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EXPERIENCES OF COUPLES GOING THROUGH ASSISTED REPRODUCTIVE TREATMENT: A PHENOMENOLOGICAL STUDY

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YARDIMCI ÜREME TEKNİKLERİ İLE TEDAVİ GÖREN ÇİFTLERİN DENEYİMLERİ: FENOMENOLOJİK BİR ARAŞTIRMA

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ABSTRACT

In this study the experiences of couples in Assisted Reproductive Treatment (ART) process is aimed to revealed by focusing the two treatment methods of ART; Intrauterine Insemination and In Vitro Fertilization. In addition to the experience of being under treatment, having unsuccessful treatment cycles also investigated through interviews with couples. Six voluntary couples who have concurrently received ART in Zeynep Kamil Hospital and had at least two previous unsuccessful trials been included as participants in this study. The semi-structured in-depth interviews which took approximately one hour were conducted with participant couples. Through the interviews, accordingly to Biopsychosocial model, experiences of couples on biological, psychological and social domains were investigated. For the aim of revealing the essence of couples' descriptions in interviews, Transcendental Phenomenology used as the qualitative method of analyze. Couples mainly stated their emotions emerged through the treatment process and unsuccessful results. The methods for coping, relational support among spouses and impact of community are also discussed during interviews. As findings of the study, data analyses revealed four main themes as; cycle of experiences in ART process, resources of coping, going through ART as a couple and dealing with community. The results provided useful information for doctors, nurses and mental health workers whose working with couples in ART. Provided findings are discussed in light of previous studies in literature and suggestions for clinical implications and further researches are presented in the study.

Keywords: Assisted Reproductive Treatment (ART), Intrauterine Insemination (IUI), In Vitro Fertilization (IVF), Unsuccessful Treatment, Couple Experiences, Coping Sources, Impact of Community

ÖZET

Bu çalışmanın amacı Yardımcı Üreme Tedavisi (YÜT) gören çiftlerin deneyimlerini incelemektir. Bu araştırmada 2 temel YÜT yöntemi esas alınmıştır bunlar; aşılama ve tüp bebek yöntemleridir. Bu araştırmada, çiftlerle yapılan görüşmelerde, çiftlerin tedavi deneyimlerinin yanı sıra başarısız tedavi siklusları yaşama deneyiminin etkisi de araştırılmıştır. Zeynep Kamil Hastanesi'nde halihazırda YÜT süreci içine olan, geçmişte 2 veya daha fazla başarısız tedavi süreci deneyimlemiş altı gönüllü çift çalışmaya katılımcı olarak dahil edilmiştir. Çiftlerle, yaklaşık bir saat süren yarı yapılandırılmış görüşmeler gerçekleştirilmiştir. Bu görüşmelerde, Biyopsikososyal modele uygun olarak çiftlerin deneyimleri biyolojik, psikolojik ve sosyal alanlar ele alınarak incelenmiştir. Çiftlerin betimlemelerinin özünü ortaya koyabilmek adına görüşmeler Transandantal Fenomenoloji kullanılarak niteliksel olarak analiz edilmiştir. Çiftler en temelde tedavi sürecinde ve başarısız tedavi sonrası deneyimledikleri duygulardan söz etmişlerdir. Bu duygularla baş etme yolları, çiftler arası ilişkisel destek ve toplumun etkisi de yapılan görüşmelerde ortaya konan konulardandır. Bu araştırmanın bulguları olarak, yapılan veri analizleri sonucunda dört ana temaya ulaşılmıştır, bunlar; YÜT sürecinde döngüsel deneyimler, baş etme yolları, çift olarak deneyimleme ve toplumu ele almadır. Bulgular YÜT sürecindeki çiftlerle çalışan doktorlar, hemşireler ve ruh sağlığı uzmanları için bilgi sunmaktadır. Bulgular, literatürde bulunan diğer çalışmalar ışığında tartışılmış ve klinik uygulamalar ve gelecekte yapılabilecek çalışmalara dair öneriler belirtilmiştir.

Anahtar Kelimeler: Yardımcı Üreme Teknikleri (YÜT), Aşılama, Tüp Bebek, Başarısız Tedavi, Çift Deneyimleri, Baş etme Yolları, Toplum Etkisi

CHAPTER 1: INTRODUCTION

1.1 ETIOLOGY OF INFERTILITY

Infertility is the condition of 'the inability to get pregnant after a period of unprotected sexual intercourse that lasts for one year or more' (Kizilkaya Beji & Kaya, 2012; Eugster & Vingerhoets, 1999; Kirca & Pasinlioglu, 2013; WHO, 1992). According to World Health Organization, infertility is a common problem that affects nearly 9% of all couples, which means one in six couples in the world experience infertility (Aydin & Kizilyaya Beji, 2013; Eugster & Vingerhoets, 1999; Kirca & Pasinlioglu, 2013; Tuzer et al., 2010). Prevalence of infertility throughout the world ranges from region to region. According to a study in 2007, infertility rates are between 3.5% and 16.7% in developed countries compared to 6.9% to 9.3% in developing countries (Aydin & Kizilkaya Beji, 2013). From a current perspective, Kirca and Pasinlioglu pointed in their 2013 study that 8-10% of all couples in developed countries and 15-20% of couples in developing countries continue to experience infertility. In light of these studies, it can be implied that the rates of infertility continue to increase especially in developing countries (Leke et al., 1993).

Infertility may be caused by a variety of reasons. According to the study of Jose-Miller, Boyden and Frey (2007); in 28% of all cases the reasons for infertility are unknown, while the reason for 24% of all cases of infertility are male factors, 21% of them as a result of ovarian dysfunctions, 14% as a result of tubal factors and 13% as result of other factors (Kabil Kucur et al., 2016). Similar to the above findings, a study on Romania's population, pointed three basic reasons for infertility which are; 'male factors, ovulatory dysfunctions and mechanical factors like most tubal factors and uterine factors' (Anghelescu et al., 2014). According to authors, couples who experience infertility are generally diagnosed by one or more of these three conditions (Anghelescu et al., 2014; Jose-Miller et al., 2007).

As mentioned above, male factors are one of the most prevalent factors of infertility. Male based biological factors include abnormalities on sperm production or sperm function and abnormalities of the ductal system (Anghelescu et al., 2014). These abnormalities are mainly caused by the presence of one or more of the following conditions: 'Pretesticular (hormonal) conditions, testicular (choromosomal) conditions and posttesticular (contegious disease, infections) conditions' (Aduloju & Adegun, 2016).

Furthermore, there are also female based factors for infertility such as the ovulatory dysfunctions and mechanical factors. Ovulatory dysfunctions comprise of polycystic ovary syndrome (PCOS) and ovarian dystrophies. PCOS generally occurs due to dysfunctional ovulation mechanisms as a result of a high ovarian reserve. On the other hand, a low ovarian reserve is the cause for ovarian dystrophies (Anghelescu et al., 2014). Although they are named as 'mechanical factors'; uterine disturbances and tubal dysfunctions are in fact female based factors of infertility (Lindsay & Vitrikas, 2015). Tubal dysfunctions can be evaluated in two parts: tubal occlusion and tubal adhesion. Tubal dysfunctions compose 35% of all female based infertility (Anghelescu et al., 2014).

In addition to male or female based biological reasons of infertility, there are also conditions where biological dysfunctions are present in both partners, resulting in infertility. Based on the data of World Health Organization (1992); 40% of infertility problems derive from male factors while %40 from female factors and %20 from both male and female factors (Kirca & Pasinlioglu, 2013; T.C. Saglik Bakanligi Ana Cocuk Sagligi ve Aile Planlamasi Genel Mudurlugu, 2005)

Other than biological reasons, environmental and life-style based factors can have an impact on infertility. Increased level of alcohol or cigarette use, high level of stress, a lack of physical activity and unhealthy nutrition are some of the environmental and life style based factors of infertility (Anghelescu et al., 2014; Gokler et al., 2014; Leke et al., 1993; T.C. Saglik Bakanligi Ana Cocuk Sagligi ve Aile Planlamasi Genel Mudurlugu, 2005). To specify the environmentally related factors of infertility in different regions, Leke et al. (1993) searched infertility in Africa, China and Mexico. In light of this study, the basic infertility factors in Africa are revealed as sexually transmitted diseases and exposure to agricultural chemicals especially by women. On the other hand, in China the main reason is determined as being exposed to industrial chemicals by both genders and in Mexico infertility is demonstrated in relation to water pollution (Leke et al., 1993). In addition to region specific environmental based reasons there are also universal based infertility factors. High level of alcohol and cigarette consumption, drug abuse, unhealthy nutrition, traumas and past surgeries are some of the universal based factors of infertility (Anghelescu et al., 2014; Gokler et al., 2014).

In his book, Professor Gulkeli (2006) specified the negative impacts of cigarette consumption on fertility. Since it decreases the sperm quality and production and thickens the zona pellucida, which is the external layer of the ovum, cigarette consumption complicates the natural fertility. Similarly, according to the study of Aduloju and Adegun (2016), factors like increased level of cigarette consumption, history of infections like mumps and of surgeries like groin surgery are predictive for semen based abnormalities which is the most prevalent factor of male based infertility. Additionally, stressful life conditions, aging population and unhealthy nutrition habits are also seen as effective contributing factors for infertility of both genders (Gokler et al., 2014).

1.2 TREATMENT AND PROGNOSES

1.2.1 Procedures for Diagnosing Male and Female Based Infertility

Since infertility can have many different reasons, the first step of treatment is identifying the precise reason for infertility and forming a suitable treatment plan (Kirca & Pasinlioglu, 2013). Depending on the identified condition, couples who experience infertility may go through a medically assisted treatment technique.

The procedures for identifying the causative condition of infertility and for the treatment are different for men and women. For instance; with the aim of identifying the infertility factor, men have to share the information about their productive and sexual background and give their semen samples to be analyzed (Aduloju & Adegun, 2016; Lindsay & Vitrikas, 2015; Ring et al., 2016).

Semen analyses is the crucial procedure for identifying the male based infertility. For giving semen sample men have to masturbate in laboratory or hospital. A healthy sperm should have a shape with head, mip-part and tail and should have motility. For natural fertility it is expected 30% of 'healthy sperm' in an ejaculated specimen of men. If this percentage is below 14%, a medically assisted technique should be used for reproduction. Therefore, to designate the treatment procedures for male based infertility, in the semen analyses, the shape, quality and quantity of the sperm is investigated (Aduloju & Adegun, 2016; Gulekli, 2006).

If the results of the semen analyses are not clear enough for identifying the precise reason of male based infertility and its reason, then hormonal tests can be implemented.

Follicle stimulating hormone (FSH) and Luteinizing hormone (LH) are two basic hormones which trigger the sperm production. Testosterone is another crucial hormone for sperm production (Ring et al., 2016). Therefore, investigating the testosterone, FHS and LH level is appraising for male based infertility and its treatment.

Although, for investigation of male based infertility there are only a few procedures, for investigating the female based infertility there are many different procedures. Similar to men, women also have to give information about their previous health and sexual conditions as a first step of identification procedures. Data about the menstruation cycles, periodic sexual intercourses and previous experiences on pregnancy if it exists, facilitates the exploration of the precise reason for infertility (T.C. Saglik Bakanligi Ana Cocuk Sagligi ve Aile Planlamasi Genel Mudurlugu, 2005).

In addition to debriefing, analyses on hormones, uterus and fallopian tubes are the other necessary medical procedures for examining the precise reason of female based infertility and its treatment. For the aim of ovulation, Follicle stimulating hormone (FSH) and Luteinizing hormone (LH) are discharged from brain for stimulating ovary. Ovary also discharges hormones to stimulate uterus. Estrogen and progesterone are the hormones discharged from ovary to uterus, for preparing uterus to pregnancy. Therefore, FSH test and Estrogen test are the basal hormonal procedures for identifying the female based infertility and its treatment (Gulekli, 2006; Lindsay & Vitrikas, 2015).

Moreover, the timing of the hormonal analyses is also important for identification process. Since, during menstruation periods the hormone levels alter, for reliable results, tests should be done at the first 8 days after menstrual bleeding (Gulekli, 2006). In addition to hormonal analysis, tests focusing the uterus and fallopian tubes are also used in the identification process. Hysterosalpinogram (HSG) Test is one of the current procedures for analyzing the uterus and fallopian tubes. In HSG, a tube placed through cervix, and a colored chemical liquid which can be tracked by x-ray is filled through the tube. Then, the movement of colored chemical is analyzed to investigate blockades in the fallopian tubes and polyps and/or myomas in the uterus (Gungul et. al, 2012; Lindsay & Vitrikas, 2015)

Fallopian tubes are the pipes that sperm should pass to reach ovary for fertilization. Tubes are also necessary for fertilized egg (embryo) to reach uterus (T.C. Saglik Bakanligi Ana Cocuk Sagligi ve Aile Planlamasi Genel Mudurlugu, 2005).

Moreover, embryo need to settle on uterus to develop and to ensure a healthy pregnancy. However, the possibilities of having polyp and/or myoma in uterus can complicate pregnancy. Thus, analyses on the blockage of fallopian tubes and polyp or myomas in uterus are critically important for identification of women-based infertility and its treatment (Gulekli, 2006).

Hysteroscopy and laparoscopy are other common methods for analyzing uterus and fallopian tubes. In hysteroscopy, an optic device called 'hysteroscope' is used to monitor the uterus and fallopian tubes. The procedure takes approximately 30 minutes and local or general anesthesia is used to evade the pain. Laparoscopy, on the other hand, is a type of surgery which is also used as an analyze method for women infertility. In laparoscopy holes are made in the abdomen of woman and with a device with camera which is called as 'laparoscope' the uterus and fallopian tubes are monitored (Gungul et. al, 2012; Jose-Miller et al., 2007; Lindsay & Vitrikas, 2015**)**

Ultrasonography (USG) is another widely used procedure for women. Through this procedure the volume of ovary and the development of follicles in the ovary can be measured. Follicles are small sacs filled with liquid, they wrap up to egg cells and discharge the dominated egg cell in ovulation period. Thus, measuring the development of follicles through USG is crucial before treatment period. Moreover, through ovary analyses the results like, insufficient ovarian reserve, PCOS, endometrioma can also be identified through USG (Jose-Miller et al., 2007; T.C. Saglik Bakanligi Ana Cocuk Sagligi ve Aile Planlamasi Genel Mudurlugu, 2005)

1.2.2 Treatment and Prognoses According to Diagnoses:

Considering the results of diagnostic procedures, a suitable medically assisted treatment technique can be applied to couples. For instance, according the results of semen analysis, if there is distortion in quality and quantity of sperm, men can have 'gonadotropin therapy, intrauterine insemination or in vitro fertilization' as treatment processes (Lindsay & Vitrikas, 2015). Gonadotropin therapy is a type of hormonal treatment which focuses to arrange the sperm abnormalities for male infertility (Ring et al., 2016). However, it is also used in female infertility, especially to trigger the ovulation functioning (Lunenfeld, 2011)

For analyzing the female based factors of infertility; hormones, uterus and fallopian tubes are tested for the evaluation of ovulation functions (Lindsay & Vitrikas, 2015). In order to treat ovulatory dysfunctions; hormonal treatments are used for women. As mentioned, Gonadotropin therapy is an impactful hormonal procedure which is effective on triggering ovulation (Lunenfeld, 2011). As mentioned before, FSH and LH are the basic hormones discharged from brain to stimulate the ovary. Since, Gonadotropin is the main hormone leading FSH and LH to be triggered, it can be used for increasing the level of FSH and LH (Gulekli, 2006). In addition to Gonadotropin therapy, Ovulation Induction is one of the most preferred procedure for treating ovulatory factors (Mahon & Cotter, 2014; Tanha et al., 2014). In ovulation induction, women have to take a specific medication in follicular phase. The aim of medicine is to stimulate ovulation which is the releasement of developed ovum from one of the ovaries into the follicular tubes (Agrawal et al., 2018; Gulekli, 2006; Lindsay & Vitrikas, 2015). The detailed information about the ovulation induction will be given below.

In addition to ovulatory dysfunctions, other main reason of female infertility is the tubal factors. Since the blockage or damage in fallopian tubes complicates the unification of sperm and ovum to fertilize, they are defined as tubal factors (Gulekli, 2006; T.C. Saglik Bakanligi Ana Cocuk Sagligi ve Aile Planlamasi Genel Mudurlugu, 2005). In light of the procedures like hysterosalpinography (HSG), hysteroscopy or ultrasonography; exposed tubal factors can be treated by surgical interventions (laparoscopy) or by in vitro fertilization (Jose-Miller et al., 2007).

Although the medical technologies of today provide many different evaluative opportunities, still there are cases that the reason of infertility is unknown. However, the medical treatments like intrauterine insemination and in vitro fertilization can be used when the reason of infertility is unknown (Jose-Miller et al., 2007; Lindsay & Vitrikas, 2015).

Today there are a lot of different medical procedures that are effective in the treatment of infertility. All these medical procedures have a general name as; Assisted Reproduction Therapy (ART). Ovulation induction, Artificial Insemination with the semen of a donor (AID), Artificial Insemination with the semen of the husband (AIH), In vitro fertilization (IVF), Gamet Intrafallopian Transfer (GIFT), Zigot Intrafallopian Transfer (ZİFT), Subzonal Sperm Injection (SUZI) and Intracytoplasmic sperm injection

(ICSI) are the basic ART procedures used to treat infertility (Gojani et. al, 2018; Kirca & Pasinlioglu, 2013).

Ovulation Induction is the procedure aiming to increase the quality and quantity of ovum and to trigger ovulation which is the releasement of the developed ovum into the follicular tubes. In this procedure it is required to take a certain amount of (50mg/day) medicine such as clomiphene citrate in follicular phase (Agrawal et al., 2018; Lindsay & Vitrikas, 2015). Since clomiphene citrate leads an effect of lacking Estrogen in body, it triggers the dischargement of FSH and LH and stimulates ovulation. Ovulation induction procedure lasts nearly a week that if ovulation does not occur after that period the dose or type of medicine may be altered by doctor. Ovulation Induction is especially preferred in treatment of PCOS (Agrawal et al., 2018; Lunenfeld, 2011).

Gamet Intrafallopian Transfer (GIFT) is another method of ART. In this method the oocytes are collected from women and mixed with sperm cells right after the collection procedure. The mixture of sperm and oocytes is directly placed into the one or both fallopian tubes of women without waiting a time for fertilization. Fertilization is expected to happen in fallopian tubes 'in vivo'. Laparoscopy is a widely used method for the placing phase of the GIFT. Having healthy fallopian tubes is necessary for having GIFT as an ART method (Hummel & Kettel, 1997).

Similar to GIFT, in Zygote Intrafallopian Transfer (ZIFT) oocytes are also collected from women and combined with sperm cells right after the collection procedure. However, diversely from the GIFT, the combination of oocyte and sperm is not directly placed into the tubes. In ZIFT, the placement in the fallopian tube occurs when the fertilization started 'in vitro' and the zygote has formed (Hummel & Kettel, 1997).

Subzonal Sperm Injection (SUZI) is another method of ART which is preferred for male based infertility. This method consists of two steps as choosing a healthy sperm and placing it under the zona pellucida which is the protein shell of the ovum. Similar to SUZI, Intracytoplasmic sperm injection (ICSI) is also used for male-factor infertility. ICSI is preferred when the quality and motility of sperm is not enough to fertilize of the egg. In this method, collected and chosen sperm is placed into the cytoplasm of the egg for fertilization (Arman & Styhre, 2018; Gulekli, 2006). This technique is also defined as microinjection.

Intrauterine Insemination (IUI) and In vitro Fertilization (IVF) are the two most preferred ART methods. Therefore, the term of ART used in this study defines only the IUI and IVF methods. The methods of IUI and IVF are explained in detailed below.

1.3 INTRAUTERINE INSEMINATION (IUI) AS A TREATMENT PROCESS

IUI is one of the most preferred treatment techniques which can be applied for male or female based infertility and unexplained infertility (Hermens et al., 2011; Kokanali et al., 2015; T.C. Saglik Bakanligi Ana Cocuk Sagligi ve Aile Planlamasi Genel Mudurlugu, 2005). It is composed of two stages which are; getting sperm from males and placing it into woman's uterus. The placement stage can be set according to women's natural ovulation cycle, or after an ovarian stimulation procedure. Ovarian stimulation procedure involves the usage of hormonal medication aiming to increase the number of oocytes which enhances the probability of fertilization and pregnancy. If the placement occurs following an ovarian stimulation period, the treatment called as stimulated IUI (Guzick et al., 1999; Hermens et al., 2011). Since ovarian stimulation increases the effectiveness of treatment, it is a widely used process of IUI.IUI with ovarian stimulation is the most used ART method. Since IUI is more time conserving, less expensive and requires fewer medical procedures in comparison to other ART techniques, IUI is mostly preferred as the 'primary treatment method' for infertility. The success rates of IUI cycles change according to women's age. Stone et al. (1999), by retrospectively analyzing the outcomes of 9963 consecutive IUI cycles, revealed the success rates of IUI cycles according to age of women. In light of mentioned study; for women younger than 26 years old the success rate of IUI is 18.9%. The rate decreases to 13.9% in ages between 26-30 years old. Moreover, between the ages of 31 to 40 years old rates of success decreases among 12.4-11.1% (Stone et. al., 1999).

Considering the results of IUI cycles couples decide to experience another technique of ART (Gojani et. al, 2018). IUI is a procedure which can be experienced multiple times, as cycles. However, there is no precise number of cycles to determine the success of treatment. Thus, the decision of experiencing another treatment method of ART, or keep having another IUI cycle changes among the couples (Custers et. al, 2008).

Since the precise number of IUI cycles to achieve success is not determined in literature, there are studies proposing couples to have different number of trials before changing the treatment method or quitting to have treatment. For instance, in some

studies, it is not recommended to continue having another cycle of IUI after the third one (Nuojua-Huttunen et al., 1999; Gulekli 2006). However, there are also studies which recommend having cycles even to six or more to decide the success of the treatment (Berg et al., 1997). Custers et al. (2008) mentions the increase in rates of success till having the sixth cycle, yet no difference after the ninth. Similarly, according to ministry of health in Turkey, it is recommended to experience four to six IUI cycles before deciding to quit or to change treatment modality **(**T.C. Saglik Bakanligi Ana Cocuk Sagligi ve Aile Planlamasi Genel Mudurlugu, 2005).

Reasons to quit of having IUI cycles or to decide having another method of ART varies among couples. Although experiencing multiple cycles increases the opportunity of having successful treatment, it also increases the stress level of couples. Gojani et al. (2018) mentions the stressful impacts of IUI on couples, according to authors, waiting period between the procedure and pregnancy test results increases the stress level of couples. Although the reason of increase in stress level has been explained in relation with uncertainty of the treatment results, facing with unexpected negative results also increases the stress of couples (Galst, 2017). Moreover, spending time and money for another trial also orients couples to decide for having another ART method or quitting the treatment.

In Turkey, couples with the experience of multiple cycles of IUI, mostly decide to continue with In vitro Fertilization (IVF). Comparing to IUI, IVF is a more controlled technique due to the fertilization phase occurring in the laboratory environment. Therefore, IVF has a higher the probability of success in pregnancy (Cetin & Cetin, 2014; Gulekli, 2006). However, because of the arduousness and expense of its procedures, IVF mostly decided upon by couples, after trying other ART methods at first. In Turkey, governmental insurance system helps couples for the expenses of ART which consists the IUI and IVF. Moreover, Turkish government also inclines couples to experience IVF, with the condition of having experience of other methods of ART such as IUI cycles previously. According to the legislation of ministry of health, couples can use their medical insurance for IVF only if they have at least 3 years unsuccessful ART attempts before. However, if the health conditions or etiology of couples are not sufficient for trial of other methods of ART, couple can directly experience IVF supported by governmental insurance through the medical report on their conditions. However, the governmental support ends after the third trial of IVF, thus couples should compensate the further

expenses if they decide to continue to treatment (T. C. Sosyal Guvenlik Kurumu Baskanligi Genel Saglik Sigortasi Genel Mudurlugu, 2013).

1.4 IN VITRO FERTILIZATION (IVF) AS A TREATMENT PROCESS

In vitro fertilization is one of the most recent treatment processes for infertility. Although it was primarily used to treat ovarian factors, today IVF treatment is preferred for both male or female based factors and also for the unexplained ones (Eugster & Vingerhoets, 1999). Since IVF is applicable for many different factors, it is one of the most prevalent treatment procedures for infertility. IVF treatment is composed of different stages that take time, money and effort. Thus, it is a prevalent solution and seen as the last chance for many infertile couples (Kazemi et al., 2016; Mahon & Cotter, 2014; Ying, Wu & Loke, 2016)

The first stage of IVF mostly contains a preparation phase where the women have to take a 'nasal spray' in six hours periods for six weeks (Mahon & Cotter, 2014). Hormonal recruitment starts with the nasal spray, as a preparation to 'hormone stimulation' phase. After using the nasal spray, the 'hormone stimulation' stage begins which consists of taking medications or injections aiming to trigger ovary functions. The injections can be done in health care centers or by women herself. While stimulating ovary functions, the risk of 'overstimulation' should be considered. Since it is a vital risk for women, they should have frequent routine controls in clinics while experiencing hormone stimulation period. When the stimulation successfully occurs, the 'oocyte retrieval' stage begins (Boivin & Lancastle, 2010; Kazemi et al., 2016). To experience the retrieval operation, women should have enough amounts of developed oocytes.

Moreover, the time of retrieval should be precise that it must occur before the follicular fragmentation of women (Kazemi et al., 2016). After the retrieval, 'fertilization' stage begins. In this stage; the oocyte taken from women and the semen of the men become fertilized to create embryos. Although the fertilization occurs in laboratory conditions, the success rate of fertilization process is not precise (Ying, Wu & Loke, 2016). Thus, there should be a 2-4 days waiting period before having the last stage, the 'embryo transfer'. In this final stage the embryos are placed into the uterus to start pregnancy (Huisman et al., 2009). However, placing embryos into the uterus does not always end up with pregnancy. Thus, the patient must have another waiting period which lasts two weeks to realize if the implantation occurred successfully (Mahon & Cotter,

2014; Ying, Wu & Loke, 2016). In Turkey, it is permitted to place one embryo in first and second trials of IVF to prevent multiple pregnancy. However, two embryos can be transferred if the women is older than 35 years old or experienced with two or more previous unsuccessful trials (Gulekli, 2006). Moreover, Vitrification can also be a part of IVF which assures using the saved embryos for further trials. However, it is not applied in every IVF process in Turkey, since the Ministry of Health recommends application of Vitrification only if couple has health conditions or past surgeries creating difficulty on sperm and/or oocyte production (Uremeye Yardimci Tedavi Uygulamalari ve Uremeye Yardimci Tedavi Merkezleri Hakkinda Yonetmelik, 2014).

During IVF treatment, patients are exposed to different stages with a lot of difficult procedures; it is an arduous process of treatment for infertility. In addition to being arduous, having IVF treatment creates other health related threats. The processes like consumption of different hormonal medications, injections and trans-vaginal ultra-sounds for routine check-ups for follicles and exposure to anesthesia for oocyte retrieval can increase the risk of having ovarian torsion and ovarian cancer. Moreover, having repeated processes of IVF can negatively affect the ability of natural pregnancy of women (Kazemi et al., 2016). Despite of all the mentioned difficulties and risks IVF is one the most prevalent treatment process due to its high applicability for different of infertility reasons (Gulekli, 2006). Although IVF treatment is widely preferred, it has limited success rates that are between 18.4% and 20.3% (Boivin & Lancastle, 2010; Ying, Wu & Loke, 2016).

