konuşabileceğini düşünüyorum.				
61. Şimdiye kadar bu gebelikle ilgili her şey iyiydi.				
62. Bebeğe şuan sahip olmayı istemezdim.				
63. Doğumda bebeğimi kaybetmekten korkuyorum.				
64. Doğumda kontrolümü kaybedersem, yeniden kontrolümü sağlamakta zorlanırım.				
65. Annem kararlarımı eleştirir.				
66. Bu gebeliğe uyum sağlamak konusunda sorun yaşıyorum.				
67.Bebeğimin bana benzememesinden korkuyorum.				
68. Doğumda olabilecek bütün kötü olayları aklımdan geçiyor.				
69. Bu hamilelik benim için bir hayal kırıklığı oldu.				
70.Bebeğin bakımını paylaşmak konusunda eşime güvenebilirim.				
71.Normal doğum yapacağım konusunda kendime güveniyorum.				
72. Doğumun doğal ve heyecan verici bir olay olduğunu düşünüyorum.				
73. Bebeğimi şimdiden sevmeye başladığım.				
74. Bu hamilelik benim için doyum verici.				
75. İyi bir anne olacağıma inanıyorum.				
76. Şuan hamile olmaktan üzüntü duyuyorum.				
77. Hamileliğin hoş olmayan bir çok yönü var.				
78. Bebeğimle olmaktan hoşlanacağımı hissediyorum.				
79. Hamile olduğum için mutluyum.				

APPENDIX H: THE PRENATAL ATTACHMENT INVENTORY

PRENATAL BAĞLANMA ENVANTERİ

Aşağıdaki cümleler gebelik boyunca kadınların yaşadıkları düşünceleri, duyguları ve durumları açıklamaktadır. **Geçen ay süresince** bu düşünce, duygu ve durumlarla ilgili tecrübelerinizle ilgilenmekteyiz. Lütfen size uygun seçeneği işaretleyiniz.

CÜMLELER	Her zaman	Sık sık	Bazen	Hiçbir zaman
1. Bebeğimin şu an neye benzediğini merak ederim.				
2. Bebeğimi adıyla çağırdığımı hayal ederim.				
3. Bebeğimin hareketini hissetmekten hoşlanırım.				
4. Bebeğimin şimdiden kişiliğinin oluştuğunu düşünürüm.				
5. Diğer insanların bebeğimin hareketlerini hissetmeleri için ellerini karnımın üzerine koymalarına izin veririm.				
6. Yaptığım şeylerin bebeğimde bir fark oluşturacağına inanırım.				
7. Bebeğimle birlikte yapacağım şeyleri planlarım.				
8. Bebeğimin içimde ne yaptığını diğer insanlarla paylaşırım.				
9. Bebeğimin neresine dokunduğumu hayal ederim.				
10. Bebeğimin ne zaman uyuduğunu bilirim.				
11. Bebeğimi hareket ettirebilirim.				
12. Bebeğim için bir şeyler satın alır ya da yaparım.				
13. Bebeğimi sevdiğimi hissederim.				
14. Bebeğimin orada ne yaptığını hayal etmeye çalışırım.				
15. Karnımı kollarımla sararak oturmaktan hoşlanırım.				
16. Bebeğimle ilgili rüya görürüm.				
17. Bebeğimin niçin hareket ettiğini bilirim.				
18. Karnımın üzerinden bebeğimi okşarım.				
19. Bebeğimle sırlarımı paylaşırım.				
20. Bebeğimin beni duyduğunu bilirim.				
21. Bebeğimi düşündüğümde çok heyecanlanırım.				

APPENDIX I: MULTIDIMENSIONAL SCALE OF PERCEIVED SOCIAL SUPPORT- REVISED

ÇOK BOYUTLU ALGILANAN SOSYAL DESTEK ÖLÇEĞİ

Aşağıdaki ankette, 12 cümle ve her bir cümlenin altında cevaplarınızı işaretlemeniz için 1'den 7'ye kadar rakamlar verilmiştir. Her cümlede söylenenin sizin için ne kadar çok doğru olduğunu veya olmadığını belirtmek için o cümle altındaki rakamlardan yalnız bir tanesini daire içine alarak işaretleyiniz. Sizce doğruya en yakın olan rakamı işaretleyiniz. Lütfen hiçbir cümleyi cevapsız bırakmayınız

1. Ailem ve arkadaşlarım dışında olan ve ihtiyacım olduğunda yanımda olan bir insan (örneğin, flört, nişanlı, sözlü, akraba, komşu, doktor) var.

1 - 2 - 3 - 4 - 5 - 6 - 7

(Kesinlikle hayır) (Kesinlikle evet)

2. Ailem ve arkadaşlarım dışında olan ve sevinç ve kederlerimi paylaşabileceğim bir insan (örneğin, flört, nişanlı, sözlü, akraba, komşu, doktor) var.

1 - 2 - 3 - 4 - 5 - 6 - 7

(Kesinlikle hayır) (Kesinlikle evet)

3. Ailem (örneğin, annem, babam, eşim, çocuklarım, kardeşlerim) bana gerçekten yardımcı olmaya çalışır.

1 - 2 - 3 - 4 - 5 - 6 - 7

(Kesinlikle hayır) (Kesinlikle evet)

4. İhtiyacım olan duygusal yardımı ve desteği ailemden (örneğin, annemden, babamdan, eşimden, çocuklarımdan, kardeşlerimden) alırım.

1 - 2 - 3 - 4 - 5 - 6 - 7

(Kesinlikle hayır) (Kesinlikle evet)

5. Ailem ve arkadaşlarım dışında olan ve beni gerçekten rahatlatan bir insan (örneğin, flört, nişanlı, sözlü, akraba, komşu, doktor) var.

1 - 2 - 3 - 4 - 5 - 6 - 7

(Kesinlikle hayır) (Kesinlikle evet)

6. Arkadaşlarım bana gerçekten yardımcı olmaya çalışırlar.

1 - 2 - 3 - 4 - 5 - 6 - 7

(Kesinlikle hayır) (Kesinlikle evet)

7. İşler kötü gittiğinde arkadaşlarıma güvenebilirim.

1 - 2 - 3 - 4 - 5 - 6 - 7

(Kesinlikle hayır) (Kesinlikle evet)

8. Sorunlarımı ailemle (örneğin, annemle, babamla, eşimle, çocuklarımla, kardeşlerimle) konuşabilirim.

1 - 2 - 3 - 4 - 5 - 6 - 7

(Kesinlikle hayır) (Kesinlikle evet)

9. Sevinç ve kederlerimi paylaşabileceğim arkadaşlarım var.

1 - 2 - 3 - 4 - 5 - 6 - 7

(Kesinlikle hayır) (Kesinlikle evet)

10. Ailem ve arkadaşlarım dışında olan ve duygularıma önem veren bir insan (örneğin, flört, nişanlı, sözlü, akraba, komşu, doktor) var.

1 - 2 - 3 - 4 - 5 - 6 - 7

(Kesinlikle hayır) (Kesinlikle evet)

11. Kararlarımı vermede ailem (örneğin, annem, babam, eşim, çocuklarım, kardeşlerim) bana yardımcı olmaya isteklidir.

1 - 2 - 3 - 4 - 5 - 6 - 7

(Kesinlikle hayır) (Kesinlikle evet)

12. Sorunlarımı arkadaşlarımla konuşabilirim.

1 - 2 - 3 - 4 - 5 - 6 - 7

(Kesinlikle hayır) (Kesinlikle evet)

APPENDIX J: EXPERIENCES IN CLOSE RELATIONSHIPS-REVISED (ECR-R)

Aşağıda verilen cümlelere ne ölçüde katıldığınızı **eşinizle olan ilişkinizi göz önünde bulundurarak cevaplayınız**. Her maddenin evliliğinizdeki duygu ve düşüncelerinizi ne oranda yansıttığını karşılarındaki 5 aralıklı cetvel üzerinde ilgili rakamı yuvarlak içine alarak belirtiniz. Eğer eşinizi kaybettiyseniz veya eşinizden ayrı yaşıyorsanız, aşağıdaki maddeleri **bir ilişki içinde bulunduğunuzu varsayarak cevaplayınız.** 1--------------2---------------3------------------4--------------5 Hiç katılmıyorum / Biraz katılmıyorum / Kararsızım/ fikrim yok / Biraz katılıyorum / Tamamen katılıyorum **ÖNEMLİ NOT:** Aşağıdaki cümlelerin bazılarında "yakın olmak" veya "yakınlaşmak" ifadeleri geçmektedir. Bu ifadelerle kastedilen eşinizle duygusal yakınlık kurmak, düşüncelerinizi veya başınızdan geçenleri eşinize açmak, eşinize sarılmak ve benzeri davranışlardır. Lütfen ilgili soruları bu tanıma göre cevaplayınız.	Hiç Katılmıyorum	Biraz Katılmıyorum	Kararsızım	Biraz Katılıyorum	Tamamen Katılıyorum
1. Eşimin sevgisini kaybetmekten korkarım.	1	2	3	4	5
2. Gerçekte ne hissettiğimi eşime göstermemeyi tercih ederim.	1	2	3	4	5
3. Sıklıkla, eşimin artık benimle olmak istemediği korkusuna kapılırım.	1	2	3	4	5
4. Özel duygu ve düşüncelerimi eşimle paylaşmak konusunda kendimi rahat hissederim.	1	2	3	4	5
5. Sıklıkla, eşimin beni gerçekten sevmediği kaygısına kapılırım.	1	2	3	4	5
6. Eşime güvenip dayanmak konusunda kendimi rahat bırakmakta zorlanırım.	1	2	3	4	5

7. Eşimin beni, benim onu önemsediğim kadar önemsemediğinden endişe duyarım.	1	2	3	4	5
8. Eşime yakın olma konusunda çok rahatımdır.	1	2	3	4	5
9. Sıklıkla, eşimin bana duyduğu hislerin benim ona duyduğum hisler kadar güçlü olmasını isterim.	1	2	3	4	5
10. Eşime açılma konusunda kendimi rahat hissetmem.	1	2	3	4	5
11.İlişkilerimi kafama çok takarım.	1	2	3	4	5
12.Eşime fazla yakın olmamayı tercih ederim.	1	2	3	4	5
13.Benden uzakta olduğunda, eşimin başka birine ilgi duyabileceği korkusuna kapılırım.	1	2	3	4	5
14.Eşim benimle çok yakın olmak istediğinde rahatsızlık duyarım.	1	2	3	4	5
15.Eşime duygularımı gösterdiğimde, onun benim için aynı şeyleri hissetmeyeceğinden korkarım.	1	2	3	4	5
16.Eşimle kolayca yakınlaşabilirim.	1	2	3	4	5
17.Eşimin beni terkedeceğinden pek endişe duymam.	1	2	3	4	5
18.Eşimle yakınlaşmak bana zor gelmez.	1	2	3	4	5
19.Eşim kendimden şüphe etmeme neden olur.	1	2	3	4	5
20.Genellikle, eşimle sorunlarımı ve kaygılarımı tartışırım.	1	2	3	4	5
21.Terk edilmekten pek korkmam.	1	2	3	4	5
22.Zor zamanlarımda, eşimden yardım istemek bana iyi gelir.	1	2	3	4	5
23.Eşimin, bana benim istediğim kadar yakınlaşmak istemediğini düşünürüm.	1	2	3	4	5
24.Eşime hemen hemen her şeyi anlatırım.	1	2	3	4	5
25.Eşimin bazen bana olan duygularını sebepsiz yere değiştirdiğini hissederim.	1	2	3	4	5
26.Başımdan geçenleri eşimle konuşurum.	1	2	3	4	5
27.Çok yakın olma arzum bazen insanları korkutup uzaklaştırır.	1	2	3	4	5

28.Eşim benimle çok yakınlaştığında gergin hissederim.	1	2	3	4	5
29.Eşim beni yakından tanırsa, “gerçek ben”i sevmeyeceğinden korkarım.	1	2	3	4	5
30.Eşime güvenip dayanmak konusunda rahatımdır.	1	2	3	4	5
31.Eşimden ihtiyaç duyduğum şefkat ve desteği görememek beni öfkelendirir.	1	2	3	4	5
32.Eşime güvenip dayanmak benim için kolaydır.	1	2	3	4	5
33.Başka insanlara denk olamamaktan endişe duyarım	1	2	3	4	5
34.Eşime şefkat göstermek benim için kolaydır.	1	2	3	4	5
35.Eşim beni sadece kızgın olduğumda önemser.	1	2	3	4	5
36.Eşim beni ve ihtiyaçlarımı gerçekten anlar.	1	2	3	4	5

APPENDIX K: INFORMED CONSENT FORM

Araştırmaya Gönüllü Katılım Formu

Bu çalışma, ODTÜ Psikoloji Bölümü Klinik Psikoloji Doktora öğrencisi Zulal Törenli tarafından, Doç. Dr. Özlem Bozo danışmanlığında, doktora tez çalışması kapsamında yürütülmektedir. Bu form sizi araştırma koşulları hakkında bilgilendirmek için hazırlanmıştır.

Çalışmanın Amacı Nedir?

Bu araştırmanın amacı, daha önce hiç çocuk sahibi olmamış, infertilite (kısırlık) tanısı almış ve yardımcı üreme teknikleriyle gebe kalmış olan anne adaylarının, gebelik döneminde yaşadıkları stres ve destek faktörlerini belirleyip bebeğiyle prenatal dönemdeki ilişkisini incelemektir.

Bize Nasıl Yardımcı Olmanızı İsteyeceğiz?

Araştırmaya katılmayı kabul ederseniz, sizden yaklaşık 30 dakika sürecek olan bir anketi doldurmanız beklenmektedir. Soruları cevaplarken samimi yanıtlar vermeniz araştırma sonuçlarının doğruluğu ve güvenilirliği açısından çok önemlidir. Bu sebeple lütfen sizin için en doğru olan yanıtı veriniz.

Ankete verilen yanıtlar aracılığıyla, yardımcı üreme teknikleriyle gebe kalmış olan anne adaylarının gebelik dönemindeki duygusal ihtiyaçlarının anlaşılması ve ileride bu konuda kendilerine yardımcı olunması amaçlanmaktadır.

Sizden Topladığımız Bilgileri Nasıl Kullanacağız?

Verdiğiniz yanıtlar neticesinde toplanılan veriler, tamamen gizli tutulacak, bu bilgilere yalnızca araştırmacılar ulaşabilecektir. Katılımcıların kimliğini gizli tutmak şartıyla elde edilecek bilgiler toplu halde değerlendirilecek, sonuçlar ise bilimsel yayınlarda veya eğitim amaçlı olarak kullanılabilecektir.

Katılımınızla ilgili bilmeniz gerekenler:

Bu çalışmaya katılımınız tamamıyla gönüllülük temelinde olmalıdır. Anket genel olarak kişisel rahatsızlık verecek sorular içermemektedir. Ancak, cevaplama esnasında sorulardan ya da herhangi başka bir nedenden ötürü kendinizi rahatsız hissetmeniz durumunda çalışmaya katılmayı reddedebilir, cevaplama işini yarıda bırakıp çıkabilirsiniz. Böyle bir durumda anketi uygulayan kişiye, anketi tamamlamadığınızı söylemek yeterli olacaktır.

Araştırmayla ilgili daha fazla bilgi almak isterseniz:

Bu çalışmaya katıldığınız için şimdiden teşekkür ederiz. Çalışma hakkında daha fazla bilgi almak için ODTÜ Psikoloji Bölümü Klinik Psikoloji Programı doktora öğrencilerinden Zulal Törenli (E-posta: zulal.torenli@gmail.com) ile iletişim kurabilirsiniz.

Bu çalışmaya tamamen gönüllü olarak katılıyorum. Verdiğim bilgilerin bilimsel amaçlı yayımlarda kullanılmasını kabul ediyorum.

Ad Soyad Başharfleri Tarih İmza

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APPENDIX L: DEBRIEFING FORM

KATILIM SONRASI BİLGİ FORMU

Öncelikle araştırmamıza katıldığınız için teşekkür ederiz.

Katıldığınız bu araştırma, daha önce de belirtildiği gibi, ODTÜ Psikoloji Bölümü Klinik Psikoloji Doktora öğrencisi Zulal Törenli tarafından, Doç. Dr. Özlem Bozo danışmanlığında, doktora tez çalışması kapsamında yürütülmektedir. Çalışmanın amacı, daha önce hiç çocuk sahibi olmamış, infertilite (kısırlık) tanısı almış ve yardımcı üreme teknikleriyle gebe kalmış olan anne adaylarının, hamilelik döneminde yaşadıkları stres ve destek faktörlerini belirleyip onların gebeliğe uyum süreçlerini ve bebeğiyle prenatal dönemdeki ilişkisini incelemektir.

Bu amaçla, sizden ilk olarak bir dizi anket doldurmanız istenmiştir. Çalışmanın bu kısmında ilk olarak yardımcı üreme teknikleriyle gebe kalmış olan anne adaylarının hamilelik sürecindeyken sahip oldukları ebeveynlik motivasyonu şekli ve yaşadıkları stresin, onların prenatal dönemdeki bağlanma stillerine ve gebeliğe uyum sağlamalarına olan etkisi araştırılırken, gebelerin kendi bağlanma stillerinin, algıladıkları sosyal desteğin ve stresle başa çıkma tarzlarının bu ilişkiyi nasıl yordayacağı incelenecektir. Bu ilk çalışmanın sonuçlarıyla ilişkili olarak ikinci bir çalışma düzenlenmesi planlanmaktadır.

Bu çalışmadan alınacak ilk verilerin Mart 2016 sonunda elde edilmesi amaçlanmaktadır. Elde edilen bilgiler sadece bilimsel araştırma ve yazılarda kullanılacaktır. Araştırmanın sonuçlarını öğrenmek ya da daha fazla bilgi almak için Zulal Törenli (E-posta: zulal.torenli@gmail.com) ile iletişim kurabilirsiniz.

Çalışmaya katkıda bulunan bir gönüllü olarak katılımcı haklarınızla ilgili veya etik ilkelerle ilgi soru veya görüşlerinizi ODTÜ Uygulamalı Etik Araştırma Merkezi'ne iletebilirsiniz.

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APPENDIX M: CURRICULUM VITAE

PERSONAL INFORMATION

Surname, Name: Törenli Kaya, Zulal

Date and Place of Birth: 08.11.1987, Ankara

Marital Status: Married

E-mail: zulal.torenli@gmail.com

EDUCATION

2011-2018	Post Bachelor's Ph.D. in Clinical Psychology, Middle East Technical University, Ankara
2006-2011	B.S. in Department of Psychology, Middle East Technical University, Ankara (High Honor Degree)
2002-2006	Çağrıbey Anadolu High School, Ankara

INTERNSHIP & WORK EXPERIENCE

Year	Place	Enrollment
2016- Present	Başkent University Deparments of Psychiatry, and Child and Adolescent Psychiatry	Clinical Psychologist
2015-2016	Middle East Technical University, AYNA-Clinical Psychology Support Unit	Supervisor
2012-2016	Middle East Technical University, AYNA-Clinical Psychology Support Unit	Clinical Psychologist
2015 February-2016 September	Hacettepe University Faculty of Medicine Department of Child and Adolescent Psychiatry	Intern Clinical Psychologist

FOREIGN LANGUAGES

Advanced English

RESEARCH INTEREST

- Psychotherapy applications
- Psychopathological disorders
- Psychological process of infertility, pregnancy via assisted reproductive techniques
- Mother-infant relations, attachment, prenatal attachment
- Terror Management Health Model, stress and health relations

PUBLICATIONS

- Dilekler, İ., Törenli, Z., & Selvi, K. (2014). Öfkeye farklı açılardan bakış: Öfkenin mekanizması, farklı psikopatolojilerde öfke ve terapistin öfkesi. *Ayna Klinik Psikoloji Dergisi, 1*(3), 44–59.

CONFERENCE PRESENTATIONS

- Törenli, Z. & Bozo, Ö. (2014). Possible Correlates of Orthorexia Nervosa: Brief oral presentation was presented in 28th International Congress of Applied Psychology, Paris, France, between July 8th and 13th, 2014.
- Mısırlısoy, M., Alaylı A., Bayram, H., Dündar, C., Gül, B., Kurdoglu, P., Temizel, S., Törenli, Z., & Yürekli, Ö. (2011). Individual Differences in Susceptibility to Memory Illusions in the DRM Paradigm: Poster was held in 5th International Conference on Memory (ICOM5), University of York, UK, between July 31st and August 5th, 2011.

APPENDIX N: TURKISH SUMMARY/TÜRKÇE ÖZET

BÖLÜM 1

GENEL GİRİŞ

İnfertilite, Dünya Sağlık Örgütü'nün tanımına göre, herhangi bir korunma yöntemi kullanmaksızın 12 ayı aşkın süredir gebelik oluşamaması sorunudur (Zegers-Hochschild ve ark., 2009). Gerek tanı ve tedavi sürecinin belirsiz olması, gerekse süreç içinde kişilerin tekrarlayan kayıplar yaşaması (Lalos, 1999), kaygı, üzüntü, depresyon ve suçluluk gibi pek çok olumsuz duyguyu da beraberinde getirmektedir (Berg ve Wilson, 1991). Yapılan çalışmalar, bu tip olumsuz psikolojik sonuçlardan çoğu zaman kadınların etkilendiğini (Greil, 1997), infertilitenin kaynağından bağımsız olarak, tanı ve tedavi sürecinde kadınların daha çok baskı hissettiğini göstermektedir. Bu duruma neden olan etkenler arasında, işlemlerin çoğunlukla kadın bedeninde gerçekleşmesi, toplumun çocuk sahibi olmaya dair beklentilerine çoğunlukla kadınların maruz kalması ve anneliğin kadınlığın önemli bir temsili olarak görülmesi düşünülebilir (Hussain, 2006).

Alanyazındaki Türk çalışmalarda da bu konu dikkati çekmektedir. Yapılan araştırmalar, erkek kaynaklı infertilite tanısına rağmen kadınların kendilerini "eksik" ve tamamlanmamış olarak gördüğünü ve toplumun kadınlıkla ilgili beklentilerini karşılayamadıklarını hissettiğini vurgulamaktadır (Boz ve Okumuş, 2017). Son 15 yılda yapılmış Türk çalışmalarda, infertilite sürecinde kadınların depresyon ve kaygı düzeylerinin arttığı, fakat algıladıkları sosyal destek ile stres düzeylerinin azaldığı (Aldemir, Eser, Ozturk Turhan, Dalbudak ve Topcu, 2015;

Karlıdere ve ark., 2007); yaş ve infertilite süreci arttıkça kişilerin kaygı ve depresyon düzeyinin arttığı (Guz, Ozkan, Sarisoy, Yanik ve Yanik, 2003) ve buna bağlı olarak da gebelik oranının düştüğü vurgulanmıştır (Terzioglu ve ark., 2016). Yapılan bu çalışmalar genel olarak kişilerin tanı ve tedavi sürecindeki psikolojilerini anlamaya yönelik olsa da, başarılı ve gebelikle sonuçlanan bir tedavi sürecinden sonra bile kadınların olumsuz duygu durumları devam edebilmektedir.