In addition to the negative physical impacts and risks, patients can be psychologically affected by IVF treatment. For instance, the phase of hormonal stimulation consists hormonal imposition to women's body. This imposition can provoke side effects as emotional fluctuation, increasing level of anger and/or physical changes. All changes in the physical and emotional state can lead psychological consequences in both personal and relational bases. The psychological impacts of IVF and IUI as treatments of ART, will be explained below.

1.5 EFFECTS OF ART (IUI & IVF):

In literature being in an ART treatment period is considered as stress provoking issue. The main reasons which made the ART seen as stress provoking are; the medical

costs, treatment procedures, potential side effects, length of treatment and possibility unsuccessful treatment (Hsu & Kuo, 2002; Navid et al., 2017).

For the aim of searching the general stress levels of couples experiencing ART, Awtani et al. (2017) studied with 120 couples which are having IUI (60) and IVF (60) treatments. Stress levels of participants are measured by a Likert-scale inventory which is called as Fertility Problem Inventory. The scale consisted of 46 questions and 5 subscales which are; social concern, sexual concern, relationship concern, rejection of a child-free lifestyle, and need for parenthood. The overall results of the subscales lead to explore the general level of stress of the participants. This study explored that couples who underwent IUI or IVF treatment, experience a general increase in their level of stress and 'need for parenthood' is the most stress creating criteria for couples. Moreover, authors found that separately from the experienced ART method as IUI or IVF, being under treatment increases the stress levels of couples. However, the general level of stress among women is higher than men (Awtani et. al., 2017).

In literature; stress, anxiety, and depression are emphasized as the common outcomes of being in ART treatment (Kizilkaya Beji & Kaya, 2012; Hsu & Kuo, 2002; Kondaveeti et al., 2011; Navid et al., 2017; Sydsjo et al., 2005; Tuzer et al., 2010). Searches exhibit women as more prone to feel, stressed, anxious and depressed than men (Kondaveeti et al., 2011; Navid et al., 2017; Sydsjo et al., 2005; Tuzer et al., 2010). For instance, Navid et al. (2017) aimed to reveal the potential relation among the couple's reason of infertility and having emotional distress as anxiety and depression. For this aim, authors applied a demographic and infertility information questionnaire and Hospital Anxiety and Depression Scale which is a 14 item scale with two subscales as depression and anxiety, on 248 infertile couples experiencing ART. The results displayed, despite the differences in etiology of infertility, women display higher level of anxiety than men for all etiological conditions.

The increased level of anxiety of women is related with social stigmatization. Since being mother seem as a natural concern for women, having infertility treatment is expected to cause a higher stress for women (Awtani et al. 2017; Hsu& Kuo, 2002; Kocyigit, 2012; Merari, Chetrit & Modan, 2002). According to the previously mentioned study of Awtani et al. (2017) the concerns on parenthood and social acceptance are revealed as the main factors that affect the emotional distress of women in ART.

Furthermore, experience of women having higher emotional distress is explained in relation with the treatment processes like hormonal medications, blood tests, transvaginal sonograms and injection operation, all targeting women (Awtani et al., 2017; Kizilkaya Beji & Kaya, 2012; Hsu & Kuo, 2002; Prattke & Gass-Sternas, 1993). The biological impacts and side effects of mentioned procedures also increases the emotional distress of women in ART. Therefore, for understanding the emotional reactions, the biological impacts of ART procedures on women should be clarified first.

Hormone supply is a common procedure in both stimulated-IUI and IVF treatment for stimulating ovulation. In addition to the impact of emotional instability, hormonal changes through medication also leads other biological impacts on women such as; 'nausea, vomiting, stomach aches, headaches, growth of breasts, hot flushes and feeling tired and/or dizzy' (Awtani et al., 2017; Lin et al., 2013).

Other potential biological consequences of ART procedures are; multiple birth pregnancy, and premature birth or loss of baby due to multiple pregnancy (Leiblum, 1997). Due to ovarian stimulation, the capacity of ovary development increases in women. In transition stage of IVF, for increasing the possibility of pregnancy multiple embryos are transferred to women. This process may result with multiple birth pregnancy. According to the study of Leiblum (1997), the risk of premature birth or having complications at birth or in pregnancy is increasing in multiple pregnancy cases. Thus, although couples are willing to have baby with ART methods, to have successful birth, they should be in a controlled treatment environment.

Similarly, ovarian hyperstimulation or overstimulation are the biological risks of ART methods for women. Experiencing hormone treatment may result with excessive number of egg cells and over-enlarged ovaries. This excessiveness in number of egg cells and volume of ovary can seriously affect the health of women by ending with thrombosis, embolism and death (Eugster & Vingerhoets, 1999).

Ovarian cancer is another serious health related risk of ART. In their literature review of medical studies, Mahdavi et. al (2006), demonstrated the explored association between the hormonal medications for ovarian stimulation and ovarian cancer. Thus, it is expected for women to feel nervous about the side effects and risks of infertility treatments.

In the study of Lin et al. (2013), authors searched psychological distress, somatic reactions and sleep habits of 117 women having ART. They used Brief Symptom Rating Scale, Somatic Symptom List, Pittsburgh Sleep Quality Index and face to face interviews. Authors explored an increase in psychological distress and sleep disturbance in women experiencing IUI. It is also mentioned that women in ART mostly refer about their nervousness during the treatment procedures.

The reason of the mentioned nervousness can also be explained with the probability of failure in treatment. Since women are the main target of ART procedures, it leads women to directly face the success or failure of treatment. In addition to taking the burden of all procedural parts of treatment, taking the responsibility of the results, provokes emotional distress in women (Hsu & Kuo, 2002; Tuzer et al., 2010).

Since waiting periods are the final steps before learning the success or failure of the treatment, women experience; stress, anxiety and depression in waiting periods of ART (Boivin & Lancastle, 2010; Boivin & Takefman; 1995; Gojani et al., 2018; Mahon & Cotter, 2014; Ockhuijsen et al., 2014). Specifically, waiting periods are; the time intervals before finding out whether the embryos are successfully implanted to woman's body and whether the result of embryo transfer is successful as pregnancy in IVF (Eugster & Vingerhoets, 1999). Similarly, waiting for the pregnancy results after IUI operation, is the waiting period of IUI treatment (Gojani et al., 2018).

For the aim of searching the emotional reactions of women in stages of ART, including waiting periods, Boivin and Lancastle (2010), studied 61 women experiencing IVF. They wanted women to fill the daily record keeping chart (DRK) on their emotional reactions through the stages. The DRK chart comprises the subscales of affective reactions such as; worried, tense, nervous for anxiety and angry, frustrated and sad for depression. Chart also contains a positive affect subscale which includes emotions as happy, content and fulfilled. Participants daily rated the DRK chart in a determined hour and they noted if any medical intervention experienced in that day. The results showed increased level of anxiety and depression in women on waiting periods which starts after the embryo transfer. Moreover, authors revealed the anxiety level of women continues to increase till the pregnancy test results are concluded (Boivin and Lancastle, 2010). Similarly, in their qualitative study, Mahon and Cotter (2014) interviewed 34 couples

under IVF procedure as ART treatment. Authors defined waiting periods as anxiety provoking especially for women.

Furthermore, Merari, Chetrit & Modan (2002) due to the aim of searching differences on emotional reactions of couples, studied 113 infertile couples planning to have IVF. In this study, couples had interviews and psychological tests 10-15 days before the beginning of IVF procedures. As results, women had higher scores on state, trait anxiety and depression than men. Women's increased negative emotions are explained in relation to the ambiguity of having a successful treatment or not. Similarly, Singh (2016), studied emotional reactions of Indian Couples in ART and mentioned the impact of ambiguity of treatment result on increased negative emotions. On the other hand, author also pointed the probability of receiving a positive result and its impact of increasing positive emotions such as hope. However focusing on waiting periods of the ambiguous process, studies reveled a consensus on increased anxiety.

Although women show higher emotional distress, waiting periods increases the stress levels of both women and men due to the feeling of 'loss of control' on the pregnancy results. Thus, waiting periods are described as nervous and stressful for both husbands and wives (Gojani et al., 2018; Osuna, 1985). The other pointed reasons for psychological outcomes of men and women are; length and cost of treatment procedures and loss (Mahon & Cotter, 2014; Tuzer et al., 2010).

For the aim to reveal the impact of treatment duration on stress levels of couples, Gerrity (2001) studied with 176 men and women who define themselves as infertile and experience ART as treatment. State-Trait Anxiety Inventory (STAI), a questionnaire with 40 items, is applied to participants in order to understand their anxiety levels and types. State anxiety is the temporal intensity of negative emotions. On the other hand, trait anxiety is the disposition for negative emotions by permanently perceiving situations and conditions as stress provoking.

In the study, participants also filled a demographic questionnaire which aims to reveal the stage of medical treatment. According to Gerrity there are five stages in the treatment of ART. Prediagnosis stage is the one year of suspecting from infertility and having test for the diagnoses. Beginner stage is when the diagnose is precise that couple has less than two years of fertility problem. Regular stage is the duration of two to five years of infertility treatment. Trial of different methods of ART in two to five years may

also occur in regular stage. Experiencing infertility treatment for more than five years constitutes the persisting stage. Lastly, concluding stage is where patients fulfill all duties of medical components and decides not having another cycle.

The results revealed increased level of state anxiety in prediagnosis, beginner and regular stages. However, level of state anxiety diminishes in persisters in comparison to regulars and beginners. Thus, despite the prolonged duration of treatment, lower state anxiety is determined in persisters comparing to beginners and regulars. Author explained this difference in anxiety levels by getting used to treatment routines and procedures. Moreover, patients experiencing high levels of anxiety might decide to terminate or drop the treatment before getting persisting stage. About trait anxiety, no meaningful results are found in relation with the stage of treatment.

For the similar aim of revealing the impact of treatment duration and stage on emotional distress of couples, in their cross-sectional study Berg & Wilson (1991) studied with 104 couples in ART. Authors determined 3 stages based on time interval of treatment as "year 1, year 2 and year 3 and beyond". After separating couples though their stages, they applied SCL-90-R, a 90 item self-report questionnaire with nine sub dimensions of psychological symptoms including anxiety and depression for evaluating the "general psychological functioning" of participants. According to the study, in comparison to year1 stage, the level of anxiety and depression increases in 'year 3 and more' stage. However, no significant difference is found on anxiety level in year 1 stage and year 2 stage. On the other hand, it is pointed that the level of depression decreases in stage 2 in comparison to stage 1.

Thus, as mentioned by Gerrity (2001), Berg & Wilson (1991) also revealed, by having prolonged treatment couples may get used to procedures of treatment and feel less anxious and/or depressed. However, differently form the study of Gerrity (2001), Berg & Wilson (1991) pointed the extend of prolongation is also important that being under treatment for three years and more increases the level of chronic anxiety and depression in couples. Since, the exact stages of infertility and its treatment procedures are not precisely defined in literature the results are not clear enough to reveal the impacts of duration on anxiety levels of couples.

1.6 EFFECTS OF UNSUCCESSFUL TREATMENTS IN ART

Experiencing unsuccessful treatment result and trying for another cycle is the main reason of treatment prolongation. Although the results of prolonged treatment periods on couples' anxiety levels are not clear enough, the impacts of experiencing unsuccessful treatment on couples' anxiety levels are clearly revealed in literature. Unsuccessful treatment means having treatment cycles without having children as a result. Receiving unsuccessful treatment results compels couples to decide whether to continue for another cycle or to terminate the treatment (Sydsjo et al., 2005). This period of decision making after an unsuccessful cycle brings the risks of economical and emotional investment and ambiguity as a result.

In the study of Verhaak et al. (2005) the unsuccessful treatment defined as leading to increase in emotional distress of couples. For the aim of searching the impacts of unsuccessful treatment, authors studied with 148 patients and 71 of their partners having IVF, by utilizing self-report questionnaires focusing 'anxiety, depression, personality characteristics, meaning of fertility problems, coping, marital relationship and social support at pre-treatment' before and after the last cycle of IVF and also after 6 months of treatment. As results Verhaak et al. explored that unsuccessful treatment increases the anxiety and depression levels of women after the treatment. Authors also find out the level of increasement does not significantly change after 6 months period.

For the similar aim, Berghuis & Stanton (2002) applied Beck Depression Inventory to 43 couples having insemination, one week before and after their pregnancy test results. According to their findings, receiving unsuccessful treatment results lead both men and women to exhibit higher symptoms of depression. Authors also mention women displaying more symptoms than men.

In addition to the impact on unsuccessful treatment on anxiety and depression levels, it constitutes other different reactions. For instance, in their review study, Eugster & Vingerhoets (1999) mentioned the results of few studies focusing on couples' experiences of unsuccessful treatment. According to results of these studies; sadness is the most common emotion which emerges due to the unsuccessful treatment experience. The displayed reactions other than sadness, anxiety and depression are; feeling of helplessness, loss and guilt (Baram et al., 1988; Leiblum, 1987).

As mentioned in the study of Eugster & Vingerhoets (1999), in the study of Leiblum et al. (1987) for the aim of exploring the reactions of couples on unsuccessful

trials, authors studied with 59 couples with pre and post questionnaires on 'mood state and marital adjustment'. Authors discovered women experience higher levels of sadness than men yet both genders stated fulfillment due to the trial of all scientific methods and chances.

In addition to investigating the reactions of facing with unsuccessful cycles, the reasons and motives for further trials is another crucial topic to be clarified. For this aim, Boden (2007) in her phenomenological study, interviewed 35 couples who had at least one unsuccessful treatment experience. She explored that hope is the main context for couples to have further trials after an unsuccessful treatment. Author mentioned that hope of having a baby consequently to the treatment helps couples to continue treatment procedures and retry a cycle. However, hope also negatively effects couples that having higher levels of hope in treatment, ends with higher level of disappointment when the results are unsuccessful. Thus, the concept of hope can be defined as a double edge sword for couples in ART.

Similarly, Silva & Machado (2010) in their qualitative interpretative study, interviewed Portuguese couples for the aim of understanding their experience of unsuccessful treatment and their practical constrains. The main practical constraints defined as; 'hope, anxiety, suffer and need for having a break to treatment.' Authors also mentioned that although the suffering and financial costs are listed the main constraints, the main reason leading couples to have a break or terminate the treatment is anxiety (Silva & Machado, 2010).

For the aim of exploring the reasons and the right time to terminate the treatment, Marcus et al. (2011) performed an internet-based questionnaire of 15 close ended items to registered users with unsuccessful treatment experience. The average number of cycles of participants defined as 3.7. However, since the decision of 'right time to terminate the treatment' is a couple-based decision, no common result is revealed on ideal duration and number of trials in treatment. Although the time and number of cycles differ among couples, the termination reasons are explored as common; 'financial costs, emotional distress and poor response to treatment'. Thus, the emotional distress of experiencing another unsuccessful cycle or not well-responding to treatment to have successful results are the main factors affecting couples on their decision of termination. Therefore, the

frustration due to experiencing unsuccessful cycles is the most common reason to terminate the treatment of ART (Custers et al., 2008)

1.7 COPING AND RELATIONAL ADJUSTMENT OF COUPLES IN ART:

Since experiencing ART is a stress provoking issue, couples need to utilize from coping strategies. Coping strategies are the thoughts and behaviors emerged under threat or stressful circumstances (Carver et al., 1989). These thoughts and behaviors are not reflexive; therefore, they can change through time and conditions (Gerrity, 2001). The basic coping strategies are; confrontation, distancing, self-controlling, seeking social support, accepting responsibility, escape-avoidance, positive reappraisal and planful problem solving (Folkman et al., 1986; Gerrity, 2001).

The two basic functions of these strategies are; problem solving by changing or eliminating the source of threat or reducing the provoked emotions due to the threat (Carver et al., 1989; Folkman & Lazarus, 1984; Folkman et al., 1986). For instance, 'planful problem solving' is a coping strategy consists of taking direct action to solve the problem. Thus, the decision having ART as a treatment to cope with infertility can be evaluated as 'planful problem solving'. According to searches in literature, couples in ART mostly utilize from coping strategies for problem solving rather than handling the emotions (Eugster & Vingerhoets, 1999; Galst, 2017).

In their their longitudinal, qualitative study Phillips et al. (2014), conducted semi structured, individual interviews with three couples over six months and phenomenologically analyzed couples' statements by focusing their coping strategy decisions at the beginning of treatment period as IVF. Authors clarified individual's short term coping strategies decided through their long term scopes and their decision of being behavior focused. The three major themes of the study are; "not dwelling on emotional issues; getting on with treatment; and keeping busy with other things" (Phillips et al., 2014). Thus, concordantly to quantitative studies, authors explored the inclination of focusing on problem solving rather than focusing on emotions and avoiding emotions through keeping busy and distraction.

Since deciding on the way to cope is a personal process, gender differences on coping behaviors is a widely studied topic. In their study, Hsu & Kuo (2002) aimed to explore the differences of coping behaviors in couples having IVF or IUI treatment.

Authors studied the coping styles of 120 couples, by utilizing the Ways of Coping Questionnaire; a Likert scale test consisting of 50 questions for eight subscales of coping behaviors (Folkman & Lazarus, 1988). As result, women had higher scores in questionnaire especially in seeking social support and escape-avoidance subscales. Thus, authors clarified, women utilize more from coping strategies especially from the two mentioned ones.

A similar study is designed by Gerrity in 2001, she also utilized from Ways of Coping Questionnaire on 176 husbands and wives under infertility treatment. Concordantly to the results of previously mentioned study, Gerrity explored that women utilize more from seeking social support and escape avoidance as coping strategies.

The general tendency of women using more coping strategies is explained with experiencing higher stress because of being primary object of ART procedures (Prattke & Gass-Sternas, 1993; Hsu & Kuo, 2002). Gender roles are also important to interpret the women's tendency for coping behaviors especially for 'seeking social support'. In a perspective, since being mother is seen as a natural part of women, it leads a need to socially explain the self (Kizilkaya Beji & Kaya, 2012; Gerrity, 2001). Moreover, since women are the primary objects of ART procedures, they are more used to explain their self and the problem of infertility to doctors. Thus, sharing the condition may be easier for women than men and as a result, may facilitate usage of social support (Kondaveeti et al., 2011).

The aim of using escape-avoidance is to avoid the source of the problem. Prattke and Gass-Sternas (1993) in their descriptive correlational study, searched the correlation between emotional reactions and coping strategies. Similar to previously mentioned studies, authors also discovered the women's increased usage of coping behaviors compared to men, especially in 'confrontative, escape-avoidance and planful problem solving coping'. Among the preferred coping strategies, authors define escape-avoidance as a maladaptive coping strategy because of the found correlation between escape-avoidance and 'unhealthy emotions' such as anxiety, depression, anger, confusion, and total mood disturbance.

Furthermore, also in the previously mentioned study of Hsu and Kuo (2002), the correlation of the emotional reactions and coping of couples in ART is studied. The results revealed a correlation between emotional distress, and coping behaviors as

confronting, accepting responsibility and escape-avoidance which is concordant to the study of Prattke and Gass-Sternas (1993).

As revealed with mentioned correlations, since infertility treatment is stress provoking, it increases the 'unhealthy emotions' of patients and negatively impacts their coping skills (Galst, 2017). Berghuis and Stanton (2002) mainly focused on the impacts of unsuccessful treatment cycles on coping skills. In their study, 43 couples filled Beck Depression Inventory and five scales of COPE inventory containing; "seek social support, problem focused coping, avoidance, positive reinterpretation and religious coping scales" before and after one week of their pregnancy test results. Authors displayed participants who were utilizing active-approach-oriented strategies before the treatment results are better at adjusting the unsuccessful outcome. However, the ones who utilize from avoidant coping strategies experience a higher level of distress as consequence of unsuccessful treatment result (Berghuis & Stanton, 2002).

The differences of coping strategies among couples can also impact their relationships. For instance, in the previously mentioned study of Prattke and Gass-Sternas (1993) women revealed as tended to confrontation than men and avoidance is revealed as one of the most used coping of men. At this point the tendency of women for confronting the problem can increase the stress level in men who is tended to avoid and vice versa (Galst, 2017). Similarly, in a study on infertile couples applying for child adoption center, their intake interviews are analyzed and it is revealed that avoidance of emotions as pain, disappointment and/or anger makes the other spouse feeling isolated in relationship (Kraft, 1980). Therefore, utilizing different coping strategies in ART can affect the couple relationship. However, the topic of differences in coping and its' effects on relational adjustment of couples in ART is not mainly focused in literature.

The couple-based studies either focused gender-based differences among couples or couple adjustment to infertility yet not to ART treatment. There are also studies on Turkish population, aiming to investigate the impacts of infertility on relational adjustment. For this aim, Gulec et al. (2011) studied with 120 infertile couples who applied to infertility service of a public hospital in Eskisehir and could not have child for at least one years, and with 76 couples as control group. Authors applied dyadic adjustment scale which is a 32-item scale with four sub-scales focusing 'consensus, satisfaction, cohesion, and affective expression', to all participant couples. Authors

revealed the decrease in adjustment scores in infertile couples, especially on ‘consensus and emotional expression sub-scales’ (Gulec et al., 2011). On the other hand, in another study on Turkish population, Onat & Kizilkaya Beji (2012b) focused on effects of infertility on ‘marital compatibility’. Dyadic Adjustment Scale is also utilized in this study. As a result, authors exhibit, infertile couples having higher adjustment scores than couples in control group (Onat & Kizilkaya Beji, 2012b). There also other studies mentioning the positive impact of infertility on relational adjustment.

Schmidt et al. (2005) investigated the positive impacts of infertility on couple relations, by applying a five point Likert scale questionnaire composed of two items which are; ‘childlessness has brought us closer together’ and 'strengthen our relationship’ to 2250 Danish couples who are at the beginning and one year after of their infertility treatments. As results one third of couples mentioned infertility impacted their relationship in a positive, empowering way and there is no significant change found in responses after one year. Authors define the positive effect of infertility on couples though commonality of infertility problem for partners. Since infertility is a common threat effecting lives of both partners, it leads couples to talk about their problem and exhibit a common decision-making capacity for their future plans (Schmidt et al., 2005). Making decision in cooperation with partners is strengthening point for couple relation (Luk & Loke, 2015).

In addition to infertility, the treatment and facing with the unsuccessful treatment result are the other stress provoking situations that may affect the couple relationship. Since the unsuccessful cycle, brings a tough decision-making period with it, couples must review their economic, physical and emotional wellbeing to decide whether to continue to have another cycle or to end the treatment process. Sydsjo et al. (2005) aimed to explore the impact of unsuccessful treatment on couple relationships. In the study, ENRİCH marital inventory is applied to 45 couples after their first unsuccessful trials, and 6 months and 1,5 years after their last treatment. Results explored that if couple has a stable and good relationship at the beginning of treatment, the unsuccessful treatment results does not affect the couple relationship (Sydsjo et al., 2005). However, this result is questionable since participant couples have an option to receive counselling before, during and after the treatment cycles as a service of hospital in which the study has done.

In another longitudinal study, Slade et al. studied with couples who terminated their treatment processes (1997). Authors revealed, after 6 months over their treatment period, couples who experience three unsuccessful treatment dispose increased level of emotional distress and lower level of relational adjustment. Dyadic Adjustment Scale is also utilized in this study to reveal the differences in relational adjustment of couples. Yet there are no qualitative studies in literature focusing the couples' adjustment in ART. This study aims to fill this gap by searching the experiences and adjustment of couples with semi-structured interviews.

1.8 EFFECTS OF SOCIAL SUPPORT IN ART

Social support is defined as an important source for facilitating the adjustment processes of individuals and couples. Most of the studies in literature focused on the impacts of social support dealing with infertility yet the impacts of support while dealing with ART and unsuccessful treatment is not explained clearly in literature.

For the aim of revealing the needs of infertile couples on psychosocial support, Read et al. (2014) interviewed with 32 couples about their perceptions and needs. Authors emphasized the need for emotional as well as educational support of couples. The emotional support is explained as the need for psychological counselling of couples and the educational support is the need of being informed on the procedures and processes of treatments (Kizilkaya Beji & Kaya 2012; Boivin, 2003; Kirca & Pasinlioglu, 2013). The need of educational support can be explained by insufficient time of doctors for informing patients. In Turkey, the number of doctors for thousand patients revealed as 1.5 which is defined as a highly insufficient rate (OECD, 2008). Similarly, Dr. Kutlu, the head of infertility unit of Zeynep Kamil, expressed their daily routine as seeing 50-100 patients everyday in 8 hours. Thus, the spent time of doctors is revealed changing between 9.6 to 4.8 minutes per patient. Since being informed by doctors may be difficult, 'peer mentoring' is suggested by couples in literature containing; sharing experiences and coping strategies of peers and more of written information on treatment procedures (Read et al., 2014).

On the emotional support from a professional, Peterson et al. (2007) mentioned the importance of defining the concept of loss in infertile couples. Authors defined the infertility and its treatments as a potential reason of loss however, since the loss in infertility is not visible, couples may not get enough social support. Thus, the perception

of couples on their loss and the support they received is important to understand the efficiency of support.

In addition to professional support as counselling, in a study in Portugal, authors studied with 213 infertile couples with Multidimensional Scale of Perceived Social Support and 'infertility rated stress' to search the link between the increasement in stress and the received social support form partners, family and friends (Martins et al., 2014). Results revealed the negative correlations between the infertility stress and social support from family, partner and friends. In a more detailed way, authors revealed the low familial support is linked with increased infertility stress especially for women. In the study of Kondaveeti et al. (2011) compared to men, women are mentioned as more inclined to share their difficulties and get support from their families, which may be the reason of the association among increased anxiety and lack of familial support in women.

On the other hand, low partner support is linked with high infertility stress for both women and men (Martins et al., 2014). There are also other studies shedding light to importance of partners' support that decreases the infertility stress of both men and women (Abbey & Hallman, 1995; Ying & Loke, 2016; Martins et al., 2012; Onat & Kizilkaya Beji, 2012a). This may be related with the difficulty of sharing infertility related issues with others as openly and genuinely as sharing with spouses (Abbey & Hallman, 1995; Onat & Kizilkaya Beji, 2012a). Plus, as relationship get closer the importance and beneficence of support increases (Martins et al., 2012).

Moreover Abbey & Hallman (1995) mentioned in an effective support system there should be a at least moderate relation between the perceived amount of received and provided support. For the aim of revealing the correlation among the perceived amounts of received and provided support between spouses, authors applied self-reports designed as 5-point Likert scales questionnaires on 248 infertile couples in individual interviews. As result, high positive correlations are found on received and provided support among couples so, the recipients' perceived amount of support is related to amount of support they provide. However, the perception of a spouse on the amount of received support is moderately correlated with the mentioned amount of provided support from the other spouse. Thus, good intentions as support may not perceived as supportive by the other spouse. The communication skills of couples is mentioned as the main criteria for receiving and providing the support suitably to the needs of spouse.

In addition to support of families and spouses, friends also important part of the social support system that feeling support from friends has positive effects on stress in infertile couples (Martins et al., 2012). Similarly, in the mentioned study on Portuguese couples, significant correlations are found on decreasing effect of social support of friends on infertility stress of couples (Martins et al., 2014). This decreasing effect may be due to utilization of social support as a way of 'external verification' to manage couples wounded perception of desirability as consequence of their infertility (Kraft, 1980).