Alanyazında, yardımcı üreme teknikleriyle oluşan gebeliklerde anne adaylarının psikolojik durumlarını anlamaya yönelik olarak yapılmış çalışmalarda gebeliğin bu kadınlar için zorlu bir süreç olduğu öne çıkmaktadır (Boivin ve ark., 2001). Bu kadınların hamile olduklarına inanmakta güçlük çekip bebek kaybından korktukları (Bernstein, Lewis ve Seibel, 1994; Hammarberg, Fisher ve Wynter, 2008; McMahon, Ungerer, Beaurepaire, Tennant ve Saunders 1997; Olshansky, 1990), gebelik uyumlarının zor olduğu (Łepecka-Klusek ve Jakiel, 2007) ve gebelik dönemi bağlanmalarının ya aşırı korumacı (Fisher, Hammarberg ve Baker, 2008) ya da umursamaz (Bernstein, Lewis ve Seibel 1994; McMahon, Tennant, Ungerer ve Saunders, 1999) olduğu belirtilmiştir.

Yardımcı üreme teknikleriyle oluşan gebeliklerde anne adaylarının psikolojik durumlarını anlamaya yönelik olarak yapılmış Türk çalışmalar oldukça sınırlıdır. Yapılan bu çalışmalarda, çocuk sahibi olmanın bu kadınlar için "bir mucize ve hayatın anlamı" olduğu (Ataman, 2007); gebeliğin zorlu geçtiği, sosyal baskı hissettikleri ve bebek kaybından korktukları (Keskin, 2014); bağlanma ve annelik rolüne uyum konusunda zorluk yaşadıkları (Boz, Özçetin ve Teskereci, 2018) gibi bulgular dikkati çekmektedir. Bunların yanı sıra, kadınların gebelikleri süresince yaşadıkları olumsuz duygu durumlarının doğumdan sonra da devam edebileceği, bu sebepten erken dönemde yapılan müdahalelerin doğumdan sonraki anne-bebek ilişkisi için de iyileştirici olabildiği (Aşçı ve Kızılkaya Beji, 2012) vurgulanmaktadır. Bu konu özelinde yapılan Türk çalışmaların sınırlı olması

nedeniyle Boz ve arkadaşlarının (2018) önerdiği gibi, yardımcı üreme teknikleriyle oluşan gebeliklerde anne adaylarının psikolojik ihtiyaçlarını anlamaya yönelik nitel ve nicel Türk çalışmalara ihtiyaç duyulmaktadır.

Bu bilgiler ışığında, bu tezin amacı yardımcı üreme teknikleriyle gebe kalmış anne adaylarının psikolojilerini kapsamlı olarak anlamaya çalışmaktır. Karma yöntemli bir çalışma olarak planlanan bu tezde, birbirinden bağımsız fakat birbirini tamamlayan üç ayrı çalışma yürütülmüştür. İlk çalışmada, yardımcı üreme teknikleriyle gebe kalmış anne adaylarının ebeveyn olma motivasyonlarını incelemek amacıyla Ebeveynlik Motivasyonu Ölçeğinin (Parenthood Motivation Scale) Türkçeye uyarlama çalışması yapılmıştır. Bu çalışma kapsamında doğal ve tedaviyle gebe kalmış kadınların motivasyon temelleri de karşılaştırılmıştır. İkinci çalışmada, Ebeveynlik Motivasyonu Ölçeğini de bir değerlendirme ölçeği olarak kullanarak, yardımcı üreme teknikleriyle gebe kalmış anne adaylarının ebeveyn olma motivasyonları ile doğum öncesi streslerinin onların gebelik adaptasyonları ve doğum öncesi bağlanmaları üzerindeki etkisini incelemek ve bu ilişki üzerinde algılanan sosyal destek ile kadınların yetişkin bağlanma stillerinin biçimleyici etkisini araştırmak amaçlanmıştır. Son olarak, üçüncü çalışmada yardımcı üreme teknikleriyle gebe kalmış anne adaylarının infertilite tanısını almalarından itibaren geçirdikleri deneyimlerini anlamaya yönelik iki ayrı odak grup toplantısı gerçekleştirilmiştir. Yapılan bu son çalışmada, ikinci çalışmadaki bazı bulguların altında yatan nedenlerin de anlamlandırılması amaçlanmıştır.

BÖLÜM 2

ÇALIŞMA 1: EBEVEYNLİK MOTİVASYONU ÖLÇEĞİNİN TÜRKÇEYE UYARLANMASI

2.1. Giriş

Son yıllarda üreme ve korunma yöntemlerinin artmasıyla, çocuk sahibi olmak biyolojik bir "armağan" olmaktan ziyade, çiftlerin istekleri doğrultusunda düşünüp karar verdikleri bir sürecin ürünüdür (Bigner, 2010; Michaels, 1988; Richardson, 1993; Rotkirch, Basten, Väisänen ve Jokela, 2011). Öyle ki, doğurganlığa ilişkin biyolojik bir sorun olduğu durumlarda bile, çiftler altta yatan çocuk isteklerini karşılamak için pek çok tedavi yöntemini denemekte; psikolojik, fizyolojik ve ekonomik yönden uzun ve zorlu olan bu sürece tahammül etmektedirler (Colpin, de Munter ve Vandemeulebroecke, 1998; Weaver, Clifford, Hay ve Robinson, 1997). Bu sebepten, yardımcı üreme teknikleriyle oluşan gebeliklerde doğal gebeliklere kıyasla kişilerin özellikle altta yatan motivasyonları bakımından daha özgün özelliklere sahip olması söz konusu olabilir.

Bu amaçla, bu çalışmada doğal yollarla ve yardımcı üreme teknikleriyle çocuk sahibi olacak kadınların ebeveynlik motivasyonlarına dair derinlemesine fikir sahibi olmak amacıyla ilk olarak Cassidy ve Sintrovani (2008) tarafından geliştirilen Ebeveynlik Motivasyonu Ölçeğinin Türkçeye uyarlama çalışması yapılmıştır. Ölçeğin faktör yapıları ve psikometrik özellikleri doğal ya da tedaviyle gebe kalmış kadınlarla yapılmıştır. İkinci olarak, bu iki grup anne adayı ebeveynlik motivasyonları bakımından kıyaslanmıştır. Bu bölümde, konuyla ilgili kısa bir tarihçenin ardından, çocuk sahibi olmanın psikolojik, sosyal ve ekonomik

yönlerinden bahsedilecek, son olarak da doğal ve yardımcı üreme teknikleriyle çocuk sahibi olan kişilerin ebeveyn olma motivasyonlarını kıyaslayan çalışmalara yer verilecektir.

2.1.1. Çocuk Sahibi Olma İsteği Üzerine Yapılmış Teorik Açıklamalar

Ebeveyn olma motivasyonu ve çocuk sahibi olma isteğiyle ilişkili olarak pek çok teorik yaklaşım tarafından öne sürülen çeşitli açıklamalar bulunmaktadır. Psikanalitik yaklaşıma göre çocuk sahibi olma isteği doğuştan gelen biyolojik ve öğrenilmemiş dürtülerle ilişkilidir. Kadınlardaki bu dürtü "annelik içgüdüsü" olarak tanımlanmıştır (Benedek, 1959; Deutsch, 1944; 1945). Freud'a göre kadınlar erkeklere kıyasla daha narsisistik özelliklere sahip olduğundan kendi öz sevgilerini bir çocuğa yansıtmak isterler (Freud, 1914). Bunun yanı sıra, yine Freud (1965) kadınların özellikle erkek çocuğa sahip olma isteğinin, penise sahip olma arzusuyla ilişkili olabileceğini öne sürmüştür.

Erikson'a (1963) göre çocuk sahibi olma isteği kişinin kendisinden sonraki nesillere fayda sağlamak amacıyla sahip olduğu özgecil tutumlarıyla ilişkilidir. Erikson (1963) psiko-sosyal gelişim dönemlerinden "üretkenliğe karşı durgunluk" basamağında kişinin yakın bir ilişki kurduktan sonraki ihtiyacının toplum ve kendisinden sonraki nesiller için üretme, sorumluluk alma ve başkaları tarafından ihtiyaç duyulma olduğunu belirtmiştir. Çocuk sahibi olma arzusu da bu ihtiyacı karşılayan önemli etkenlerden birisidir.

Dehşet yönetimi kuramına (terror management theory) göre kişi kendi ölümlülüğünü fark ettiğinde çok yoğun kaygı yaşar. Çocuk sahibi olmak ise neslin devamlılığını sağlayarak kişinin varoluşsal kaygısını azaltabilmeyi (Solomon, Greenberg ve Pyszczynski, 1991), onu sembolik anlamda ölümsüzleştirmeyi ve kişinin öz değerini yükseltmeyi sağlar (Fritsche ve ark., 2007; Wisman ve Goldenberg, 2005; Yaakobi, Mikulincer ve Shaver, 2014).

Annelik ve üreme feminist bakış açısının odaklandığı önemli konu başlıklarındandır (Gerson, 1984). Bu yaklaşıma göre annelik arzusu içten gelen bir dürtü değil erkek egemen toplumun dayattığı sosyal kuralların bir ürünüdür. Yardımcı üreme tekniklerini de eleştiren feminist bakış açısı, kadınların tedavi yöntemleri karşısında aşağı konumda kaldığını, oysa ki kadınların ürememe özgürlüğünün de bulunduğunu savunmaktadır.

Hoffman ve Hoffman'ın (1973) kültürlerarası araştırma konusu olan "çocuğun değeri" modeline göre ise çocuk sahibi olmak çiftlerin bir takım psikolojik, sosyal ve ekonomik ihtiyaçlarını karşılamaktadır. Kişiler bu ihtiyaçların önceliğine göre ve sahip oldukları "alternatif kaynaklara" göre çocuğa değer biçmekte ve çocuk sahibi olmaya karar vermektedirler.

Bu teorik bilgiler ışığında, kişinin ebeveyn olma motivasyonlarını anlamak için, çocuk sahibi olmayı etkileyen psikolojik, sosyal ve ekonomik faktörleri anlamanın önemli olduğundan bahsetmek mümkün olabilir.

2.1.2. Ebeveyn Olma Motivasyonunun Ekonomik, Sosyal ve Psikolojik Yönleri

2.1.2.1. Çocuk Sahibi Olmanın Ekonomik Yönleri

Ekonomik faktörler çiftlerin çocuk sahibi olma zamanlarını etkileyen önemli belirleyicilerdendir (Tough, Tofflemire, Benzies, Fraser-Lee ve Newburn-Cook, 2007). Kişiler çocuk sahibi olmayı düşünürken çocuğun maddi yönden gelir ve giderlerini göz önünde bulundurmaktadırlar. Özellikle son yıllarda çocuk sahibi olmak maddi bir yük olarak da görüldüğünden, kişiler kendilerini ekonomik yönden hazır hissedinceye kadar çocuk fikrini ertelemeyi seçebilirler (Bigner, 2010; Van Balen, Verdurmen ve Ketting, 1997).

Maddi getirileri bakımından, çocuğun ekonomik değeri özellikle kaynakların sınırlı olduğu kesimlerde ön plana çıkmaktadır. Çünkü ebeveynler için çocuk sahibi olmak

özellikle yaşlılık yıllarında ekonomik yönden bir güvence olarak görülmektedir (Hoffman, Thornton ve Manis, 1978). Bununla paralel olarak, Kağıtçıbaşı (1982) da çocuğun ekonomik değerinin, erkek çocuk sahip olmanın da önemli olduğu, daha az gelişmiş ve kırsal kesimlerde daha yaygın olduğunu vurgulamaktadır. Ancak özellikle son 30 yıllık süreçte, Batı ülkelerinde olduğu gibi Türkiye'de de çocuğun maddi öneminin azalmaya başladığı, çocuk sahibi olmanın sembolik ve psikolojik öneminin daha ön plana çıktığı görülmektedir (Kagitcibasi ve Ataca, 2005).

2.1.2.2. Çocuk Sahibi Olmanın Sosyal Yönleri

Günümüzde çevresel ve sosyal faktörler kişinin çocuk kararını da etkilemektedir (Rotkirch, 2008). Örneğin, kişinin çalışma durumuna, eğitim düzeyine, yaşadığı yere ve etnik kökenine bağlı olarak çocuk kararını şekillendirdiğinden söz edilebilir (Bigner, 2010). Bunun yanı sıra, çocuk sahibi olmak evliliğin önemli bir kriteri olarak düşünüldüğünden (Wu ve Macneill, 2002), çiftler gerek kendi ebeveynleri, gerekse arkadaşları ve sosyal çevreleri tarafından çocuk sahibi olmaları yönünde bir baskıya maruz kalmaktadırlar (örn., Olafsdottir, Wikland ve Möller, 2011). Özellikle toplulukçu ve geleneksel kültürlerde evlilik, annelik (Boyacioğlu ve Türkmen, 2008), soyun devamlılığı ve erkek çocuk sahibi olmak (Kagitçibaşi, 1982; Kagitçibaşi ve Ataca, 2005) daha çok öneme sahiptir. Çiftler çocuk sahibi olma kararlarını içinde bulundukları toplumun bu tip beklentilerini karşılamaya yönelik olarak verebilmektedirler.

Sosyal beklentiler açısından kıyaslanıldığında kadınların erkeklere göre daha yoğun baskı hissettikleri, pek çok kültüre göre kadın olmanın annelikle özdeşleştiği (Glover, McLellan ve Weaver, 2009), anneliğin kadın kimliğinin önemli bir göstergesi olması (Gillespie, 2003) ve bu sebepten çocuksuz kadınların kendilerini "değersiz", "yetersiz" ve "anormal" olarak görmesi alanyazında pek çok çalışma tarafından vurgulanmaktadır (örn., Choi, Henshaw, Baker ve Tree, 2005; Boyacioğlu ve Türkmen, 2008).

2.1.2.3. Çocuk Sahibi Olmanın Psikolojik Yönleri

Ekonomik ve sosyal etkenlerin yanı sıra kişileri çocuk sahibi olma yönünde motive eden pek çok psikolojik faktör de bulunmaktadır. Teorik yaklaşımların öne sürdüğü nedenlerin yanı sıra, kişinin sosyal statü sahibi olmak, kabul ve onay görmek ve eşiyle ilişkisini iyileştirmek gibi bilinç düzeyinde; geçmişteki suçluluğunu onarmak ve kendi annesi gibi olmak gibi bilinç dışı düzeyde var olan psikolojik nedenleri bulunabilmektedir (Papaligoura, Papadatou ve Bellali, 2012). Bunların yanı sıra, çocuk sahibi olmanın vereceği hazzın idealize edilmesi (Eibach & Mock, 2011), çocuk sahibi olmanın sevgi, eğlence ve neşe vermesi (Montgomery ve ark., 2010) ve ebeveynlerin bağlanma ve yakınlık kurma ihtiyaçlarını karşılaması (Hoffman ve Hoffman, 1973) gibi psikolojik ihtiyaçlardan da bahsetmek mümkün olabilir.

2.1.3. Doğal Yollarla ve Yardımcı Üreme Teknikleriyle Çocuk Sahibi Olan Kadınların Ebeveynlik Motivasyonu

Biyolojik sınırlılıklarının farkına varıp infertil olduğuyla yüzleşinceye kadar kişiler ne zaman isterlerse çocuk sahibi olabileceklerini düşünmektedirler (Glover ve ark., 2009; Papaligoura ve ark., 2012). İnfertil olduğunu ve doğal yollarla çocuk sahibi olamayacağını öğrenen bireyi, doğal gebeliklere kıyasla, zor ve uzun bir tedavi süreci beklemektedir (Colpin ve ark., 1998). Bu sebepten bu kişiler yoğun bir çocuk hasreti yaşamakta, ebeveynliği fazlaca idealize etmekte ve çocuk sahibi olma konusunda yüksek düzeyde motivasyon göstermektedirler (Hammarberg, Fisher ve Wynter, 2008; Smorti ve Smorti, 2012). Yaşanan tüm olumsuzluklara rağmen pek çok infertil hasta tedavi sürecine devam etmeyi tercih ettiğinden, bu kişilerin çocuk sahibi olma motivasyonlarını anlamaya yönelik pek çok çalışma gerçekleştirilmiştir. Yapılan bu çalışmalarda infertil kadınların erkeklere ve doğal yollarla gebe kalan kadınlara kıyasla ebeveynlik motivasyonlarının fazla olması, çocuk sahibi olamamanın “kadın olmayı başaramamak” olarak değerlendirilmesi ve çocuk sahibi

olunca “tam bir aile” olunacağı görüşü dikkati çekmektedir (Colpin ve ark., 1998; Van Balen ve Trimbos-Kemper, 1993).

Farklı kültürler arası yapılan karşılaştırmalı çalışmalarda, bireyci (individualistic) kültürlere kıyasla toplulukçu (collectivistic) kültürlerde ebeveyn olma motivasyonunun özellikle sosyal baskı, kimlik ve maddecilik alt boyutlarında ön plana çıktığı dikkati çekmektedir (Cassidy ve Sintrovani, 2008). Bu çalışmalara göre toplulukçu kültürlerde geniş aile bağlarının kuvvetli olması ve çocuk doğurmanın "kadınlık göstergesi" olarak algılanması bu farka yol açan nedenler arasındadır. Toplumun beklentilerini karşılayamadıklarını düşünüp arkadaşlarından ve ailelerinden (Olafsdottir ve ark., 2011) baskı hisseden bu kadınların algıladıkları sosyal baskı düzeyi de onların motivasyonlarını arttıran etkenler arasındadır (Dyer, Mokoena, Maritz ve Van der Spuy, 2008).

Sonuç olarak, alanyazındaki bilgiler doğrultusunda, yardımcı üreme teknikleriyle çocuk sahibi olan kadınların özellikle sosyal baskı ve kadınlık boyutları bakımından yüksek motivasyon gösterdikleri ve doğal yollarla çocuk sahibi olan kişilere kıyasla dışsal motivasyonlarının daha ön planda olduğu sonucuna varılmıştır.

2.2. Çalışmanın Amaçları

Bu çalışmada yukarıda bahsedilen bilgiler ışığında, ilk olarak Ebeveynlik Motivasyonu Ölçeğinin Türkçeye uyarlamasının yapılması amaçlanmıştır. İkinci olarak ise doğal ve yardımcı üreme teknikleriyle gebe kalmış kadınların bu ölçeğin altı alt boyutu bakımından (neslin devamı, yetiştirme, ilişki, kimlik, sosyal baskı ve materyalizm) karşılaştırılması amaçlanmıştır.

Çalışmada, yaş, eğitim düzeyi, gelir düzeyi, yaşanılan yer, evlilik süresi, evlilik doyumu ve çocuk sahibi olmak için harcanılan zaman gibi değişkenlerin anlamlı etkileri kontrol edildikten sonra, tedaviyle gebe kalmış anne adaylarının genel

motivasyon düzeyleri ile sosyal baskı ve kimlik alt boyutlarında anlamlı olarak daha yüksek motivasyon göstereceği önerilmiştir.

2.3. Yöntem

2.3.1. Katılımcılar

Bu çalışmanın katılımcıları, 272 (%59.5) doğal yollarla ve 185 (%40.5) yardımcı üreme teknikleriyle gebe kalmış ve halen gebelik döneminde olan toplam 457 kadındır. Katılımcıların bir kısmına internet aracılığıyla ulaşılmıştır. Fakat yardımcı üreme teknikleriyle gebe kalmış anne adaylarına bu şekilde erişim sağlanamadığı için araştırmacı Ankara'nın en büyük tüp bebek merkezlerinden birinde gönüllü olarak çalışmış ve buradaki hastalardan veri toplamıştır.

2.3.2. Araçlar

2.3.2.1. Demografik Bilgi Formu

Demografik bilgi formu, katılımcıların demografik özelliklerinin, eşiyle ilişkilerinin ve gebelik sürecinin anlaşılmasına yönelik açık uçlu ve Likert tipi sorular içermektedir.

2.3.2.2. Ebeveynlik Motivasyonu Ölçeği

Ebeveynlik motivasyonunu değerlendirmek amacıyla, Cassidy ve Sintrovani (2008) tarafından ölçek haline getirilen bu araç 24 maddeden ve 6 faktörden oluşan 5'li Likert tipi bir ölçektir. Orijinal ölçekte her bir alt ölçek için hesaplanan iç tutarlılık katsayısı, "neslin devamı" için .89, "yetiştirme" için .78, "ilişki" için .86, "kimlik" için .87, "sosyal baskı" için .82 ve "materyalizm" için .81 olarak rapor edilmiştir. Ölçeğin Türk örneklem için değerleri bu çalışma kapsamında hesaplanmıştır.

2.3.2.3. Ebeveynliğe Bakış Anketi

Anne ve baba adaylarının ebeveynliğe yönelik tutumlarını ölçen bu ölçek 48 maddeden oluşan 5'li Likert tipi bir ölçektir. Ölçeğin sekiz alt boyutu bulunmaktadır. Bu boyutlar ve bu çalışmada hesaplanan iç tutarlılık değerleri şu şekildedir: aile ortamı (α = .88), hedef ve idealler (α = .79), çocuk sahibi olmak ile ilgili görüşler (α = .76), fiziksel yeterlilik (α = .60), evliliğe dair görüşler (α = .84), ekonomik durum (α = .83), sosyal uyum (α = .66) ve kişisel beceri (α = .65).

2.3.2.4. Evlilik Yaşamı Ölçeği

Katılımcıların evlilik doyumlarını ölçmek amacıyla Tezer (1996) tarafından geliştirilen bu ölçek 10 maddeden oluşan 5'li Likert tipi bir ölçektir. Bu çalışmada ölçeğin iç tutarlılığı .91 olarak belirlenmiştir.

2.3.3. İşlem

Ölçeğin çevrilmesi için yazarlardan izin alınmasının ardından ODTÜ Uygulamalı Etik Araştırma Merkezi'nden etik kurul onayı alınmıştır. Anketler öncesinde onam formu, sonrasında ise katılım sonrası bilgilendirme formu katılımcılara sunulmuştur. Tüm ölçeklerin doldurulması yaklaşık 30 dakika sürmüştür.

2.3.4. Analiz

Ölçek adaptasyon çalışması için doğrulayıcı faktör analizi, her iki gebe grubunu kıyaslamak için ise bağımlı değişkenle anlamlı sonuçlar veren yaş, eğitim düzeyi, evlilik süresi, evlilik doyumu ve çocuk sahibi olmayı deneme süresi gibi değişkenler kontrol edilerek çoklu kovaryans analizi (MANCOVA) yapılmıştır.