However, good intentions in social support can also be perceived as 'criticism and demanding' by couples (Martins et al., 2014). In their qualitative study on 8 Turkish couples who received infertility treatment, Onat and Kizilkaya Beji (2012a) revealed negative social impacts of infertility such as 'withdrawal from social interaction, avoiding being in places with children, reluctance to meet friends and stigmatization'. Stigmatization also revealed in other studies on Turkish cohort, in many studies it is pointed the expectation of being mother as a natural concern and primary role of women in Turkey (Kizilkaya Beji & Kaya, 2012; Kocyigit, 2012). Keskin & Gumus (2014) mentioned the stigmatization especially in the rural areas in Turkey that not being able to fulfill the role of being mother entails the exposure of negative language and stigmatization by others. Similarly, Kaya & Oskay (2019) mentioned the stigmatization of infertile couples in Turkey by pointing the reason as children being a part of economic and psychological systems in collectivist cultures and women socially attributed the role of being mother as a manner of social status. Due to not fulfilling the expectancies of society infertile couples feel isolated (Gudykunst et al., 1987; Rhee et al., 1996). Moreover, secrecy of infertility related information from friends is also common decision of couples. Thus, due to the probability of stigmatization, and criticism, although social support is an important tool for emotional well-being, couples can decide not to share their situations and receive support (Kraft, 1980; Martins et al., 2012).

1.9 THE AIM OF THE STUDY

In literature there are many studies focusing on the impacts of infertility on couples, however majority of these studies aimed to reveal the gender-based differences instead of targeting the relational impacts of infertility. Moreover, although infertility diagnose is the starting point of emotional and relational change, being under treatment

of ART entails additional difficulties inducing further changes. Therefore, this study aims to reveal the experiences of couples having ART as infertility treatment. The main target of the study is not the personal difficulties or changes yet the impacts of ART on couple relationship. Moreover, there is also a lack in literature on the impacts of unsuccessful treatment on couple relationship, thus in this study, for further investigation of the complexity of ART experience, unsuccessful treatment cycles are also included as targeted points.

CHAPTER 2: METHOD

2.1 THEORETICAL FRAMEWORK

The Biopsychosocial Model (BPS) is utilized as theoretical framework of this study. According to BPS model every individual is consisted from biological and psychological subsystems which interchangeably affect each other. Moreover, each individual born in a larger social system which also affects their biology and psychology (Williams et al., 1992). The biological subsystem refers to individuals' physiology whereas the psychological subsystem is related with individuals' thoughts, beliefs and emotions. Additionally, both biological and psychological subsystems are influenced by a larger system of society. Thus, as defined in Figure 1., interactions with family, friends, colleagues and culture also influences and/or influenced by individuals physiological and psychological conditions (Engel, 1997; Williams et al., 1992).

Although infertility and its treatment are medical issues related with individuals' biological conditions on personal level, the studies in literature reveals the psychological influences as increasement of depression and anxiety (Berghuis & Stanton, 2002; Eugster & Vingerhoets, 1999; Verhaak, 2005) Moreover, studies mentioned the infertility impacting individuals' relationships with their spouses, families and friends. For instance, infertility can lead couples to be distant from fertile friends and perceive their support as critical and demanding whereas in some studies it is revealed that receiving support helps couples to manage their infertility related anxiety (Kraft, 1980; Martins et al., 2014). Therefore, as suggested in BPS theory, all three dimensions of biology, psychology and society are linked together in the situation of infertility. Thus, this study will focus on all three dimensions to investigate the relations among them and to explore the experiences of couples in a detailed way.

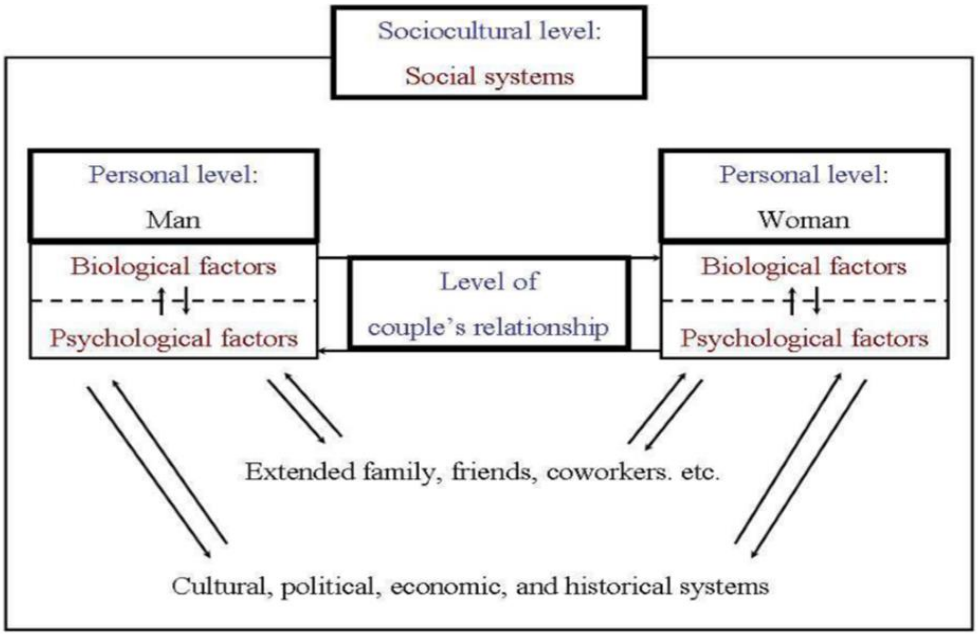

Figure1.Biopsychosocial Model for Infertility (Williams et al., 1992)

2.2 PARTICIPANTS

The participants of this study are the heterosexual, married couples from infertility service of Zeynep Kamil Hospital which is a public hospital in Istanbul. Therefore, as a non-probabilistic sampling method, convenience sampling strategy is used in this study. The inclusion criteria of participant couples are; not having biological or adopted children, having at least two previous unsuccessful treatment experiences of ART as IUI or IVF and being still in the treatment process. On the other hand; not having previous unsuccessful treatment attempts, having successful treatment result and/or experiencing actual loss of pregnancy during ART are the exclusion criteria of the study. A total of 7 couples (14 individuals) who are informed about the study from Zeynep Kamil infertility service nurses voluntarily participated in study. The data from the first couple is not included in analyses since it is evaluated as pilot study.

Before starting to study procedures, all participants are informed that interviews will be audio-taped by researcher and the records will kept as electronic files in the password- protected I-pad of researcher and will be deleted after five years of the end of study. Participants are also informed about the points protecting their confidentiality that their names will not be used in the research and numbers will be used instead. After all these briefings, study procedures are conducted with couples who approved for voluntarily participation.

2.2.1 The Descriptions of Participant Couples

This section includes brief information about 6 couples that are participated and analyzed in this study. Couples are coded with numbers to protect their confidentiality.

Couple 1:

Couple 1 composed of, wife and husband both at the end of their twenties, woman with high-school and man with university education. They have upper-middle socio-economic status. Their diagnose is infertility with unknown reason. Therefore, they tried more than one method of ART as two unsuccessful trials of IUI and one IVF which still continues. The total duration of these attempts is specified as more than two years by the couple.

Couple 2:

Couple 2 composed of a middle age wife with a husband in forties, woman with high-school and man with university education. They have an upper-middle level socio-economic status. Similar to Couple 1, their diagnose is infertility with unknown reason. Therefore, they also tried more than one method of ART as two IUI and one IVF cycles which all ended unsuccessfully. The total duration of the treatments is specified as more than two years.

Couple 3:

Couple 3 is composed of wife and husband both in their thirties, woman with doctoral level education and man with university education. They have upper-middle socio-economic status. The endometrioma is specified as the reason of the Couple 3's infertility. Couple mentioned that they experienced 3 IUI and 2 IVF attempt previously, which all ended as unsuccessfully. They clarified the duration of their treatment as approximately three years.

Couple 4:

Couple 4 is composed of wife and husband both in their thirties, woman with high-school and man with university education. They have middle level socio-economic status. Couple mentioned a long history of diagnose with problems of both male and female based infertility. Couple had two previous unsuccessful IVF attempts, and currently

having the third attempt. Couple clarified the duration of their total treatment of ART as approximately two years.

Couple 5:

Couple 5 is composed of wife and husband both at the end of their thirties, woman with high-school and man with university education. They have upper-middle level of socio-economic status. The infertility with unknown reason is mentioned as couple's diagnoses. One IUI and two IVF unsuccessful attempts are previously experienced by couple and, the total duration of treatment mentioned as five years.

Couple 6:

Couple 6 is composed of a wife at the beginning and a husband at the middle of their thirties, both with high school level education. They have upper-middle level of socio-economic status. As the diagnose of infertility the probability of the low ovarian reserve is mentioned to couple. Therefore, couple oriented directly to IVF as treatment process. They experienced four unsuccessful treatment attempts in a total of eight years.

Except of one woman with doctoral level, all participant women have high school level of education. The half of women are housewives, one of them works in part time and the other two work in full time jobs. On the other hand, the majority of men has university level of education, with only one high-school level of education. All men work in full time jobs, except the one who does not work currently. The average age of women is 32,3 and of men is 35,8. The average duration of treatment of couples is approximately 3.6 due to the approximate answers of couples. The majority of couples experienced both IUI and IVF treatments yet two couples experienced only the IVF and one couple did not received the results of IVF yet.

2.3 INSTRUMENTS AND PROCEDURE

A demographic form and semi-structured interviews are conducted with couples. The demographic form is constituted by researcher aiming to gain information on couples' age, education, socio-economic status and previous attempts of infertility treatment procedures. The demographic form is filled by couples individually at the beginning of semi-structured interviews.

For semi-structured interviews researcher prepared a question sheet composed of general questions aiming to gain information on couples attempts of treatment procedures, experiences of gaining unsuccessful treatment results, decision of continuing the treatment, emotional impacts of these processes on couples and their support systems as couples, family and friends.

Ethical approvals for the questions in demographic form and semi-structured interviews are gained both from Zeynep Kamil Hospital and Istanbul Bilgi University ethics board. Moreover, a consent form which is also ethically approved by both boards are given to couples at the beginning of study processes. The consent form includes information on the aim of the study as a master's degree theses, and the procedures that will be followed by the re-searcher. All the procedures are fulfilled after the approval of consent form by the participant couples.

At the beginning of the study processes, a meeting with infertility service nurses is organized by the researcher to explain the goals and procedures of the study. The scope of the meeting was creating a detailed comprehension of study by nurses, for rendering a comprehensive suggestion for participation to study. After the meeting, nurses asked couples fulfilling the inclusion criteria, if they are interested in participating the study. The names and contact information of interested couples are conveyed to researcher. Then, suitable dates and places for interviews are planned with couples and researcher.

At the planned dates, researcher met with couples in Zeynep Kamil hospital's counselling room or in couples' houses. A briefing on the aim of the study is also provided by researcher at the beginning of meetings, also the consent forms are given to spouses for detailed written information. After the approval of couples, the demographic questions are given spouses individually. Then, semi structured interviews are conducted with couples' together with their spouses. For the aim of having transcriptions to be analyzed, the semi-structured interviews are recorded by the permission of participant couples. The interviews are recorded by the I-pad of the researcher and additional notes are also taken by the researcher about the observational information during the interviews. The duration of interviews is approximately one hour for each couple.

2.4 DATA ANALYSES

The Transcendental Phenomenology as a qualitative method is used for data analyses of this study. Phenomenology aims to explore the 'meanings' and 'essences' of the studied phenomena according to the participants perceptions which received though their narratives. Transcendental Phenomenology focuses to 'describe the phenomenon rather than explaining it' (Bakanay & Cakir, 2016). Therefore, first detailed descriptions of the phenomena are taken from the participants for the analyses. Then, for phenomenological analyses the steps explained below are followed;

Epoche; this process is based on researcher's discovery of his/her own consciousness related to the phenomena aiming to keep them aside to be objectively open to different definitions, assumptions, attributions of participants. Researcher to discover thoughts, assumptions and biases should be transparent to him/herself and be aware of the position as researcher (Bakanay & Cakir, 2016; Moustakas, 1994). Keeping reflective memos during the study processes is an important way to achieve epoche.

Phenomenological reduction; is the next step after Epoche. The aim of phenomenological reduction is to reach 'textural description' of the phenomena. It includes the steps of bracketing and horizontalization. Bracketing is putting the perceptions and assumptions of the researcher into the brackets. Moreover, the main aim of study should be bracketed to keep aside all other topics described through participants (Bakanay & Cakir, 2016). Thus, bracketing leads researcher to clearly focus on solely to main question of research and related descriptions of participants. Through the descriptions and statements of participants horizons arise. Each horizon should be evaluated with equal attention by researcher. Then by "clustering the horizons", themes and of study emerge. Themes are the coherent descriptions of participants revealing the essence of phenomena.

Imaginative Variation; aims to reveal the structural descriptions of the phenomena. After reaching the answers of 'what' questions for textural descriptions, researcher should investigate the 'how' questions in imaginative variation phase for reaching a complete description of phenomena containing both textural and structural information. The structural information is the conditions permitting the phenomena to appear (Moustakas, 1994). In this study, BPS model is utilized to reach the structural description of the phenomena.

Synthesis; is the last step of phenomenology which occurs through the complete unification of textural and structural descriptions of the phenomena.

2.5 TRUSTWORTHINESS

Aiming to increase the trustworthiness of the study, the codes are sent to the thesis advisor for extra-check and confirmation. Moreover, after the confirmation of the thesis advisor, results are shared to all participants (n=6 couples) via e-mail aiming to ask if the shared themes reflect their personal experiences. At the beginning of all interviews the information related to the preferred way of contact is asked and all participants wanted to be contacted via e-mail. Through the e-mail 10 days, time limit is given to participants for their responses and information on the assumption of approval in case of not responding at the end of time limit is shared with the participants. I received one response back mentioning the appropriateness of findings for both spouses (Couple 3).

2.6 RESEARCHER'S PERSPECTIVE

As the researcher of this study I personally have the infertility condition which I know from my adolescence period. Because of the hormonal treatment which I had before, it is not possible for me to get pregnant without having ART. Since I was too young to think about having my own child and family, the diagnose of infertility did not mean much to me in that period. However, with the passing of time I realized that this diagnose scares me and keeps me away from romantic relations in general. After realizing and studying the impacts of the infertility on me, as a candidate of couple and family therapist, I wondered to study the relational impacts of infertility on couples.

At first, I started to do my literature search for the scope of investigating the impacts of infertility on couples, yet I realized it is a widely studied topic including studies conducted in Turkey. However, I also realized most of the studies focused gender-based differences and there are only a few studies mentioning the impacts of infertility treatments on relationship. Therefore, to fill the gap in the literature, concordantly to my primary curiosity, I determinate to mainly investigate the experiences of couples in ART process.

While preparing my research questions I refrained to ask directive questions and preferred to use open ended questions. Questions are designed to understand the

experiences of couples during the sequence of treatment procedures as ‘at the beginning, middle and end of the treatment process and the other cycle’.

To prevent reflecting my biases and previous knowledge from existing literature, I wrote all my expectations before having any interviews and I wrote memos at the end of each interview. Memos contain my own perceptions and thoughts about couples’ descriptions. I considered memos in the analyses process for bracketing my assumptions while reaching the main themes.

CHAPTER 3: RESULTS

In this study 6 couples described their experiences in the process of ART as IUI and IVF. In light of the phenomenological analyses 4 major themes emerged though the descriptions which are Cycle of Experiences in ART Process, Resources of Coping, Going Through as a Couple and Dealing with Community. The major themes will be described in detailed below.

Themes & Subthemes	Number of Couples	Number of Men	Number of Women
Cycle of Experiences			
• Ambiguity	N=6	N=4	N=5
• Hope	N=6	N=4	N=6
• Grief	N=6	N=5	N=5
• Disappointment	N=6	N=5	N=6
• Guilt	N=5	N=1	N=5
Resources of Coping			
• Need for Knowing More	N=6	N=2	N=6
• Preparing Self for the Worse	N=5	N=4	N=5
• Gratitude	N=6	N=5	N=6
• Spirituality	N=6	N=6	N=6
Going Through as a Couple			
• Primary Burden on the Women	N=5	N=4	N=3
• Supportive Behaviors Among Couples	N=6	N=5	N=6
○ ‘It is Not the End of the World’	N=5	N=4	N=2
○ Distraction	N=5	N=5	N=3
• Balancing Each Other	N=4	N=4	N=4
Dealing With Community			
• Expectations	N=6	N=4	N=6
• Keeping the Privacy	N=6	N=3	N=6
• Finding Excuses or Hiding	N=4	N=4	N=3
• Not Perceived as Support	N=5	N=4	N=5

Figure 2. Table of Themes and Frequencies

3.1 CYCLE OF EXPERIENCES IN ART PROCESS

Couples mainly mentioned five experience during the process of ART as ambiguity, hope, grief, disappointment and guilt. Ambiguity is the main experience at the beginning of ART processes because of not knowing the procedures in detailed way and not being able to control the treatment results. Hope is the next experience widely mentioned by couples that hope of having a positive treatment result keeps couples continue to the processes. Since the study focuses on unsuccessful treatment results in ART, the next experience is grief that couples described sadness and loss after receiving the unsuccessful treatment result. In addition to grief, disappointment is claimed from couples that unsuccessful results led to loss of hope which emerged at the beginning of treatment procedures. Lastly, guilt is another widely mentioned experience. Not knowing the reason of unsuccessful treatment inclines especially women to blame themselves as responsible of the unsuccessful result. However, not knowing also offers 'hope' to couples that; a new cycle may result in a different and positive way. Therefore, with the increasing hope, couples initiate to another cycle and restart the experience of ambiguity and other mentioned experiences as a cycle. All mentioned experiences are clustered as subthemes of Cycle of Experiences in ART Process, will be described in detailed below.

3.1.1 Ambiguity

In ART processes although a couple succeed all procedural steps of treatment such as oocyte stimulation and embryo transfer in IVF, treatment not always results with pregnancy. Since the results of treatment and the factors inhibiting successful treatment are not always clear, ART processes increase ambiguity in couples. The theme of ambiguity due to the uncertainty of treatment results is mentioned by all participant couples (n=6 couples), quasi equally by both genders (n=4 men, n=5 woman). For instance, while describing the process women in Couple 5 mentioned *"Doctors say you have 3 developed eggs, yet you don't know if they are healthy or not… also doctors don't know." "You are aware of the uncertainty of your process that even when you get pregnant in 'normal ways' you don't certainly know if the baby will rest or not" (Woman, Couple 5).*

Moreover couples mentioned constantly thinking of the ambiguity on ART period, Woman of Couple 1 expressed that "*I am always thinking am I going to menstruate, how much time I have, when is my ovulation period, is it over, how will today*

pass, what will happen tomorrow, is it (embryo transfer) going to hold this month". Man of Couple 1, also added '*is it going to be held or not, what will be the gender if it happens".* Similarly, in Couple 4, the woman mentioned on thinking about the ambiguity of the process in all other routine thoughts and daily responsibilities. *"In your daily routine you have own concerns to handle, you have responsibilities of your marriage and above all you have the ambiguity of 'is it (pregnancy) happened or not'"(Woman, Couple 4).* Due to her constant thinking, man of Couple 5 evaluated his wife as being obsessive about ambiguity of the results. *"My wife has an obsession on thinking about what will happen at the end, she constantly thinks about what is going to happen and gets nervous about it" (Man, Couple 5).*

As mentioned above, waiting periods are stress provoking time intervals for participants since they lose control on results of treatment (Boivin & Lancastle, 2010; Gojani et al., 2018; Mahon & Cotter, 2014). During interviews, couples mentioned ambiguity in waiting periods as difficulty in ART process. For instance while clarifying the most difficult part of the treatment period, Man in Couple 2 stated "*Hoping and waiting.. waiting for that period.. the period of menstruation. To clarify in a more correct way, waiting if that period will come or not? If she would get menstruate or not? This was the most difficult part for me and for my wife*." Couple 6 also pointed waiting period as the most difficult part of the treatment period. *"The hardest period was 10 days waiting period.. The period starting after the embryo transfer and continues till the blood test. Especially the day before the blood test it is almost impossible to fall asleep. (Woman, Couple 6)."*

Similar to mentioned ambiguity of waiting periods, Woman in Couple 2 pointed her need to find clues of pregnancy, during these periods. "*Sometimes some changes happen during pregnancy. How can I say.. for instance your breasts get larger or your veins get more apparent and so on.. At this period, while waiting, you start to seek those changes in yourself."* Moreover, for preparing self for the ambiguity of the results, Men of Couple 3, declared "*there is always a possibility of not happening (getting pregnant), both possibilities should be accepted".*

In addition to waiting periods the medical treatment procedures itself increases ambiguity of couples in ART. Couples (n=2) noted the need for specific timing to conduct some of the medical tests and the importance of test results that may end up with

changing all expected treatment sequence. *"For the aim of going to hospital I take a day off to work but I don't know what we will going to face with, if they would need another report from us or so on.. We go to hospital with same expectations all the time; thinking as we ended all our procedural steps and we will start to actual operations but every time we come to hospital, we face with another 'surprise'. (Man, Couple 1)"* From the same triggering point, woman of Couple 5 described treatment process as *"a trotting that you don't know how it will happen".* Therefore, uncertainty is not only a fact of waiting periods yet widely sensed in general of ART procedures.

Although it is defined as stress provoking in literature, ambiguity also contains the possibility of receiving positive result in treatment. Couples focusing to this opportunity of positive results described 'hope' in their process of ART.

3.1.2 Hope

Hope is another widely mentioned theme by all participant couples (n=6), which defined as the belief of having a positive treatment result. Half of the participated couples diagnosed with 'undefined infertility' pointed their higher opportunity of getting pregnant due to the fact of not having a specific obstacle preventing the pregnancy. Thus, believing to not having a specific health related condition is ended with increased hope in couples. For instance; *"Actually we don't have any problem now, thanks to God, we both don't have any health conditions. Everything (we experience) is due to some undefined reason (as undefined infertility).. and that increased our hope. (Woman, Couple 1)"* Man of Couple 2, pointed similar importance of undefined infertility on hope as; *"we hoped pregnancy because we don't have any problems in hormones, in ovulation or in quality of ovum and sperm. Everything is normal (Man, Couple 2)".* Moreover, while describing the most effective factor that helped couple to deal with the difficulty of the process, woman of Couple 2 mentioned her belief of being both healthy due to the undefined etiology. "*What was healing for me, is my belief of being both healthy (Woman, Couple 2)."*

Doctors' comments on undefined conditions of couples also pointed as a hope increasing factor in couples. Women of Couple 2 noted the words of her doctor which made her relief and feel hopeful to continue to treatment. "*Doctor said 'you are going well, you don't have any problem preventing of having baby, plus there are many ways and opportunities that you may utilize'. (Woman, Couple 2)" "You don't have any*

problem, you don't have any tubal dysfunctions, sperm quality of my husband is well, so I said 'this would work' because my ovulation was answering well to the treatment as stimulation, development.. Moreover, doctors said, 'no problem seems right now' and that create huge hope. With this hope you say to yourself that 'okay, this time, probably, it will happen' (Woman, Couple 2)." Similarly, woman of Couple 6 pointed the impact of doctors' comments on her; *"According to doctors, we had one ovum, yet it is a prime quality ovum, that increased our hope a lot (Man, Couple 6)." "Doctor flattered us that he said 'why not', I had two-three ovum which I did not know the quality, according to test results he (doctor) said, it may work as ninety percent and so on, therefore we said okay and continued (Woman, Couple 5)."*

In addition to doctors' comments on indefinite conditions, the proponed rates of success increase the hope in couples. *"The general rate of success in IVF is forty percent however according to test results, our rates were sixty-seventy percent (Man, Couple 6)."* Since the success rates among IUI and IVF are different, the hope also differs according to the experienced treatment method of couple. "*There is a certain difference among IUI and IVF, since the probability rate was lower in IUI (Woman, Couple 3)."* In addition to success rates, since IVF is a more controlled method of ART due to the procedure of fertilization under a laboratorial environment, couples felt increased level of hope in IVF periods compared to IUI. *"IVF increasingly seemed as it would work, since everything is handled from outside (laboratorial environment) you feel like it would happen, you say to yourself that the best egg has chosen, sperms are taken and they all matched in best appropriate conditions and prepared…(Man, Couple 3)."* Similarly, woman of Couple 2 mentioned remembering the words of a doctor, frequently in treatment period as "*If I remember well, it was a nurse or doctor who said this, 'you have the best of everything, do not demoralize yourself, you are having the good quality of everything (due to IVF) and this frequently comes to my mind (Woman, Couple 2).'*

Hope is an important factor helping couples to face the difficulties of treatment process and leading couples to continue to treatment after an unsuccessful result. On this topic Man of Couple 1 mentioned; "*During this (treatment) period, although we don't like hospitals we frequently started to go to hospital. However, since we come to hospital with hope of having a positive result we continued and started to get used to it.* (Man, Couple 1)" "*We dreamed about our future with our kid, doing things together, buying clothes for him…living this miracle together. Thinking about this, the possibility of*

having this miraculous result as consequence made us decide to continue to keep trying. Therefore, we decided to keep trying whatever happens. (Man, Couple 1)." Woman of Couple 1 also added that after an unsuccessful result, dreaming about good things and hoping for having a good result helped her to continue treatment. "*(After an unsuccessful result) talking with my husband was relaxing because we were trying to dream on good things. Hoping we will be fine. (Woman, Couple 1*)" Similarly, for answering the question about facilitators that made couples continue to treatment period, man of couple 6 pointed the possibility of having a good result; "*It was our faith I think and the possibility of making it happen, that possibility (of receiving a good result)… (Man, Couple 6)"*

Every new cycle brings the possibility of having positive results for couples, therefore brings hope with it. "*We said to ourselves that okay we tried this, but this time maybe it will be better… I had hope at all four of our trials. (Man, Couple 6)*" Similarly, men of Couple 2 mentioned; "*In our consciousness I think, there were the idea of opportunity for experiencing IVF process as the next step, in case of negativity (as the unsuccessful IUI). Therefore, I was calm and relaxed that there were IVF option (Man, Couple 2).”* Similarly, after experiencing overstimulation in her first trial, woman of Couple 3, perceived having another cycle as a hopeful opportunity since doctors became more knowledgeable about her bodily reactions with first trial. "*I thought as at least they (doctors) know the reactions of my body now, therefore in the second cycle, medication doses would be organized better, and it would be a successful cycle. That was the way I thought before my second trial (Woman, Couple 3).”*

Since being in treatment trial leads hope by the opportunity of receiving a positive result, experiencing unsuccessful treatment ends with grief and disappointment.

3.1.3 Grief

All couples (n=6), equally by both genders (n=5 men, n=5 women), mentioned about their sadness due to having unsuccessful treatment result, moreover couples described their sadness with a sense of loss. Therefore, couples' descriptions of their negative feelings are clustered as 'grief'. *“Since we had expectations (about receiving positive result) not having what we expected and wanted created sadness like a psychological ruin. (Man, Couple 1)” “When doctor said you may leave the medication, you are not pregnant I felt sadness, I cried. (Woman, Couple 5)”* "*My wife cried a lot after first and second trials (Man, Couple 6).” “You always think like it will happen this*

time, and when it does not, it makes you sad, its true that we get sad. (Man, Couple 3)" In addition to sadness, man of Couple 4 described his period after the unsuccessful treatment with unhappiness and pessimism. *"At that point you feel inclination for unhappiness, hopelessness, despondency and boredom. Therefore, what I felt were not positive feelings, it was like heartbreaking… At that point you don't think your past experiences however not having baby at the end causes unhappiness and creates pessimism (Man, Couple 4)."*

Additionally, man in couple 2 pointed that he gets easily angry to small things and feel more aggressive the day after receiving unsuccessful treatment result. *"I become angry, it's true. I become nervous but my nervousness is not reflected as yelling for everything, however it reflects in my way of talking. For instance, my face and mimics get stern and more rigid, my actions become harsher. (Man, Couple 2)"* Similarly woman of Couple 3 mentioned her anger in addition to her sadness due to having unsuccessful treatment. *"This thing has a phase of denial, which I feel right now. I know that I am going to accept it at one point. However, at first it creates anger, than denial. (Woman, Couple 3)"*

Feeling of loss is also described by couples while mentioning their feelings after unsuccessful result. *"Maybe we can even handle the harder experiences but not having that (positive) result at the end, you feel like everything you did gone for nothing (Man, Couple 4)." "Of course you feel sadness (after receiving unsuccessful result) because you have had 15 days of injections for nothing (Woman, Couple 4)"* The feeling of loss also described as a sacrifice which did not ended as expected. *"I labor for this, I sacrifice my body (Woman, Couple 5)" "I feel very bad, all the labor gone for nothing, all the pain was for nothing, it (successful result) did not happen again. (Woman, Couple 6)" "I get permission from my work place all the time. Moreover, I took bank credit for my second trial. At the end it (successful result) did not happen and I paid the one year credit for nothing. That period devastated me, paying for nothing… and the emotional investment was even more… Therefore, it is loss in all manner for us. (Woman, Couple 6)"*

Moreover, the differences in level of sadness among different trials also mentioned by couples. "*After the unsuccessful result we get from our first experience, since the second trial was also ended unsuccessfully it created sadness. Many thoughts*

and questions are emerged as how the processes will go on and so on. It felt like having a heavy burden on a sudden (Man, Couple 1).” And woman of Couple 1 added; “*I felt more sadness in my second trial, because it was a second chance. I did not know if the possibility of positive result was higher or lower at first trial, however I think I felt more sadness. (Woman, Couple 1*)” Similarly, woman of Couple 4 mentioned; “*At every trial the disappointment and sadness increases. (Woman, Couple 4*)”

In light of the explications of couples, sadness and loss are revealed as main feelings occurred by unsuccessful treatment. Moreover, couples mention their disappointment which triggers their grief, will be explained in detailed below.

3.1.4 Disappointment

Disappointment is a widely pointed theme quasi equally by both genders (n=6 women, n=5 men) related to hope and unsuccessful treatment result. All couples (n=6) described their expectations and hopes turned to disappointment with negative results; “*I did not know much about the IVF. I was thinking ‘when you have treatment it ends successfully’, I never thought the other way. As people say; ‘think positive live positive’, therefore I did not think about the negative. However, when I get the negative result, I felt a huge disappointment. (Women, Couple 6*).” And the man of Couple 6 added, *“The success rates that are given to us made us hopeful. Therefore, at first trial when we get the negative result, we had a huge disappointment both my wife and I. (Man, Couple 6)”* The woman of Couple 1 also stated her disappointment as; *“We were hopeful, since we don’t have any known health condition which may prevent the success of treatment. That made us very hopeful. We proceeded step by step, however, we took one step and get negative result. (Woman, Couple 1)”* Relatedly, man of Couple 2 stated, *“It (Having a baby) is something you really want, so you expect to see it as a result, however when you get the negative result you get affected anyway. (Man, Couple 2)”* Including the impact of doctors, woman of Couple 5 mentioned, *“We had IUI, since doctor flattered us a lot, I felt a great emptiness at the end. (Women, Couple 5)”* Including the effect of expectation on disappointment, woman of Couple 3 stated, *“The period is changed with expectations that I started to feel higher expectations with IVF, when I get the unsuccessful result in first trial I started to have greater expectation from the second trial, then the unsuccess… increased my disappointment. (Woman, Couple 3)”*

During the interviews it is observed that it was difficult to talk about their disappointment for couples that after mentioning their hopes and expectations, they stopped talking for a while when the topic came to unsuccessful treatment. *"We were hopeful in IVF, we even dreamed about our future with baby at that period…but then…I learned the unsuccessful result..(Woman, Couple 2)" "When I get the result… disappointment…I felt more disappointed in my first IUI. (Woman, Couple 2)"* Similarly, woman of Couple 3 stated, "*The level goes higher and higher, all your experiences and your expectations and…the disappointment when you have unsuccessful treatment result. (Woman, Couple 3)*"

Disappointment also described as the most difficult feeling to cope in treatment process. Both spouses of Couple 4 declared the disappointment as the most difficult part of the process. *"The most difficult part is of course the disappointment when you don't get the result that you expected (Woman, Couple 4)".* Man, of Couple 4, also added, "*We may even experience harder things, yet not getting what we want at the end creates disappointment and that is the biggest impact (of the treatment period). (Man, Couple 4)"* The experience of disappointment also stated as devastating to describe to hardness of it; "*Especially at my first trial I was very hopeful and that (having unsuccessful result) devastated me (Woman, Couple 6)"*

3.1.5 Guilt

Since the reason of unsuccessful treatment is not generally defined, couples, especially women (n=5 women, n=1 man), tented to blame themselves as the reason of negative result. This self-blame is themed as guilt in this study. *"(After unsuccessful treatment) you were not able to think of anything.. You think yourself…Why it did not work, why it did not happen. You try to find out these answers, but nobody tells you a reason (Woman, Couple 5)."* Similarly, both woman and man of Couple 2 stated the guilt in woman; *"It gets worse, you start to feel yourself as guilty. As if all happens because of me (Woman, Couple 2). "She was always searching the problem in herself, so I asked to our doctor and wanted help from him. (Man, Couple 2)"* As a way to prevent guilt at the end of the treatment process, women also tried to be more controlled during procedures. However, receiving unsuccessful result despite of all controlled behaviors results with guilt in women. "*I am asking why it did not happen, why we did not get the*

result, I was careful a lot, I rested and avoided behavior that may be harmful in the process (Woman, Couple 3)"

Guilt may increase with the etiology of infertility, although majority of participants has undefined infertility, Couple 4 had low ovarian reserve as diagnose. The statements of woman of Couple 4 can be evaluated as guilt by being the reason of infertility and relatedly to the unsuccessful treatment. *"I am getting sad because maybe I see myself as the reason of problem" (Woman, Couple 4)."*

Although guilt is expressed majorly by woman in this study, there were only one man who stated to feel guilty of not being able to be a part of the treatment and share the pain of his wife. *"Why couldn't I do something in this process, I was feeling her pain when she was suffering in all processes. That made me feel guilty in a psychological way and affected me more than all other material things. (Man, Couple 6)."*

As mentioned above; one of the main reasons of guilt is the ambiguity of the process. Since the reason of unsuccess is not precise in ART, couples especially women blame themselves as the reason of negative result. However, the ambiguity of process is also a factor which brings the opportunity of having positive result in treatment. Therefore, through the ambiguity of the process couples feel the hope again and decide to have a new trial. With the increasing hope, emerged through the opportunity of successful result, couples initiate to the cycle of experiences which continues with grief, disappointment and guilt under the condition of treatment ending unsuccessfully.

3.2 RESOURCES OF COPING

Resources of coping are the mechanisms that couples utilize to handle the cycle of emotions which are emerged through ART. Four main coping sources arise from the analyzed descriptions of couples' experiences, which constitute subthemes are; Need for knowing more (n=6), Preparing for the worse (n=5), Gratitude (n=6) and Spirituality (n=6).

3.2.1 Need for Knowing More

The need for knowing is a need occurred from the ambiguity of ART process. Four of the couples, especially women stated the nervousness because of not knowing what is going to happen in treatment process. '*When I first came to hospital, I didn't*

know what was going to happen so, I was panicked. (Woman, Couple 4)" Similarly woman of Couple 1 stated being scared at the beginning of the ART process. As an answer of the reason of her fear she said; *"I didn't know the process that I am going to experience, and this ambiguity…That ambiguity may be easier to be handled if I had more knowledge. Every time I came for medical control, I felt the need for knowledge about the next phase however, you don't have the chance to get sufficient information here. (Woman, Couple 1*)" Additionally to not knowing what is going to happen in treatment processes as phase, woman of couple 1 also mentioned of not knowing the requirements and procedures of hospital. Such as; "*We first came for medical inspection however we did not know the requirements of hospital like we should have came in period of menstruation or we should have done some documental preparations first. However, we did not know any of it." (Woman, Couple 1*)"

In addition to the need for knowledge on processes, women mentioned the need for directive knowledge that women can utilize to control the process. For instance; *"I thought that; it is my second trial, and nobody asked me anything, yes I had blood tests, however I am thinking if we would do anything extra, and if those would be helpful. I had questions in my mind like would it be helpful for doctor to say what to use or avoid (in addition to medication). However, when you see the chaos in here (hospital) you understand that nobody gets the information they need. (Woman, Couple 5)."*

Although women pointed their need for knowledge, the woman of Couple 5 also indicate her understanding for doctors. *"Some doctors get tired, so you cannot ask anything to them, but I understand the doctors too… There is an incredible circulation here (hospital) that you cannot ask anything to nurses or stuff. They come here (hospital) at 08.30 in the morning and when they go out, their brains have been stopped, so you cannot ask your questions. (Woman, Couple 5)"*

On the other hand, three women offered potential solutions to fulfill their need for directive knowledge, such as; *"One day could be picked to informing the patients. One day of a week doctor should inform patients about what they have to do for instance which vitamins they have to take, what they have to eat during this treatment period or from what they have to avoid and so on. I don't know the impact of anything on me. (Woman, Couple 5)"* Similarly, woman of Couple 3 pointed, *"At this period there should be someone stable in hospitals that we could go to ask the questions in our minds, it*

should be possible for us to knock the door and ask instead of chasing for a doctor or a nurse. (Woman, Couple 3)" The woman of Couple 5 also purposed doing a meeting for informing woman who wants to be mother, she evaluated this meeting as a psychological support and mentioned the information is her biggest need in this process. *"(All I need) is knowledge, get knowledge. They should have done a meeting for informing woman who experience this process and wants to be mother about what they should have done, psychologically… It is also a psychological support for 'mothers'. (Women, Couple 5)"*

Moreover, due to the insufficiency of being informed from a professional, three women mention the internet searches as another way of getting knowledge. For instance; "*Since internet is easily reachable for everyone today, when something happens you search from internet. There are doctors and their comments, so you listen to them. (Woman, Couple 2)"* About being informed on internet man of couple 5 mentioned his wife's excessive search from internet at this period. Therefore, although the need is not sufficiently fulfilled and get understood by patients it is an important deficiency for especially women. *"My wife was always searching from internet. (Man, Couple 5)" "It was breaking my nerves to look at internet at one point. (Woman, Couple 5)"*

To summarize, women explicit their need for knowledge at the process of ART, since they don't know the treatment procedures and the procedures of the hospital such as the need to come to test at right exact day of the menstruation period. Moreover, women need knowledge to increase their control in process, such as they want to be informed about extra vitamin and nutrition for facilitating the successful result or preventing the unsuccessful one. However, they also mention the chaos and crowd of hospitals which complicates to get their need for knowledge highlighting their understanding for the doctors. Therefore, mostly they offered alternative ways of organizations for information days, meeting or stable stuff specialized for informing patients. All these sharing explicit the increased need of knowledge in women who tries to face with increased ambiguity due to being in ART.

3.2.2 Preparing for The Worse

Preparing for the worse is a way for balancing hope for being able to continue to treatment without having huge disappointment in case of unsuccessful treatment result. Since couples pointed feeling increased disappointment related to having hope, to prevent the disappointment they try to prepare themselves for the negative result. 5 of the

participant couples, quasi equally by both genders (n=5 women, n=4 men) pointed the use of preparing for the worse, for instance; "*There was despair in me because of my first experience, that I hoped and devastated at the end. Therefore, I thought of not having hope and preparing myself to the worse (Woman, Couple 6)"* Similarly woman of Couple 3 stated, "*At first IUI, I thought they (sperm and ovum) are in fronting each other in me, so they can be fertilized. However, although I thought with a high probability of having a positive result, after having the first unsuccessful result, I thought everything as procedural and as with higher probability of not having a positive result in other trials (Woman, Couple 3)."*

Moreover, preparing self for the worst is described as a way of preparing surprise to the self in addition to its function of protecting self from harsh disappointment. Such as; *"(at waiting period) especially on that topic (results) I should not have hope. I said myself, if the result is good it would be a surprise. I tried to calm myself that way… it is better to face with a surprise. (Woman, Couple 2)"* The concept of 'preparing surprise to the self' by thinking the worse is also pointed by man of Couple 5 such as; *"I always do like that. I calculate and focus on the 50% probability of negative result and say to myself 'that will not work, happen', if it happens… surprise. Since I arrange myself like that in my mind, I do not get overly excited and experience a sudden fell. (Man, Couple 5)*" Moreover, woman of couple 5 stated to trying to use the same strategy with her husband. "*I try to prepare myself for the worse but try to keep thinking positively at the same time, as my husband said. So, I want it to be positive…Of course you simultaneously think the negative too, yet I want it to happen. (Woman, Couple 5)"*

Having knowledge from others also effects the couples' inclination to use this strategy. For instance, when couples informed with low success rates of treatment, they focus on that info instead of the probability of positive result. "*After IUI I picked up myself easily because I remember doctors told me the success rate was 7%, so I thought, in IUI although there are some people having positive results…you should not be sad for 7% probability (Woman, Couple 2)."* Woman of Couple 4 also stated, *"I heard that at first trial there were a high level of probability of negative result, maybe for avoiding demoralization, I said 'I won't be sad if the first trial would not happen'." (Woman, Couple 4").*

3.2.3 Gratitude

Gratitude is a way of coping utilized by all couples (n=6), quasi equally by genders (n=6 women, n=5 men). Gratitude is described in two ways by couples, one is being gratitude for they have and second is being gratitude for not being in a worse condition. For instance, two of couples pointed their gratefulness on having sufficient financial source for having treatment. For instance; *"Thank God, we don't have any economic problems. We can handle the economic burden of treatment even in private hospital. (Man, Couple 2)"* Similarly, Couple 1 mentioned about their economic conditions *"Thank God we did not have any negative experience due to economic issues. Although here is a public hospital, I think procedures may be even harder for couples with economic hardships (Woman, Couple 1)"*

Timing of the treatment is another pointed issue by two couples to feel grateful for. Since the Turkish regulations for governmental support in ART continues till thirty-nine years for women, couples appreciate their experience of treatment in youth and in the first years of their marriage **(**T. C. Sosyal Guvenlik Kurumu Baskanligi Genel Saglik Sigortasi Genel Mudurlugu, 2013). For instance; *"We have a three years marriage yet, I don't know, here you see couples having ten years marriage with many unsuccessful trials. Therefore, I said myself; 'I am just at the beginning' and I am hopeful. (Woman, Couple 4)"* "*In our community there are people whose having their 'last chance', overaged for the treatment. So, we are lucky because of being young and having time. (Man, Couple 3*)"

Moreover, all couples mentioned (n=6) the worst-case possibilities than pointed their gratefulness of not experiencing them. Such as; "*I think the worse and I say to myself 'it is not the case of us at least'…. There are people who could not terminate all the processes and left the treatment undone, there are people whose ovum are not get stimulated… (Woman, Couple 2)"* The worst-case possibilities also used as coping with the unsuccessful treatment result. Many couples stated their gratefulness after unsuccessful treatment due to not having a baby with problematic health conditions. For instance; "*There are also people who insist (for pregnancy in treatment).. than God gives yet baby born with disabilities…. So, you spend all the rest of your life with a disabled child.. and think of as you are gone, who will take care of him? (Man, Couple 5)" "I thought it (successful treatment result) wasn't auspicious for us anyway, because I always wanted this baby to come if he is auspicious for us, however if he is not, if he has any illness, disabilities… For God's sake a lot of things would have been happened. So*

let's not have it this time, we can get our strength and try for a new trial than. (Woman, Couple 3)" Similarly Couple 3 also stated the possibility of disability in baby, such as "*There are many people who has children with disabilities and dealing with financial problems for treatment. So, we say 'if it's not happening, there would be a reason' because what we think as bad my end up as good and what we think as good may end up as bad for us. (Man, Couple 4)"*

As another part of the worst-case scenarios additionally to health conditions of baby, couples also mentioned possibilities of negative impacts of treatment processes on relationships and pointed their gratitude of not experiencing an impact like that. For instance; *"His helps make me feel good because there are some spouses, as we talked before, that they pull each other down and end up with termination of their marriage. They blame each other as 'you are not able to do it' and so on, however we are not one of these and I am of course appreciated for that. (Woman, Couple 2)." "There are many problematic couples in our community however, since we have apprehension for each other, we are lucky. (Man, Couple 3)"*

To summarize, couples point their economical sources which facilitates to handle treatment procedures, and their early timing of receiving treatment. The reason of being gratitude for early treatment is the higher possibility to have time for other trials if it needed. Additionally, couples also utilize from 'thinking for the worst' for their gratitude, they mentioned unhealthy babies and negatively impacted couple relationships as worst case scenarios than they declared their gratitude of not experiencing a scenario like that. While stating their gratitude, couples referred to spirituality that the concept of 'auspiciousness' is a religion related term which will be explained in detailed below.

3.2.4 Spirituality

Spirituality is the theme containing couples' spiritual beliefs on treatment process mentioned by all participant couples (n=6). Since the period of ART includes ambiguity, couples cope the uncertainty of treatment result and processes through spirituality. For instance, all couples referred God as the decider their processes' results and mentioned their faith of receiving positive result at the end. Therefore, in addition to facilitating to cope with ambiguity of treatment, spirituality leads hope in couples.

Auspiciousness and Destiny are the most common (n=4) religious terms which are pointed as concept for coping the uncertainty of treatment, such as; *"if the God permit, I want to live this miracle, a (baby) part of us. (Woman, Couple 1)" "Till that age I always get what I wanted, as my wife, we always reached our goals. However, since this occurs by the God, no matter how much you worked for, or want, you cannot receive it. If it (pregnancy) has a day, that day it will happen. (Man, Couple 1)" "Doctor was very important for me (for having a successful treatment) but there is also the destiny, I was always saying 'If God permits it as our destiny' 'everything in our lives has a timing' (Woman, Couple 2)*" Similarly the concept of 'right time' also mentioned by couple 3; "*In accordance with our religious beliefs, I believe this (successful treatment) has a divine timing (Woman, Couple 3)" "If it is going to happen, it will not be due to us but due to God, because it is not in our hands… Neither do I nor doctors have a power like that, there is no such power in the world (Man, Couple 5)"*

In addition to ambiguity, spirituality is used to cope with unsuccessful treatment result by all couples (n=6). For instance; *"(after receiving unsuccessful result) You have nothing to do, you have to exceed it. You feel sad, of course you feel sad, but you can feel sad or can do something just at some point, the rest belongs to God and if it is not in your destiny you won't have it. (Woman, Couple 6)" "At that point you say; 'only God can give life', so I thought as it was not the right time. Then, immediately I decided to have another cycle (Woman, Couple 2)"* Man of Couple 2 added that he also uses spirituality after unsuccessful result however he pointed his fear of rebelling to God. *"I tried to pull myself in spirituality. I have scared to feel that disappointment and rebel to God….I tried to connect everything to a divine power. I know I would lose if I did not do that, because if I would rebel that might worsen consequences, so I pulled my self aside by saying; it (unsuccessful result) is related to the divine decision…. I am going to do my best (in treatment) and the rest is God's decision (Man, Couple 2)"*

Couples pointed the relaxing impact of spirituality especially after unsuccessful results, such as *"I don't know what we would do without our faith, it would be a huge emptiness (Woman, Couple 5)" "It is all related with God, if he says 'happen' everything may happen, therefore I say, happily I god this faith to God, it relaxes my conscious…. We have faith that we relax ourselves with it. (Woman, Couple 3)"* Also man of couple 3 added *"Also the faith of God relaxes you. (Man, Couple 3)"* Similarly, as the answer of question on the empowering factors for couples after the unsuccessful result, woman

of Couple 4 directly pointed their faith. *"First of all, thank God we have faith.... When you believe it relaxes you (Woman, Couple 4)"*

In addition to its relaxing impact, spirituality increases hope in couples such as *"It is destiny, we have faith in God, if it is in our destiny, we may even not feel the necessity of treatment. It is all related with God, so we believe in it (Woman, Couple 4)." "If the God wants, anything can happen, the rest is just words (Woman, Couple 5)."* Similarly, while stating their decision of continuing to the treatment, man of Couple 1 highlighted that the faith for having a successful result leaded the most to get this decision. He said, *"Our faith let's say, our faith for succeeding it. (Man, Couple 1)"* As a suggestion for other couples who will start to ART process, man of couple 6 mentioned the faith of success as the most important criteria by saying; "*They should lose their hope… they should start to this (treatment process) with faith. (Man, Couple 6*)" Similarly, woman of Couple 5 also suggested keeping faith during processes. "*My suggestion is…they should not lose their faith. (Woman, Couple 5)"*

Although it is not a part of Muslim religion, totem is stated in couples' experiences (n=2), therefore, totem is included in themes as a part of the spirituality. Especially after receiving an unsuccessful treatment result, couples describe avoidance for having the next blood test at same place or hour to increase their 'potential' of having a positive result. For instance; "*Since I was out of town, I did not give my blood test. Because, I was out of town again in my previous experience and receiving the negative result have made me sad a lot. Thus, I thought 'I would not have the test here' it was like another kind of belief. (Woman, Couple 3)"* The man of couple 3, summarized his wife's previously described experience as, "*she did totem for herself. (Man, Couple 3)*" Similarly, Couple 6 mentioned their decision of changing the hour of blood test to change their luck. "*Do you remember (asks her husband) that in our third and fourth cycles we went to hospital lately than our previous ones? I told you that, 'Maybe it may change (the results) since we were gone at early in the morning for other previous ones…' (Woman, Couple 6).*"

Since spirituality is utilized by couples to handle the ambiguity of treatment results and processes by attributing all uncertainty to God by mentioning the results as God's decision. Destiny is a widely used concept of couples to refer God's decision. Moreover, couples focus on the concept of 'auspiciousness' by thinking the negative

result a way of God to prevent couples from other worse case scenarios such as having an unhealthy child. Therefore, auspiciousness lead couples to see the unsuccessful treatment better than other worse case scenarios related to having baby.

Additionally, attributing the decision of results on divinity, may decrease the couples' level of guilt due to not being as impactful on treatment as God. It is also relaxing for couples that they think fulfilling their duties for process are enough and all the rest is related to divinity. Moreover, having faith increases hope in couples that believing on God increases the belief of receiving a positive result through divine power. Thus, spirituality is a functional way of coping with experiences such as uncertainty (ambiguity), hope and guilt which all belong to cycle of experiences that mentioned before.

Although spouses utilize from mentioned coping strategies for their emerged feelings through ART, treatment processes also affect their emotions. Therefore 'how do couples go through' ART process is another important theme involved in this study.

3.3 GOING THROUGH AS A COUPLE

Couples' experiences and perceptions related to their relationship in ART is included in the theme of Going Through as a Couple. The first subtheme is 'Primary Burden on the Women' which reflects the couples' perception of treatment procedures which mostly targeting women. Second subtheme is 'Supportive Behaviors Among Couples' containing the support systems of couples during the process of ART. These supportive behaviors also give information about couples' coping strategies focusing their relationships. The main copings used as support behaviors are; Distraction and thinking as 'It Is Not the End of The World' which will be explained in detailed below. In addition to supportive behaviors, the reciprocity of these behaviors is also mentioned by couples which are described in the subtheme of 'Balancing Each Other'.

3.3.1 Primary Burden on the Women

While describing the process of ART since most of treatment procedures target women, especially men (n=5) stated primary burden of treatment is on women. It is a commonly mentioned theme by couples that 5 of the 6 participants mentioned the difference of treatment on genders and primary burden on women. *"Men only give sperm sample and all the rest belongs to women..., everything is on women. (Woman, Couple*

2)" "Not so much happens to men, I always say, women suffer the whole thing (Man, Couple 3)" Man of Couple 4 shared his perceived percentage of participation to treatment as; *"80% or 90% is woman, who actually experiences it (treatment)…She goes to hospital, receives treatment procedures, enters that operation room.. so, she suffers all the pain. (Man, Couple 4)."* Through these descriptions it can be implied men not only think women is the primary target but also through being targeted they suffer.

Moreover, men indicated that through being target, women are inclined to feel emotions of treatment more intensely. For instance, while stating his wife as the protagonist of treatment procedures man of Couple 3 noted, *"the burden of emotions is mostly on my wife, because she experiences most of the treatment. (Man, Couple 3)" "Since the 80% of treatment is on women, it does not pass as heavy and painful for me as it is for her. (Man, Couple 4)"* Similarly while describing the emotions after an unsuccessful treatment Man of Couple 1 mentioned women having emotions in a deeper manner. *"You feel exhausted and depreciated in this period (after unsuccessful treatment) for sure, however I do not feel these emotions as deep as my wife. She experiences these deeper. On the other hand, I have job traffic that I need to go in the morning. (Man, Couple 1)"*

Additionally, while stressing women experiencing life changes through being target of treatment, men points (n=2) their life as continuing its routine. For instance; *"She lives heavier things (experiences). However, I feel like my life continues in its routine. To be honest, I don't feel much change in my life. (Man, Couple 4)" "You don't live anything (as men), your wife experiences all the changes. (Man, Couple 3)"* Related on the experienced changes through treatment processes women distress their experiences mentioning the gender differences. For instance; *"I experience all the exhaustion of soul and body. I live it all. I rest in hospital and all procedures are done to me anyway (Woman, Couple 4)"* Similarly woman of Couple 5 said; *"Men do not experience the things we do. They just come here for giving sperm samples and nothing more. (Woman, Couple 5)."* Although it is not clearly stated by participated women, in interviews, anger is sensed by the researcher while women express their thoughts and experiences on being the main target of treatment.

Although being the main target impacts women as suffering and feeling negative emotions in a deeper way, it also affects men (n=3) by feeling useless and isolated in

treatment process. *"As men we are staying out of the process… She lives all the pain and I stay at home (Man, Couple 3)" "Since she lives everything, I have left only the 20% of experiences.. In this 20% of experience I feel myself like 'the one in multiplication and the zero in addition'. (Man, Couple 4)"*

To sum up, while describing their experiences in ART process couples mentioned their gender based differences in treatment procedures. Since the procedures are applied mostly on women, couples mentioned the primary burden is on women. Men stated this burden as a source of pain for women which also negatively impacts the routine of their lives and emotional balances.