2.3.5. Sonuçlar ve Tartışma

Çalışma bulguları, ölçeğin Türkçe versiyonunun faktör yapısının orijinal ölçekle uyumlu olduğunu ve altı faktör ortaya koyduğunu göstermiştir. Toplam ölçek ve alt ölçeklerin iç tutarlılık güvenirliğine bakıldığında, materyalizm faktörünün (α = .55) zayıf olması dışında diğer beş faktör için güvenilirlik puanının iyi düzeyde olduğu (α =.71-.82 aralığında) görülmüştür. Materyalizm faktörüyle ilişkili olarak, 24. maddenin 22 ve 23. maddelerle düşük korelasyon göstermesinin katılımcıların bu maddeye duygusal değerler atfetmesinin ve son yıllarda çocuk sahibi olmanın ekonomik değerlerindense duygusal değerlerinin önem kazanmasının (Kagitcibasi & Ataca, 2005) neden olmuş olabileceği düşünülmüştür.

Ölçekte gerek her iki grubun motivasyonel temellerini kıyaslamak, gerekse ölçüte dayalı geçerliliği ölçmek amacıyla doğal yollarla ve yardımcı üreme teknikleriyle gebe kalmış kadınlar toplam motivasyon puanı ve ölçeğin alt boyutları bakımından karşılaştırılmıştır. Yaş, eğitim düzeyi, evlilik süresi, evlilik doyumu ve çocuk sahibi olmayı deneme süresi gibi değişkenler kontrol edilerek yapılan çoklu kovaryans analizi sonuçları, tedaviyle gebe kalan kadınların toplam motivasyon düzeyleri ile *kimlik* ve *sosyal baskı* boyutlarında anlamlı sonuçlar verdiğini göstermiştir. Bu bulgular alanyazınla uyumlu olup Cassidy ve Sintrovani'nin (2008) de belirttiği gibi, bu faktörlerin toplulukçu kültürlerde (Kağıtçıbaşı, 2007) önemli bir yere sahip olduğunu göstermiştir. Bunun yanı sıra, *kimlik* boyutuyla ilişkili olarak, alanyazında doğal yollarla çocuk sahibi olamamaktan ötürü kadınların kendilerini "kadın olmayı başaramamış" gibi hissetmeleri (Van Balen ve Trimbos-Kemper, 1993) ve çocuğun kadını "tamamladığı" (Newton ve ark., 1992) yönündeki bulgular açıklayıcı niteliktedir. *Sosyal baskı* boyutuyla ilişkili olarak ise, Batı kültürlerinde sosyal baskı çocuk sahibi olmak için en az etkili faktör olmasına rağmen (Colpin ve ark., 1998; Langdridge ve ark., 2000; Van Balen ve Trimbos-Kemper, 1995), bu çalışmayla

Doğu kültürlerinde çiftlerin çocuk sahibi olma kararlarında toplumun önemli bir yerinin olduğu bir kez daha gösterilmiştir.

Bu çalışmadaki analizlerde dikkat edilen bir diğer önemli konu, çoklu kovaryans analizinde kadınların çocuk sahibi olmayı deneme süreleri kontrol edilmediği takdirde *kimlik* ve *sosyal baskı* faktörlerine ek olarak, *yetiştirme*, *ilişki* ve *materyalizm* boyutlarında da yardımcı üreme teknikleriyle gebe kalmış kadınların daha yüksek motivasyon gösterdikleri görülmüştür. Bu sonuçlar, *yetiştirme*, *ilişki* ve *materyalizm* boyutlarının daha çok gebe kalınmadan önce çocuk sahibi olmak için çaba sarf edilen süreyle ilişkili olduğunu vurgulamaktadır. Çocuk sahibi olmak için geçirdikleri zaman içerisinde sayısız deneme geçirip motivasyonlarının bu süreçte artmış olması (Rotkirch, 2011), ilişki kalitelerinin düşmesi (Langdridge ve ark., 2000) ve tedavi sürecinin oldukça masraflı olması (Van Balen ve Visser, 1997), kişileri çocuk sahibi olarak bu alanlardaki ihtiyaçlarını telafi etmek yönünde motive ediyor olabilir.

Bu analizde yalnızca *neslin devamı* faktöründe anlamlı fark olmamasının Dehşet Yönetimi Kuramı'nın da öne sürdüğü gibi, kişinin neslinin devamlılığını sağlama isteğinin bilinçdışı bir ihtiyaç olmasıyla ilişkili olabileceği düşünülmüştür (örn., Fritsche, et al., 2007).

BÖLÜM 3

ÇALIŞMA 2: PSİKOSOSYAL FAKTÖRLERİN YARDIMCI ÜREME TEKNİKLERİYLE GEBE KALMIŞ ANNE ADAYLARININ GEBELİK DÖNEMİ UYUMLARI İLE GEBELİK DÖNEMİ BAĞLANMALARI ÜZERİNDEKİ ETKİSİ

3.1. Giriş

Gebelik, kişinin kendini mutlu ve iyi hissettiği bir dönem olarak düşünülmesine rağmen depresyon, kaygı ve stres gibi duygusal zorlukları da barındıran bir süreçtir (Carter, 2005; Dunkel Schetter ve Tanner, 2012). Çoğunlukla doğum ve bebeğin sağlıyla ilgili konularda kaygılanan anne adayının (Green, Kafetsios, Statham ve Snowdown, 2003) yaşadığı zorlukların ele alınması anne ve bebeğin gebelik sürecinden itibaren sağlıklı ilişki kurabilmesi için oldukça önem taşımaktadır (Della Vedova, Dabrassi ve Imbasciati, 2008).

Yardımcı üreme teknikleriyle gebe kalmış olan anne adaylarında, normal gebeliklere kıyasla geçmiş yaşantıların olumsuz etkilerinin daha gözle görülür olduğundan söz etmek mümkün olabilir (Harf-Kashdaei ve Kaitz, 2007). Çocuk sahibi olmak konusunda yüksek motivasyon düzeyine sahip olan bu kadınlar (Cassidy ve Sintrovani, 2008), gebe kalıncaya kadar pek çok başarısız deneme, ciddi sağlık sorunları ve bebek kaybı yaşamaktadırlar. Bu tip olumsuz yaşam olaylarının, yardımcı üreme teknikleriyle gebe kalan anne adaylarının üzerinde olumsuz etkileri olabildiğinden, bu kadınların gebelik dönemlerinde kendilerine has özellikler görmek söz konusu olabilir (Colpin, De Munte ve Vandemeulebroecke, 1998; Yakupova, Zakharova ve Abubakirov, 2015).

Yardımcı üreme teknikleriyle oluşan gebelikler gerek tedavi gerek gebelik sürecinde duygusal olarak yıpratıcı olduğundan (Hjelmstedt, Widström ve Collins, 2006) ve gebelikleri boyunca bu kadınlar sık sık doktor kontrolüne gitmek zorunda olduklarından (Łepecka-Klusek ve Jakiel, 2009), "hasta" psikolojisinden çıkamamış olduklarından bahsetmek mümkün olabilir (Hjelmstedt, Widström, Wramsby ve Collins, 2004; Olhansky, 1990). Bu nedenle, bu kadınların gebelik sürecine dair kontrol algılarının düşük olduğu, yüksek düzeyde kaygı yaşayabildiği, kendilerini olası bebek kayıplarına karşı hazırlıklı tuttuklarından gebelik adaptasyonu ve gebelik dönemi bağlanması konularında zorluk yaşadığı alanyazındaki çalışmalar tarafından vurgulanmıştır (Hjelmstedt ve ark., 2006).

Bu çalışmanın amacı, yardımcı üreme teknikleriyle oluşan gebeliklerde anne adaylarının gebelik adaptasyonu ve gebelik dönemi bağlanmasını olumsuz etkileyen faktörlerin anlaşılmasıdır.

3.1.1. Gebelik Stresi

Yardımcı üreme teknikleriyle gebe kalan kadınlar, doğal yollarla gebe kalmış kadınlara kıyasla genel kaygı düzeylerinde bir farklılık göstermeseler de, gebelik stresi bakımından daha olumsuz bir tablo çizmektedirler (McMahon, Ungerer, Beaurepaire, Tennant ve Saunders, 1997; Hjelmstedt, Widstrom, Wramsby ve Collins, 2004). Yapılan araştırmalar, yardımcı üreme teknikleriyle gebe kalan kadınların gebelik dönemi streslerinin oldukça yüksek olduğunu, özellikle bebeğin sağlığı ve bebek kaybı konusunda yoğun kaygı yaşadıklarını (Hjelmstedt et al., 2003; McMahon et al., 1997) ve kişinin geçmişteki kayıp sayısı arttıkça gebelik streslerinin de arttığını göstermektedir (Yakupova, Zakharova ve Abubakirov, 2015).

3.1.2. Gebelik Adaptasyonu/Uyumu

Gebelik adastasyonu, kadınların gebelik sürecine ve gebelikle ilgili değişimlere uyum gösterme düzeylerini göstermekte ve gebelik stresinden olumsuz yönde etkilenmektedir (Łepecka-Klusek ve Jakiel, 2009). Bu konuda yapılmış çalışmalar, sosyal desteğin adaptasyonu arttıran önemli bir etken olduğunu vurgulamaktadır (Jesse, Walcott-McQuigg, Mariella ve Swanson, 2005). Alanyazındaki bazı çalışmalar, yardımcı üreme teknikleriyle gebe kalan kadınlar için stresle ilişkili olarak gebelik uyumlarının düştüğünü gösterse de; kimi çalışmalara göre ise bu kadınlar gebeliğe uyumla ilgili daha az şikayetçi olmaktadır (Ulrich, Gagel, Hemmerling, Pastor ve Kentenich, 2004).

3.1.3. Sosyal Destek

Sosyal destek, kişiler infertilite gibi stresli durumlarla karşılaştığında onların adaptasyonlarını arttırarak stresin olumsuz sonuçlarından daha az etkilenmelerini sağlayan en önemli faktörlerden birisidir (örn., Martins, Peterson, Almeida, Mesquita-Guimarães ve Costa, 2014). Aile, arkadaş ve "özel" bir insandan algılanan sosyal destek, stresin olumsuz etkilerini "tamponlamakta" ve özellikle herhangi bir hastalığa bağlı stres durumlarında kişi üzerinde iyileştirici etki göstermektedir (Uchino, 2006).

3.1.4. Bağlanma Stilleri

Bağlanma stilleri, bireysel farklılıklar ortaya koyan ve kişinin stresli bir durumla nasıl başa çıkacağını gösteren önemli belirleyicilerden birisidir (Bowlby, 1969, 1973). Kişinin kendisine bakım veren kişiyle geliştirdiği ve sonrasında tüm duygusal yaşamına etki eden bu içsel mekanizmalar, güvenli ve güvensiz bağlanma olarak ikiye ayrılmakta; güvensiz bağlanma stilleri ise en temel olarak kaygılı ve kaçınmacı bağlanma olarak ikiye ayrılmaktadır (Ainsworth, Blehar, Waters ve Wall, 1978). Özellikle bireyler stresli bir durumla karşılaştıklarında devreye giren

bu içsel faktörler (Amir, Horesh ve Lin-Stein, 1999), kişilerin stres düzeylerini azaltmak için kısa vadeli rahatlama sağlıyor olsa da; uzun vadede işlevsiz bir baş etme mekanizması ortaya koymakta ve kişinin problemli durum karşısındaki kaygı düzeyini artırmaktadır (Mikulincer ve Florian, 1995; Mikulincer, Florian ve Weller, 1993).

3.1.5. Gebelik Dönemi Bağlanması

Bağlanma teorisiyle benzer yıllarda öne sürülen gebelik dönemi bağlanması kavramı, anne adayının doğumdan önceki süreçte bebek ile kurduğu ilişkiyi tanımlamaktadır (Muller, 1992; 1993). Yapılan çalışmalar, gebelik dönemi bağlanmasının daha çok gebelik haftasıyla ilişkili olduğunu, haftalar ilerleyip bebek büyüdükçe bağlanmanın da arttığını (Della Vedova ve ark., 2008) ve bu sebepten doğal ve tedaviyle gebe kalmış kadınlar arasında herhangi bir farklılığa neden olmadığını (Hjelmstedt ve ark., 2006; McMahon ve ark., 1997; Stanton ve Golombok, 1993) gösteriyor olsa da; alanyazındaki pek çok çalışma yardımcı üreme teknikleriyle gebe kalmış olan anne adaylarının gebelik dönemi bağlanmalarının düşük olduğunu, bu kadınların bebekle bağ kurmayı ertelediğini (Armstrong ve Hutti, 1998), anne karnındaki bebekle daha az konuştuklarını ve bebek için hazırlık yapmaktan kaçındıklarını göstermektedir (McMahon ve ark., 1999).

Bu bulguların aksine, alanyazındaki kimi çalışmalarda ise yardımcı üreme teknikleriyle gebe kalmış olan anne adaylarının bebekleriyle daha sınırlı ilişki kurduğu vurgulanmaktadır. Bu çalışmalara göre anne adayı tedavi sürecinde pek çok özveride bulunduğu için gebelik sürecinde de bebeğine çok fazla bağlanmakta ve özen göstermektedir (Agostini ve ark., 2009).

3.1.6. Ebeveynlik Motivasyonu

Ebeveynlik motivasyonu, çiftlerin çocuk sahibi olma arzularını şekillendiren önemli etkenlerden birisidir (Miller, 1994). Brenning, Soenens ve Vansteenkiste'ye (2015) göre içsel motivasyonları yüksek olan kişilerin psikolojik iyilik halleri ve ilişki kaliteleri yüksek olmaktadır. Ebeveyn olma motivasyonunun yüksek olduğu kişilerde ebeveynliğin daha tatmin edici bir deneyim olarak görüldüğü ifade edilmektedir (Rholes, Simpson ve Friedman, 2006). Bunun yanı sıra, yürütülen birçok çalışmada, ebeveynlik motivasyonunun kişide baskı yaratan bir etken de olduğu, bu sebepten kişinin stres seviyesini arttıran bir faktör de olabileceği vurgulanmaktadır (örn., Langdridge ve ark., 2000).

3.2. Çalışmanın Amaçları

Bu çalışma, yardımcı üreme teknikleriyle gebe kalmış olan anne adaylarının gebelik dönemi stresleri ile ebeveynlik motivasyonlarının, onların gebelik uyumları ile gebelik bağlanmaları üzerindeki etkisine bakarken, sosyal destek, yetişkin bağlanma stilleri ve stresin bu ilişkiler üzerindeki biçimleyici rollerini incelemektir.

3.3. Yöntem

3.3.1. Katılımcılar

Bu çalışmanın katılımcıları, yardımcı üreme teknikleriyle gebe kalmış 185 anne adayıdır. İnfertilite ve yardımcı üreme teknikleriyle ilgili Facebook gruplarının yanı sıra, araştırmacı Türkiye'nin en büyük tüp bebek merkezlerinden birisinde gönüllü çalışarak katılımcılara erişim sağlamıştır.

3.3.2. Araçlar

3.3.2.1. Demografik Bilgi Formu

Toplam 42 sorudan oluşan bu form, katılımcıların demografik özelliklerinin, eşiyle ilişkilerinin ve gebelik sürecinin anlaşılmasına yönelik açık uçlu ve Likert tipi sorular içermektedir.

3.3.2.2. Prenatal Distres Ölçeği (Revize Versiyonu)

Yali ve Lobel (1999) tarafından geliştirilen ve Lobel ve arkadaşları (2008) tarafından revize edilen bu ölçek, anne adaylarının gebelikle ilgili endişelerini ölçen toplam 17 maddeden oluşmaktadır. Ölçeğin Türkçe'ye adaptasyonu Yüksel, Akın ve Durna (2011) tarafından gerçekleştirilmiştir. Bu çalışmada, ölçeğin iç tutarlılık katsayısı .80 olarak hesaplanmıştır.

3.3.2.3. Prenatal Kendini Değerlendirme Ölçeği

Lederman (1979) tarafından geliştirilen bu ölçek anne adaylarının gebelik dönemi adaptasyonlarını ölçmeye yarayan 79 maddeden ve yedi faktörden oluşan 4'lü Likert tipi bir ölçektir. Ölçeğin Türkçeye adaptasyonu Beydağ ve Mete (2008) tarafından gerçekleştirilmiştir. Ölçeğin yedi alt boyutu ve bu doktora tezinde hesaplanan iç tutarlılık katsayıları şu şekildedir: kendi ve bebeğin sağlığı ile ilgili düşünceler (α = .84), gebeliğin kabulü (α = .79), annelik rolünün kabulü (α = .73), doğuma hazır oluş (α = .67), doğum korkusu (α = .70), kendi annesiyle ilişkisi (α = .88) ve eşiyle ilişkisi (α = .77).

3.3.2.4. Prenatal Bağlanma Envanteri

Muller (1993, 1996) tarafından anne adaylarının anne karnındaki bebeğe dair duygu, düşünce ve deneyimlerini belirlemek ve bağlanma düzeylerini ölçmek amacıyla geliştirilen bu ölçeğin Türkçe'ye adaptasyon çalışması Yılmaz ve Beji

(2013) tarafından gerçekleştirilmiştir. Tek faktörden oluşan ve 4'lü Likert tipi bir ölçek olan bu ölçek için bu doktora çalışmasında hesaplanan iç tutarlık katsayısı .90'dır.

3.3.2.5. Çok Boyutlu Algılanan Sosyal Destek Ölçeği (Revize Versiyonu)

Zimet ve arkadaşları tarafından geliştirilen ölçek (1988), kişilerin algıladıkları sosyal destek düzeylerini aile, arkadaş ve "özel bir insan" boyutlarında ölçmeyi amaçlayan, 12 maddeden oluşan 7'li Likert tipi bir ölçektir. Ölçeğin Türkçe uyarlaması Eker ve arkadaşları (2001) tarafından gerçekleştirilmiştir. Ölçeğin bu araştırmadaki iç tutarlılığı tüm ölçek için .90, aile faktörü için .93, arkadaş faktörü için .91 ve özel bir insan faktörü için .86 olarak hesaplanmıştır.

3.3.2.6. Ebeveynlik Motivasyonu Ölçeği

Ebeveynlik motivasyonunu değerlendirmek amacıyla, Cassidy ve Sintrovani (2008) tarafından geliştirilen bu ölçek 24 maddeden ve 6 faktörden oluşan 5'li Likert tipi bir ölçektir. Ölçeğin Türkçeye uyarlama çalışması bu tezin birinci çalışması kapsamında yapılmıştır. Bu çalışmada her bir alt ölçek için hesaplanan iç tutarlılık katsayıları, "neslin devamı" için .78, "yetiştirme" için .87, "ilişki" için .74, "kimlik" için .79, "sosyal baskı" için .75 ve "materyalizm" için .52 olarak belirlenmiştir.

3.3.2.7. Yakın İlişkilerde Yaşantılar Envanteri-II

Bu ölçek yetişkin bağlanma stillerini ölçmek amacıyla Fraley, Waller ve Brennan (2000) tarafından geliştirilmiş ve Selçuk, Günaydın, Sümer ve Uysal (2005) tarafından Türkçeye uyarlanmıştır. Ölçek kaçınma boyutu için 18 ve kaygı boyutu için de 18 olmak üzere toplam 36 maddeden oluşan 5'li Likert tipi bir ölçektir. Bu çalışmada ölçeğin iç tutarlılığı kaçınma için .89, kaygı için .84 olarak hesaplanmıştır.

3.3.3. İşlem

Bu çalışmada birinci çalışmayla aynı işlemler takip edilmiştir.

3.3.4. Analiz

Çalışmada bir dizi moderasyon analizi yapılmış ve analizlerde Hayes ve Matthes (2009) tarafından geliştirilen makro kullanılmıştır.

2.3.5. Sonuçlar ve Tartışma

Çalışma sonuçlarına bakıldığında, prenatal stres ile gebelik adaptasyonu ilişkisinde arkadaştan algılanan sosyal desteğin biçimleyici rolü olduğu görülmüştür. Katılımcıların arkadaşları tarafından algıladıkları sosyal destek düzeyi arttıkça stres seviyelerinin düştüğü görülmüştür. Bu ilişki, stres düzeyinin sosyal destek faktörleri tarafından azalabileceğini gösteren stres tamponlama hipotezini destekler niteliktedir (Cohen ve Wills, 1985). Ayrıca, çalışma bulguları Kuo ve arkadaşlarının (2007) gebelik adaptasyonunun sosyal destek aracılığıyla arttığı vurgusuyla tutarlı bulunmuştur. Bu bulgularla ilişkili olarak dikkati çeken en önemli noktalardan birisi arkadaş desteğinin bu popülasyon için anlamlı olan tek faktör olmasıdır. Amir ve arkadaşlarının (1999) belirttiği gibi, bu bulgular infertil kişilerin aile dışındaki destek faktörlerinden daha çok faydalandığını göstermektedir.

Analizlerden elde edilen bir diğer anlamlı sonuç, prenatal stres ile gebelik adaptasyonu ilişkisinde kaygılı bağlanma stilinin biçimleyici rolü olduğu yönündedir. Kişilerin kaygılı bağlanma düzeyleri arttıkça stres seviyeleri artmakta ve gebelik adaptasyonları düşmektedir. Bağlanma teorisinde de belirtildiği, bu bulgular kaygılı bağlanmanın kişinin stres düzeyini (Mikulincer ve Florian, 1995) ve bebek bekleyen kadınların gebelik stresini arttırdığını (Trillingsgaard ve ark., 2011) desteklemektedir.

Ebeveynlik motivasyonu ile prenatal bağlanma ilişkisinde gebelik stresinin anlamlı bir biçimleyici rol üstlenmesi çalışmanın diğer önemli bulgularındandır. Kişilerin stres seviyeleri arttıkça ebeveynlik motivasyonunun olumsuz etkilerinin arttığı ve kadınların prenatal bağlanmalarının düştüğü görülmüştür. Bu bulgular, alanyazınla uyumlu olarak, yüksek stresin prenatal bağlanma düzeyini düşürdüğünü (Condon ve Corkindale, 1997) ve kadınların bebekleriyle daha az etkileşim kurduğunu (McMahon ve ark., 1999) göstermektedir.

Ebeveynlik motivasyonu ile prenatal bağlanma ilişkisinde ikinci olarak kaçınmacı bağlanma stilinin de anlamlı bir biçimleyici rol üstlendiği görülmüştür. Kişilerin kaçınmacı bağlanma stilleri arttıkça ebeveynlik motivasyonu ile prenatal bağlanma arasındaki olumsuz ilişki şiddetlenmektedir. Bu bulgular, Bowlby'nin (1973) de belirttiği gibi, kaçınmacı bağlanma stiline sahip kişilerin özellikle yüksek stres altında duygusal yakınlık kurmaktan kaçındığını göstermektedir.

Analizlerde dikkati çeken bir diğer sonuç, ebeveynlik motivasyonu ile kadınların kendi ve bebeğin sağlığı ile ilgili düşünceler bakımından adaptasyonlarının ilişkisinde gebelik stresinin biçimleyici rol üstlenmesidir. Görüldüğü gibi, yüksek düzeyde ebeveynlik motivasyonuna sahip olmak bu kadınların gebelik uyumları bakımından olumsuz bir etki ortaya koymaktadır (örn., Harf-Kashdaei ve Kaitz, 2007).

Yapılan analizlerden elde edilen son bulgu, ebeveynlik motivasyonu ile annelik rolünün kabulü arasındaki ilişkide "özel bir insan" tarafından algılanan sosyal desteğin anlamlı bir biçimleyici rol göstermesidir. Bu bulgu, yardımcı üreme teknikleriyle gebe kalan kadınlar için sağlık çalışanlarının önemli bir etkiye sahip olduğunu desteklemektedir (Brucker ve McKenry, 2004).

BÖLÜM 4

ÇALIŞMA 3: YARDIMCI ÜREME TEKNİKLERİYLE GEBE KALMIŞ ANNE ADAYLARININ SÜRECE DAİR DENEYİMLERİNİN ODAK GRUP GÖRÜŞMELERİYLE İNCELENMESİ

4.1. Giriş

İnfertilite ve kişinin kendi isteği dışında çocuk sahibi olamaması kanser gibi ölümcül hastalıklar kadar kişilerin kaygı ve depresyon düzeylerini arttıran bir sağlık sorunudur (Domar, Zuttermeister ve Friedman, 1993). Yapılan araştırmalar, tedavi olumlu sonuçlanıp gebelik oluşsa da geçmiş süreçlerin etkilerinin devam ettiğini, kadınların gebelik döneminde ve sonrasında duygusal sorunlar yaşayabildiğini göstermektedir (örn., Hjelmstedt, Widström, Wramsby, & Collins, 2004).

4.1.1. İnfertilite ve Tedavi Süreci

Doğal yollarla çocuk sahibi olamayacağını öğrenen bireyler sevdikleri bir kişiyi kaybetmiş gibi yas sürecine girmekte (Lazarus ve Folkman, 1984) ve Kübler-Ross'un (1969) belirttiği gibi sırasıyla inkar, kızgınlık, pazarlık, depresyon ve kabullenme duygularını yaşamaktadır. Tedavi esnasında yaşadığı olumsuz tecrübelerle tekrar tekrar umut ve kayıp döngüsüne giren bireyler için geçirdikleri bu sürecin olumsuz etkileri ileriki süreçte de etkilerini gösterebilmektedir (Hjelmstedt, Widström, Wramsby, Matthiesen ve Collins, 2003).

4.1.2. Gebelik Süreci

İnfertilite ve tedavi sürecinde duygusal ve ekonomik yönden pek çok yatırım yapan kadınlar, tedavi gebelikle sonuçlandığında kimi zaman hamile olduğu gerçeğini

görmezden gelirken (Harris ve Daniluk, 2010) kimi zaman ise yalnızca bebeğe odaklanıp şiddetli kaygı ve korku semptomları gösterebilmektedirler (Hjelmstedt, Windström ve Collins, 2006). Fakat bu bulguların yanı sıra, alanyazında doğal yollarla oluşmuş gebeliklere kıyasla yardımcı üreme teknikleriyle gebe kalmış olan kadınların psikolojik yönden herhangi bir farklılık göstermediğini ve hatta gebeliğe dair daha olumlu duygulara sahip olduğunu gösteren çalışmalar da bulunmaktadır (Klock ve Greenfeld, 2000).

4.1.3. Annelik

Alanyazındaki yardımcı üreme teknikleriyle gebe kalmış kadınların annelik deneyimlerini anlamaya yönelik olarak yapılmış çalışmalarda da birbiriyle çelişen sonuçlar dikkati çekmektedir. Kimi çalışmalara göre, tedaviden bağımsız olarak anneler depresyon, kaygı (Gibson, Ungerer, Tennant ve Saunders, 2000; Raguz, McDonald, Metcalfe, O'Quinn ve Tough, 2014) ve ebeveynlik stresi (Colpin ve Soenen, 2002) gibi yönlerden herhangi bir farklılık göstermezken; yapılan bazı çalışmalar bu kadınların infertil olmayla ilgili geçmişteki yetersizlik duygularının halen devam ettiğini ve onların ebeveynliğe dair özgüvenlerini düşürebildiğini göstermektedir (Gibson ve ark., 2000).

4.2. Çalışmanın Amaçları

Bahsedilen bulgularda görüldüğü gibi, alanyazında infertil olup yardımcı üreme teknikleriyle çocuk sahibi olan kadınların tedavi, gebelik ve ebeveynlik deneyimlerine dair yapılan çalışmalar üç gruba ayrılmaktadır. Bu kadınların doğal yollarla çocuk sahibi olan kadınlardan herhangi bir farklılık göstermediğini belirten çalışmalar olduğu gibi, daha iyi ya da daha kötü duygu durumları olduğunu savunan çalışmalar da vardır.

Bu bilgiler ışığında, bu çalışmanın amacı yardımcı üreme teknikleriyle çocuk sahibi olma yolunda olan bu kadınların infertilite sürecinden başlayıp annelik ideallerine uzanan bu yolculuktaki deneyimlerini anlamaktır.

4.3. Yöntem

4.3.1. Katılımcılar

Birinci ve ikinci çalışmada veri toplanılan kliniğin hastalarından oluşan ilki beş, ikincisi üç kişiden iki ayrı odak grup görüşmesi yapılmıştır.

4.3.2. Araçlar

4.3.2.1. Demografik Bilgi Formu

Katılımcıların demografik özelliklerinin, eşiyle ilişkilerinin ve gebelik sürecinin anlaşılmasına yönelik açık uçlu ve Likert tipi toplam 14 sorudan oluşmaktadır.

4.3.3. Veri Toplama: Odak Grup Görüşmeleri

Krueger ve Casey (2000) tarafından, tehdit edici olmayan ve kişilerin kabul gördüğünü hissettiği, özenle planlanmış tartışma grubu olarak tanımlanan odak grup görüşmeleri; grup etkileşimini de göz önünde bulundurarak bir konu hakkında kapsamlı bir bakış açısıyla bilgi edinilmesini sağlayan etkili bir araçtır.

4.3.4. İşlem

Etik kurul onayının ardından, Ankara'nın en büyük tüp bebek kliniklerinden birinde odak grup görüşmeleri organize edilmiştir. Görüşmeler ortalama iki saat sürmüş ve görüşme esnasında katılımcıların da izinleri doğrultusunda, ses kayıt cihazıyla kayıt tutulmuş ve tüm görüşmeler deşifre edilmiştir. Her iki toplantının ardından, katılımcılara 15 dakikalık bir bilgilendirme sunumu yapılmıştır.

4.3.5. Tematik Analiz

Deşifre edilmiş olan görüşme kayıtları, odak grup görüşmelerinde yaygın olarak kullanılan tematik analiz yöntemiyle analiz edilmiştir. Teorik bir çerçeveye sıkışmadan daha esnek bir bakış açısı sunan bu analizde Braun ve Clarke'ın (2006) önerdiği altı basamaklı analiz yöntemi kullanılmıştır.

4.3.6. Çalışmanın Güvenilirliği

Temalar oluşturulurken güvenilirliği sağlamak adına nitel bir araştırma grubu kurulmuş, deşifreler ve araştırmacının kendi gözlemleri de göz önünde tutularak şemalara karar verilmiştir.

4.3.7. Sonuçlar ve Tartışma

Analiz sonuçları ortaya çıkan temaların zamansal yönden üç ana başlık altında toplandığını göstermektedir. Bu bağlamda, birinci üst anlam teması infertilite ve tedavi sürecine dair *"boş teneke" gibi hissetmek* teması olarak isimlendirilmiştir. Yapılan görüşmeler esnasında kadınların infertilite dönemine dair deneyimlerinde, kendilerini "boş", işe yaramaz ve yetersiz hissettikleri dikkati çekmiştir. Bir katılımcının kullandığı "boş teneke" metaforunun bu anlamda kapsayıcı olabileceği düşünülmüştür. Alanyazındaki çalışmalara bakıldığında, benzer şekilde, infertil kadınların kendilerini yetersiz gördükleri ve rahimleri yerine adeta "boş bir delik" varmış gibi hissettikleri dikkati çekmektedir (Domar ve ark., 2012).

Bu üst anlam temasının altında, *çocuklu hayatın idealizasyonu, olumsuz duygular* ve *uyumsuz baş etme yolları* temaları bulunmaktadır. Kadınların kendilerini yetersiz hissetmelerinin en önemli nedenlerinden birisi çocuklu hayatın onlar için çok ideal olduğu görüşüdür. Alanyazında da bu bulguyu destekleyen çalışmalar bulunmaktadır (örn., Fisher ve ark., 2008; Smorti ve Smorti, 2012). Bu ideallerine ulaşmada infertilite engeliyle karşılaşan kadınlar pek çok olumsuz duygu

yaşamakta, kendilerini yalnız ve haksızlığa uğramış hissetmektedir. Diğer kadınlar kolaylıkla çocuk sahibi olabildikleri için, infertil olmanın "şanssızlık" ve "adaletsizlik" olduğunu düşünmektedirler (Redshaw ve ark., 2007). Bunun yanı sıra eşlerinden ve ailelerden destek göremediklerini hissedip yoğun şekilde öfke duyan bu kadınların kimi zaman sosyal ortamlardan geri çekilerek olumsuz duygularıyla baş etmeye çalıştıkları dikkati çekmektedir (Davis ve Dearman, 1991). Alanyazında da belirtildiği gibi, sosyal çevresi tarafından anlaşılmadığını hisseden infertil kadınların en sık kullandığı baş etme yollarından birisi sosyal geri çekilmedir (Glover ve ark., 2009). Bunun yanı sıra daha önce de Türk kültürü için vurgulanan dini baş etmeler (örn., Karaca & Ünsal, 2015) ve kadınların "güçlülük maskesi" ardına saklanarak duygularını bastırmaları (Katiraei ve ark., 2010) yine görüşmeler esnasında öne çıkan diğer başa çıkma mekanizmalarındandır.

İkinci üst anlam teması, gebelik sürecine dair olarak *"Ya kaybedersem?"* teması olarak isimlendirilmiştir. Görüşmeler esnasında, geçmişte yaşanan olumsuz deneyimlerin etkilerinin gebelik sürecinde etkisini gösterdiği dikkati çekmiştir. Bu üst anlam temasının altında *geçmiş kayıplara takılı kalma, sürekli endişe hali ve "tamamlanmaya" doğru ilerleme* temaları yer almaktadır. Alanyazında ortaya çıkan bu temalarla ilişkili olarak, yardımcı üreme teknikleriyle gebe kalan kadınların bebeğini kaybetme korkusundan kaynaklı olarak yüksek kaygı düzeyine sahip olduğu (Hjelmstedt ve ark., 2003), bu kaygılarıyla baş etme yöntemi olarak ya aşırı korumacı olup sürekli gebeliklerine odaklandıkları (Fisher, Hammarberg ve Baker, 2008) ya da kaçınmacı davranıp gebelik ve bebek yokmuş gibi davrandıkları dikkati çekmiştir (Harris ve Daniluk, 2010).

Üçüncü ve son üst anlam teması, kadınların annelik kurgularıyla ilişkili olup *hayal kırıklığı ve umut* teması olarak adlandırılmıştır. Bu ana temanın altındaki temalara bakıldığında, bu kadınların annelik ideallerinde de gebelik sürecindeki deneyimlerinin benzerlik göstermesi dikkati çekmektedir. *Geçmişteki sürecin yasını*

sürdürme ve *geçmişteki tüm acılara rağmen umutlu olma* alt temaları bu başlık altında toplanmaktadır. Geçmişin yasını sürdürmeyle ilişkili olarak, Redshaw ve arkadaşlarının (2007) belirttiği gibi, başarılı tedavi sonuçlarına ya da sağlıkla gerçekleşmiş doğumlara rağmen, infertilite geçmişi olan bireyler tedaviyle gebe kalmış olma durumunun kırgınlığını ve pişmanlığını devam ettirebilmektedir. Yapılan görüşmelerde dikkati çeken, alanyazında da vurgulandığı gibi, gebe kalma süreci çok zorlu olduğundan, bu kadınların anneliği de çok zor ve problemlerle dolu bir dönem olarak algılıyor olmasıdır (örn., Glazebrook ve ark., 2004). Bu kaygı ve korkularla baş etmek için kimi kadınların yine kaçınmacı bir tutum içinde olduğu ve annelik üzerine hiç düşünmedikleri dikkati çekmiştir. Son olarak, yaşanılan tüm olumsuzluklara ve zorluklara rağmen katılımcıların geleceğe umutla baktığı, *geçmişteki tüm acılara rağmen umutlu* oldukları ve Glazebrook ve arkadaşlarının (2004) da belirttiği gibi anneliği bir ödül gibi gördükleri fark edilmiştir.

BÖLÜM 5

GENEL SONUÇ

Bu doktora tezi yardımcı üreme teknikleriyle gebe kalmış anne adaylarının psikolojik durumlarını derinlemesine anlamaya yönelik olarak planlanmış karma yöntemli bir çalışmadır.

Birinci çalışmada, Ebeveynlik Motivasyonu Ölçeği'nin geçerli ve güvenilir bir ölçüm aracı olduğu ve orijinal ölçekteki gibi altı faktörden (neslin devamı, yetiştirme, ilişki, kimlik, sosyal baskı, materyalizm) oluştuğu bulunmuştur. Yaş, eğitim düzeyi, evlilik süresi, evlilik doyumu ve çocuk sahibi olmak için geçirilen süre gibi motivasyonu etkileyen değişkenlerin etkisi kontrol edilip bu altı faktör doğal ve yardımcı üreme teknikleriyle gebe kalmış anne adayları arasında karşılaştırıldığında, yardımcı üreme teknikleriyle gebe kalmış anne adaylarının genel motivasyon düzeyi ile kimlik ve sosyal baskı alt boyutlarında anlamlı olarak yüksek değerler gösterdiği bulunmuştur. Bu bulgular alanyazındaki diğer çalışmalarla tutarlı olarak infertil kadınların çocuksuzluğu kadın kimliğine yönelik bir tehdit olarak gördüğünü (Greil ve ark., 2018) ve toplulukçu kültürlerde sosyal baskının daha fazla hissedildiğini (Cassidy ve Sintrovani, 2008) desteklemektedir.

Birinci ve ikinci çalışma bulguları birlikte düşünüldüğünde, ilk olarak Langdridge ve arkadaşlarının da (2000) belirttiği gibi, yardımcı üreme teknikleriyle gebe kalmış kadınların yüksek motivasyon düzeyine sahip olmalarının onları olumsuz şekilde etkilediği ve gebelik dönemi bağlanmalarını düşürdüğü görülmüştür. Eğer bu kadınlar aynı zamanda yüksek düzeyde gebelik stresine ya da kaçınmacı bir bağlanma stiline sahiplerse bu olumsuz ilişki pekişmekte ve kadınların gebelik

dönemi bağlanmaları daha olumsuz şekilde etkilenmektedir. Yüksek motivasyon düzeyine sahip kadınlar için stresin aracı rolüne bakıldığında, alanyazın bulgularıyla uyumlu olarak bu kadınların bebeğini kaybetmeye dair yüksek düzeyde korkularının olduğu (Gibson ve ark., 2000; Litt ve ark., 1992; Yakupova ve ark., 2015) ve bu korkuyla bir baş etme yöntemi olarak endişeli ve aşırı koruyucu bir bağlanma stili gösterdikleri dikkati çekmiştir (Agostini ve ark., 2009; Van Balen, 1996; Fisher ve ark., 2008). Kadınların bu tip aşırı koruyucu eğilimleri, üçüncü çalışmada ortaya çıkan temalarda da fark edilmiştir. Örneğin, üçüncü çalışmada yüksek motivasyon düzeyleri ve kaybetme korkularıyla bebeğin hareketlerine çok fazla odaklanan anne adaylarından birisinin altı haftalık bebeği henüz hissedebileceğinden çok ufak olmasına rağmen hissedebildiğini ifade etmesi bu konu özelinde dikkati çeken bulgular arasındadır.

İkinci çalışmada kaygılı bağlanma stiline sahip kadınlarla ilişkili olarak ortaya çıkan diğer bir bulgu kaygılı bağlanmanın gebelik dönemi stresi ile gebelik adaptasyonu arasındaki negatif yönlü ilişkiyi pekiştirip gebelik adaptasyonunu düşürüyor olmasıdır. Üçüncü çalışmayla birlikte düşünüldüğünde bu kadınların kontrol algısının düştüğü, o sebeple bebeğin sağlıklı ve hayatta olduğundan emin olmak için sık sık kontrol etme ihtiyacı duyduğu anlaşılmıştır. Her iki çalışmanın bulguları bir arada düşünüldüğünde, yardımcı üreme teknikleriyle gebe kalmış kadınların gebelik dönemi uyumlarını arttırmak için terapi ya da destek grupları aracılığıyla stres seviyelerinin düşürülmesinin ve kaygılı bağlanma stiline sahip olmaları yönünde iç görü kazandırılmasının faydalı olabileceği düşünülmektedir.

Yine ikinci çalışmada görülen kaçınmacı bağlanma stiline sahip olmanın yüksek motivasyon düzeyi ile gebelik dönemi bağlanması arasındaki ilişkiyi zayıflatan bir role sahip olması üçüncü çalışmayla da desteklenmiş, kaçınmacı bağlanma stiline sahip olan kadınların bebekleri için herhangi bir hazırlık yapmaması ve bebeğin hareketlerine dikkat etmemesi dikkati çekmiştir. Kaçınmacı bağlanma stiline sahip

olmak kişinin kaygısıyla baş etmesini sağlıyor olsa da yapılan çalışmalar kaçınmacı bağlanmanın doğum sonrası bağlanma (Muller, 1996) ile anne-bebek ilişkisi için (Siddiqui ve Hägglöf, 2000) risk faktörü olduğunu göstermektedir.

Bu doktora tezinden elde edilen önemli bulgulardan bir diğeri de, sosyal desteğin stres üzerinde tampon etkisi olması hipotezinin doğrulanmış olmasıdır. İkinci çalışmanın bulguları, arkadaş tarafından algılanan sosyal desteğin bu kadınlar için stres ve gebelik uyumları arasındaki ilişkiye iyileştirici yönde biçimleyici etki yapan bir faktör olduğunu göstermiştir. Bunun yanı sıra, yine ikinci çalışmada "özel bir insandan" (örn., doktor, komşu, akraba) algılanan sosyal desteğin kişinin annelik rolüyle özdeşim kurması yönünde iyileştirici etki yapması dikkati çekmiştir. Alanyazındaki çalışmaların aksine, bu çalışma arkadaş ve "özel bir insan" faktörlerinin stresin olumsuz sonuçlarına sağaltıcı etki yaptığını göstermektedir. Diğer bir deyişle, bu çalışma yardımcı üreme teknikleriyle gebe kalmış anne adaylarının aile bireylerindense dış çevreden algıladığını desteğin daha olumlu etki yarattığını göstermektedir.

İkinci çalışmada, kişilerin aile bireylerinden algıladıkları sosyal destekten fayda görmüyor olmaları başta ilginç bir bulgu olarak düşünülmüş olsa da, odak grup görüşmeleriyle birlikte düşünüldüğünde bu kadınların eşleri, anne ve babaları tarafından kendilerini *yalnız ve anlaşılmamış hissettikleri,* onlar tarafından destek hissetmeyip aksine yalnız bırakıldıklarını hissettikleri fark edilmiştir. Bu bulguyla ilişkili olarak, alanyazında erkeklerin farklı baş etme stratejilerini kullanıyor olmalarına dikkat çekilmiştir (Williams, 1997). Bunlara ek olarak, anne ve baba tarafından algılanan sosyal desteğin sağaltıcı olmamasıyla ilgili olarak ise, Türk kültüründe geniş aile bağlarının fazla müdahaleci olmasının kişi üzerinde sosyal baskı yaratıyor ve kişinin destek algılamasını güçleştiriyor olabileceği düşünülebilir.

Sonuç olarak, tüm çalışmalar bir arada düşünüldüğünde bu doktora tezi birbirini tamamlayan üç çalışmadan oluşan kapsamlı bir araştırmadır. Klinik bir örneklem ile çalışılması, karma yöntemli bir araştırma olması ve konunun bütüncül bir şekilde ele alınmış olması çalışmanın kuvvetli yönleri arasındadır. Her bir çalışmada, Türk kültürü için çocuk sahibi olmanın önemi vurgulanmıştır. Bunun yanı sıra, bu çalışma aracılığıyla Türk kültüründe çocuk sahibi olmanın kadın cinsiyet kimliği açısından önemli bir yere sahip olduğu ve toplumun beklentilerini karşılama isteğinin kadınların çocuk sahibi olma motivasyonlarını şekillendirdiği görülmüştür. Bu çalışmadan elde edilen bulgular ayrıca yardımcı üreme teknikleriyle gebe kalmış olan kadınların yüksek motivasyon düzeyine sahip olmalarına rağmen, geçmişteki olumsuz deneyimlerinden ötürü yoğun gebelik stresi yaşadıklarını, bununla ilişkili olarak da gebelik adaptasyonlarının ve gebelik dönemi bağlanmalarının düşük olabileceğini vurgulamaktadır.

Son söz olarak, bu doktora tezi yardımcı üreme teknikleriyle çocuk sahibi olmaya çalışan bir birey için psikolojik desteğin tedavinin her basamağında önemli olduğunu göstermektedir. Türkiye'de klinik-sağlık psikolojisi uygulamalarında, yardımcı üreme teknikleriyle gebe kalan anne adaylarıyla çalışılırken bu tezden elde edilen verilerden fayda sağlanılabilir.

APPENDIX O: TEZ İZİN FORMU / THESIS PERMISSION FORM

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TEZİN ADI / TITLE OF THE THESIS (**İngilizce** / English) : Predictors of Maternal Prenatal Attachment and Pregnancy Adaptation in Women Conceived via Assisted Reproductive Techniques: A Mixed Method Study

TEZİN TÜRÜ / DEGREE**:** **Yüksek Lisans** / Master ☐ **Doktora** / PhD ■

1. **Tezin tamamı dünya çapında erişime açılacaktır. /** Release the entire work immediately for access worldwide. ■

2. **Tez iki yıl süreyle erişime kapalı olacaktır.** / Secure the entire work for patent and/or proprietary purposes for a period of **two year. *** ☐

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