3.3.2 Supportive Behaviors Among Couples

Supportive behaviors are couples' ways to help each other in their experiences of ART, especially for facilitating the management of emotions in ART. Since ART procedures target women as the protagonist, men described women experiencing treatment period more deeply and heavily than themselves. Men on the other hand feel as stayed out of the process and think; since being protagonist is not their primary role, the way they can contribute to process is supporting to protagonist. Therefore, supportive behaviors among couples are mostly displayed by men. Men described their supportive role in process such as; *"It happened to us, so we will live this period together. However, the only thing that I can do for my wife is to support her (Man, Couple 3)" "In this process you can only support your wife for not letting her feel despair. (Man, Couple 4*)"

Men stated different behaviors for support like acting in a more patient and soothing way than before, accompanying women in their processes and spending more time together. These behaviors lead men to exhibit their support and to feel included in treatment. For instance, as a suggestion for husbands, man of Couple 3 stated "*basically man should be more patient and support their wives, in fact you don't have any other choice in this process. (Man, Couple 3)"* Woman of Couple 3 approved her husband's statement by saying "*At this point I really felt my husband being more patient and understanding, through the process his support also increased. (Woman, Couple 3)"* Being understanding to each other also highlighted in Couple 1; "*Although it is important in all periods of life, being understanding to each other is much more important during this process. (Woman, Couple 1)"*

In addition to patience and understanding, contributing to treatment process also mentioned as a way of support. *"I tried to do my best for being in hospital with my wife. In fact, I was always there when I should be there…. I am a strong person physically and psychologically so I can bear to restlessness and its psychology. I always say to my wife 'if you want to see me near, I would happily come with you to hospital, it is no problem (Man, Couple 2)" "I don't do extreme things for support but in many procedures I am trying to be near to her (Man, Couple 4)"* Similarly, woman of Couple 5 mentioned her husbands support as, *"We have always gone to hospital together, I have never gone alone. However, I was alone only in medical controls because there was nothing that my husband can do. Except of that, he was always there for me during my tests and so on. (Woman, Couple 5)"* In addition to being in hospital with women, men also included in treatment routines from a supportive manner. For instance, men of Couple 4 and Couple 5 help women by doing their daily injection. "*Doing injection is not a thing that I like but it is necessary, so I do it. (Man, Couple 4)*"

Women (n=4) also described their perceptions on support gathered from men *"I really like to feel his appreciation. We do not talk about it much, but we show it with behaviors. For instance, he does thinks that I would like and vice versa" (Woman, Couple 2)"* As the answer of question 'which behavior of the spouse made you feel good', woman of Couple 5 said "*We are living the same situation, we experience it together. My husband never made me feel that I am the one who gets the treatment. (Woman, Couple 5)*" On the other hand woman of Couple 3 mentioned she felt increased level of spouse support throughout the process and clarified the reason of it as; *"I felt the increasement of my husband's support from…I don't know, maybe he started to express his feelings more. (Woman, Couple 3)"* Since women emphasized different qualities of behaviors as supportive, it is difficult to clarify the expected supportive behaviors for women.

Moreover, as supportive behaviors couples mentioned the reactions of each other after receiving an unsuccessful result. For instance "*I was very sad (after the unsuccessful treatment result), he hugged me and said 'it's all right, at least we have our health'* (a Turkish idiom; 'sağlık olsun') *(Woman, Couple 3)" "Of course he also get sad, but he said 'it's all right, at least we have our health, we have nothing to do now, will continue.' (Woman, Couple 6)"* Similarly, man of Couple 4 pointed their supportive conversation as, *"I remember our conversation (after receiving the negative result), I said 'its destiny, hope for auspiciousness, we can try again. (Man, Couple 4)"* And man of Couple 6

pointed his support as,*"When we first get the news, she felt sad and started to cry. I just tried to console her by saying 'don't be sad, we did our best, let's hope for the next cycle. (Man, Couple 6)"*

As mentioned in the theme of resources of coping the spiritual concepts of destiny and auspiciousness used in couple's supportive behaviors dealing to cope with unsuccessful treatment. Similarly, gratitude is another coping method which is also used as support while facing with failure of treatment. The usage of the idiom; 'at least we have our health' is a way of couples to express their gratitude for having their health and not having anything worsened. Therefore, ways of coping also reflected in support systems in couples. Moreover, differently than previously mentioned concepts in the theme of resources of coping, focusing on couples' relationship two new concepts are emerged as supportive behaviors among couples; It is Not the End of the World and Distractions.

3.3.2.1 It is Not the End of the World

It is not the end of the world is the exact sentence used by couples for support especially after receiving an unsuccessful result. 5 of 6 participant couples mentioned the theme of 'It is Not the End of the World". For instance, man of couple 5 while describing his ideas helping him after an unsuccessful result, stated "*We did not born for making children, we have our duties and other responsibilities. Firstly, living is the most important thing we have to do, so we won't get depressed because of not having a child. (Man, Couple 5)*" Moreover he also stated using this ideology to support his wife by saying "*Only thing that you can do is giving support to your wife for preventing her to feel despair. We should know that, it not the end of the world even though we would not have a child. (Man, Couple 5)"* Similarly man of Couple 6 mentioned the idiom as a part of his support speech to wife after receiving negative result. "*I said 'having child it is not meant everything' so we can travel and live our lives. Having child is not the only goal of our lives. (Man, Couple 6)".*

Women (n=2) also emphasized the idiom of 'It is not the end of the world' in a supportive manner in their relationships. For instance; "*It not obligatory to have a child, the most important thing is our wellness. So, if it happens good.. however if it does not happen, it is not the end of the world. (Woman, Couple 3)*" Similarly, as a suggestion to

couples beginning to process of ART, woman of Couple 6 mentioned, *"Its not the end of the world, they should keep that in mind. (Woman, Couple 6)"*

Thus, through the idiom of 'it is not the end of the world' couples decrease the value attributed to successful treatment by comparing it with other important things of the world such as being healthy, or other roles than being parent. Couples remind this idiom to their selves and spouses as a way of support especially after unsuccessful result.

3.3.2.2 Distraction

Not focusing on the experienced situation yet doing different activities as a couple is described by 5 out of 6 couples as a way of support in ART. All mentioned activities aiming to distract the focus of ideas and emotions on treatment experiences are included in theme of distraction. Going around and shopping are the common ways of couples for distraction. For instance; *"She feels my support through our social activities and travels…I try to keep her away from this environment and distract her feelings and thoughts through travels and trips, or through a new food and so on. (Man, Couple 1)"* Similarly, couple 6 answered the question of 'what relaxes you the most?' as "*trips and shopping. (Man &Woman, Couple 6*)" "*What I did for support is, trying to entertain her, being near to her, so I tried to take her out a lot. (Man, Couple 6)" "To handle her psychology I say let's go shopping, or at least let's go out and take some fresh air. (Man, Couple 5)."* Also, man of Couple 4 mention going out as a couple especially after negative results; "*For not sitting at home, even though normally we wouldn't prefer to go out that night, we might decide for going out and go. (Man, Couple 4)"*

Although couples mostly (n=4) stated going for trips and travels as commonly preferred ways for distraction, Couple 1 mentioned vacation for distraction did not function as well as expected. "*We went for vacation just because of this situation (of having unsuccessful result), for psychologically comforting ourselves through a relaxed ambience. However, it would be much more fun if we would go for it in our 'normal' times…. In your background the thoughts (related to treatment) predominate and get reflected in you (Woman, Couple 1*)." On the other hand, woman of Couple 6, who is under treatment for seven years mentioned her husband's initiations for distraction motivated and supported her the most at this period. "*We are in this process for seven years.. what comforted me the most is my husband's positivity, he says 'if it (successful result) happens that is good, if it does not, we have nothing to do, we should not harm*

ourselves and get devastated for this. You can experience this period with fun or with sadness by crying every day. Since, when the result is negative, we have nothing to do left; let's eat, go around, travel and have fun.' He thinks like that. (Woman, Couple 6)" Therefore the perceived functionality of distraction among couples, changes. However, still it is widely used especially for men to diminish the treatment stress of their wives.

3.3.3 Balancing Each Other

Since the burden of the treatment is perceived as on women, men assume themselves in supporter role. However, ART process impacts not only women but men as well. In their interviews, four couples mentioned the reciprocity of support and highlighted increased impact of spousal support than any other support systems. The statements on reciprocity and impacts of spousal support of couples are contained and reflected in the theme of 'Balancing Each Other'.

As reciprocity, couples expressed having the spouse's support while needed and give support to spouse while he or she perceived as more needy than the self. Thus, even though men seemed in supporter role, women also give support to spouses when needed. For instance; "*We never get demolished together because always, the stronger one came and raised the other. When my wife felt sad, I tried to be calm, cheering and supportive… and when I felt sad, she cheered and supported me as well. (Man, Couple 1)" "I knew she was even more sad than me, so I tried to give support and I think I did it well…and when I needed support, she supported me as well. We have supported each other…. She was getting well in one week (after an unsuccessful treatment) and then, starting to give support to me. (Man, Couple 6)"* Through reciprocity of the support, woman of Couple pointed 'healing each other'. "*Helping each other is a good thing. In this treatment period we healed each other since the closest ones to each other is us. (Woman, Couple 2)"*

In addition to reciprocity of support, couples (n=4) mentioned spouses have much more impact on their selves than other support sources. For instance, couples stated being able to get more sad or good through each other's emotional responses and behaviors. "*In treatment period I have had no tolerance to negativity in my life, and my husband behaved carefully to this intolerance… If I would see him sullen, it would affect me and double my negativity. However, when I see him smiling, I feel myself much better… So, in this period, the most relieving thing for me is to see my spouse's happiness, I think I proceed better that way. (Woman, Couple 1)" "I think in this period, the only person*

who can impact and change your emotional mood is your spouse. So, I may feel better or worse through his reactions. (Woman, Couple 4)" Man of Couple 2 summarized the condition of feeling the emotions more heavily or easily through the responses of spouses by saying *"I can feel peaceful as long as you feel peaceful. (Man, Couple 2)"*

Since spouses has been perceived as the most impactful source of support, couples (n=4) commonly pointed the decreased need for any other support system. "*Not sharing with anyone else can be exhausting but the only person that I want to share is my husband anyway, so I did not felt a kind of anxiety due to not sharing with others. We proceed the process together, we experience all periods together; as illness period, ovulation period and so on. Since we experience it together, I don't feel a need for anyone else to share. (Man, Couple 1)" "We experience it psychologically and physically together as a couple. Thus, the impact of support of others is much lower than ours as couple. (Woman, Couple 4)"* Additionally, couples highlighted the strong impacts of spousal support to put forward the spousal support in comparison to others. For instance; "*Our love and support for each other turned us back to life in this period. (Man, Couple 6*)" Also woman of Couple 6 stated the spousal impact of support as; "*He supports me in any manner, psychologically. So, I became this resilient thanks to him…I would not get recovered without him (Woman, Couple 6)" "On this concern of treatment, I stand so strong thanks to my wife's support. (Man, Couple 2)"*

Moreover, two couples express their perspectives on the impacts of balancing movements and supports in ART on their relationships. However, there is no precise, commonly defined impact of support on couple relationship that one couple defines the impact as closing or even as interlocking and another couple pointed no evoked difference. Both man and woman of Couple 1 mentioned the previously mentioned closing effect as "*In this period all our emotions as sadness or happiness are common and I think, sharing commonalities gets people closer. (Woman, Couple 1)" "I think this period has locked us into each other. (Man, Couple 1)"* On the other hand, man of Couple 4, directly expressed that the period did not had any closing impact on their relationship. "*I don't think that we have get stronger (in our relationship). It is not a thing that I could say an obstacle had happened and it made us stronger. (Man, Couple 4)"*

As a result, although men mainly took the role of being supporter to ease the burden of women due to treatment procedures majorly targeting women, support among

couples are reciprocal in ART period. Moreover, in addition to its reciprocity, the support from spouses is pointed as the most effective support system by both women and men. However, the impact of having a good support system on couple relationship is not clearly defined in study.

3.4 DEALING WITH COMMUNITY

As mentioned in BPS model, every individual comprises from biological and psychological subsystems which can affect each other. Additionally, every individual lives in a social system, which has an impact on both biology and psychology of them (Williams et al., 1992). Concordantly to BPS, study pointed on biological changes and their impacts on individuals' psychology, such as the emotional changes of participants due to experiencing ART treatment. Moreover, being couple is the smallest component of larger society and, since participants experience ART and emotional changes as couples their relationship also get impacted from all processes ART. However, participant couples live in a larger society as their community, therefore the impact of community on couples is additionally discussed in this study, under the theme of 'Dealing with Community'.

Reactions of community through the ART and after unsuccessful treatment are explained in this theme. Moreover, perceptions of couples related to these community reactions and gender based differences on perceptions are also discussed.

Related on community reactions, woman of Couple 2 stated; "*All people in our community said, 'why are you waiting, go (to a doctor) immediately, do whatever it needs right away'... They also suggested doctors they know, they said; 'we have a friend.. or we know a doctor.. let's go to him. (Woman, Couple 2)"* Moreover, man of Couple 2 added; "*When I share it, people propone me many suggestions and ask, if I need any kind of help as financial support, and I think they ask those sincerely. (Man, Couple 2)*" On the other hand, avoidance is another reaction of community pointed by couples. "*They don't even ask about our treatment process (Woman, Couple 5)".* Right after the mentioned statement of woman of Couple 5, man added immediately; *"But they don't ask for not bothering us. They don't want to keep on us by asking 'what happened, what is going to happen now' and so on. (Man, Couple 5)"* Thus reactions of community differ by asking and making suggestions for couples' process or by not asking to prevent bothering couples.

On the other hand, when couple experiences unsuccessful treatment, community's reactions described by three couples as changing based on supportive speeches for soothing couples. "*They were giving supportive speeches by saying 'it's okay, this is not important more than your life and health, you are young it may happen by time, so you should keep on your life, you can take a travel, so try to have fun. (Man, Couple 6)*" In addition to saying 'it is not important than your life and health' pointing the cases which seemed desperate yet ended successfully is another widely used community reaction aiming to sooth couples. "*On the one hand, your friends say 'don't bother yourself, it is not important than your health. I have a friend who said; 'I had treatment for 8 years and it did not happen. However, at the end of eight year of IVF, she got pregnant in 'normal way' without having treatment.' Now they have a boy. Thus, everybody tells me this and keeps saying; this time it did not happen however, next time it may happen. (Man, Couple 2).* Similarly, woman of Couple 3 mentioned the community reaction of 'it is not important than your health' however she also pointed communities' tendency for making suggestions for alternative doctors and ways. *"I said no, it did not happen. She said, 'Okay, it is not important than your life'. Since she works in a medical university, she knows many doctors and she suggested looking for another professor on gynecology if I want to keep on. And I said she may look and ask. (Woman, Couple 3)"*

In addition to reactions of friends as community, couples (n=4) also mention the impact of their families throughout the process of ART. "*My mom comes to our house to help me in those periods (after the operation for ovary collection). I don't lie all day long, however she helps me in our daily work. (Woman, Couple 4)"* Couples mostly highlighted the reactions and support of their families after receiving unsuccessful result. "*My father in law is a very kind person, he never comes to hug and make you feel his love and support concretely however he says 'nothing is important than you and your health, be grateful for your health. It may happen anyway, why not..'. (Woman, Couple 5)"* Similarly, man of Couple 6 stated his wife's experience of receiving support from her father after an unsuccessful treatment that she was not crying until she talked with her father. "*After we got the negative result, her father called for support. She cried when he said; 'it is okay, don't bother' and so on. (Man, Couple 6)"* Moreover, man of Couple 6 stated the familial support as the most important necessity in period of ART. "*The most*

important need is familial support in this period, thanks to my family; my brother and mother were there for me. (Man, Couple 6)"

Moreover, as well as familial support, three couples stated the reactions of doctors as a manner of support. "*There are a few doctors who behave more distancing, but the others behave well by their smiling faces, high interests. Although they have many patients, these behaviors make you feel like you are the only patient of that doctor. Feeling the interest of doctors and stuff on you is important for patients… because you become a family here. Since you make all together a very private issue, like making a child, this makes you as a family in here. (Woman, Couple 2)"* Similarly, woman of Couple 5 stated, *"In addition to faith, one of the most important things of this process is the smiling face of doctor. Whatever you experience in your process, if doctor says positive things you feel better. (Woman, Couple 5)"* The man of Couple 6 stressed the impact of positive statements of doctors in couples. "*If you have a trusting bond with your doctor, he can motivate you even after the negative result. (Man, Couple 6)"* Thus, since doctors are a part of the community of couples, their reactions and support affect couples in ART.

On the other hand, the perceptions of spouses on reactions of community differs. For instance; "*When I see these (supportive behaviors of community) it makes me happy, I am not like my wife, I would know the peoples' aim as preaching me, yet I would also take care their hopeful speeches. (Man, Couple 2)"* Similarly spouses of Couple 1 feels differently on support of community, they mention this difference as; "*I perceive positively that peoples' statement of 'this period will pass away, don't bother' because of their sadness and sympathy. (Man, Couple 1)"* The wife added right after that; "*I think and perceive negatively. (Woman, Couple 1)"*

Moreover, three couples pointed the way of sharing and communicating with community also changes among gender. "*I don't know if we, as men, are not as emotional as women, that my friends were trying to cheer me instead of crying and so on. (Man, Couple 6)" "They say; 'never mind, you have your health' and it all, men are more basic I think…Woman share in depth, but men are superficial on these topics. (Man, Couple 3)" Similarly* to previous statement of man of Couple 3, woman of Couple 1 mentioned the difference on the depth of sharing among genders. "*I don't know what men share. For instance; when I get menstruated, I can share it with my friend as my sadness,*

however I don't think my husband can share it with his brother or friends. Since we are women, I can talk more easily and deeply about menstrual days and so on. (Woman, Couple 1)"

3.4.1 Expectations

As mentioned in studies on Turkish cohort, having children and being mother seemed as the primary role of women and it is expected form all married couples as a manner of social status (Kizilkaya Beji & Kaya, 2012; Kocyigit, 2012; Onat & Kizilkaya Beji, 2012a). Similarly, all couples (n=6) expressed their perceptions on expectations of community and impacts of those expectations on themselves. All statements covering previously stated topic are clustered under the theme of 'expectations.'

Concordantly to mentioned expectation of community on women as being mother, women stated more (n=6 women, n=4 men) for community expectations. For instance; "*It is really boring that in every environment that I go, the topic comes to having baby… we are living in a small place and people were asking 'don't you still have a baby'. At once, one of them even asked; 'are you infertile, why don't you have a baby'. This was exhausting for me. (Woman, Couple 6)"* Similarly, woman of Couple 1 stated; "*At first I was thinking the statements of others such as 'don't you think to have a child, have one..' as good wishes, however they were bothering me anyway. I don't like people to interfere in my life. So, it makes me sad… Moreover, when we have gone near to our families, the first question was 'how are you, are you okay' and the next was 'don't you have a child yet'. (Woman, Couple 1)"*

Moreover, men (n=3) also stated their disturbance on the questions and expectations of community; *"I came from a crowded family, all my brothers have children. We love them yet with the passing of our age, the demand for us having children emerged….One of the most difficult thing for me is… people who get married after us, have had children, and this compels me because it complicates answering the questions of others. I feel disturbed while answering the questions related to having children. Moreover, when I say, I don't have a child, people who don't know the details say, 'why do you wait, your age is passing' and this bothers me. (Man, Couple 5)"* Man of Couple 1 stated his disturbance emphasizing the impact of culture as, *"It is in our culture that everyone except parents ask to new married couples if they have children. Even a neighbor who does not know you well, can ask it to you and your family such as 'did she*

gave birth, did your daughter in law gave birth' (Man, Couple 1)" Lastly, man of Couple 3, summarized all curious questions of community as; '*unnecessary curiosities. (Man, Couple 3*)"

For instance; "*Since there are many people experiencing same problem nowadays, nobody could judge us. (Man, Couple 2)"* "*It is better to not including any third person in process because, people are not doctors, but they comment, and they can even judge and criticize you without knowing your experiences. (Man, Couple 4)".* Couples additionally mentioned their expectations on judgements of their families such as experiencing psychological pressure because of not having baby. For instance; "*My father in law might put pressure on me. We hear those kind of cases….But since we don't have a psychological pressure like this, we are proceeding more easily. (Woman, Couple 5)" "We are seeing and hearing a lot of things as pressure and blame, however thanks to God we did not faced with these (Woman, Couple 1).* Man of Couple 4 mentioned hiding the procedures from his father for protecting the wife from his father's potential judges and pressures. *"It is important to protect each other from suffering, so I have never told my father that my wife needs a treatment, because he is an ignorant man, at least on these topics... I did not want him to think negatively for my wife (Man, Couple 4).*

Thus, although women stated more disturbance on community's comments and questions, it is bothering for both spouses. Additionally, since it is a social expectation, couples believe to be judged due to not having children and getting treatment. Therefore couples, especially women, pointed their gratefulness for not having pressure due to social expectations. Moreover, not sharing the treatment process is another way for preventing the potential judgement and pressure of community.

3.4.2 Keeping the Privacy

Couples mentioned not sharing the treatment process with many people for keeping the privacy. Moreover, informing only a few family members and decreasing the number of informed members in each treatment cycle.

All couples (n=6) stated that only a few people are informed about the treatment process, 3 couples mentioned not informing the family members except the sisters of wife. For instance; "*At first, we did not share this situation with others. Later, since I feel*

close to my sister, I shared with her. Moreover, she works in hospital as medical staff, so I wanted to be informed more by sharing my situation. (Woman, Couple 1)" "We did not share this cycle with our families, only two of my sisters know. (Woman, Couple 6)" "My husband's parents are absolutely not informed, also my parents are not informed. Yet we are so close with my sister, we are like friends and she is a nurse, only she knows it. (Woman, Couple 3)"

In addition to families, two couples pointed sharing the process with other patients. However, they stated different perspectives on the functionality and preference on sharing with other patients. Woman of Couple 2 described sharing with other patients as a functional way to get knowledge about the processes by hearing the experiences of others. "*We created a Whatsapp group including friends form hospital, everyone writes from there, as describing the developments and changes in them through treatment processes. (Woman, Couple 2)"* On the other hand, woman of Couple 3 declared her negative feelings when two patients share their processes, so she prefers to no share with other patients. "*In hospital while waiting in the line for ultrasound or for doctor you hear women talking about their situations aloud. I really want to put my headphones and listen to music loudly for not hearing them. (Woman, Couple 3)"* The man of Couple 3 also criticized other men sharing their processes with patients by saying; "*We behave like Norwegians there, because it is a private process. I personally don't get closer to anybody there, however men who newly met go to take a tea together and talk their situations. I don't understand when they get closer to share this kind of private issue. I really think it is ridiculous. (Man, Couple 3)"*

Moreover, couples' decisions about sharing with others change throughout the process. Three couples mentioned their decreased level of sharing about their advanced cycles compared to primary ones. For instance; "*In my primary trial many other people have known about my processes. In my last cycle I did not inform many of them, I did not include none of my colleagues into the process this time. (Woman, Couple 3)" "We did not share our second and third trial to anybody, only my mom has known it. (Woman, Couple 4)*" Similarly, woman of Couple 5 clarified her situation on sharing with other throughout the process. She pointed on sharing the process with all family members at fist trial and not sharing with any of them at second and third ones. '*Now I am not talking about my processes. At my first trial I shared with my family, yet at my second and third I did not say at all. (Woman, Couple 5)" "only our family members are informed about*

our treatment process in our last trials, however at our first and second trial all relatives have known about our processes… Now, we did not even say it to our own mothers. (Woman, Couple 6)"

To sum up, related to keeping the treatment process private, couples prefer not sharing the process with many others. However, women (n=3) share it with their sisters as family members. On the other hand, there is no common decision on sharing with other patients, it is seemed as an impactful source for following others' processes, yet it is also described as disturbing due to sharing the private process with someone who you merely know. Moreover, prolonged treatment decreases couples' level of sharing. Most (n=4) of the couples mentioned, giving up on sharing even to their family members, during their advanced trials. Thus, couples try to keep their treatment processes private to themselves.

3.4.3 Finding Excuses or Hiding

As mentioned above couples (n=4) decide not to share their process widely. Therefore, they use excuses (n=3) for evade the questions and comments of community. Having a military duty, or willing to travel around and not thinking about having a child right now are all mentioned excuses of couples 1. "*When they ask, we say; we are planning to have it (baby) further, as after my military duty. (Man, Couple 1)"* Woman of Couple 1 added, *"For a while, military duty was a good excuse for us. (Woman, Couple 1)"* In addition to military duty, Couple 1 pointed other excuses such as financial preparation for a child or need more time to spend as a couple, such as "*We answered as; first we need to prepare ourselves financially for a child. We used it as an excuse. (Man, Couple 1)."* Also, woman added; "*We also said, we are spending time as couple, we travel and not think of having a baby right now. Actually, in our first year we really think of having a baby. (Woman, Couple 1)"*

Giving vague answers another way mentioned couples (n=3) to evade questions of others. "*Questions bother us so, we try to evade them by saying 'destiny' and so on. (Man, Couple 4)"* Both spouses of Couple 3 stated they try to evoke questions without being rude. "*We say, we are thinking about it (having a baby) to evoke the questions. (Man & Couple 3*)" "*While having conversation in hospital, people also ask to me however I don't want to answer yet I don't want to hurt anybody. So, I try to evoke without giving details. (Woman, Couple 3*)"

In addition to finding excuses, couples use hiding as a way of not sharing the treatment processes. Hiding is used by three couples aiming to protect valuable others from being sad due to couples' processes. "*We are not saying it (ART process) to our mothers because they experience the process so deeply with us and get sad. They wait for results with high excitement. (Woman, Couple 6)" "My family still don't know the process, because they are not strong enough to handle it. They have some other biological illnesses. So, since I believe they might get really sad, I hide it from them. (Woman, Couple 1)" "We hide it (ART process) because, for instance, if they would have known the previous trials, they might feel increased expectations and when the results came as negative, they would have felt sadness. Mothers are emotional. (Man, Couple 3)"*

Thus, couples do not share their treatment experiences through excuses or hiding. Excuses are used to evade community's comments and questions, however hiding is used to protect especially the mothers from sadness.

3.4.4 Not Perceived as Support

Community's questions and comments are not perceived as support from couples. Moreover, those questions and comments are perceived as exaggerated reactions or compassion which both increase discomfort of couples (n=5). Couples' described emotions and thoughts on dysfunctionality of community's reactions are clustered under the theme, 'Not Perceived as Support'.

As previously mentioned, couples get disturbed by community's questions related to parenthood or their processes, four couples clarified these questions as stress provoking and discomforting. "*My family had known (ART process) and they were expecting good news. The injections were for fifteen days, all medications needed to be followed, and in this period, they were asking all the time, 'what did doctor said'. I felt discomfort through their questions…. They were asking continuously and that bothered me, except my mother. (Woman, Couple 4)" "Our relatives were asking 'why it is not happening, who has the problem (of infertility)' I would really want to say; 'shut up! It is none of your business, I do not ask about your private life as how many children you have, so don't ask me too' My mother in law always warns others to not asking me these kinds of questions, she cares about it. However, while my family is this kind of careful, the others as relatives and neighbors, are so bothering. (Woman, Couple 6)"*

In addition to women, men also declared their discomfort on community's questions. Two of husbands referred on aggression as a result of these questions such as; *"I am a bit harsh on these questions that I can directly say 'it is none of your business'. (Man, Couple 1)" "To be honest I am an aggressive man, I don't feel good things when they ask me about having child as 'when it will come'… It makes me angry, seriously I feel that anger inside me. (Man, Couple 4).*

Moreover, additional to questions, community's comments and suggestions on couples' situation increase level of discomfort in couples (n=3). *"I don't want to share with them because they are going to be sad and they will try to give suggestions for solution like, 'did you try this, I heard that it works and so on' I don't want to hear those, it complicates my process. (Woman, Couple 3)" "All my sisters were calling every day to ask how am I and they were giving me suggestions as do this, do that and believe in God… so I kept hearing same things and this made me more stressful. (Woman, Couple 5)"*

Additionally, there are couples (n=2) perceived those comments as a reflection of community's compassion for them. While describing the perceived changes in community right after getting informed on couples' process, Couple 1 said; "*I felt sadness in them. Not from my sister, however there were other people who learned, and I felt their compassion which I would never want to feel. I don't want this. (Woman, Couple 1)"* and man of Couple 1 added; *"I felt it too, like 'look at their situation' (saying in a sad voice). (Man, Couple 1)"* Similarly, both spouses of Couple 6 mentioned; *"For instance my mom comes near to me and fondle my hair and I know that point she feels extreme sadness, we don't need this. (Woman, Couple 6)" "While she shows extra interest in you, you understand how sad she is, and this makes you feel bad. (Man, Couple 6)"*

Moreover Couple 6 also mentioned the exaggerated sadness of community as annoying for them. *"The relatives I mean, when we had a negative result, they were behaving as we really have lost someone we had, like we have lost our children. They were crying near to me, displaying their sadness however I have never known if they were sincere or not because we were not as sad as they were. Actually, their comportments were distressing us. There was nothing to exaggerate this much, so to be honest, we were getting angry. (Woman, Couple 6)"* Man of Couple 6 also added; "*They*

(relatives) were crying as someone really died. They were exaggerating and it was annoying for us. (Man, Couple 6)"

The dysfunctionality of community's attempts of support is another mentioned topic by two couples. "*Everyone was saying 'don't be sad, get your mind relaxed and so on' however it is not a thing that can change through those statements. I think it is related to person's own inner thoughts and feelings. (Woman, Couple 4)"* Related to perceived dysfunctionality of community woman of Couple 6 stated wishing to live without any relatives as her necessity in process. *"I wished we would live a place without any relatives. (Woman, Couple 6)"*

To summarize, community's questions, comments and suggestions are not perceived as supportive from couples. Couples pointed an increased discomfort through community's reactions, some couples (n=2) stated their perception of being pitied from community through their reactions as reason of their discomfort. Additionally, men (n=2) mentioned their increased anger as a result of the reactions of community. Moreover, the dysfunctionality of community's supportive attempts are noted by couples (n=2) implying the ineffectiveness of community's speech for being relaxed on their mood.

CHAPTER 4: DISCUSSION

This study aimed to reveal the experiences of couples in the period of ART (IUI and IVF). Since the unsuccessful treatment result commonly constitutes a part of the ART, study also focuses on couples' experiences of unsuccessful treatment. The study included 6 heterosexual, Turkish couples who had at least two previous unsuccessful attempts and still are in the treatment period at Zeynep Kamil Hospital. This study aimed to examine biological, relational and emotional experiences of couples throughout the treatment process and the impacts of community on couples' experiences.

Due to the scope of focusing on all biological, psychological and social impacts of ART, the BPS model adopted as theoretical framework of this study. As mentioned above, BPS model defines individuals consisted from both biological and psychological subsystems which can interchangeably affect each other. Moreover, since individuals born in a larger society, the community also effects the biology and psychology of individuals (Williams et al., 1992). Therefore, although having ART is a medical

treatment impacting the biological subsystem of individuals, due to the links defined by BPS model, it additionally affects psychological and social subsystems of individuals.

For instance, as mentioned in literature, ART entails biological risks of ovarian cancer, ovarian torsion, premature and/or multiple birth as biological impacts (Kazemi et al, 2016; Mahdavi et al, 2006). Moreover, in this study couples mentioned their experience of emotional fluctuation on women due to receiving hormonal treatment in ART. As psychological impacts of ART, the increase in stress, anxiety and depression levels in couples is revealed in literature (Boivin, & Lancastle, 2010; Gojani et al., 2018; Hsu& Kuo, 2002; Navid et al., 2017; Osuna, 1985). On the other hand, the experiences of hope, grief, disappointment and guilt are revealed as psychological impacts of ART in this study. Moreover, couples mentioned the society's expectations of being parents as a social role of couples through the constant questions of their community. Couples also stated their increased discomfort due to being exposed to constant questioning and suggestions of community as the social impact of ART in this study. Thus, for the aim of reaching a complete understanding, accordingly to BPS model, the impact of ART on all three subsystems of couples are investigated and presented in this study.

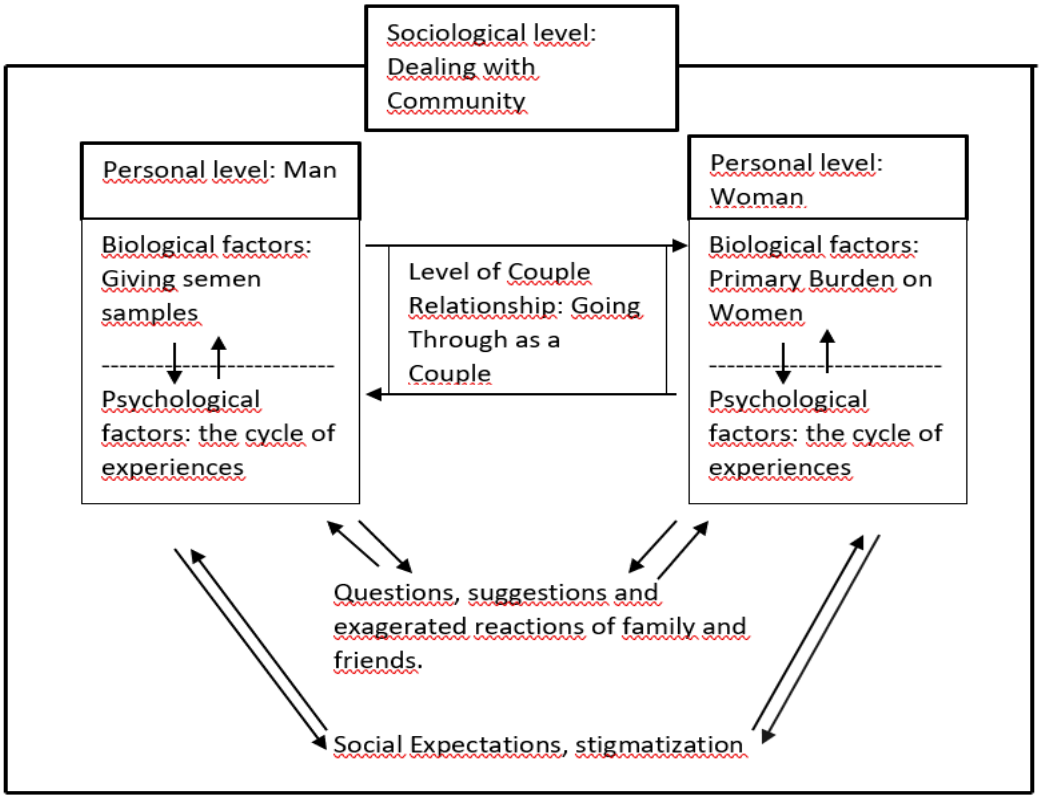

Figure 3. Biopsychosocial Model for Infertility with the Study's Themes

For the aim of reaching a complete in-depth understanding, Transcendental Phenomenology utilized as the qualitative analysis method of this study. In line with Phenomenological Analyses of couples' semi structured interviews, this qualitative study presented four main themes; the cycle of experiences in ART process, resources of coping, going through as a couple and dealing with community as results. In this section the mentioned four main themes will be discussed focusing on their coherences and differences in comparison to previously studied searches in literature.

4.1 CYCLE OF EXPERIENCES IN ART PROCESS

The process of ART constituted of procedural stages such as ovarian stimulation, retrieval (in IVF), placement of sperm or embryo into uterus, waiting period for 15 days and having pregnancy test. Since these stages can be reconducted, the methods of ART can be experienced for multiple times as cycles (Custers et. al, 2008, Gulekli, 2006). Thus, the decision of having a new cycle of ART, entails experiencing same procedures and steps consequently to previous cycle. As a result, the cycle of ART, also presents a cycle of experiences for couples. In addition to experiencing a cycle of medical procedures, due to the emotions and thoughts emerged through procedural medical stages, couples face with another cycle of experiences which bases it roots form couples' emotional reactions. This cycle basing it roots from emotional reactions is described in this study, including the ambiguity of the process, hope, grief, disappointment and grief which all discussed in detailed below.

In literature, ART is defined as stress provoking period due its procedures, potential side effects and possibility of unsuccessful treatment (Hsu& Kuo, 2002; Navid et al., 2017). Although ART is a facilitative way of fertilization, stimulated ovaries may not be enough for resulting pregnancy in IUI and as a more controlled method of ART, placing embryos into the uterus also not always ends up with pregnancy in IVF (Gulekli, 2006; Mahon & Cotter, 2014). Therefore, ambiguity is a part of ART processes which also mentioned as a primary experience of couples in this study.

In this study, ambiguity is a primarily mentioned experience of couples in ART. The reason of ambiguity as not being able to control the treatment results is pointed by all participant couples (n=6) in study. The feeling a 'loss of control' is also stressed in many studies in literature, with an increasing effect on stress levels of couples (Boivin, & Lancastle, 2010; Gojani et al., 2018; Osuna, 1985). Since ambiguity may end up with

increasement of stress levels, the implied results of this study are concordant with the literature. Moreover, mentioned studies found no significant gender differences on feeling of 'loss of control' and increasement od stress. Similarly, participant couples of this study highlighted quasi equally (n=5 women, n=4 men) the experienced ambiguity due to uncertainty of treatment result, thus due to losing control.

Since the results are ambiguous, waiting periods before receiving the test results are also pointed as a reason of ambiguity. The stress provoking impact of waiting periods due to the possibility of receiving a negative result, also revealed in literature. For instance in studies focusing on IUI, the increasing effect of the time interval between operation and pregnancy test, on stress levels of couples is declared and the main reason of this increase is explained with the uncertainty of the treatment results which may end up with facing with an unsuccessful treatment result (Galst, 2017; Gojani et al., 2018; Singh, 2016).

Moreover, couples mention the ambiguity due to not knowing about treatment procedures and not being able to control treatment results. Couples pointed the lack of information on treatment procedures and its evaluative tests as a reason of ambiguity. Since some tests are time specific, the lack of information on not knowing the need of timing effects the couples' treatment processes. Thus, couples point the possibility of facing a 'bad surprise' which negatively effects their process. However, experiencing ambiguity due to lack of information on ART is not revealed in literature. Therefore, this lack of information might be related to the system of hospital in which the study occurred, which cannot be generalized for total population.

The ambiguity brings the possibility of having successful treatment results with it and focusing on this possibility leads hope in couples. Therefore, the experience of hope is another mentioned experience of this study following the ambiguity. Couples pointed the importance of hope as a facilitator to continue their treatment, especially after receiving an unsuccessful result. All participant couples stated their hope of having a positive result at the end of every new trial and their belief on this possibility of positive result led them experience further cycles. Similarly, in literature, Boden (2007), phenomenologically studied the couples who experienced at least one unsuccessful treatment in ART. As a result, author declared hope as the main factor leading couples to keep on for further trials after the unsuccessful result.

Moreover, participant couples of this study pointed the impact of being diagnosed with undefined infertility and positive comments of doctor's as two main factors increasing their level of hope. Since, in diagnose of undefined infertility the specific obstacle for pregnancy is not determined, receiving this diagnose increases couples' belief on receiving a positive result. Additionally, doctors' comments on good advancements in their treatment procedures enhance couples' belief on positive results and increase their hope. Although this increasement of hope keeps couples in treatments, receiving a negative result at the end increases their experience of disappointment. The increasement impact of hope on couples' disappointment also highlighted in literature (Boden, 2007; Silva & Machado, 2010). Therefore, hope is a double edge sword for couples in ART.

In literature, it is revealed that couples experience sadness as the most common emotion after receiving unsuccessful result. Moreover, other than sadness, couples experience anxiety, depression, loss and guilt. (Baram et al., 1988; Leiblum et al., 1987). Concordantly, in this study, couples receiving unsuccessful treatment result, commonly described their sadness and feeling of loss, which are clustered under the theme of grief.

Experiencing sadness after an unsuccessful treatment is pointed by all participant couples, equally by both genders. However, studies in literature declare women having increased emotional distress compared to men. For instance, both studies of Berghuis & Stanton (2002) and Verhaak (2005) focused on emotional reactions of couples after the experience of unsuccessful treatment by utilizing depression inventories on both spouses. Since sadness is an important criterion of depression, the authors revealed, unsuccessful treatment increases the level of depression in both genders, and women displaying a higher level compared to men. Similarly, this study proponed the increased emotional distress as sadness in couples after an unsuccessful treatment, however since evaluating gender differences by quantitative methods is not the method of this study, the differences among couples are not clearly focused. On the other hand, it is revealed that both spouses equally stated their experience on sadness after the negative results.

Receiving an unsuccessful treatment is a type of loss in the process of ART. However, since every unexpected news is not defined as loss and there is no concrete loss in the unsuccessful treatment results, compared to actual loss of someone, it is difficult to empathize with couples' sense of loss in ART and to provide enough support (Peterson et al., 2007). Couples of this study also mentioned their feeling of loss after

having an unsuccessful treatment. They stated mostly on their emotional investments as hopes and beliefs as losses. Additionally, financial costs are also pointed as loss, yet all couples highlighted the importance of the emotional ones. Concordantly to literature, although the financial investment is a concrete loss of couples in ART, the emotional one, even if it is not visible, has more impact on couples. Moreover, the support of community on couples' loss will be explained in detailed below.

Moreover, concordantly to previously mentioned studies in literature, guilt is conceived as another common theme of this study which couples, especially women stated after experiencing an unsuccessful result (Baram et al., 1988; Leiblum et al., 1987). Not knowing the exact reason of unsuccessful treatment, lead couples, especially women to search for their own mistakes and get inclined to blame themselves. The women's sense of guilt after the negative result, can be explained with two different reasons. The first reason is the culturally attributed role of being mother on women. Since in Turkey, being mother is perceived as a natural quality of women, not having a successful treatment provokes women for searching a mistake of themselves (Kizilkaya Beji & Kaya, 2012; Onat & Kizilkaya Beji, 2012a). Secondly, since the treatment procedures target women, not being able to control the process as the protagonist of it, impacts women to feeling guilty of negative treatment result (Hsu & Kuo, 2002; Kondaveeti et al., 2011; Prattke & Gass-Sternas, 1993). Thus, due to the impact of two mentioned reasons above, guilt is stated mostly by women.

Although not knowing the precise reason of unsuccessful treatment entails guilt in women, not knowing the precise reason and potential result also increases couple retrial. Since the ambiguity of treatment results includes the possibility of successful result, it offers 'hope' for couples (Singh, 2016). Boden (2007) mentions hope as the main reason for couples to have another treatment cycle after the unsuccessful one. Therefore, through the ambiguity of possibilities, couples start to hope again and decide to have another cycle. If the retrial also ends unsuccessfully couples experience grief, disappointment and guilt again. Due to the circularity, all mentioned experiences are clustered as cycle of experiences in this study. On the other hand, although the included experiences are specifically mentioned in literature, they are not presented in a circular way.

4.2 RESOURCES OF COPING

Coping strategies are thoughts and behaviors emerged under stressful circumstances (Carver et al., 1989). Since being in a medical treatment containing ambiguity, is a stressful process, couples in ART utilize from coping strategies. Planful problem solving is one of the main used coping of couples in ART, because having treatment for the aim of receiving an expected result is a planful way of solving the problem (Galst, 2017). According to a review study of Eugster & Vingerhoets (1999) couples in ART prefer coping strategies for problem solving rather than handling emotions.

As mentioned above, this study revealed beginning to process of ART entails the experience of ambiguity. Therefore, for the aim of coping with ambiguity couples, especially women mentioned their need for knowing more especially on treatment processes or on additional ways to increase possibility of successful results such as using vitamins. However, women stated in the system of governmental hospital it is difficult for them to reach a doctor to be informed. Therefore, women even suggested alternative solutions such as organizing routine informing conferences in hospitals, to fulfill their need for knowing more.

Although named differently than 'need for knowing more', this necessity of women getting informed on the treatment procedures and process is mentioned in many studies of literature as a need of educational support (Kizilkaya Beji & Kaya 2012; Boivin, 2003; Kirca & Pasinlioglu, 2013). Moreover Read et al. (2014) stated couples suggesting alternative solutions such as 'peer mentoring' to fulfill their need to be informed.

Moreover the 'need for knowing more' bases its roots from women to share their condition to others and get information on it. Similarly, many studies in literature, explored women being inclined for seeking social support by expressing their conditions (Kizilkaya Beji & Kaya, 2012; Gerrity, 2001). Since women are primary objects of the treatment procedures, they get used to explaining their conditions to doctors. Therefore, sharing information become easier for women compared to men (Kondaveeti et al., 2011). A similar finding of Kondaveeti el al.'s study is also presented in this study, that women expressed increased need for sharing their conditions with doctors aiming to gain more information on their treatment processes.

Additionally, as a source of coping couples prepare themselves for the worse, for being able to handle the unsuccessful result and the disappointment emerged. In this study, five out of six couples pointed the usage of preparing self for the worse, by stating on constant thinking of negative possibilities and by willing to define successful result as a surprise. Although preparing for the worse is a common method of couples which quasi equally (n=5 women, n=4 men) utilized by both genders, it is not pointed in other studies in literature. This lack of mentioning the coping as 'preparing self for the worst' may be related to its cultural quality. Since there are no studies focusing on coping strategies of couples and ART on Turkish population, it is a new theme for literature of ART. However, preparing self for the worst is a widely known way of thinking in Turkish culture, it serves as controlling the self for not hoping due to the aim of preventing the possible disappointment at the end. Therefore, it may be evaluated as a cultural way of self-control, which is a stated coping strategy in ART studies by equal usage of both spouses (Folkman et al., 1986; Gerrity, 2001).

The recognition of positive inner belongings, qualities and/or external conditions under a stressful situation or in a difficult period generates the term of gratitude. Since in Turkish culture everything in life is perceived as conceded by divinity, keeping on recognizing the good, is defined as a virtue. However, gratitude also functions as source of coping, by reminding self the inner and external strengths in difficult times. Furthermore, concordantly to its function as coping, a study on Turkish population revealed the positive correlation among usage of gratitude with spirituality and life satisfaction (Ayten et al., 2012).

Gratitude is another source of coping emphasized in this study by couples' expressions of their gratefulness on the advantageous conditions they have and the disadvantageous ones that they do not have related to ART. For instance, medical costs of ART, is a widely pointed difficulty mentioned in literature (Hsu& Kuo, 2002; Mahon & Cotter, 2014; Navid et al., 2017; Tuzer et al., 2010). Therefore, couples in this study, stated their financial power as an advantageous criterion eliminating a difficulty in their process.

Moreover, the possibility of negative impacts of infertility and ART is a widely studied topic in literature (Luk & Loke, 2015; Prattke & Sternas, 1993; Schmidt et al., 2005; Slade et al., 1997; Sydsjo et al., 2005). Although the relational impacts are not

clear enough, in the study of Slade et al. (1997) the decreasing effect of ART and unsuccessful treatment result on couples' relational adjustment is explored. Due to the possibility of having a negatively impacted relationship, couples in this study highlighted their gratitude for not having any negative relational impacts. Therefore, in addition to mentioning their advantageous conditions for ART, couples pointed not having a possible difficulty or disadvantageous condition as a part of their 'gratitude'.

Although the importance of gratitude in Turkish culture is highlighted above, it is not mentioned in studies focusing on ART. However, as a similar coping strategy the positive reappraisal is pointed in studies (Folkman et al., 1986; Galst, 2017; Gerrity, 2001; Ockhuijsen et al., 2014). For instance, in their study Ockhuijsen et al. (2014) defined positive reappraisal, as interpreting treatment demands in a positive way and investigated the impact of positive reappraisal on women's emotions in treatment especially the waiting periods. As result, authors pointed using positive appraisal increase positive affect yet not change the level of anxiety in women. Thus, authors stated although positive reappraisal does not affect the anxiety or negative emotional impacts of treatment, it makes the process more tolerable. Similarly, in this study, by their gratitude, couples positively reinterpret their conditions and qualities as a way of coping to make the process more tolerable. Therefore, even though the term of gratitude is not presented in literature on ART, as a similar strategy, couples' effort of reinterpreting and exhibiting the positive qualities of themselves during the process is mentioned as positive reappraisal.

Spirituality is defined as the "transcendental relationship of individual with what is sacred for his/her life" (Krok, 2008). Therefore, it is a universal term related to individuals' inner beliefs of sanctity. Through their relationship with the 'sacred' one, individuals 'make meaning, find scope and hope' facilitating their ways of dealing with difficulties (Krok, 2008; Obeidat et al., 2014; Roudsari et al., 2014). Although it is universal, there are only a few studies aimed to investigate the impact of religious and spiritual coping in period of ART or infertility, and all these studies focus on women instead of couples. Main functional qualities of religious and spiritual coping revealed as; 'belief of divine power', 'benevolent religious reappraisal', 'religious surrendering' and 'belief in miracles and timing' (Roudsari et al., 2014). Therefore, by believing in sacred other, mostly in God; individuals evaluate his/her condition as benevolent due to its being decided by the God, moreover, as religious surrenders individuals give control

to God and keep on hoping through their beliefs of miracles and right timing. Although the mentioned ways of using the religious and spiritual coping is not explained in quantitative studies, religious coping is also referred as a coping source of couples in ART (Berghuis and Stanton, 2002).

Accordingly, to literature, spirituality is revealed as the last source of coping of couples in this study. Since description analyses of couples is used in this study, the usage of spirituality is defined in detailed way. Similar to literature, couples mentioned 'belief of divine power', 'benevolent religious reappraisal', 'religious surrendering' and 'belief in miracles and timing' (Roudsari et al., 2014). Couples utilize from spirituality to decrease the guilt, due to the evaluation of unsuccessful treatment as decision of God or destiny. Therefore, they use 'religious surrendering' for decreasing the impact of self on unsuccessful treatment and the emerged feeling of guilt. Moreover, it is stressed the 'belief of divine power' facilitating couples' coping with unsuccessful treatment result. As 'benevolent religious reappraisal' couples, highlighted the term auspiciousness, referring the negative possibilities emerging through 'successful' treatment such as having a child with illness. Thus, through auspiciousness, couples also refer having an unsuccessful result may have protected them from another difficulty. Furthermore, couples stated their belief on the 'right time' for having a child which is also stated in literature as 'belief in miracles and timing'.

4.3 GOING THROUGH AS A COUPLE

The experiences of challenging life events impact couples' relations due to unbalancing their previous state of homeostasis. Since each spouse tries to cope with the challenge and recreate the relational balance with their own methods, these life events affect relation among couples (Nichols, 2013; Berg & Upchurch, 2007). As a challenging life event, ART is mainly perceived impacting biological subsystems of couples due to receiving a medical treatment. However, as mentioned previously, ART entails a cycle of experiences and usage of coping sources to handle the provoked emotions through the process. Moreover, since couples experience the process of ART together, procedures and provoked emotions impacts also couple relationships. As a result, through new experiences and emotions in couples, ART unbalances the relational system of couples.

Although there are studies aiming to explore the impact of infertility and ART on marital adjustment, there is no consensus on the findings of these studies that some

studies refers to increasing and other to decreasing impact of infertility and ART on marital adjustment (Luk & Loke, 2015; Onat & Kizilkaya Beji, 2012b; Schmidt et al., 2005). Moreover, most of the studies investigating the impact of infertility and its treatment on couples, mainly utilized from quantitative scales on couples, therefore reached gender-based differences as results (Gulec et al., 2011; Onat & Kizilkaya Beji, 2012b; Schmidt et al., 2005; Sydsjo et al., 2005). On the other hand, ART is a process experienced by couples together. Thus, in this study, the interviews are done with couples together and results are gathered from the phenomenological analyses of couples' descriptions. The first theme emerged in this study is, 'the primary burden on women' which is also mentioned in searches in literature (Hsu & Kuo, 2002; Kondaveeti et al., 2011; Prattke & Gass-Sternas, 1993).

The studies mentioning women as primary target of the treatment procedures, explored women's need for utilizing more of coping strategies. However, the impact of not being target of treatment on men is not discussed in those studies. According to their descriptions, men stated not experiencing the treatment procedures same with their wives. For instance, the change in daily routines and experiencing more suffering in process is attributed to women from their husbands. Moreover, half of the participant men (n=3) pointed their feeling of being isolated through not being the protagonist of ART. Therefore, men get inclined to undertake the supporter role to be included in process.

In their supporter role men stated to behave in a more understanding and patient way. Especially after receiving a negative result, men utilize from the idiom of 'It is not the End of the World' for support. Although men use the idiom for soothing their wives, women also utilize this idiom for self-relief. While using the idiom of; its not the end of the world, couples compare the unsuccessful treatment with other important life issues such as health and other roles than being parents in life. Thus, by using this idiom couples decrease the attributed value of successful treatment. Although the idiom is not mentioned in other studies, the impact of society's attributed role of being parent on couples are reveled as stress provoking in couples (Awtani et. al., 2017; Kizilkaya Beji & Kaya, 2012; Gerrity, 2001). Therefore, the idiom of its not the end of the world is also utilized to decrease the impact of societal expectations.

Distraction is another way of support used in couples, that men described their increased attempts to distract their wives by going out for shopping or trips together or doing some other activities as watching a movie. Thus, through distraction, couples avoid thinking and talking about their processes. Concordantly, in their phenomenological study focused on individual interviews, Phillips et al., (2014), pointed a theme of "keeping busy with other things" as a way of distraction and not thinking on emotions. Moreover "not dwelling on emotional issues" stated as another theme of study which presents couples' strategy as avoidance of focusing on emotions.

In this study, although distraction is mostly used by men to relief their wives, women also mentioned the usage of distraction and avoidance as positive way of coping in treatment process. Similarly, in many studies in literature escape-avoidance is revealed as the most preferred coping by couples (Galst, 2017; Gerrity, 2001; Prattke & Gass-Sternas, 1993). Concordantly to the results of this study, in literature it is explored couples increasingly utilized from avoidance after an unsuccessful result, especially for men (Prattke & Gass-Sternas, 1993).

Abbey & Hallman (1995) defined the effective support system by having at least moderate correlation among perceived received and provided support. Although, in this study men stated to undertake the supporter role in treatment process, couples also mentioned reciprocity of their support during ART. This reciprocity is themed as 'Balancing Each Other' in this study. Couples described the reciprocity as receiving support from spouse when needed and being there for giving support to spouse when he/she is perceived as more needy. Moreover, although men undertake the supportive role, both men and women highlighted to receive spousal support when needed. Therefore, couples presented a balance on their support systems during ART.

In addition to mentioning the balance in their support system, couples in this study referred spouse as the most impactful source of support during ART. Similarly, searches in literature highlighted the importance of spousal support in infertility and its treatment for decreasing the emotional distress (Abbey & Hallman, 1995; Ying & Loke, 2016; Martins et al., 2012; Onat & Kizilkaya Beji, 2012a). Studies explained the importance of spousal support with the difficulty of sharing the information on their conditions with others yet experiencing the processes all together with spouse (Abbey & Hallman, 1995; Onat & Kizilkaya Beji, 2012a). Concordantly to mentioned explanation, participant

couples of this study, pointed the difficulty of sharing information on their processes with others compared to their spouses. Moreover Martins et al. (2012) declared the increasing impact of beneficence of support system on couples' closeness. Similarly, two of the couples of this study, stated experiencing all processes together and supporting each other as a closing factor for their relationships.

Although spouses are defined as the most effectful support system, couples also get impacted from community. Those impacts of community themed as, 'Dealing with Community' in this study.

4.4 DEALING WITH COMMUNITY

As mentioned in BPS model, since individual born in a larger social system, both subsystems as biology and psychology get impacted through society. Therefore, in addition to emotional and spousal support system, society is another source of support impacting couples during the process of ART. In literature there are studies investigating reactions and support of society on infertile couple (Kirca & Pasinlioglu, 2013; Read et al., 2014). However societal reactions and support for couples receiving treatment and experiencing unsuccessful result is not a widely discussed topic in literature.

In this study couples all described the reactions and support attempts of their community as families, friends and relatives, by also mentioning the perceived dysfunction of those reactions and attempts. Therefore, couples' descriptions related to the larger system themed as 'dealing with community'.

For the aim of revealing the community's impact on couples, Martins et al. (2014) in their quantitative study, focused on the impacts of partners, families and friends on infertility stress of Portuguese couples. The results of mentioned study demonstrated the negative correlations among all three types of community support on couples' stress levels. However, the ways of support that community utilize were not discussed in the study. Similarly, in this study, participant couples pointed their partners, families and friends as community support. However, due to phenomenological analyses of couples' descriptions, the ways of support of community and the perceived functions by couples are also discussed in this study.

As supportive attempts of community, couples pointed the friend and family's asking of couples' needs, making suggestions and claiming their proneness to help.

Moreover, couples stated the avoidance of friends and families on talking about treatment conditions and process for not reminding and bothering is stated as another attempt of community. Moreover, as supportive behaviors of community after an unsuccessful result, half of the couples including both husbands and wives mentioned the supportive talks emphasizing couples' being healthy and sharing of others' treatment stories which ended successfully while have begun desperately.

Although the supportive methods of community are clearly defined by couples, there is no consensus found on the functionality of these methods on couples. For instance, avoidance is perceived as a thoughtful behavior by one spouse due to not reminding and bothering them and as a careless behavior by the other spouse due to not wondering them enough or supportive talks perceived functional by one couple yet dysfunctional by other. The difference in perceptions among couples related to received support is explained under the theme 'Not Perceived as Support' which will be discussed in detailed below.

In literature there are many studies mentioning the impact of 'social stigmatization' on women. The reason of stigmatization is the idea of women being mother as a natural concern. Studies displayed an increased emotional distress of women due to this stigmatization (Awtani et al. 2017; Hsu & Kuo, 2002; Kaya & Oskay, 2019; Kocyigit, 2012; Merari, Chetrit & Modan, 2002). This stigma is also revealed in studies on Turkish cohort, by perceiving being mother as the primary role of women and expecting child form all married couples as a manner of social status (Kizilkaya Beji & Kaya, 2012; Kaya & Oskay, 2019; Onat & Kizilkaya Beji, 2012a). Moreover, in Turkey, as a collectivist culture, the norms and values are determined by the ingroup which suppresses the individual needs and differences in community (Gudykunst et al., 1987; Rhee et al., 1996). This may result a feeling of isolation of outgroup due to not being able to provide society's expectations.

Similarly, in this study, all couples, especially women mentioned the expectations of community. As community's expectations are pointed as; the questions related to couples' plans on having child or the attempts of questioning why they do not still have a child. Both men and women defined those expectations, as including good intentions yet as bothering and anger provoking especially by men. Moreover, couples stated their own expectations on being judged because of not having child and receiving treatment

for it, due to the mentioned stigmas of community. Thus, couples, especially women referred on their gratefulness of not experiencing pressure due to the expected community judgement.

Moreover, harmony is an important quality of collectivist cultures, so outgroup members are inclined to avoid open conflict and disclose their diversities with ingroup members (Rhee et al., 1996). In this study, additional to community's expectations, as a way to prevent the potential judgement of community, couples mentioned the theme of 'Keeping the Privacy', not sharing their process with all members of their community. All participant couples (n=6) stated informing only a few people about their treatment process. Moreover, three couples stated the informed few family members are the sisters of wife. Since, in literature women revealed as having higher need for social support, the need of participant women to share with their sisters is concordant with the literature (Kizilkaya Beji & Kaya, 2012; Gerrity, 2001).

Furthermore, in this study, couples (n=4) pointed their preference of sharing their treatment with less people in every new cycle. Similarly, the concept of secrecy is mentioned in studies focusing infertile couples. These studies present couples' decision of not sharing information on their infertility to prevent the probable stigmatization and criticism of community (Kraft, 1980; Martins et al., 2012).

As ways of not sharing their conditions with others, couples pointed the use of excuses and hiding which is similar to previously mentioned concept of secrecy in literature. Couples stated using the concepts of military duty of men, or willing to travel more before having child as excuses for evading the community's questions and comments. On the other hand, couples pointed the reason of their hiding as protecting the valuable others, especially mothers, from being sad because of their conditions.

As claimed by Martin et al. (2014), good intentions of community can be perceived as 'criticism and demanding' by couples. Therefore, the attempts of social support not always perceived as functional by couples. As shortly mentioned above, the perceived dysfunctionality of community's support is themed as 'Not Perceived as Support' in this study. The participant couples pointed their discomfort through the community's questions and suggestions, two couples stated their perception of being pitied by community's reactions, moreover two men added their provoked anger due to

those reactions. Additionally, couples highlighted the impact of spousal support and comparing to ineffective support of community.

Thus, although women display an increased need to share their conditions with closed others as revealed in literature, both men and women majorly pointed the ineffectiveness community's support due to the expected social judgements and perceived pity, so couples highlighted the positive impact of spousal support in comparison to the social one. On the other hand, although couples not specifically mentioned their preferred social approaches from the findings of this study it may suggested an approach without criticism and expectation from couples yet more respectful to their emotions and needs.

As researcher I was expecting to find avoidance among couples and distancing because of avoidance of talking on emotions through the process. Although the avoidance is revealed in this study, it is not expressed as distancing factor for couples. On the other hand, distraction through spending time together by focusing entertaining activities like going around or travelling together pointed as a way of avoidance leading couples to get closer. Moreover, I was expecting social support as a functional source decreasing the couples increased distress during the process. However, this study revealed social support as not perceived as support yet impact as increasing couples' discomfort and even anger.

4.5 CLINICAL IMPLICATIONS

The findings of this study, accordingly to BPS model, provide information on all three biological, psychological and social domains of couples in ART. Therefore, it presents clinical implications for all physical and psychological workers collaborating with couples during their process of ART including; gynecologists, treatment teams of infertility and IVF units of hospitals and mental health professionals who work with couples and individuals. Moreover, findings provide implications for families and friends of couples in ART aiming to point couples' needs for an effective support system.

Couples experiencing ART mentioned the treatment period as one of the most difficult parts of their lives. The first mentioned content of this difficulty is described as the ambiguity of process and procedures by couples. Not knowing the procedures of hospital and treatment steps entails the experience of ambiguity in couples. Moreover, not knowing what to care for preventing negative result and what to do for enhancing

success also increases ambiguity in couples. For the aim of handling this ambiguity, couples stated their need for knowing more aiming to increase control on their treatment processes. Therefore, due to the fact of ART impacting their physiology, couples should be informed about the requirements on medical tests and the steps of procedures that they are going to face. Moreover, the information related to suggestions or requirements that couples should be careful of or should be doing more to enhance the positive result should be given to couples at the beginning of their process.

Additional to being informed at the beginning of the process, couples pointed their need of being able to reach an authorized hospital worker of infertility or IVF unit for gaining information when needed during the treatment process. Since reaching a doctor for being informed privately on their conditions is difficult in public hospitals, one person of treatment team of infertility or IVF unit should be charged for informing couples during ART.

In addition to experiencing ambiguity, couples mentioned their experience of hope due to doctors' statements on the progress of treatment procedures and expected success rates. Although those statements increase hope in couples, when the treatments result unsuccessfully, increase also the disappointment and sadness in couples. At this point, accordingly to BPS model, doctors and worker of IVF units should be informed through debriefings of psychological workers, on the psychological impacts of ART on couples and their own contributions on these impacts. Through these informative debriefings, doctors and workers of IVF units should effectively communicate with couples in ART especially while informing couples on their progresses and expected success rates, by avoiding to use a certain language.

Furthermore, couples claimed doctors as a part of their social support system. Couples stated after having a trusting bond with doctor, the comments and suggestions of doctor functions as a facilitator of treatment period especially after receiving an unsuccessful result. As mentioned in BPS model, the experience of ART effects couples' social support systems, and this finding suggests the ART professionals becoming a part of couples' social support systems during the process. Therefore, through the informative briefings mentioned previously, ART professionals should be aware of their supportive role in couples and behave in light of this attributed role, by asking, commenting and suggesting on couples' conditions period during medical controls or giving test results.

In addition to doctor's support, for the aim of dealing effectively the impact of ART on couple's psychological subsystems, as referred on BPS model, professional psychological support should be provided to couples during their process. Relatedly on psychological needs of couples, this study reveals, after increased hope, with the result of unsuccessful treatment couples experience; grief, disappointment and guilt as following emotions of their cycle of experiences. Although there is no visible loss in the process of ART, receiving an unsuccessful result entails increased sadness and grief in couples. Moreover, since couples do not know the exact reason of the negative result, they inclined to blame themselves, so guilt is another important experience of couples. Therefore, mental health professionals working with couples or individuals in ART, should focus on the cycle of experiences, especially the invisible loss, disappointment and guilt.

Although giving psychological counseling is a part of ART, in Turkey, psychological support is not included as a required or offered procedure in treatment process. However, experiencing ART impacts couple relationship, for instance women claimed as suffering more due to carrying the primary burden of treatment yet not being the protagonist of treatment can make men feel isolated during the process. The isolated men decide to be involved in process by undertaking the supporter role. However, concordantly to literature, couples not inclined to use emotional coping strategies yet mostly use the escape-avoidance as coping (Eugster & Vingerhoets, 1999; Galst, 2017) Therefore as their ways to support, in this study, couples emphasized utilizing mostly form distraction which is a manner of avoidance to focusing on process and its emerged emotions. Thus, since couples are inclined to not share their emotions with spouses for getting support, mental health professionals working with couples should focus to facilitate the sharing of emotions and giving emotional support to each other.

Moreover, concordantly to the study of Abbey & Hallman (1995), there should be at least a moderate correlation among the perceived level of provided and received support. Couples in this study mentioned balancing each other through watching each other's reactions and providing support if the spouse seems more needy then self. Thus, the reciprocity and balance of support among couples is another important ingredient to be handled by mental health professionals while working with couples.

Furthermore, couples mentioned their need of reminding their strengths to themselves. In theme of gratitude, couples mentioned their advantageous relational and biological qualities as a source of coping. Therefore, reminding or discovering couples' strengths is another important ingredient for mental health workers while studying with couples.

Thus, informing couples on their treatment, conditions and counselling on their relationship during the ART are important for facilitating couples' processes. However, as stated in BPS model, since the social subsystem of individuals has an interchangeable effect on psychological subsystems of couples, the impact of society should also be considered. In this study, related to their social subsystem, couples pointed their provoked emotions such as sadness and anger, through the community's reactions of questioning, commenting and making suggestions. Thus, the community's impact on couples' emotions is revealed concordantly to presented BSP model.

Furthermore, as mentioned in literature, the attempts of support of community can be perceived as 'criticism and demanding' by couples (Martins et. al, 2014). Similarly, couples in this study pointed their perception of being criticized and pitied through support attempts of community. As a result, similarly to findings of another qualitative study on Turkish population on infertility, couples decide to decrease their relations with community by enriching the spousal support (Onat & Kizilkaya Beji 2012a). Moreover, concordantly to studies on infertility exploring the increased secrecy of couples for sharing their infertility related information with others, in this study couples pointed sharing their treatment related information with decreased number of people in every new cycle (Kraft, 1980; Martins et al., 2012). As a result, although social support is an important source, couples prefer not to utilize due to their perceptions of criticism and compassion. Thus, mental health workers should focus on couples' perceptions and emotions on social support and understand their needs and expectations from community to internalize the social support.

In addition to understanding couples' needs and perceptions on social support, relatives of couples should be informed by seminars or group meetings. Since reaching all community of couples is not realistic, mentioned seminars or group meetings should target family members of couples and other voluntary relatives or friends. Through this seminars community's understanding of couples' perceptions related to their questions,

comments and suggestions can be improved. Therefore, the possible ways for empathizing with couples and providing emotional support according to couples' needs should be focused in these seminars and group meetings. Moreover, for the aim of spreading information on how to support couples, preparing and distributing brochures containing information on the behaviors that should be done or be avoided can be another useful way for informing community.

4.6 LIMITATIONS AND SUGGESTIONS FOR FURTHER STUDIES

This study explored the experiences of couples in the process of ART. In addition to focusing the experiences on treatment procedures as IUI and IVF, the study revealed the experiences of couples related to receiving unsuccessful treatment result. This study enriches literature by being the first qualitative study in Turkey, focusing the impacts of ART on couples' relationship, including the unsuccessful treatment trials. This study is conducted with 6 couples (12 participants), although interviewing more couples would have provided richer results, the sample size is sufficient for gaining meaningful results.

Since the most used ART methods are; IUI and IVF, the concept of ART is defined with IUI and IVF methods for this study. However, there are other methods of ART which are not included in this study. Therefore, in addition to increasing the number of participants, interviewing couples having other treatment methods would have increase the richness and generalizability of outcomes.

Moreover, the concept of unsuccessful treatment is defined as not having pregnancy as a result of treatment. However, experiencing a loss of pregnancy can also be defined as unsuccessful treatment. Therefore, further studies should include the actual loss of pregnancy as unsuccessful treatment, to reach more enriched and comprehensive outcomes.

In this study, all participants are selected from Zeynep Kamil Hospital, which is a public hospital in Istanbul. Although the treatment steps are the same for every hospital the relations with doctors and/or hospital procedures may differ. Therefore, conveying the study in other hospitals in Istanbul and even in other cities of Turkey would increase the richness and generalizability of the study results.

Although all participants are selected from Zeynep Kamil Hospital not all interviews are conducted in hospital. Two of the interviews conducted in the houses of

participants. This difference can be impactful on couples' shared experiences due to the probability of feeling uncomfortable to share negative feelings and thoughts related to hospital in the visiting room of hospital. Therefore, further studies should provide the same or equal ambient for interviews of couples.

Interviews are conducted with couples together; it is a suitable method since the aim of study is exploring the experiences of couples together. On the other hand, it hardens couples to put forward their personal thoughts and feelings and, therefore complicates reaching personal or gender based information in a detailed way for researcher. Thus, in addition to interviews with couples, conducting interviews with spouses separately would provide increased personal and gender based findings.

Furthermore, couples mentioned the impact of community on their treatment process. However, there is a lack of studies reflecting the perspectives of society related to couples' having treatment of ART in Turkey. Therefore, studies with families of couples' receiving treatment of ART should be aimed for further studies.

As a result, further researches should investigate the couple experiences of ART, containing other methods additional to IUI and IVF, and focusing unsuccessful treatment experiences including both not having pregnancy and loss of pregnancy during treatment. Moreover, the probable differences of having treatment in public and private hospitals should be searched. Also, further studies should contain both personal and couple-together interviews. Lastly, further studies should aim to reveal the community's perspectives and reactions through studying with relatives of couples in ART.

4.7 CONCLUSION

This study aimed to explore the experiences of couples in the process ART (IUI and IVF) by also focusing their unsuccessful treatment experience. For this aim, in depth interviews are conducted with six couples having ART in Zeynep Kamil hospital which is a public hospital in Turkey. The Biopsychosocial Model is used as theoretical framework of the study. Therefore, the descriptions of couples are analyzed by focusing the impacts of ART on their biological, psychological and social systems. Moreover, for the aim of revealing the impacts on couple relationship, interviews are conducted with couples together and for gaining in depth information, Phenomenology is used as the analysis method of this study. Since there is a lack of qualitative studies on the impacts

of infertility treatment processes on couples, this study is designed to provide in depth information related to this topic.

Four main themes are emerged as results of this study. Firstly, couples mentioned a ‘cycle of experiences’ which begins with the ambiguity. Since couples pointed not knowing the procedures that they are going to face with and not knowing the results of their treatment they experience ambiguity during ART process. Since the ambiguity entails the probability of receiving a successful treatment result, couples also experience hope. However, after receiving the unsuccessful treatment result couples experience increased sadness and feeling of loss which defined as grief in this study. In addition to grief, couples experience increased disappointment after receiving the unsuccessful outcome. It is also revealed that increased hope is attached to increased disappointment for couples. Furthermore, due to ambiguity of the exacts reason of not receiving a positive result, couples, especially women blame themselves for doing something wrong during the process. Therefore, the unsuccessful result entails the experience of guilt as the last part of cycle of experiences. On the other hand, due to the probability of receiving a positive result at the end of a new cycle, couples experience an increasement in hope again and begin for a new cycle. Therefore, the mentioned experiences continue as a cycle for couples.

Moreover, since the experiences such as ambiguity, grief, disappointment are difficult to cope, the second major theme is defined ‘the resources of coping’. Firstly, couples mentioned their need for knowing more to cope especially with the ambiguity of the process. However, due to the fact of not being able to control the treatment results couples prepare themselves for the worse-case scenarios. By preparing self for the worse, couples aim to decrease the potential impact of disappointment after receiving a negative result. Furthermore, as another coping resource, couples remind themselves about their advantageous biological and relational qualities during the treatment, such as their ages which is suitable for having further trials or having a ‘strong’ relationship which does not negatively impacted through the treatment. As a last source of coping couples utilize from spirituality for handling the experiences of ambiguity and guilt. For instance, since the negative result is seen as destiny of God’s decision, it decreases the self blame or trial of being in control during the process.

Concordantly to the main aim of the study, the third major theme is ‘going through as a couple’. While describing ART, couples highlighted women as the protagonist of the treatment. This role of being protagonist is defined as carrying the primary burden of ART on women. Men on the other hand, undertook the role of being supporter for sharing the burden of women in treatment. As supportive behaviors in the process of ART, couples mainly used distraction. It is stated that going out for shopping or traveling especially after an unsuccessful treatment is preferred for not thinking and talking the process. Additionally, the idiom of ‘it is not the end of the world’ is also widely used supportive statement among couples. Through this idiom couples decrease the importance of receiving successful treatment by putting forward other important roles and missions of couples other than being parents. Although men undertook the role of being supporter, the balance of support is revealed in couples. Thus, since the ART affects both spouses, couples support each other especially when the other spouse seems more needy them the self.

Since the biopsychosocial model is used in this study, the impact of community is defined as the fourth major theme of this study; ‘dealing with community’. While defining the impacts of community, couples stated being bothered through the community’s expectations of being parent as married couples. Therefore, couples prefer to keep the privacy by not informing others on their treatment processes. It is revealed that couples share their conditions with less people in every new trial, and for keeping the privacy couples uses excuses or hiding. For instance, waiting for terminating the military duty before having a child or needing more time to travel as a couple before having a child are two of the frequent excuses of couples. To sum up, since the questions, suggestions and comments of community are perceived as demanding or as being pitied the attempts of community are not perceived as functional support for couples.

Since this study is the first qualitative study on ART on couples, the impacts of ART methods other than IUI and IVF should be studied in further searches. Moreover, in addition to experiencing unsuccessful treatment result, the loss of pregnancy and having pregnancy as other ART results should be further investigated.

REFERENCES

Abbey, A., Andrews, F. M., & Halman, L. J. (1995). Provision and receipt of social support and disregard: What is their impact on the marital life quality of infertile and fertile couples? *Journal of Personality and Social Psychology*, *68*(3), 455–469. doi: 10.1037//0022-3514.68.3.455

Aduloju, P. O., & Adegun, P. T. (2016). Factors predictive of abnormal semen parameters in male partners of couples attending the infertility clinic of a tertiary hospital in south-western Nigeria. *South African Journal of Obstetrics and Gynaecology*, *22*(2), 57. doi: 10.7196/sajog.2016.v22i2.1082

Agrawal, K., Gainder, S., Dhaliwal, L., & Suri, V. (2018). Ovulation induction using clomiphene citrate using stair – Step regimen versus traditional regimen in polycystic ovary syndrome women – A randomized control trial. *Journal of Human Reproductive Sciences*, *10*(4), 261–265. doi: 10.4103/jhrs.jhrs_15_17

Anghelescu, I., Coricovac, A., Dracea, L., Codreanu, D., & Marinescu, B. (2014). Environmental factors and infertility: Particular aspects in romania's population. *Acta Medica Transilvanica 2*(2), 161-164.

Arman, R., & Styhre, A. (2018). Inspecting life: professional vision in assisted reproduction technology. *Cognition, Technology & Work*, *21*(3), 383–396. doi: 10.1007/s10111-018-0519-6

Awtani, M., Mathur, K., Shah, S., & Banker, M. (2017). Infertility stress in couples undergoing intrauterine insemination and in vitro fertilization treatments. *Journal of Human Reproductive Sciences*, *10*(3), 221. doi: 10.4103/jhrs.jhrs_39_17

Aydin, S., & Kizilkaya Beji, N. (2013). Infertil ciftlerde cinsel fonksiyon ve infertilite danismaninin rolu. *Hemşirelikte Eğitim ve Araştırma Dergisi, 10*(2), 8-13.

Ayten, A., Gokcen, G., Sevinc, K., & Ozturk E. E. (2012). Dini basa cikma, sukur ve hayat memnuniyeti iliskisi: Hastalar, hasta yakinlari ve hastane calisanlari uzerine bir arastirma. *Din Bilimleri Akademik Araştırma Dergisi, 12*(2), 45-79.

Bakanay, C., & Cakir, M. (2016). Phenomenology and it's reflections on science education research review. *International Online Journal of Educational Sciences.* 10.15345/iojes.2016.04.014.

Baram, D., Tourtelot, E., Muechler, E., & Huang, K. (1988). Psychosocial adjustment following

unsuccessful in vitro fertilization. *Journal of Psychosomatic Obstetrics and Gynaecology, 9*, 181-190.

Berg, U., Brucker, C., Berg, F. D. (1997). Effect of motile sperm count after swim-up on outcome of intrauterine insemination. *Fertility Sterility, 67*, 747–750.

Berg, C. A., & Upchurch, R. (2007). A developmental-contextual model of couples coping with chronic illness across the adult life span. *Psychological Bulletin, 133*(6), 920–954. doi:10.1037/0033-2909.133.6.920

Berg, B. J., & Wilson, J. F. (1991). Psychological functioning across stages of treatment for infertility. *Journal of Behavioral Medicine, 14*(1), 11–26. doi: 10.1007/bf00844765

Berghuis, J. P., & Stanton, A. L. (2002). Adjustment to a dyadic stressor: A longitudinal study of coping and depressive symptoms in infertile couples over an insemination attempt. *Journal of Consulting and Clinical Psychology, 70*(2), 433–438. doi: 10.1037//0022-006x.70.2.433

Boden, J. (2007), When IVF treatment fails. *Human Fertility 10*(2), 93-98.

Boivin, J. (2003). A review of psychosocial interventions in infertility. *Social Science & Medicine, 57*(12), 2325–2341. doi: 10.1016/s0277-9536(03)00138-2

Boivin, J., & Lancastle, D. (2010). Medical waiting periods: Imminence, emotions and coping. *Women's Health, 6*(1), 59–69. doi: 10.2217/whe.09.79

Boivin, J., & Takefman, J. E. (1995). Stress level across stages of in vitro fertilization in subsequently pregnant and nonpregnant women. *Fertility and Sterility, 64*(4), 802–810. doi: 10.1016/s0015-0282(16)57858-3

Carver, C. S., Scheier, M. F., & Weintraub, J. K. (1989). Assessing coping strategies: A theoretically based approach. *Journal of Personality and Social Psychology, 56*(2), 267–283. doi: 10.1037//0022-3514.56.2.267

Cetin, C., & Cetin, M. T. (2014). Dunden bugune yardimla ureme teknikleri. *Arşiv Kaynak Tarama Dergisi, 23*(1), 148-155.

Custers, I. M., Steures, P., Hompes, P., Flierman, P., Kasteren, Y. V., Dop, P. A. V., Veen, F. V. D., & Mol, B. W. J. (2008). Intrauterine insemination: how many cycles should we perform? *Human Reproduction, 23*(4), 885–888. doi: 10.1093/humrep/den008
of couples presenting for IVF. *Journal of Psychosomatic Research, 38*(4), 355–364.

Engel, G. L. (1997). From biomedical to biopsychosocial: Being scientific in the human domain. *Psychosomatics, 38*(6), 521–528. doi: 10.1016/s0033-3182(97)71396-3

Eugster, A., & Vingerhoets, A. (1999). Psychological aspects of in vitro fertilization: a review. *Social Science & Medicine, 48*(5), 575–589. doi: 10.1016/s0277-9536(98)00386-4

Folkman, S., & Lazarus, R.S. (1984). *Stress, appraisal and coping.* New York, NY: Springer.

Folkman, S., & Lazarus, R.S. (1988). *Manual of the ways of coping questionnaire*. Palo Alto, CA: Consulting Psychologists Press.

Folkman, S., Lazarus, R. S., Gruen, R. J., & DeLongis, A. (1986). Appraisal, coping, health status, and psychological symptoms. *Journal of Personality and Social Psychology 50*(3), 571-579.

Galst, J. P. (2017). The elusive connection between stress and infertility: A research review with clinical implications. *Journal of Psychotherapy Integration, 28*(1), 1–13. doi: 10.1037/int0000081

Gerrity, D. A. (2001). Five medical treatment stages of infertility: Implications for counselors. *The Family Journal, 9*(2), 140–150. doi: 10.1177/1066480701092008

Gojani, M. G., Kordi, M., Asgharipour, N., & Esmaeili, H. (2018). Comparison of the effects of a positive reappraisal coping intervention and problem-solving skills training on depression during the waiting period of the result of intrauterine insemination treatment: A randomized control trial. *Royan Institute International Journal of Fertility and Sterility, 12*(1), 13-18.

Gokler M. E., Unsal A. & Arslantas D. (2014). The prevalence of infertility and loneliness among women aged 18-49 years who are living in semi-rural areas in western Turkey. *International Journal of Fertility and Sterility, 8*(2), 155-162.

Gudykunst, W. B., Yoon, Y. C., & Nishida, T. (1987). The influence of individualism-collectivism on perceptions of communication in ingroup and outgroup relationships. *Communication Monographs, 54*(3), 295–306. doi: 10.1080/03637758709390234

Gulec, G., Hassa, H., Yalcin, E. G., & Yenilmez, Ç. (2011). Tedaviye basvuran infertile ciftlerde infertilitenin cinsel islev ve cift uyumuna etkisinin degerlendirilmesi. *Türk Psikiyatri Dergisi, 22*(3), 166-176.

Gulekli, B. (2006). *99 Sayfada tup bebek.* Istanbul: Türkiye İş Bankası Kültür Yayınları.

Gungul, E. E., Ozdemir, O., Yucel, O., Keskin, D. D., & Keskin, S. (2012). Diagnosed with infertility patients who underwent laparoscopy and hysteroscopy results and demographic analysis. *Gynecology Obstetrics Journal, 10*(3), 2461-2466.

Guzick, D. S., Carson, S. A., Coutifaris, C., Overstreet, J. W., Factor-Litvak, P., Steinkampf, M. P., Hill, J. A., Mastroianni, L., Buster, J. E., Nakajima, S. T., Vogel, D. L., & Canfield, R. E. (1999). Efficacy of superovulation and intrauterine insemination in the treatment of infertility. *New England Journal of Medicine*, *340*(3), 177–183. doi: 10.1056/nejm199907083410214

Hermens, R. P. M. G., Haagen, E. C., Nelen, W. L. D. M., Tepe, E. M., Akkermans, R., Kremer, J. A. M., & Grol, R. P. T. M. (2011). Patient and hospital characteristics associated with variation in guideline adherence in intrauterine insemination care. *International Journal for Quality in Health Care*, *23*(5), 574–582. doi: 10.1093/intqhc/mzr027

Hsu, Y. L., & Kuo, B. J. (2002). Evaluations of emotional reactions and coping behaviors as well as correlated factors for infertile couples receiving assisted reproductive technologies. *Journal of Nursing Research*, *10*(4), 291–302. doi: 10.1097/01.jnr.0000347610.14166.52

Huisman, D., Raymakers, X., & Hoomans, E. (2009). Understanding the burden of ovarian stimulation: fertility expert and patient perceptions. *Reproductive BioMedicine Online*, *19*, 5–10. doi: 10.1016/s1472-6483(10)60271-4

Hummel, W. P. & Kettel, L. M. (1997). Assisted Reproductive Technology: The State of the ART. *Annals of Medicine, 29*(3), 207-214, Doi: 10.3109/07853899708999338

Jose-Miller, A. B., Boyden, J. W. & Frey, K. A. (2007). Infertility. *American Family Physician 75*(6), 849-857.

Kabil Kucur, S., Gozukara, I., Aksoy, A. E., Gozukara, K. H., Uludag, E. U., Ulug, P., & Cengiz, F. (2016). Effects of infertility etiology and depression on female sexual function. *Journal of Sex & Marital Therapy*, *42*(1), 27–35. doi: 10.1080/0092623x.2015.1010673

Kaya, Z., & Oskay, U. (2019). Stigma, hopelessness and coping experiences of Turkish women with infertility. *Journal of Reproductive and Infant Psychology*, 1–12. doi: 10.1080/02646838.2019.1650904

Kazemi, A., Delavar, M. Z., & Kheirabadi, G. (2016). psychiatric symptoms associated with oocyte-donation. *Psychiatric Quarterly*, *87*(4), 749–754. doi: 10.1007/s11126-016-9424-4

Keskin, G., & Gumus, A. B. (2014). Infertility: An examination hopelessness perspective. Journal of Psychiatric Nursing, 5(1), 9–16.

Kirca, N., & Pasinlioğlu, T. (2013). Infertilite tedavisinde karsilasilan psikososyal sorunlar. *Psikiyatride Güncel Yaklaşımlar-Current Approaches in Psychiatry 5*(2), 162-178.

Kizilkaya Beji, N., & Kaya, D. (2012). Infertilitede birey-cift ve grup danismanligi. *Hemşirelikte Eğitim ve Araştırma Dergisi 9*(3), 10-14.

Kocyigit, T. O. (2012). Infertilite ve sosyo-kulturel etkileri. *İnsanbilim Dergisi, 1*(1), 27-38.

Kokanali, D., Kokanali, K. M., Eroglu, E., & Yilmaz, N. (2015). Is anxiety an effective factor on the success of ovulation induction/intrauterine insemination cycle. J*ournal of Clinical and Analytical Medicine 6*(6), 770-773.

Kondaveeti, N., Hamilton, J., Maher, B., Kirkham, C., Harrison, R. F., & Mocanu, E. V. (2011). Psychosocial trends in couples prior to commencement of *in vitro* fertilisation (IVF) treatment. *Human Fertility*, *14*(4), 218–223. doi: 10.3109/14647273.2011.633236

Kraft, A. D., Palombo, J., Mitchell, D., Dean, C., Meyers, S., & Schmidt, A. W. (1980). The psychological dimensions of infertility. *American Journal of Orthopsychiatry*, *50*(4), 618–628. doi: 10.1111/j.1939-0025.1980.tb03324.x

Krok, D. (2008). The role of spirituality in coping: Examining the relationships between spiritual dimensions and coping styles. *Mental Health, Religion & Culture*, *11*(7), 643–653. doi: 10.1080/13674670801930429

Leiblum, S. R. (Ed.). (1997). *Infertility: Psychological issues and counselling strategies*. New Jersey: John Wiley & Sons Inc.

Leiblum, S. R., Kemmann, E., & Lane, M. K. (1987). The psychological concomitants of in vitro fertilization. *Journal of Psychosomatic Obstetrics & Gynecology*, *6*(3), 165–178. doi: 10.3109/01674828709019420

Leke, R. J. I., Oduma, J. A., Bassol-Mayagoitia, S., Bacha, A. M., & Grigor, K. M. (1993). Regional and geographical variations in infertility: Effects of environmental, cultural, and socioeconomic factors. *Environmental Health Perspectives*, *101*, 73–80. doi: 10.2307/3431379

Lin, J. L., Lin, Y. H., & Chueh, K. H. (2013). Somatic symptoms, psychological distress and sleep disturbance among infertile women with intrauterine insemination treatment. *Journal of Clinical Nursing*, *23*(11-12), 1677–1684. doi: 10.1111/jocn.12306

Lindsay, T. J. & Vitrikas, K. R. (2015). Evaluation and treatment of infertility. *American Family Physician, 91*(5), 308-314.

Luk, B. H. K., & Loke, A. Y. (2015). the impact of infertility on the psychological well-being, marital relationships, sexual relationships, and quality of life of couples: A systematic review. *Journal of Sex & Marital Therapy, 41*(6), 610–625. doi: 10.1080/0092623x.2014.958789

Lunenfeld, B. (2011). Gonadotropin stimulation: past, present and future. *Reproductive Medicine and Biology, 11*(1), 11–25. doi: 10.1007/s12522-011-0097-2

Mahdavi, A., Pejovic, T., & Nezhat, F. (2006). Induction of ovulation and ovarian cancer: a critical review of the literature. *Fertility and Sterility, 85*(4), 819–826. doi: 10.1016/j.fertnstert.2005.08.061

Mahon, E., & Cotter, N. (2014). Assisted reproductive technology - IVF treatment in Ireland: A study of couples with successful outcomes. *Human Fertility, 17*(3), 165–169. doi: 10.3109/14647273.2014.948498

Marcus, D., Marcus, A., Johnson, A., & Marcus, S. (2011). Infertility treatment: When is it time to give up? An internet-based survey. *Human Fertility, 14*(1), 29–34. doi: 10.3109/14647273.2010.541971

Martins, M. V., Peterson, B. D., Almeida, V., Mesquita-Guimaraes, J., & Costa, M. E. (2014), Dyadic dynamics of perceived social support in couples facing infertility. *Human Reproduction 29*(1), 83-89.

Martins, M. V., Peterson, B. D., Costa, P., Costa, M. E., Lund, R., & Schmidt, L. (2012), Interactive effects of social support and disclosure on fertility-related stress. *Journal of Social and Personal Relationships 30*(4), 371–388.

Merari, D., Chetrit, A., & Modan, B. (2002). Emotional reactions and attitudes prior to in vitro fertilization: an inter-spouse study. *Psychology & Health, 17*(5), 629–640. doi: 10.1080/08870440290025821

Moustakas, C. (1994). *Phenomenological Research Methods*. Thousand Oaks, CA: Sage Publications.

Navid, B., Mohammadi, M., Vesali, S., Mohajeri, M., & Samani R. O. (2017). Correlation of the etiology of infertility with life satisfaction and mood disorders in couples who undergo assisted reproductive technologies. *Royan Institute International Journal of Fertility and Sterility, 11*(3), 205-210.

Nichols, M. P. (2013). *Family therapy: concepts and methods.* New Jersey, NJ: Pearson.

Nuojua-Huttunen, S., Tomas, C., Bloigu, R., Tuomivaara, L., & Martikainen, H. (1999). Intrauterine insemination treatment in subfertility: an analysis of factors affecting outcome. *Human Reproduction, 14,* 698–703.

Obeidat, H. M., Hamlan, A. M., & Callister, L. C. (2014). Missing motherhood: Jordanian womens experiences with ınfertility. *Advances in Psychiatry, 2014,* 1–7. doi: 10.1155/2014/241075

Ockhuijsen, H., Hoogen, A. V. D., Eijkemans, M., Macklon, N., & Boivin, J. (2014). The impact of a self-administered coping intervention on emotional well-being in women awaiting the outcome of IVF treatment: a randomized controlled trial. *Human Reproduction, 29*(7), 1459–1470. doi: 10.1093/humrep/deu093

Onat, G., & Kizilkaya Beji, N. (2012a). Marital relationship and quality of life among couples with infertility. *Sexuality and Disability, 30*(1), 39–52. doi: 10.1007/s11195-011-9233-5

Onat, G., & Kizilkaya Beji, N. (2012b). Effects of infertility on gender differences in marital relationship and quality of life: A case-control study of Turkish couples. *European Journal of Obstetrics & Gynecology and Reproductive Biolology, 165,* 243–248. doi:10.1016/j.ejogrb.2012.07.033

Organization for Economic Cooperation and Development (OECD). (2008). OECD Saglik sistemi incelemeleri: turkiye. https://sbu.saglik.gov.tr/ekutuphane/kitaplar/oecdkitap.pdf

Osuna, E. E. (1985). The psychological cost of waiting. *Journal of Mathematical Psychology, 29*(1), 82-105.

Peterson, B. D., Gold, L., & Feingold, T. (2007). The experience and influence of infertility: Considerations for couple counselors. *The Family Journal, 15*(3), 251–257. doi: 10.1177/1066480707301365

Phillips, E., Elander, J., & Montague, J. (2014). An interpretative phenomenological analysis of men's and women's coping strategy selection during early IVF treatment. *Journal of Reproductive and Infant Psychology, 32*(4), 366–376. doi: 10.1080/02646838.2014.915391

Prattke, T. W., & Gass-Sternas, K. A. (1993). Appraisal, coping, and emotional health of infertile couples undergoing donor artificial insemination. *Journal of Obstetric, Gynecologic & Neonatal Nursing, 22*(6), 516–527. doi: 10.1111/j.1552-6909.1993.tb01837.

Read, S. C., Carrier, M. E., Boucher, M. E., Whitley, R., Bond, S., & Zelkowitz, P. (2014). Psychosocial services for couples in infertility treatment: What do couples really want? *Patient Education and Counseling*, *94*(3), 390–395. doi: 10.1016/j.pec.2013.10.025

Rhee, E., Uleman, J. S., & Lee, H. K. (1996). Variations in collectivism and individualism by ingroup and culture: Confirmatory factor analysis. *Journal of Personality and Social Psychology*, *71*(5), 1037–1054. doi: 10.1037/0022-3514.71.5.1037

Ring, J., Lwin, A., & Köhler, T. (2016). Current medical management of endocrine-related male infertility. *Asian Journal of Andrology*, *18*(3), 357. doi: 10.4103/1008-682x.179252

Roudsari, R. L., Allan, H. T., & Smith, P. A. (2014). Iranian and English womens use of religion and spirituality as resources for coping with infertility. *Human Fertility*, *17*(2), 114–123. doi: 10.3109/14647273.2014.909610

Schmidt, L., Holstein, B., Christensen, U., & Boivin, J. (2005). Does infertility cause marital benefit? *Patient Education and Counseling*, *59*(3), 244–251. doi: 10.1016/j.pec.2005.07.015

Silva, S., & Machado, H. (2010). Uncertainty, risks and ethics in unsuccessful in vitro fertilisation treatment cycles. *Health, Risk & Society*, *12*(6), 531–545. doi: 10.1080/13698575.2010.515734

Singh, S. (2016) Study of emotional responses of couples undergoing infertility treatment. *Indian Journal of Health and Wellbeing, 7*(6), 619-622.

Slade, P., Emery, J., & Lieberman, B. A. (1997). A prospective, longitudinal study of emotions and relationships in in- vitro fertilization treatment. *Human Reproduction*, *12*(1), 183–190. doi: 10.1093/humrep/12.1.183

Stone, B. A., Vargyas, J. M., Ringler, G. E., Stein, A. L., & Marrs, R. P. (1999). Determinants of the outcome of intrauterine insemination: Analysis of outcomes of 9963 consecutive cycles. American Journal of Obstetrics and Gynecology, 180(6), 1522–1534. doi: 10.1016/s0002-9378(99)70048-7

Sydsjo, G., Ekholm, K., Wadsby, M., Kjellberg, S., & Sydsjo, A. (2005). Relationships in couples after failed IVF treatment: a prospective follow-up study. *Human Reproduction*, *20*(7), 1952–1957. doi: 10.1093/humrep/deh882

Tanha, F. D., Mohseni, M., & Ghajarzadeh, M. (2014). Sexual function in women with primary and secondary infertility in comparison with controls. *International Journal of Impotence Research*, *26*(4), 132–134. doi: 10.1038/ijir.2013.51

T. C. Sosyal Guvenlik Kurumu Bakanligi. (2014). *Uremeye yardimci tedavi uygulamalari ve uremeye yardimci tedavi merkezleri hakkinda yonetmelik.* www.saglik.gov.tr

T. C. Saglik Bakanligi ve Ana Çocuk Sağlığı ve Aile Planlaması Genel Mudurlugu. (2005). *Ulusal aile planlaması hizmet rehberi*. Ankara, Türkiye Cumhuriyeti Sağlık Bakanlığı ve Ana Çocuk Sağlığı ve Aile Planlaması Genel Müdürlüğü.

T. C. Sosyal Guvenlik Kurumu Baskanligi Genel Saglik Sigortasi Genel Mudurlugu. (2013). *Sosyal güvenlik kurumu sağlık uygulama tebliği.* Ankara, Turkiye Cumhuriyeti Sosyal Güvenlik Kurumu Başkanlığı Genel Saglık Sigortası Genel Müdürlüğü. https://www.resmigazete.gov.tr/eskiler/2013/03/20130324-3.pdf

Tuzer, V., Tuncel, A., Goka, S., Dogan Bulut, S., Yuksel F. V., Atan, A., & Goka, E. (2010). Marital adjustment and emotional symptoms in infertile couples: Gender differences. *TÜBİTAK, Turkish Journal of Medical Sciences, 40*(2): 229-237.

Verhaak, C., Smeenk, J., Minnen, A. V., Kremer, J., & Kraaimaat, F. (2005). A longitudinal, prospective study on emotional adjustment before, during and after consecutive fertility treatment cycles. *Human Reproduction*, *20*(8), 2253–2260. doi: 10.1093/humrep/dei015

World Health Organization. (1992). *Recent Advances in Medically Assisted Conception Report* Geneva, World Health Organization. Retrieved from https://apps.who.int/iris/handle/10665/38679

Williams, L., Bischoff, R., & Ludes, J. (1992). A biopsychosocial model for treating infertility. *Contemporary Family Therapy*, *14*(4), 309–322. doi: 10.1007/bf00891868

Ying, L., Wu, L. H., & Loke, A. Y. (2016). The effects of psychosocial interventions on the mental health, pregnancy rates, and marital function of infertile couples undergoing in vitro fertilization: a systematic review. *Journal of Assisted Reproduction and Genetics*, *33*(6), 689–701. doi: 10.1007/s10815-016-0690-8

Ying, L., & Loke, A. Y. (2016). An analysis of the concept of partnership in the couples undergoing infertility treatment. *Journal of Sex & Marital Therapy*, *42*(3), 243–256. doi: 10.1080/0092623x.2015.1010676

APPENDİX A: Informed Consent Form

Onam Formu

Sayın Katılımcı,

Bu araştırma, İstanbul Bilgi Üniversitesi Klinik Psikoloji Bölümü Çift ve Aile Terapisi Alt Dal Programı'ndan yüksek lisans öğrencisi Psk. Begüm Akçınar ve Dr. Senem Zeytinoğlu tarafından yürütülmektedir. Bu araştırma tüp bebek tedavisi gören çiftlerin deneyimlerini anlamak üzerine tasarlanmıştır. Bu araştırmada doğru ya da yanlış cevap yoktur. Sizden beklentimiz kendinizi olabildiğince açık şekilde ifade etmeye çalışmanızdır.

Bu araştırma bilimsel amaçlarla yapılmaktadır. Çalışma süresince vereceğiniz tüm bilgiler anonim olarak değerlendirilecektir. Bu amaçla görüşmeler sizin belirlediğiniz takma isimler kullanılarak kayıt altına alınacaktır. Araştırmanın hiçbir aşamasında isimleriniz veya kişisel bilgileriniz kullanılmayacak, elde edilen sonuçlar ile kişisel bilgileriniz eşleştirilmeyecektir. Araştırmanın amacı deneyimleri anlamak odağındadır, araştırma sonucunda herhangi bir kişisel değerlendirme yapılmayacaktır. Araştırmanın bilgileri ve verileri araştırmacının şifreli bilgisayarında ve kilitli ofisinde tutulacaktır ve bulgular yayınlandıktan sonra imha edilecektir.

Bu araştırmaya katılım gönüllülük esasına dayanır. Bu formu imzalamama ve araştırmaya katılmama hakkınız her daim mevcuttur. Formu imzalasanız dahi kendinizi rahat hissetmediğiniz an araştırmadan çekilme hakkınız baki kalacaktır. Görüşmeler sonunda eğer destek almaya ihtiyaç duyduğunuzu düşünürseniz Özyeğin Üniversitesi Çift ve Aile Merkezi (Özüçam) ile ozu-cam@ozyegin.edu.tr adresinden ya da 0549 810 86 25 numaralı telefondan iletişime geçebilirsiniz.

Araştırmanın sonunda deneyimleriniz belli temalar altında toplanacak, bu temaların deneyimlerinizi yansıtıp yansıtmadığına dair sizden bilgi almak üzere sizlerle e-mail yolu ile iletişime geçilecektir.

Bu araştırma ile ilgili daha fazla bilgi edinmek için Psk. Begüm Akçınar (begakcinar13@alm.ku.edu.tr) ile iletişime geçebilirsiniz. Bu formda anlatılan araştırmanın etik yönleriyle ve/veya araştırma detayları ile ilgili sorularınız, sorunlarınız

veya önerileriniz varsa lütfen İstanbul Bilgi Üniversitesi Etik Kurulu ile 0212 444 04 28 numaralı telefondan iletişime geçiniz.

Yukarıda sözü geçen araştırma projesinin detaylarını okudum ve bu proje ile ilgili sorularım cevaplandı. Bu çalışmaya gönüllü olarak hür irademle katılmayı kabul ediyorum.

İsim & Soyisim:

Tarih:

İmza:

E-mail:

APPENDİX B: Demographic Form

Demografik Bilgi Formu

1) Cinsiyetiniz: _____

2) Yaşınız: _____

3) Medeni durumunuz: _____

4) Mesleğiniz: _____

5) Sosyo-ekonomik (maddi) seviyenizi nasıl tanımlarsınız?

○ Üst sınıf ○Üst-orta sınıf ○Orta sınıf ○Düşük-orta sınıf ○Düşük sınıf

6) Eğitim durumunuz (en son mezun olduğunuz okul):

○ İlkokul ○ Ortaokul ○ Lise ○ Üniversite ○ Yüksek lisans

7) Tedavisiz çocuk sahibi olamayacağınıza dair teşhisi alalı ne kadar zaman oldu? _____

8) Aşılama/Tüp bebek tedavisi olmaya ne zaman karar verdiniz (Yıl)? _____

9) Aşılama/Tüp bebek tedavi yöntemi haricinde denediğiniz farklı tedavi yöntemleri oldu mu?

Oldu ise neler? _____

10) Aşılama/Tüp bebek tedavi sürecinde tutmayan aşılama/başarısız tedavi deneyiminiz oldu mu?

○ Evet ○ Hayır Evet ise; kaç tane olduğunu belirtiniz? _____

11) Tedavi süreci öncesinde herhangi bir psikolojik tedavi süreci deneyiminiz oldu mu?

○ Evet ○ Hayır Evet ise; süresini belirtiniz? _____

13) Tedavi süreci esnasında psikolojik tedavi arayışınız/düşünceniz oldu mu?

○ Evet ○ Hayır

14) Bu süreçle birlikte herhangi bir psikolojik ilaç kullanma arayışına girdiniz mi?

○ Evet ○Hayır

15) Aşılama/Tüp bebek tedavisi ile birlikte bir destek grubuna katıldınız mı?

○ Evet ○ Hayır

APPENDİX C: Interview Guide

Araştırma Soruları

Bu araştırmada İstanbul Bilgi Üniversitesi Klinik Psikoloji yüksek lisans araştırması olarak tüp bebek tedavisi gören çiftlerin deneyimlerini anlamayı hedefliyorum. Bu amaçla sizin gibi tüp bebek tedavi sürecinden geçen çiftlerle derinlemesine görüşmeler yapıyorum. Sorduğum soruların doğru ya da yanlış cevabı yok. Olabildiğince açık şekilde özgün deneyimlerinizi paylaşmanızı rica ediyorum.

Sorular:

1- Tedavi aşamalarında neler deneyimlediniz? (Başlangıcı-ortası-şimdi)
2- Tedavi süreci ile birlikte aile içinde, eşinizle olan ilişkinizde herhangi bir değişim hissettiniz mi? Hissettiyseniz bu değişimler neler olabilir (Probe: sorumluluklar, iletişim, birlikte geçirilen zaman)
3- Bu sürecin sizin için en zor tarafları ne? Nasıl başa çıkıyorsunuz?
4- İlk tutmayan aşılama/başarısız tedavi yaşadığınıza dair bilgilendirme size kimin tarafından, nasıl anlatıldı?
5- Aşılamanın tutmadığı/tedavinin istenilen başarıya ulaşmadığı haberini aldığınızda ne tepki verdiniz, neler düşündünüz? Ne hissettiniz?
6- Eşinizin tutmayan aşılama/başarısız tedavi durumuna verdiği tepki size nasıl geldi? Siz onun tepkisine nasıl karşılık verdiniz? Nasıl davrandınız? Ne hissettiniz?
7- Bu süreçte size kimler destek oluyor?
8- Tutmayan aşılama/başarısız tedavi sürecinden sonra tedaviye devam etmeye karar vermenizi sağlayan nedenler nelerdir?
9- Tedaviye devam etmeye dair kararınızı kendi aranızda nasıl konuştunuz?
10- İkinci kez tutmayan aşılama/başarısız tedavi haberi aldığınızda ne tepki verdiniz? Neler düşündünüz? Ne hissettiniz?
11- İkinci kez yaşanan tutmayan aşılama/başarısız tedavi sürecinin ilkinden ne gibi farkları olduğunu düşünüyorsunuz?
12- İkinci kez tutmayan aşılama/başarısız tedavi sürecinin içinde olmanın sizin için en zor tarafları ne? Nasıl başa çıkıyorsunuz?
13- İkinci kez tutmayan aşılama/başarısız tedavi yaşadığınıza dair bilgilendirme size kimin tarafından, nasıl anlatıldı?

14- Bu süreçte birbirinizle olan ilişkinizde neler değişti?
15- Tutmayan aşılama/başarısız tedavi durumlarını başkalarıyla paylaştınız mı? Onların tepkileri ne oldu? Siz bu tepkiler karşısında ne hissettiniz, düşündünüz? Nasıl davrandınız? (Probe: geniş aile, arkadaşlar, iş yeri, okul)
16- Bu süreçte en çok neye ihtiyacınız olduğunu hissediyorsunuz? Sizi en çok ne rahatlatıyor? (Probe: örnek)
17- Bundan sonraki süreçte nelerin olması size iyi gelir?
18- Teşhis ve tedavi süreçlerinde insanların size karşı tutum ve davranışları öncesine göre nasıldı? Siz bu tutum ve davranışlar hakkında ne hissettiniz, düşündünüz? Nasıl davrandınız? (Probe: yakından tanıyanların, uzaktan tanıyanların)
19- Bu teşhisi yeni almış bir aileye ne tavsiye edersiniz?

ETİK KURUL DEĞERLENDİRME SONUCU/RESULT OF EVALUATION BY THE ETHICS COMMITTEE

(Bu bölüm İstanbul Bilgi Üniversitesi İnsan Araştırmaları Etik Kurul tarafından doldurulacaktır /This section to be completed by the Committee on Ethics in research on Humans)

Başvuru Sahibi / Applicant: Begüm Akçınar

Proje Başlığı / Project Title: Experiences of Couples going through Assisted Reproductive Treatment: A Phenomenological Study

Proje No. / Project Number: 2019-20024-24

1.	Herhangi bir değişikliğe gerek yoktur / There is no need for revision	XX
2.	Ret/ Application Rejected Reddin gerekçesi / Reason for Rejection	

Değerlendirme Tarihi / Date of Evaluation: 12 Şubat 2019

Kurul Başkanı / Committee Chair

Doç. Dr. Itır Erhart

Üye / Committee Member

Prof. Dr. Aslı Tunç

Üye / Committee Member

Prof. Dr. Hale Bolak

Üye / Committee Member

Prof. Dr. Turgut Tarhanlı

Üye / Committee Member

Prof. Dr. Koray Akay

Üye / Committee Member

Prof. Dr. Ali Demirci

T.C
YÜKSEKÖĞRETİM KURULU
ULUSAL TEZ MERKEZİ

TEZ VERİ GİRİŞ FORMU

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Tezin Özgün Adı	EXPERIENCES OF COUPLES GOING THROUGH ASSISTED REPRODUCTIVE TREATMENT: A PHENOMENOLOGICAL STUDY
Tezin Tercümesi	YARDIMCI ÜREME TEKNİKLERİ İLE TEDAVİ GÖREN ÇİFTLERİN DENEYİMLERİ: FENOMENOLOJİK BİR ARAŞTIRMA
Konu	Psikoloji = Psychology
Üniversite	İstanbul Bilgi Üniversitesi
Enstitü / Hastane	Lisansüstü Programlar Enstitüsü
Anabilim Dalı	Klinik Mikrobiyoloji ve Enfeksiyon Hastalıkları Anabilim Dalı
Bilim Dalı	Psikoloji Bilim Dalı
Tez Türü	Yüksek Lisans
Yılı	2020
Sayfa	114
Tez Danışmanları	DR. ÖĞR. ÜYESİ FEHİME SENEM ZEYTİNOĞLU SAYDAM DR. ÖĞR. ÜYESİ YUDUM SÖYLEMEZ DR. ÖĞR. ÜYESİ CELİA KATRİNE NAİVAR ŞEN
Dizin Terimleri	
Önerilen Dizin Terimleri	

10.02.2020

İmza:.....

İstanbul Bilgi Üniversitesi
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İSTANBUL BİLGİ ÜNİVERSİTESİ
KÜTÜPHANE VE E-KAYNAKLAR
TEZ VERİ GİRİŞİ VE YAYIMLAMA İZİN FORMU

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Tezin Özgün Adı	Experiences of Couples Going Through Assisted Reproductive Treatment: A Phenomenological Study
Tez Adının Tercümesi	Yardımla Üreme Teknikleri ile Tedavi Gören Çiftlerin Deneyimleri: Fenomenolojik bir Araştırma
Konu Başlıkları	Aşılama, Tüp Bebek Tedavisi, Çift Deneyimleri
Üniversite	İstanbul Bilgi Üniversitesi
Enstitü	Sosyal Bilimler Enstitüsü
Anabilim Dalı	Psikoloji Anabilim Dalı
Bilim Dalı / Bölüm	Klinik Psikoloji, Çift ve Aile Terapisi
Tez Türü	Yüksek Lisans
Yılı	2020
Sayfa	114
Tez Danışmanları	Fehime Seneem Zeytinoğlu Saydam
Dizin Terimleri	Aşılama, Tüp Bebek Tedavisi, Bağışsız Tedavi, Çift Deneyimleri
Önerilen Dizin Terimleri	

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Patent alma nedeni ile tezimin .....tarihine kadar erişime kapatılmasını istiyorum.

Ad Soyad: Begüm Akgüner Tarih: 10.02.2020

İmza: