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EMPTY CRIBS: INFERTILITY CHALLENGES FOR ORTHODOX JEWISH  
COUPLES

A dissertation presented to the faculty of

ANTIOCH UNIVERSITY SANTA BARBARA

in partial fulfillment of  
the requirements for the  
degree of

DOCTOR OF PSYCHOLOGY  
in  
CLINICAL PSYCHOLOGY

By

ITAY KOHANE  
MARCH 2020

EMPTY CRIBS: INFERTILITY CHALLENGES FOR ORTHODOX JEWISH  
COUPLES

This dissertation, by Itay Kohane, has been approved by the committee members signed below who recommend that it be accepted by the faculty of Antioch University Santa Barbara in partial fulfillment of requirements for the degree of

DOCTOR OF PSYCHOLOGY

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## Abstract

This dissertation discusses an issue that is of importance to many people throughout their lifetime—infertility. One in every eight couples (12%) is incapable of carrying a pregnancy to term after one year of natural attempts. This paper further examines the prevalence of infertility among couples, bringing into focus more common variables such as gender and age. But, going beyond these, the present study will demonstrate that other variables including stressors such as social factors, interpersonal dynamics, and personal judgment affect couples in a manner which indirectly reduces their chances of conceiving a child. This research will touch on a number of such stressors, but it will focus in particular on the factors that account for infertility among Orthodox Jewish couples. Using thorough personal interviews, the present study discovered themes of protective factors and stressors that result from the traditions and laws of the Orthodox Jewish population; some of the themes were found to be unique to this population. This study emphasizes the importance of higher awareness of infertility in the Orthodox Jewish community, and discusses important clinical implications and recommendations in providing this information to the community. This dissertation is available in open access at AURA, <http://aura.antioch.edu/> and the OhioLINK ETD Center, <https://etd.ohiolink.edu/>

*Keywords:* Orthodox, Jewish, infertility, stress, couples, IVF, anxiety, depression, faith, support, treatments, halacha.

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Empty Cribs:  
Infertility Challenges for Orthodox Jewish Couples

**Chapter I: Introduction**

"And God said unto them, be fruitful, and multiply" (Gen. 1:28).

Due to fertility problems, many Orthodox Jewish couples are not able to follow this first biblical commandment ("Mitzvah"), which holds believers responsible for sustaining their population (Grazi & Wolowelsky, 2015). Infertility researchers note unique and complex dilemmas inherent in childlessness, especially among the Orthodox Jewish population. One of every eight couples (12%) in the general population is incapable of carrying a viable pregnancy after one year of natural attempts; after this period, the couple is considered infertile, unless another medical issue indicates infertility sooner (Centers for Disease Control and Prevention, 2019). Interestingly, these odds are lower among couples attempting to conceive a second child. Even couples who do not have fertility problems can't guarantee immediate pregnancy success, as women younger than 35 years old have only a 31% chance of becoming pregnant in any given month. However, these chances decrease dramatically over time, such that by the time women are 43 or older, it drops to 3% (Centers for Disease Control and Prevention, 2019). It is striking that approximately 44% of women who are aware of experiencing infertility go through fertility treatments, while 65% of those who go through fertility treatments eventually give birth (Perelman, 2019). One-third of infertility is attributed to the female partner, one-third is attributed to the male partner (a segment that until recently that was

relatively neglected in research), and one-third is caused by a combination of problems in both partners, or is unexplained (Centers for Disease Control and Prevention, 2019).

Women are bearing children later in life, as evidenced by an increase of 3.6 years in the average age of first-time mothers, from 21.4 years in 1970 to 25 years in 2006 (Mathews & Hamilton, 2015). Mathews and Hamilton (2015) suggest various reasons for this phenomenon. The main reason reported was not having a partner in their lives (50%). It could be speculated that men have a lower desire for children as well, and that delaying childbearing is beyond women's personal control. Another common obstacle reported by women is financial security (32%), as women felt they had to earn more money before they decided to conceive a child. This goes along with the wish to have a stable career before considering conceiving a child (19%). Interestingly, many women (18%) were unaware of the impact of age on fertility, and therefore allowed themselves to begin this process later in life (Mathews & Hamilton, 2015). Ying, Wu, and Loke (2015) argue that a factor impacting women's decision to delay having children is the supposition that fertility treatments can solve every problem. Therefore, they may decide to delay childbearing with the sense that there will be solutions available for them as technology develops at an increasing pace.

### **Infertility and Stress**

Once women decide to have children but experience fertility difficulties, they are apt to experience stress and anxiety (Peterson, Newton, & Rosen, 2003). When couples realize they are having significant difficulty and might not even be able to conceive a child, they often feel something else is also wrong with them. For example, significant increases in anxiety levels (23%) and depression were found among couples receiving

their first fertility treatment (Cousineau & Domar, 2007). At the same time, infertility can strongly affect relationships, even dooming relationships that until that point were satisfactory (Peterson et al., 2003). An added feature is the fact that fertility treatments go against the beliefs of some populations. For example, many treatment procedures may conflict with the Orthodox Jewish biblical law, which guides medical decision making for this religious population (Hirsh, 1998; Amelar, Dubin, Gordon, & Tendler, 1977). Therefore, some Orthodox Jewish couples will choose to consult their rabbi first, as their mentor, for guidance in matters of infertility and for permission to go through different treatments (Hirsh, 1998).

What are the consequences of the stress couples experience, and how might it be of harm? In a state of stress, different physiological responses occur (i.e. increases in pulse rates and blood pressure). Continuous triggering of this system, such as when couples frequently meet with their medical doctor for fertility treatments, can cause a variety of physiological problems as a result of their level of stress, such as strokes (Everson et al., 2001; Ying et al., 2015). Even stressors associated with the daily routines of life can negatively impact mood and the way people function. Bolger, DeLongis, Kessler, & Schilling (1989) divided this influence into different categories:

- 1) Daily load; that is, house or work chores and demands;
- 2) Arguments and disagreements within the family; and
- 3) Economic issues, such as mobility and financial difficulties.

At the same time, certain levels of stress can have positive implications. Take, for example, the "Inverted-U" model that many researchers use in order to explain different phenomena (Anderson, 1994). Anderson explained that according to this model, the

performance in simple tasks improves as the stress level increases, until a certain point where performance begins to decline, eventually reaching the point where the person can no longer function.

In infertility, the impact of stress is largely negative. Fertility treatments have been found to cause negative feelings, such as: guilt experienced by the partner who carries the fertility problem; helplessness experienced by the partner who is fertile; and stress experienced by both partners who might not be able to bring a child into the world (Cousineau, & Domar, 2007). In the past, researchers have focused on the woman's experience of infertility stress, strangely neglecting the impact on male partners. This was true until the publication of pivotal studies such as that of Clarke, Klock, Geoghegan, & Travassos (1999), which found significant distress among men in infertile partnerships. After a period of lack of success with natural fertility, the necessity of going through in-vitro fertilization (IVF), where an egg is fertilized by a sperm outside the body, seems to cause a tremendous amount of stress.

This burden has a negative influence for both partners with the stress impacting overall functioning; but even more significantly, it impacts the couple's ability to conceive as well. Among women, stress is prevalent during IVF procedures, yet stress was not determined as a cause for infertility (Harlow, Fahy, Talbot, Wardle, & Hull, 1996; Milad, Klock, Moses, & Chatterton, 1998). Among men, there is a similar influence, as stress impacts semen quality, thus undermining IVF success (Clarke et al., 1999). In addition to the daily stressors mentioned above, Clarke et al. (1999) mentioned that male patients appear to be keenly aware of the importance of their semen quality in the IVF treatments. They found that, as long as the perceived importance remained high,

semen parameters remained low, which can happen as a result of stress. The stress could potentially increase due to the clinic environment (e.g. waiting room, people waiting in line for their appointment, strangers near them that might judge them, etc). In the Clarke et al. study (1999), researchers made sure low quality of sperm was not a result of factors such as alcohol, medication, lack of exercise, problems in producing a sample, or previous ejaculations that were close to the time of the appointment. Interestingly, at times, couples who had gone through an unsuccessful IVF treatment became pregnant naturally, perhaps because the stress associated with IVF had been alleviated (Clarke et al., 1999).

### **Research Questions**

We would expect Orthodox Jewish couples, as part of the general population, to experience similar infertility statistics and stressors in the process, including gender-related matters. Considering their high community involvement (Gilbert & Miles, 2000) and emphasis on having children (Loewenthal & Goldblatt, 1993), we would expect additional stressors to appear during their infertility treatment. In addition, their faith can both increase their level of stress and provide some relief (Kahn, 2006), while their religious laws may have an effect as well (Hirsch, 1998). This study is expected to reveal unique stressors for Orthodox Jewish couples who experience infertility, as well as similarities with other populations, and for mental health providers to be able to address them in their practice.

## Chapter II: Literature Review

### Gender Unique Stressors

Ying et al. (2015) conducted a literature review examining gender differences in the way members of the couple adjust to infertility. In terms of marital issues, they found similar rates of stress among both men and women regarding issues such as adjustment to infertility treatments, satisfaction in the marriage, and sexual satisfaction. More particularly, both partners experienced similar stress in response to realizing they would not be able to get pregnant naturally and would need to go through fertility treatments. However, a significant gender-unique finding is that over time women seem to adjust better to infertility, as their level of anxiety showed a greater decline than in men. Hormonal and physiological changes women experience in fertility treatments might help explain some of the difference in male and female stress levels; but still, it seems clear that both genders suffer from the couple's infertility (Ying et al., 2015).

Stanton, Tennen, Affleck, & Mendola's (1991) research confirms the similarities in stress levels between genders, and focused on the associations between cognitive appraisals of infertile partners and their level of distress. Stanton et al.'s participants were all married and had been trying to conceive for a minimum of one year. None had biological, adopted, or foster children. Approximately 49% of the men and 61% of the women felt that infertility threatened important life goals, and 50% and 55%, respectively, felt that it threatened their sexual relationship. The significant difference in threatening important life goals might suggest that women perceive parenthood as a more central role. However, the overall stress levels are high. One possible reason is the lack of control couples felt they had over their infertility. Optimistic results were found as well.



Fully 70% of men and 75% of women thought IVF provided potential for personal growth, and a large percentage felt it would strengthen their marriage (Stanton et al., 1991).

In many cases, only one partner has a fertility deficiency. However, the other partner might still have the desire to have a biological child of his or her own (Lorber, 1987). Sometimes, the infertile partner would prefer to adopt in order for both partners to be at the same parenting status, but it might not satisfy the fertile partner who may want to continue his or her genetic heritage. This partner might believe the birth and pregnancy experience is necessary, or feel that having a non-biological child might invalidate his masculinity or her femininity. In addition, men are usually fertile until an older age than women. These competing stressors can cause tension in the relationship (Lorber, 1987). Most IVF treatments include several trials (Clarke et al., 1999). Lorber (1987) found, especially for childless couples, that the first attempt and the last one were the most stressful for the couple, the first being a new experience for them and the last the successful or final opportunity. An additional finding was that 15% of women and 12% of men who participate in IVF treatments already had biological children. This fact might suggest a reduction of the pressure on these partners, but this effect did not occur in most cases. The fact that these treatments are relatively expensive can also add another stressor to the equation, as can the fact that the couple will need to undergo discomforting, invasive procedures — all this with potential for complications and the knowledge that there is no guarantee of a positive result (Lorber, 1987).

Stanton et al. (1991) found that significant differences emerged between men and women regarding distress about infertility. For instance, 47% percent of the women felt

disappointed by their infertility, compared to only 22% of the men. Furthermore, women were more likely to experience actual psychological distress when they perceive infertility as out of their control, as untreatable, and a threat to continuing their genetic heritage. This phenomenon was not found among men, as their cognitive appraisals of infertility treatments (i.e. harmful or beneficial) were unrelated to distress for males. This finding is associated with another striking and interesting discovery: husbands reported less distress, both in general and infertility-specific distress, in cases where their wives perceived a greater challenge from infertility, which points to an adaptive significance for one partner in relation to the other partner's cognitive appraisals (Stanton et al., 1991). These phenomena might be due either to a lack of empathy on the husbands' part, or to the husband's need to balance the affect in the relationship and take the role of the "stable partner."

By focusing their research on long-term infertile couples, Van Balen, & Trimbos-Kemper (1994) added significant factors into the equation of infertile couples' relationship and individual well-being. The couples they studied had already experienced failure in fertility treatments, which means they were familiar with the associated emotions and physical impact on their bodies, and knew what it takes to go through the procedure. On one hand, they knew what to expect, but on the other hand, they might have been expected to experience more stress, thinking: "Why would this time be different than the previous one?" Importantly, couples were older in this study, with the mean age for women 34.9 years, and men, 38, in comparison to 31 years for both genders in the Stanton et al. (1991) study. This difference in age could possibly affect the results. However, Van Balen, & Trimbos-Kemper (1994) show that time did not heal the wounds,

and the well-being of the partners suffered, even after a long duration of infertility. Additionally, childlessness has a negative impact on well-being for both men and women who wish to have children. Men's well-being was compromised when they kept secret their infertility. Furthermore, men, relative to women, had a larger sense of guilt, which may be due to masculinity concerns, such as the perception of sexual incompetence, and stress associated with the possibility of not being able to have an offspring genetically their own. In contrast, when partners differed on the level of their desire to have a child, there was less effect on the well-being of the couple. This fact points out that one's own feelings carry more weight than the couple's well-being in this case (Van Balen, & Trimbos-Kemper, 1994).

Ying et al. (2015) stated both genders' stress originates from similar problems, but with different implications. For instance, the prevalence of psychiatric disorders, specifically mood disorders, is higher among women who suffer from infertility than men (Volgsten et al., 2008). However, this could also be due to higher stress levels and not necessarily a different expression of the stress. Regarding physical stressors, Ying and colleagues discovered that the spouses of either sex were found consistently to believe their partners were in worse physical health than they actually were (Ying et al., 2015). This might be an indicator of miscommunication, and perhaps a desire to disown or reassign attribution for the problem to the other. This finding is interesting, considering the possibility that infertility would cause couples to isolate themselves from others, and rely mainly on each other for support. One might think this would make the partners closer and more familiar with each other's pain and suffering. However, if the relationship is not a healthy one, isolation from family and friends might even increase

the problems. There are different possibilities for this isolation. The study of Anderson, Sharpe, Rattray, & Irvine (2003), for instance, indicated that infertile women avoided social events with friends who have children, or who were pregnant. Another reason might be that this isolation can happen as a result of guilt (Ying et al., 2015). It was found that when the wives had the infertility problem, they had an acceptance issue from their in-laws, possibly a result of not being capable of carrying the family's name to future generations (Ying et al., 2015).

All of the stressors mentioned above require a lot of resiliency and adaption (coping skills) to manage. The existing research does not identify specific ways that individuals cope with infertility that are considered more successful or more common than others (Ying et al., 2015). Individuals from both genders perceive support from social networks and health care providers in inconsistent ways. However, some studies indicate that support from partners, family, and social networks was related to lower stress among infertile women, while for men, support from their health-care providers and partners had a similarly positive affect (Ying et al., 2015).

### **Introduction to the Orthodox Jewish Culture**

The social support offered by the community surrounding infertile couples can vary depending on the social-culture environment in which they live (Ying et al., 2015).

Orthodox Jewish couples have a very different support system when it comes to fertility problems due to their culture and beliefs. It is generally accepted that it is important for those who are involved in the practice of assisted reproduction to learn about the religious beliefs and practices related to problems of infertility of the couples they treat. What,

then, makes the infertility procedures and the stressors they produce so different for Orthodox Jewish people?

In order to understand the reasons for the unique influence of this culture, it helps to understand some basic information about Jewish terms. 'Torah' is used in a wider context to describe all Jewish law, and a rabbi is defined as an expert in the Torah. 'Rabbinic laws' form the main body of Jewish legislation, which is based on "critical analysis and interpretation of the Torah and its statutes in the Mishna and Talmud, the main sources of the 'oral law' elaborating the Torah" (Hirsh, 1998). Hirsch distinguished between biblical and rabbinic laws asserting that biblical laws have a greater significance than rabbinic laws. Still, Orthodox Jews worldwide follow rabbinic law in order to adjust to the changes in the modern way of living and advances in society. 'Halacha' covers the everyday rules and regulations guiding personal, family, national, international and financial relationships and behaviors that serve as extra-legal guides for behavior within the Orthodox community. Adherence to Halacha is voluntary, and no penalties are imposed if its dictates are not followed. In the nineteenth century, Judaism was divided into Orthodox, Conservative, and Progressive sects, the first considered the most strict in terms of its commitment to follow all the commandments of the Mishna and Talmud, and the latter, the least strict (Hirsch, 1998).

The Talmud limits sexual relations exclusively to marriage, with laws against "wasting semen." Every ejaculation should be during intercourse between the husband wife, in a way that will potentially allow them to conceive a child (Hirsh, 1998).

According to Hirsh, the Talmudic laws encourage Orthodox couples to make every effort to avoid any kind of fertility treatments and use them only as a last resort. At the same

time, the role of raising children in the Orthodox Jewish family is placed on the female, and if they are the infertile partner, women may feel they are not fulfilling their position in the family (Hirsh, 1998). This supports a Talmud law, which states that ten years of infertility can be used as a ground for a husband to divorce his wife, something which is not acceptable in many other populations and can add a lot of pressure on the female. According to the Halacha, the duty of the physician is to preserve life and health, which means he or she may intervene in the course of nature. Therefore, in time, infertility treatments have been interpreted to be in accord with Halacha (Hirsh, 1998).

### **Treatments and Unique Stressors among Orthodox Jewish Couples**

Any technological development is accepted in Jewish law, but regarding medical procedures in general, and specifically infertility treatments, it is the rabbi's duty (and only the rabbi has the authority) to decide if the clinical procedures should be carried out (Hirsh, 1998). The latter process is more commonly followed in the Ultra-Orthodox Jewish tradition than others. When consulted by infertile patients, the rabbi will usually refer to the Talmud and Shulchan Aruch, which is the most widely accepted compilation of the Halachic laws, and the rabbi may also consult religious colleagues and physicians before making a decision. To avoid unnecessary emission of sperm, the wife has to be assessed first, followed by an examination of her husband if she is found fertile. This could be seen as a sexist policy in the eyes of the wider Western world. Some traditions require that treatment should commence only after five years, or the equivalent of three pregnancies. In any case, the couple needs to avoid going through the treatment on Shabbat, Saturday (as it is a holy day) or any other Jewish religious holiday. Rabbis usually permit male fertility tests and IVF, and explain that the semen is not wasted if it

causes or is used in an attempt to create a pregnancy. Interestingly, some Orthodox men refuse to engage in ejaculation outside of their wife's vagina even if the rabbi allows it, but they have another solution: surgical sperm retrieval (Hirsh, 1998). Regarding Donor Insemination (DI), some Ultra-Orthodox rabbis treat introducing the sperm of a stranger into the wife as adultery and do not allow it, but this view is non-normative. In regard to egg donations from another woman, sometimes it is allowed. In such cases, if the donor is non-Jewish, some hold that the child must go through religious conversion, as the religion of the infant is set by the one who provides the egg. Others disagree. Rabbis would not object if the couple would like to choose the sex of the embryo in the process as well (Hirsh, 1998).

Central to Jewish practice across the spectrum of Orthodoxy is observing the Sabbath, Shabbat, which takes place approximately between sunset on Friday to sunset on Saturday, where no labor (Melacha) is allowed. However, several more complications can be found among Orthodox Jewish couples who would like to conceive a child. Some of them are related to the restrictions during Shabbat. For instance, in case a woman is fertile and would like to measure her basal body temperature, which relates to fertility, she is not allowed to do so during that time period (Tzitz Eliezer Vol. IX no. 38 and Vol. XII no. 44:5). However, some rabbis specifically allow measuring temperature (Shmirat Shabbat K'hilchatah, Vol. I, 40:2). Regarding other procedures, such as using creams or lotions to assist in taking temperature rectally, there is an agreement and they are forbidden by most rabbis. In addition, Orthodox Jewish couples run into similar hurdles when using home ovulation testing kits, which require the action of coloring, which is considered as a Torah prohibition during Shabbat (Shmirat Shabbat K'hilchatah, Vol. I,

33:20). In this case, creative solutions were created such as dipping only the edge of the stick in the urine to cause color change, as this was seen as an indirect method as the urine diffused onto the rest of the stick on its own. Once this is done, one may not handle the urine sample again until after Shabbat. However, upon taking any action, competent Halachic authority should be consulted for each case (Shulchan Aruch, Orach Chaim 308:34-35).

Furthermore, although rabbinical authorities permit artificial donor insemination (AID; TDI – therapeutic donor), there are limitations to this procedure. For instance, the semen donor cannot be Jewish, in order to prevent the children of the donor from marrying and conceiving children in the future (Schenker, 1997). This leads to other limitations to consider, prior to beginning AID. For example, if the semen donor is a gentile, the child would be considered as not having a halachic father, yet the male parent would be considered as the father in the secular law. Moreover, in the Jewish tradition, the status of a Cohen (Priest) goes by the father, in comparison to the religion. Therefore, if the father is infertile, the child would not be considered as a Cohen. However, in case the child is a female, she is allowed to marry a Cohen for that same reason. In addition, some Halachic authorities prohibited a married woman who underwent AID to continue to live with her husband (Schenker, 1997). However, most rabbis state that without intercourse being involved, the woman is not guilty of adultery and is not prohibited from cohabiting with her husband. Lastly, Schenker (1997) indicated in his study that the children conceived through AID are considered by some Haredi, Ultra-Orthodox, rabbinical scholars as having the status of Mamzer-bastard. If considered as such, it



impacts their marriage possibilities in terms of the Jewish law, as well as their social status in the Orthodox Jewish community.

Similar complications are present in case of egg donation. In case the egg donor is non-Jewish, the child might require conversion to Judaism once the infant is born. Some rabbis would allow the latter option, explaining the child would not be considered Jewish from birth, and require an egg donation from a Jewish donor. However, this will make other aspects complex, which Orthodox Jewish parents have to consider. This includes preventing the child from marrying half-siblings from the side of the donor, which requires collecting non-identifying information about the donor, such as date of birth, and make sure this is different than the partner's mother (Mitra, Schick Tanz, & Patel, 2018).

An important issue is that, according to the Halacha, as soon as the woman becomes pregnant, it is not permitted to terminate the pregnancy beyond 40 days after conception unless there is a risk to the mother's life (Haimov-Kochman et al., 2008). By using some fertility treatments, such as Ovulation Induction or IVF, multiple pregnancies may result (Adashi et al., 2003). It is not permissible to put aside one soul for the sake of another and the mother is expected to carry and give birth to all fetuses. However, where it is absolutely certain that all fetuses would be lost unless one is terminated, some authorities would allow fetal reduction to be performed (Schenker, 1997). In addition, as women age, their risk for carrying a fetus with defective chromosomes rises (Haimov-Kochman et al., 2008). For example, Haimov-Kochman et al. (2008) showed the chances of having a child with Down syndrome are 1:20 among women above 45 years of age. Hence, the risks in events as described above, with no option for termination of

pregnancy by choice, can be an additional significant stressor for Orthodox Jewish women of an older age (Haimov-Kochman et al., 2008).

The process of determining whether there is a fertility problem with the male can be prolonged and agonizing as well (Schenker, 1997). Schenker explains that when evaluating an infertile couple, according to rabbinic law, one should first evaluate the female partner. Only if pathology is not found, one may proceed to investigate the male. First, there is a post-coital test, which is based on examination of motile sperm in a mucus sample collected several hours after coitus. If the results are inconclusive (repeated several times), ejaculate should be collected using a special condom, or following coitus interruptus. If all the methods mentioned above are not possible because of mechanical or emotional reasons, only then will some rabbis permit the collection of an ejaculate induced by masturbation (Schenker, 1997).

Another major stressor has to do with the optimal timing for sexual intercourse in order to conceive (Hirsh, 1998). This timing can vary among women and should be optimized to enhance chances of pregnancy (Haimov-Kochman, Rosenak, Orvieto, & Hurwitz, 2008). The problem is, the Halacha prohibits sexual interactions until at least 7 days after a woman finishes her menses (Niddah) as well as at any other time the woman bleeds vaginally. After the bleeding stops and the 7-day prohibition ends, the woman has to immerse herself in a ritual purity bath (Mikveh), in order to be allowed to resume coitus. Therefore, if a woman is most fertile in those 7 days or during additional days when she continues to bleed, the couple will miss their best opportunity to conceive a child. This hormonal cycle problem of continuous bleeding is prevalent among 20% of women. Hypothetically, it can be easily solved in non-Orthodox Jewish people by the

timing of intercourse, thus improving the chances of “solving” infertility where the timing of intercourse proved to be the primary issue. A unique Halachic issue is in case the female bleeds when losing her virginity. Principally, this type of bleeding is considered different than menstrual blood and should not generate any prohibition. Yet, the early Talmudic literature regulates that the couple has to keep apart from each other in a way similar, but not identical, to the laws of Niddah (Schenker, 1997). Haimov-Kochman et al. (2008) mentioned that since this Halachic law is non-negotiable, creative treatments for regulating menstrual cycles were developed and promote ovulation, such as the use of estrogen or clomiphene citrate, respectively.

### **Implications of the Stressors**

The stressors have significant implications on the family system. Unsuccessful attempts to conceive children, even by using fertility treatments, can impact the expectations of the couple to have a family. Flykt et al. (2011) have found that even when a couple eventually is able to conceive a child, the parents might have poor expectations from themselves or their spouse to be able to have a positive and healthy relationship with the child. When this occurred, parents actually had relationship problems (i.e. communication), which affected the infant’s behavior level of stress in the first year of its life. Flykt and associates had found that the expectations were negatively correlated to the level of stress the parent is under; low expectations and concerns from both self and the spouse from the second trimester in pregnancy and on, predicted higher parenting stress during the first year of the infant’s life, which is the crucial time for the foundation of parent-child relationship (Bowlby, 2005). However, a positive notion in this study is that

parents who experienced infertility expressed a slightly lower level of stress than other parents, possibly due to their high level of resiliency (Flykt et al., 2011).

There is a very strong correlation between anxiety and depression (Haug, Mykletun, & Dahl, 2004). In terms of depressive symptoms among the Jewish and Orthodox community, they were found to be significantly higher when not having any children (Iecovich et al., 2004). However, interestingly, among Orthodox Jewish women, symptoms of anxiety and depression were found not to correlate with the number of children they had (Loewenthal & Goldblatt, 1993). This indicates that the first child which infertile couples experience difficulties having is the main reason for these mood deficits. Specific to the Israeli-Jewish community, it was found by Birenbaum-Carmeli (2004) that the female population perceives pregnancy as an expected process of life, and there is no such thing as a voluntary childlessness. Therefore, this implies that there is a strong sense of shame when pregnancy is impossible to achieve, which can elevate the amount of anxiety (Gilbert & Miles, 2000).

Stress resulting from the process of many infertility treatments increases the distress of the couple (Cwikel, Gidron, & Sheiner, 2004). As a result, heart rate changes appear, as well as additional cortisol released to the blood; these are predictive factors for an even more decreased probability of achieving pregnancy, which creates a vicious cycle of stress and infertility (Seibel & Taymor, 1982). In addition, infertility was also found to be correlated with other physiological complaints among women, in comparison to women who were not experiencing infertility at the time. This includes intermenstrual bleeding, severe menstrual pain, acne, dry skin and more severe autonomic disorders (Kemeter, 1988). One explanation is a high level of stress, which adds to the previous

psychosomatic factor mentioned. Men are also affected by this stress, and found to have greater chances to experience sexual dysfunction following infertility treatments (Saleh, Ranga, Raina, Nelson, & Agarwal, 2003). Specifically, Saleh and colleagues found that 2 weeks upon finding abnormality of semen parameters, men experienced erection and orgasm dysfunctions.

### **Possible Solutions and Strengths**

Given the Halacha guidelines, fertility treatments among non-Jews and non-Orthodox Jewish people seem relatively straightforward in comparison to Orthodox Jewish people. The prohibitions described in the previous section likely increase the stress infertile Orthodox couples experience, as there are different social-behavioral laws to follow and they can cause many internal conflicts for both partners. Some solutions were created specifically for this population, while others are more universal. For instance, psycho-education of candidates for in vitro fertilization was found to lower levels of anxiety and stress among the general population (Belevska, 2015). Yet, there is not much discussion in the literature about how specifically to assist this population, and most often Orthodox couples rely on their rabbi for guidance (Hirsh, 1998). Some non-Orthodox Jewish people go, for example, to psychotherapy sessions to reduce their stress, anxiety and depression, but the Orthodox population has some general considerations about seeking therapy. These include the awareness that some Orthodox clients will feel shameful or see themselves as failures even for seeking therapy in the first place, with an added degree of shame for failing to improve their condition as a result of the assistance of their rabbi alone (Margolese, 1998). Margolese (1998) added that eye contact or touch with the opposite sex will most likely be considered very offensive and some would

request their rabbi be present in psychotherapy. These obstacles can prevent Orthodox Jewish couples in seeking psychotherapy, is in spite of the literature indicating the potential effectiveness of treating mood disorders in this population by using psychodynamic and cognitive-behavioral therapy approaches (Margolese, 1998).

Aside from these solutions, there are additional unique strengths that can help Orthodox Jewish couples cope with their infertility. First, most of them truly believe that the process of creating a child depends on three partners: the male, the female, and God (Kahn, 2006). This belief, theoretically, can relieve the couple of some responsibility. They may conclude that when God believes it is their time to have a child, God will help them with the procedure. Therefore, in their view, it doesn't depend only on the couple, and it is not necessarily their fault when they don't succeed in the process (Kahn, 2006).

In addition, Kahn (2006) added information about ATIME, an organization that publishes a magazine that informs Jewish people about infertility. This magazine explains the reasons for infertility, possible solutions, and sources of support. In addition, the organization offers other services, such as a 24-hour call line for education and assistance, a library, a medication certification program, and a website. This support helps couples avoid stigma in their communities. The organization uses language and terms that are familiar within the Jewish community, including Hebrew and Yiddish, so they can relate to their meaning. This support gives couples hope and strength to know they are not the only ones who go through these difficulties, and by doing so, reduces some of the stressors that come along with the procedures they have to endure. This could come as a comfort to couples facing such routine challenges as Shabbat dinner, a

gathering which takes place on Friday evening and is considered to be a family occasion, including all the family's children.

The non-stop changes in assisted reproductive technology (ART) require adjustments of biblical law, and some of the examples are mentioned above. But how does the couple manage these changes, such as new possibilities regarding fertility treatments? Kahn (2006) investigated this question and found that Orthodox Jewish people discovered creative ways to gather information about fertility treatments and infertility, as well as ways to approach and communicate about it within their community. For instance, they do not credit medicine with the success of fertility treatments. Instead, they credit themselves and their faith, as success depends on the effort they invested in order to conceive a child. According to the Halacha, they need to exert their utmost efforts, but eventually fertility is a decision of God (Kahn, 2006). Therefore the age of the patient, her ovarian function, his sperm motility, their hormone levels and reproductive history, and so forth, become irrelevant to these patients, as the success depends on God. A "blind" belief such as this may prevent couples from following doctor's orders, and put them at a higher risk of their well-being.

## **Conclusion**

Studies about infertility highlight the stressors that are tied to this process. People in different age groups go through this process, some of whom have conceived children before and some who have not. The spouse who is most likely to be infertile is the wife: in the United States, from 1982 to 2010 17% of women between ages 25-44 had used fertility services, while 9.4% of men from the same age group had received services as such (Chandra, Copen, & Stephen, 2014). However, the literature points out that the

fertile partner will also suffer from stress (Stanton et al., 1991). The couple is in this process together. Women are more likely to have more severe distress, and it might be a cause and not just a result of infertility. Pressure from family, friends, and the rest of the community can increase a couple's stress, and sometimes cause isolation of the couple (Ying et al., 2015).

In comparison to non-religious populations, Orthodox Jewish people face additional stressors. The first commandment (Mitzvah) shows the importance of having children, which results in Orthodox Jewish couples' focus on fulfilling it. The latter is why many of their traditions include children in celebrations such as Shabbat and holiday dinners (Kahn, 2006). Different laws dictate when the couple is allowed to have sexual intercourse or participate in fertility treatments. In Ultra-Orthodox traditions, couples face the obligation to meet a rabbi before deciding upon every fertility treatment, which also increases stress (Hirsh, 1998). On the other hand, there are a few factors that reduce the stress among this population. Some of these factors are trust in God's role in conceiving a child, as well as new social support systems that have been created for this population (Kahn, 2006). In addition, while rabbis allow some fertility treatments only as a last resort, some changes have been made in the Halachic law in order to allow these treatments.

This unique population needs culturally competent and creative therapeutic treatments in order to identify and relate to all of their infertility stressors, and escort them through the obstacles of their fertility treatments. Some traditional therapeutic treatments are in use, but they take different forms (i.e. including the rabbi in the therapy session), considering the particular demands and pressures of this culture.



Still the question remains: Does this population truly benefit from these mental health treatments? There is an essential need for research that includes interviewing and gathering information from infertile Orthodox Jewish couples to get a better understanding of the struggles they go through; information that is absent at the present time. One potential barrier is the fact that this population is relatively closed and rabbis are usually used as mediators. In addition, a limitation of this literature review is that some of the studies used in this review are relatively old, while technology and society have advanced. More technological solutions are available, and there is an essential need to keep studying their impact on infertile couples that go through fertility treatments. We might observe a more accepting world in the next few generations, when it will be more common for all groups of people, including Orthodox Jews, to go through these treatments, but only the future will tell.

The present study examines the psychological impact of infertility on couples who are members of the Orthodox Jewish community. This is the first study attempting to capture the direct experience of infertility on couples from a community scarcely heard from, and poorly understood by mainstream American society. Therefore, its primary goal is to gather information that will serve as a resource to provide relief to these couples, and solutions for future infertile couples.

## **Chapter III: Methodology**

### **Aim of the Study**

The present study examined the psychological impact of infertility on couples who are members of the Orthodox Jewish community. This was the first study attempting to capture the direct experience of infertility among couples from this community, which is scarcely heard from and poorly understood by mainstream American society. Therefore, its primary goal was to gather information that would serve as a source of support to provide relief to these Orthodox Jewish couples (Hyde, Gorka, Manuck, & Hariri, 2011), and as a resource to provide solutions for future infertile couples.

### **Qualitative Research Approach**

The aim of this study was to capture with the utmost accuracy the reactions of infertile Orthodox Jewish couples; therefore, all analysis, synthesis, and interpretation of their experience was made with caution. Since this was the first study to make direct contact with this population, it was estimated that relevant aspect of the subjects' experience would have been missed by relying on structured interviews or gathering solely quantitative data. Therefore, I used a qualitative Transcendental Phenomenological method, including a semi-structured questionnaire (Moustakas, 1994). This questionnaire included open-ended questions, and is presented in Appendix A. The responses to these questions were divided into categorical themes, using the participants' own statements in context to capture the overall essence of their comments (see Appendix E). In order to better grasp the inner experience of participants, the researcher used additional quantitative instruments to gain insight about the participants' emotional state (see Appendices F and G). The instruments that were chosen for this purpose were: the Patient

Health Questionnaire (PHQ)-9 (Appendix B); and the Generalized Anxiety Disorder (GAD)-7 psychometric measurement (Appendix C). The first was used to examine whether participants are experiencing significant depressive symptoms, and the second to measure their level of anxiety. Both measures have been studied extensively as, for example, in the systemic review of Kroenke, Spitzer, Williams, & Löwe (2010), which included close to 10,000 participants, and in Plummer, Manea, Trepel, & McMillan (2016)'s meta-analysis, which included over five thousand participants. These studies provide support for the validity of the two instruments.

Another goal of this study was to inform professionals who work with the Orthodox Jewish community—to aid such professionals in better understanding the source and nature of the particular stressors experienced by this population, as well as to point to unique ways to support this community.

### **Participants**

The participants in this study were Orthodox Jewish couples for whom at least one of the partners experienced infertility at the time of the interview, or had experienced infertility in the past (Eliasson, 1981). The couples were not required to be undergoing fertility treatments at the time the interviews took place. The participants included 15 adult individuals ranging from age 18 to 65 from the United States. These individuals volunteered anonymously from one of two American organizations, which provide various infertility services to the Jewish community—“Yesh Tikva” and “Puah”—as well as from fertility treatment clinics. The organizations contacted via email individuals to whom they had provided infertility services in the last five years. The email provided the couples contacted with a brief description of the study, invited their participation, and

included an attachment. The attachment described the goals of the study; the possible benefits and risks of participating in the study (described in Appendix D); the process of by which couples who agree to be involved will be contacted, enrolled, and ultimately interviewed, and explained how participants' confidentiality will be maintained. In addition, the attachment emphasized that participation in the study would not affect any of the services they received at the time from Yesh Tikva, Puah, and the fertility clinics. The organizations forwarded the list of volunteers for the study to me. Since this is the first study of its kind, and since the Orthodox Jewish status as a closed community added complexity to the process of recruiting participants, no limitations were placed on participant selection.

### **Data Collection Tools**

The GAD-7 and PHQ-9 questionnaires are one-dimensional scales designed to assess the presence of the symptoms of generalized anxiety disorder (GAD) and depressive disorders, respectively, referred to in the DSM-IV. However, these instruments have been in use in studies that depend on the DSM-V to make formal diagnoses (Jordan, Shedden-Mora, & Löwe, 2017)—a fact that supports their current validity. These instruments are self-administered and the total score is calculated by simple addition of the answers for each item. In the GAD-7, the scores of all 7 items range from 0 (Not at all) to 3 (Nearly every day). Therefore, the total score ranges from 0 to 21. This score may be categorized into four severity groups: minimal/no anxiety (0–4), mild anxiety (5–9), moderate anxiety (10–14), and severe anxiety (15–21), with 10 points being the optimum cut-off value for GAD (Ruiz et al., 2011).

The PHQ-9 is a nine-item depression-screening scale (Kroenke et al., 2010; Spitzer, Kroenke, & Williams, 1999). The questionnaire was used to assess nine depressive symptoms experienced by participants in the 14 days prior to the day of the interview. Each item was rated on the frequency of a depressive symptom. The PHQ-9 score was calculated by assigning a score of 0, 1, 2, or 3 to the response categories of “not at all,” “several days,” “more than half the days,” or “nearly every day,” respectively. Participants were categorized as exhibiting minimal (PHQ-9 score 0–4), mild (PHQ-9 score 5–9), moderate (PHQ-9 score 10–14), and moderately severe to severe (PHQ-9 score  $\geq 15$ ) depressive symptoms (Zhong et al., 2015).

## **Procedures**

Potential participants were identified through communication with the founders of the organizations Yesh Tikva and Puah via email. The email included a consent form, describing information about the purpose of the study and whether they would like to volunteer to participate in the study; its process; confidentiality procedures; potential risks and benefits; interviewer and his supervisor’s contact information; and ways to withdraw from the study at any point during the study (Appendix D). The content of this contact process was approved by Antioch University Santa Barbara’s IRB committee. The lists of potential participants were transferred by the organizations’ founders to the author of this study via phone, including their first name, email address, and phone number, as well as their preferred form of contact (in person, video call, or phone call). Participants were contacted by their desired form of contact by the author of this study, following an introduction email and scheduling the time of the interview. Due to the participants’ dispersed locations over the United States, an in-person form of contact was

not always offered as a possibility. In the case that the participant desired an in-person interview, this took place at the participants' home or a private room in their workplace. In the case that the participant desired a video call interview, they were contacted via Zoom, which is HIPPA compliant, where the participants were given a link to a private phone call that only the participant and the interviewer had access to. The participants were interviewed individually and separately, even if both partners were interviewed for the purpose of this research. In the case that a female participant wanted the presence of her spouse or a rabbi during the interview, this was offered as an option, considering religious sensitivities earlier discussed in the Introduction section.

Participants answered the set of open-ended questions presented in the semi-structured interview in Appendix A, which was recorded using a recording device. At the end of each interview, the author of the study sent the participants via email both the GAD-7 (Appendix B) and PHQ-9 (Appendix C) in order for the participants to be able to view these questions and provide more valid responses with no pressure of time.

### **Data Analysis**

The data collected through the recording of the semi-structured interviews were divided into themes of stressors, and issues that are related to infertility and the participants' religious affiliation (see Appendix E). Then the interviews were re-examined, while keeping these themes in mind, to develop a deeper understanding of the material—all this had been done using a process during which the researcher challenged his own bias (detailed in the Validity section) and with consideration of counter-themes and counter-arguments. In addition, the PHQ-9 and GAD-7 were used to identify whether the themes identified were related to specific depressive or anxiety symptoms (See Appendices F and

G). The results of the PHQ-9 and GAD-7 of participants who reported themes were compared to participants who did not report them. Specifically, the themes that were collected were used as a dichotomous nominal scale, and the results on the PHQ-9 and GAD-7 were used as interval scales. The results on the themes included the scale of “meets the theme” and “doesn’t meet the theme.” The results of the PHQ-9 included the scale of none (score of 0-4), mild (score of 5-9), moderate (score of 10-14), moderately severe (score of 15-19), and severe (score of 20-27). The results of the GAD-7 included the scale of none (score of 0-4), mild (score of 5-9), moderate (score of 10-14), and severe (score of 15-27; Spitzer et al., 1999). The relationship between the themes and the interval results was examined as well (See Appendices F and G).

### **Ethical Considerations**

Several steps were taken in order to keep the participants’ identity anonymous. First, the author of the study was not exposed to the information of potential participants that were not interested in participating in this research. Second, the full names and home addresses of the participants were not provided in the study, unless the participants were willing to meet in person or provided that information voluntarily. However, there was always a necessity to be aware of the participants’ city or county in order to provide a list of potential therapists and support groups that could benefit them, in case they were interested. Lastly, all the information that was gathered by the participants had been kept in a locked filing cabinet within a locked room when not in use to interpret the information. The recording and data collected via the interviews will be kept for seven years from the time of the interview in order to potentially use the information in future articles and studies; following this period, all data will be destroyed.

## **Validity**

In the qualitative study, there was concern of damaging the level of validity in terms of potential bias in my interpretations of the participants' responses. However, this study combined both quantitative and qualitative instruments, which increased the level of validity of the study (Smith, & Kleine, 1986). The quantitative measures used have a specific validity level, which can be a check on the subjective nature of the interpretation made from the interview, thus giving more credence to these interpretations. In this study, one use of the quantitative responses was to examine whether the interpretations made for the qualitative responses match their current emotional state, and so this provided a test of the researcher's own biases and subjective interpretations; this also increased the level of validity. In addition, the author was able to better notice whether a participant was more defensive during the interview yet expressed high level of anxiety or depression in the quantitative instruments. This lessened the limitation posed in case the interview was conducted via phone by not being able to consider the participants' body language to gauge their emotional state. In addition, the author had to be consistent with all interviewees to keep the data as reliable and valid as possible, and not add or change the questions as a result of their responses.



## Chapter IV: Results

Fifteen individuals completed the interviews for the study, 10 females and five males. Eight of the participants were referred by the organization Puah, two from Yesh Tikva, one from a fertility doctor's office, two from a rabbi, and two from a chabbad center. Two of the male and six of the female participants had already had children at the time of the interview. Amongst the participants, there were four couples where both partners were interviewed separately. The age range of the participants was from 26 to 49 years old, three of them identified as Sephardic, ten as Ashkenazi, and two from both traditions. Seven of them identified themselves as Orthodox, five as Modern Orthodox, and three as Ultra Orthodox. However, some participants preferred referring to their level of keeping the halachic traditions as their level of religiosity rather than using a specific definition such as Orthodox. Three of the participants indicated as male infertility factor, seven as female infertility factor, one as both male and female infertility factors, and four as unexplained. All of the interviews were recorded and transcribed by using the transcription program Temi, and were reviewed again by the author of the study in order to minimize spelling mistakes by the program. In order to design the results section, each interview was reviewed, and a list of 86 themes was created on a Microsoft Excel spreadsheet (see Appendix E). When themes were found in a specific transcription, their location was indicated on a Microsoft Word document, with a comment mentioning the specific theme code. On the Microsoft Excel spreadsheet mentioned above, there was an indication of whether a theme was found in a specific interview. The 86 themes were grouped into nine main themes – children in the Orthodox Jewish tradition; knowledge; social support; social pressure; cultural stressors; self-image; spouse role; faith in the

world of infertility; procedural stressors. This will be identified in detail below, as well as description of the quantitative results.

### **Children in the Orthodox Jewish Tradition**

Individuals reported a high motivation and desire to have children from an early age. Some, mostly female participants, indicated it was clear to them they would have children from an early age, and even related to conceiving children as their life purpose. For some, this was with high motivation and desire, and others, usually male participants, indicated they were aware they would be interested in creating a family one day, as part of their Orthodox Jewish tradition. Indicating the struggles of not being able to naturally conceive a child, participants related to feelings of a lack of purpose in their lives or lack of purpose to their reproduction organs (i.e. “You feel like a failure. Like the one simple thing that your body is supposed to do, like it can't. You feel inadequate,” 0138). Another participant explained, “I love everything about children and I feel like my role was to be a mom and it's difficult because I'm not” (0150). Most participants lived in an Orthodox Jewish community. Living in this environment, participants reported they were constantly surrounded by children, either through their siblings' and friends' children, or in their community in general. The latter repeatedly reminded the participants that they could not fulfill their life purpose, which was reported as resulting in high distress and isolation. Most participants indicated that the impact of the child-focused community they lived in resulted in much pressure to marry and conceive a child at an early age (“So I got married at 31, which was very old, um, in our circles,” 0144), and attempt to do the latter at an early stage of their marriage. However, among some Modern Orthodox participants, they were interested in pursuing their education prior to doing so, especially those with friends

who did not give birth yet, which reduced their level of stress. Once they began the attempts to conceive a child, it took between three to eighteen months to begin their testing in order to find reasoning for their fertility difficulties and begin their fertility treatments. Due to the official definition of infertility as a year of failed attempts to conceive a child (Centers for Disease Control and Prevention, 2019), some participants intentionally provided false indication of the period of time they attempted conceiving in order to receive services from fertility clinics earlier in the process and have additional cycles to attempt pregnancy.

When couples experienced fertility difficulties and failed treatments, they faced the question of adoption, or eggs or sperm donation. All 10 female participants stated they did not consider egg donation, and most of them avoided thinking about it, while keeping hope they would still be able to conceive using their own eggs. However, some female participants were more open for an option of adoption, yet only as a last resort, and none of the participants, including the males, used this option during their fertility process. In addition, couples expressed concerns in regards to the mental health of adopted children as a reason to dismiss this option. In terms of male participants, only one related positively to an option of adoption. Among those with a male infertility factor, one was open for sperm donation and used that option in his fertility treatments. In addition, one female participant was open for the option of surrogacy, yet her husband was not. According to the participants, there were also halachic laws that limited these fertility options above. For example, one participant stated, “I remember hating it, thinking about whether or not like according to how the kid was even mine at that point, I'm Jewish, you know, cause you're gonna you're gonna want a non-Jewish surrogate”

(0139). Some participants indicated that they have friends who chose the path of adoption and had to go through the process of conversion to Judaism, in the case that the child was not Jewish.

Those who were able to conceive a child following fertility treatments reported a high level of excitement related to their children in a way that expressed their excitement. This was especially true of female participants. For example, some female participants stated their physical challenges during the time of pregnancy or post-pregnancy did not reduce their elevated mood and excitement from their achievement in giving birth. Others added that the only thing that created a relief in their fertility process is having a child, which also reduced the stigma others had on them, and allowed them to be more open about it. On the other hand, one participant disclosed her high expectations from her first child, which resulted in the child's high anxiety. Other female participants felt guilty for being tired and not always motivated to take care of their child or keep an eye on him or her. Another participant expressed the conflict in her feelings in the following:

There definitely is parenting guilt of "I wanted this baby so badly." How can I want "me time" right now and not want to be with my kid the whole time? And ... being able to remind yourself that you're human and just because you struggled to have a child doesn't mean that once you finally get that child that you aren't human all of a sudden, and that a baby who keeps you up all night is going to frustrate you. Whether you cry for that baby for years or not ... you are not the person who nine months ago wasn't pregnant, you're the person who now just had a baby and is physically and emotionally sleep deprived and you need to give yourself that space to be human" (0138).

Some of these participants acknowledged that the fact they had been through a time of infertility didn't prevent them from using insensitive comments to others who are still in the process, adding they need to remind themselves not to do that. In addition, some participants expressed concerns that others in the community would comment about the children's status since they were conceived in an IVF procedure and so wanted to keep it secret. However, other participants expressed pride about the IVF conception and shared their experience with others, partially to increase awareness and normalize the process. Moreover, participants reported they were significantly more open with their fertility challenges after they were successful in conceiving. Some of them offered their support to others openly in the form of direct conversations, accompanying them to fertility procedures, creating videos, support groups, sending referrals, building community events, establishing a supportive organization and speaking in their local synagogue to help others who struggle.

### **Knowledge**

When asked about their level of knowledge about topics related to fertility difficulties, its prevalence, and treatments, most participants' level of knowledge was very limited to non-existent, such as 0147, who stated, "Nothing, absolutely nothing. I mean other than, other than what you, you know, you see in a movie, you know, other than that, nothing." There was the exception of one individual who, prior to experiencing her own fertility difficulties, was involved in one of the Jewish organizations which supports couples with similar problems; and another participant with relatives who experienced fertility challenges. Most participants knew that some could experience

struggles during their process of conceiving a child, yet had never thought it would happen to them. Without having this knowledge, these couples discussed amongst themselves that there might be an issue with their fertility, and decided to consult with a physician in this matter. Ten of the participants experienced unexplained infertility, which means they did not receive a specific reason for their challenges. This resulted in high levels of anxiety and feelings of helplessness, with no indication of a specific intervention that could possibly resolve their difficulties, adding they would have preferred having a specific diagnosis. However, participants who had a specific dysfunction were not found to have lower levels of emotional distress. This sense of helplessness appeared to result in a sad mood and social isolation.

Gaining knowledge from physicians and rabbis provided some reassurance for these couples that there was a way to resolve their problem. In some cases, when receiving information from physicians, the experience was not satisfying and even added distress. Many of the participants had transferred to different fertility doctors multiple times until they were satisfied. Most of the participants were able to find support and information from Jewish organizations, such as Puah, Yesh Tikva, Bonei Olam, and ATIME, which helped them in halachic consultation, community support, and financial support. In some cases, participants received information about these organizations from their rabbis. Yet, most of the participants were not familiar with them and were introduced to these organizations by chance or their own research. Some participants who received information about support groups reported that they were not interested in participating in them, indicating they would rather “not to be worried about other people’s stories” (0136), while others wanted to hear about successful experiences. Some

participants, such as a male participant with a male infertility factor, indicated there is not enough information about this topic for men, as well as lack of resources and support.

All of the participants in this study searched for information about infertility. They became much more sensitive to others with similar problems since they were suffering from this issue and had to cope with it. However, others in the community, including members at the synagogue, friends, and family members who had not experienced similar challenges were not as educated about infertility or as supportive. One participant stated, “She [mom] would give me a hard time ‘what you don't want to have children?’ ... it was shocking to me that she thought that. Infertility is something that I noticed none of my family members have felt because no one ever talked about it so she wasn't even aware that other people have that” (0136). This resulted in difficulties for the participants in reaching out for their support, as well as receiving insensitive or inappropriate comments by the community, being ignored, or not being invited to Shabbat dinners anymore at friends’ homes. The latter was because these friends thought the participants would feel uncomfortable being around their children at the dinner table. This experience motivated nine of the participants to educate others about fertility difficulties. Some were more active than others in promoting that knowledge in the community and opened support groups or established an organization to serve this population.

Four of the participants indicated that acquiring additional knowledge about infertility and becoming proactive in that regard helped them gain more control, and helped them in coping and lowering their levels of distress. Some were able to find additional treatments other than the conventional ones offered by their physicians, and

indicated it allowed them to feel more proactive and hopeful about their fertility process. Five of the participants reported that gaining knowledge about infertility was equal to gaining power in the process and as a way to influence it by being more proactive rather than receiving instructions by their physicians and rabbis (i.e. "I became a partner in the process," 0138). This also allowed them to familiarize themselves with some of the organizations and resources in the Jewish community for couples who experience fertility difficulties.

However, many considered it a challenge to find information about infertility without putting conscious effort into it. This was true for those who describe themselves as modern and well informed, as expressed by one participant: "I have a master's degree. I watch plenty of TV. I read, I watch the news. Like I, I tend to be knowledgeable about things and it really wasn't something that people were talking about that, um, even if I wanted the knowledge, it was hard to find" (0138). Other participants reported it was much more accepted to receive information about specific rituals in the Jewish tradition (Segulot) to practice when experiencing fertility challenges, rather than information about the procedures available and the halachic view of them.

### **Social Support**

Most participants' first experience of social support was from their contact with their physicians and rabbis. Following a period of time of uncertainty in regards to their ability to conceive naturally, all participants contacted their physicians in order to find solutions. There were some participants who had done so following a consultation with a rabbi or a Posek, who provides answers to halachic questions that arise for the couples. It was found that the more strictly orthodox couples were, they tended to contact a rabbi



prior to a physician, while some modern orthodox participants did not contact a rabbi at all during their fertility process. However, most participants tended to first contact their physician and then their rabbi in order to verify there were no halachic restrictions in the recommended treatments, as necessary. In addition, it was mostly common for the husband to be in contact with the rabbi, at least in the initial correspondence. Yet, according to participants' responses, due to most husbands' lack of involvement and understanding of the treatments, some wives were the ones in contact with the rabbi either from the beginning or later in the process. There were two participants who did not contact an external rabbi since they had a rabbi within their immediate family.

The most significant intimate social interactions were described as the relationship couples had with their immediate family members and friends. In regards to support from family members, participants who had family members that had experienced fertility difficulties tended to feel more supported and understood by their families. One male participant stated, "Siblings are great, you know, I know my sister had a miscarriage or whatever. So speaking to her is helpful" (0153). There were also times when one side of the couple, usually the female's side, was more supportive than the other. When support was provided by the family, the couple would usually feel more comfortable spending time with them. This was true in spite of the presence of nieces and nephews, which usually distanced the couple from family events, as they were longing for children of their own. Participants reported that when there was no history of fertility treatments in the family, there was a need for an extensive education; in times by physically showing the parents the procedures they need to go through (i.e. giving themselves shots), in order to receive their support.

On the other hand, participants indicated insensitive comments by family members, such as explained by one participant, “my wife's sister in law ... have offered to be a surrogate ... It was so hurtful, come on, like, we're not even at IVF yet. And you're already like, you know, writing the script that this isn't going to work out” (0147). Another example of a lack of support participants experienced was parents of one spouse blaming the other partner in the infertility, which added stress for the couple and sometimes put their marriage at risk. Another stressor was the couple’s parents’ response to the fertility challenges, such as crying, dismissing the possibility of infertility, or insisting on specific procedures instead of providing support and empathy, as expected by the couple. In addition, at times, the couple or one spouse would prefer not to share with his or her family although they were sharing with the other partner’s family, as they expected to not be supported by them. Moreover, participants indicated the act of disclosure of the fertility status to their parents, and their parents’ expression of interest in this matter, as additional stressors.

Interestingly, seven participants described a lack of understanding and support from their friends, while other participants found them a source of significant support. Examples presented were unsuccessful attempts to support the couples by commenting inappropriately, such as by providing recommendations without experiencing fertility difficulties themselves; avoidance of discussing the topic in some instances and not respecting their privacy in others; not inviting the couple to social events and expecting them to attend in others; not receiving empathy from those they expected to, or not feeling understood; and providing support by others who are pregnant themselves. However, some participants were able to identify that there is no right way which will be

more supportive than others, as it is very personal and situational. In specific cases, they regretted sharing their fertility difficulties with their friends. One participant added that the support given is helpful when it is desired. Another addressed that sometimes they might want to solely be heard without a response by the other person; or be provided space when needed.

In terms of other community interactions and forms of support, this was, too, a controversial topic. For example, most participants indicated they practiced Segulot, which are Jewish rituals and ceremonies, which were practiced in adjunct to or before the treatments. Most couples reported they found such practices unhelpful, and at times humiliating or bringing a constant reminder of their infertility. Two other participants who tried a face-to-face and a phone support group found it either depressing or not personal enough.

In all interactions, the common theme was whether a participant felt understood and empathized with, which could be either explicitly said or expressed through actions (i.e., helped with household matters). Some found this provided hope and empathy towards them and strengthened their level of faith. In addition, two participants disclosed positive experiences in social support groups where they felt empathized with; one of them in a non-Jewish focused support group. Some participants added that sharing their fertility difficulties with others is a healing process by itself, as presented by one participant, “They say when you do Bikur Holim (visit ill people), that when you go to be Mevaker Hole (visit the ill), you take away one sixtieth of their pain. So it's almost kind of like being, so to say Mevaker Hole in this sense of the mental health that speaking

about it takes away a 60th of the pain each time and it makes it less and less painful” (0138).

According to participants, they felt more understood when hearing of others go through similar struggles, or when knowing of specific cases in which couples had overcome those obstacles. For instance, on occasions when participants had been addressed by another person who had experienced fertility obstacles and offered their support and availability, they were more receptive. Lastly, participants who indicated a strong motivation to receive support from others were usually more proactive in that regard by being able to find additional support by reaching out to others, creating support groups, and offering it to others. This led to strengthening the participants in terms of coping with their stressors and feeling less isolated.

In regards to external resources, only one participant did not use any of the Jewish organizations’ resources in order to receive halachic, emotional, or financial support. On the other hand, nine participants reported they experienced obstacles in finding the latter resources in terms of the accessibility, the application process, and the suitability to their needs. Specifically, it was indicated that there was no known male-factor related resources in the Jewish community. In addition, some participants indicated there was not enough accessibility to information in regards to infertility and the halacha’s guidance, and that every couple needs to go through this process by themselves from the very beginning, instead of learning from others experiences. One participant indicated there was one day at the synagogue where the topic of infertility was discussed, and two other participants stated that it was discussed at a Jewish conference. They felt both were very helpful, yet that this topic was not addressed often enough.

Some participants provided specific ideas to improve the level of support in the community. For instance, it was suggested to open a mentorship program where there would be a parent that once experienced fertility challenges, who would accompany other couples during their journey. Another suggestion was to provide subsidized psychological support, where the couple would be contacted at a designated period of time to explore whether they could benefit from such support. An additional idea was to present this issue in other conferences, both for male and female factors, and educate the community. Moreover, it was suggested to expand the annual conversations in synagogues by rabbis in regards to this issue, and to continue educating the community. Furthermore, it was addressed that there is a need for a specific emphasis on male-factor fertility difficulties and the creation of social support groups for them as well. The latter was indicated as a possibility to implement as part of a Shabbaton or a conference to create a better understanding of the issue in the community in order for men to use these resources. Lastly, it was reported that there is a lower amount of mental health professionals that provide support for men, and that such training is essential.

### **Social Pressure**

Along with much of the social support specified in the previous section, there is much stress experienced by Orthodox Jewish couples from their social interactions. Twelve participants indicated they had to keep their fertility status to themselves, and some added it took them years until they revealed it, while others refused answering direct questions in that regard. As a result of not being able to communicate about this topic with friends and family members, participants indicated they removed themselves from these relationships almost entirely, adding “there is a wall between me and

everybody” (0136). Some would feel these relationships as an additional stressor rather than a source of support, and would rather be left alone and not receive comments at the synagogue or other events where they are not interested in discussing it at the time.

However, the couple may have a strong desire to share and receive support, yet be unsure from whom support would be provided and whether they would be understood. However, they would then discover in the process that many experience similar struggles. The lack of discussion in that regard led participants to believe they are not supposed to talk about it, which led to feelings of shame.

In times of receiving bad news, participants indicated they felt depressed and would prefer to isolate, rather than feeling sadder in social environments. For those who were willing to share, they might stop doing so following a failed treatment in order to avoid the social pressure. As a result, some participants expressed aggression towards others, who were insensitive towards them, which both protected and distanced them from others. In some cases, one partner, usually the female, would prefer to stay at home rather than attending celebrations in the community, and the other partner would act as the representative of the couple. This pressure can be explained through the following participant’s description of his wife’s reaction, “We did the Briss thing a lot and it was really just, that was awful. The last time we did that, XXX actually had to run out crying and she was like, I’m not doing it anymore, end of story” (0147). In these cases, the representative partner would experience additional pressure when asked about their missing partner. In times when a partner felt not understood by the other partner, it could lead to additional feelings of isolation and loneliness while coping with the infertility on their own. On the other hand, four of the participants distanced themselves from being in

a vulnerable emotional state as a way to cope with their fertility challenges. They disclosed other ways to cope with expressing their emotions, such as fulfillment at work, or solely isolation.

Most participants indicated there is a strong pressure to get married as soon as possible, and later similar expectations of having children: “Definitely in our community you don't fit unless you are married and have children” (0139). When that does not happen, the couple does not fit either in the married-with-children group or in the singles group. In addition, some participants expressed discomfort in complaining to their single friends about their fertility difficulties, explaining they may be jealous of their marital status and would not relate to their struggles. On the other hand, some would distance themselves from friends who got pregnant due to the reminder when in their presence that they themselves were not pregnant. Many participants indicated they would prefer remaining busy at work, school, or occupied in other ways as part of their way of coping with the situation.

There were other forms of stressors from the community. For instance, the communication with the rabbi was indicated by some participants as impersonal, where they had to call their local rabbi and leave their phone number with a specific question. This was an added stressor, which increased their feelings of being misunderstood. Another example was that the work or school environment could be a stressor when noticing other female colleagues pregnant or on maternity leave. Moreover, participants reported that when the couple's fertility difficulties are known to the community, people quickly start giving advice, not knowing the couple may have already attempted all their suggestions. Some participants view the latter as an attempt of the individuals in the

community to satisfy themselves by finding a solution. One participant reported she was on a bus ride back from a conference she went to in order to receive support about infertility in the Orthodox community, while another woman commented, “where are your kids? So I was like, no, I don’t have any. She was like, oh, I was wondering if I should be really jealous of you that you were able to leave them because of someone else or I need to Daven (pray) for you“ (0152).

Furthermore, participants indicated that after they gave birth, they may not have been a good support for others who experience fertility difficulties, as their emotional state had changed. They added that they may have a sense of competition with other friends who experienced fertility difficulties, which could lead them to make insensitive comments. Lastly, the couple may simply not feel understood by others who do not go through fertility difficulties themselves.

Some participants who experienced fertility difficulties while their siblings were pregnant or gave birth reported a high level of stress, and sometimes needed to distance themselves from them, feeling something is “wrong” with them and a sense of void in their homes. This distance was usually temporary and was understood by the siblings. A similar commonality was found with friends, where participants felt more comfortable spending time with friends and family who did not have children yet because they felt pressured when comparing themselves to same-age friends with multiple children.

### **Cultural Stressors**

There are additional stressors Orthodox Jewish couples experience, in addition to the social pressures mentioned above. First, in the case that the participants had siblings with children of their own, this made an impact, as it is expected for all of them to have



as many children possible. Some participants without children found it difficult to spend time around nieces and nephews who were a constant reminder for them of their fertility status; yet other participants enjoyed spending time with nieces and nephews. Being around nieces and nephews was especially difficult for participants who had older siblings. Yet, if their younger siblings had children before them, it could create additional pressure to have children of their own faster. Participants added that once their siblings got pregnant, they tried to keep that information away from them, yet this would upset the participants as well, despite knowing that they were trying to prevent their pain. Even with supportive family members, participants sometimes decided to not discuss their fertility status with them, or stop sharing, as that became an added stress for them. For example, one participant disclosed, “if we both didn't come to something, she (mother) was much more like, like getting mad. Like how we didn't come and everything. I'm not understanding like what she's going through, you know, um, and not being able to say, okay, I get XXX is like going through a lot and she can't handle it. Like, okay, I get it. Um, it was, it was about them and that and I think that was a difficult stressor also” (0147). One reason for couples to keep their fertility status to themselves could be due to the possible effect of the family members on their marriage, as five of the participants were pressured to terminate their relationship with their partners who were blamed for the fertility status.

Some participants shared that solely their parents' emotional reaction (i.e., cry) would be an added stress for them to carry. Others added that their families' high level of involvement in the treatment process, such as providing suggestions in regards to adoption or finding a surrogate, was an added stressor. This led the couple to be more

cautious and avoidant, especially with their parents or parents-in-law. Couples who decided to not tell their families about their fertility process would sometimes feel forced to do so due to other circumstances. For example, it would be difficult for them to attend family celebrations or funerals due to their own emotional struggle, and so they would feel obligated to share with their family in order for them to understand their perspective. Finally, some couples would not share with their family and friends even if they had conceived a child successfully, due to fear of miscarriage and preferred to postpone their exciting news. This situation of experiencing fertility difficulties had led to a disconnection between some of the couples and their family members due to their need to focus on themselves. This was especially common when parents had little to no knowledge about infertility and fertility treatments, which made the participants feel less understood by them.

Overall, according to participants, it appears that couples with fertility difficulties have low access to the halachic restrictions and unaware of them, and need to reach out to other organizations and rabbis to find these answers. Thirteen out of the fifteen participants indicated some level of stress added due to halachic restrictions or traditions. For some female participants, the period of Nidah added a tremendous amount of stress due to the inability to have any physical contact with their husband. This was not in terms of sexual contact, rather a consoling contact following an experience of menstruation that symbolizes their additional failure to conceive a child, or in some cases, a miscarriage; a participant described her experience during those times as, *“that means that I don't I didn't get pregnant and I that's when I need hugs. And it cannot get any physical comfort. It's nice to get emotional support but you get married for some physical comfort*

*also so I feel 10 times more alone when I have my period because I'm the most devastated when I get it and then I'm really alone"* (0136). Another stressor is by simply finding out whether the female is considered Nidah, by examining white sheets or underwear in order to search for blood, which some participants indicated as intrusive. In addition, none of the participants were aware of their own ovulation during the time of Nidah, yet some of them were concerned that they were, which would have an added stress for them as a lost opportunity to conceive. Moreover, some fertility procedures caused some bleeding, which would consider the woman as Nidah, yet participants reported that following a discussion between the fertility doctor and the rabbi, it did not prevent the couple from going through a fertility treatment. Going to the Mikvah, as well, was questioned whether it should be done post fertility procedures, such as IUI, Intrauterine Insemination, which added stress to some.

The latter and other restrictions resulted in conflicts between the couple and their rabbi, and sometimes resulted in looking for a different rabbi to consult with. However, for other participants, it did not add any stress to their lives, as they understood and accepted the halachic restrictions in that regard. Other stressors resulted from halachic restrictions were disclosed by participants simply by the constant worry of potentially not following the halachic guidelines and having the need to check with their rabbi whether the procedures made by the fertility doctor were in accordance with the halacha. In times of conflict with such procedures, some participants reported feelings of guilt when choosing not to follow the halacha. However, most of those who used services from Puah in regard to halachic guidance reported significant relief. Others were not interested in

such guidance or were not aware of it. In addition, it appeared that couples who were less strictly Orthodox than others received more flexibility by their rabbis.

Other stressors were as a result of the view of other options of having a child, such as the use of a surrogate and adoption, as a female participant reported she was told that her status as a mother would be questioned in those options, while male parents would not experience similar difficulties, which added much stress for her. In addition, some participants experienced some conflict with giving a sperm sample in a cup, as one participant mentioned *“I believe my IUIs did not happen because I created the sperm via video without my wife in the room via masturbation” (0136)*. Moreover, participants reported stress in regards to having procedures on Shabbat, which had to be approved by the rabbis on a case-by-case basis, such as having IVF procedures approved as long as there was no use of transportation to the hospital; this is in comparison to solely having hormone shots on Shabbat, which were less likely to be approved. Furthermore, a few participants reported stressors in regards to the right of the male divorcing his wife following 10 years of infertility, and one couple reported they received a book from a rabbi which hinted on pursuing a divorce and resulted in a conflict and much stress between them.

During the interviews, participants reported their impression of unique stressors for Orthodox Jewish couples. Most participants indicated that there is not much of a possibility to escape the interaction with children, unless staying at home. One participant explained *“I feel a lot of pressure just by walking outside and so frustrating, even just an hour ago. Every woman to the ages of 22 and 35 has a stroller or a baby in a shopping cart or a little child in a car. It's a very difficult to be the only one without one” (0136)*.

Participants added that these encounters happen mainly on family and community events, Chagim (holidays) attending or hosting Shabbat dinners, and attending the synagogue. The latter also allows others to assume the couple experiences some fertility difficulties, without even disclosing that to them. Some participants reported that social events are usually for singles or parents, and not for childless parents and feeling they do not belong or that “*something is wrong*” in them or they were “*left behind*”.

Furthermore, there are certain rituals, Segulot, that are suggested by community members in order to help conceiving children, which some of them can add much stress, such as carrying babies in every Bris ceremony. Participants disclosed their frustration when being told “*it will be okay*” by others who already have multiple children, and feeling misunderstood by them. In addition, some female participants reported they found it intrusive for the rabbi to be aware of every procedure, as well as needing his approval for fertility treatments, while he had not gone through similar process himself. Another stressor mentioned was the expectation of their community for them to get pregnant shortly after their marriage, except for younger Modern Orthodox couples, and the view of parenthood as the “*ultimate achievement*” (0138). A critical factor participants indicated is the definition of infertility in the Orthodox Jewish community, adding that one or two children would still be considered as experiencing fertility difficulties, in comparison to non-Orthodox Jewish couples.

The view of male and female factors in the Orthodox community can increase stressors as well. In terms of female factors, female participants reported it affected the view of themselves as mothers and their sense of self-worth as their body could not carry out what it is functioned for. One of those participants stated “*Hashem gives you a body*

*to be able to have children. And then what happened? You know, so there is a sense of what is my body doing to me and you know?" (0143).* This occurred in case there is a low count of eggs, where there might be a need of a donor, as well as in unexplained infertility or infertility due to a medical reason. In most cases, there was an assumption of a female factor for infertility, and in some, there was no sperm test done. When it was found to be male factor infertility, there was an expression of shame and low self-worth by the male participants, such as their view of their level of masculinity. Since the latter is less discussed and addressed by the community, participants expressed a lower level of comfort to share this with others, as well as the lonely place it would put them in, with low to no access to support. One participant reported in regards to the latter, *"In XXX (city) there are thousands of men who really want the support or individual counseling to deal with, some of the emotional triggers that come with that. I can't imagine in other parts of the country" (0156).* In terms of sperm test, participants reported a lower level of comfort with providing their sperm sample to a female Mashgicha, an overseer, from Puah, who makes sure only the sperm and egg of the couple would be used in their fertility process. Lastly, both male and female participants were asked about the possibility to consider the use of a donor of either sperm or an egg. All participants denied that option, in spite of some considering adoption as a future possibility, and one participant who had to go through a process of sperm donor, which added much stress to the process for him.

### **Self Image**

All the factors mentioned above and the process of fertility treatments had significantly impacted the participants and affected the way they view themselves. For

instance, some participants witnessed their friends and family members attempting to have children later than them yet giving birth before them. These participants indicated losing much of their sense of hope of having children and envying others, while feeling they will have to struggle with this issue in future pregnancies as well and carry those unpleasant feelings “for the rest of my life.” Some indicated they became pessimistic, and lowered their expectations for future treatments, in order to not have additional disappointments; one participant indicated she was specifically told by one of her fertility doctors that she would not be able to conceive a child, which reduced her level of hope even more. Following multiple failed treatments with physical and emotional struggles, participants reported feeling they wasted their time trying, while having reminders of these feelings after every failed cycle; similarly, participants reported similar struggles.

Ongoing infertility also increased their level of loneliness, as their friends and siblings were spending much of their time with their own children, while the couple had to stay by themselves at home. One participant stated, “the times where we really prayed, you know, when it’s quiet and we don’t know what to do. People are busy with their kids and we’re doing nothing. You know, when we know that...like XXX’s nephews and nieces, like brother-in-law system doing stuff, you know, we’re just, I don’t know. Yeah. That was hard“ (0153). Some let these individuals know “how lucky they are” (0140), and cried as a result of longing for similar results of their attempts conceiving. Some participants indicated they realized their prayer had limited control, which required them to trust God in the process. In addition, those who were indicated with a fertility issue, often disclosed feelings of guilt, indicating a sense of self-blame.

Shame is another important aspect in the infertility world. Participants reported a strong connection between shame and their reduced social interactions. Participants reported feelings of embarrassment which were carried with them everywhere they went, while some mentioned this embarrassment decreased over time. A large sense of disappointment was expressed by a few participants towards the Orthodox Jewish community, including family and friends, because they can be very close and open about some matters, yet the topic of infertility is hidden and sometimes perceived as forbidden to discuss. One participant presented his concerns with communication with his rabbi, “I mean you're talking about very, very intimate, personal things that, uh, you know, when you're talking to your rabbi, I mean it could be, I mean even though I feel comfortable talking to him like it was, it was awkward” (0147). In addition, some participants reported they kept their infertility a secret from others who were struggling with infertility similar to them. One participant shared that even her closest sister kept her infertility a secret from her until she experienced fertility difficulties herself, and another participant disclosed that her brother did not share this with his family until “he broke down” (0144). An additional idea presented by a participant is that there is a unique form of shame for men in the Orthodox community, as male factor infertility is being discussed even less. A different participant stated that the sense of shame was brought by interacting with children, who innocently asked if the participant was pregnant. In spite of such experiences, some participants disclosed they have nothing to be ashamed of, as they did not have any control over their condition.

These repeated failures in attempting to conceive were perceived by some participants as inadequacy, since they were unable to serve the purpose of their bodies.



One example was given by a participant, who stated, “What am I worth if I'm not a mom” (0136). Some male participants added they could understand how women may have a harder time in this process, as their traditional role is to raise children, while men can fulfill some of their purposes by providing financially and could increase their self-confidence through those means. This had also added some questions in regards to faith and the reason they were given a female or male body. Some female participants had to remove all or some of their reproductive system during or after conceiving a child. Similarly, a male participant was not able to use his sperm during the fertility process. Both instances affected the participants’ sense of self-worth. In addition, a few participants were concerned they would not pass their DNA to their next generation. On the other hand, there was one participant, who did not conceive a child at the time of the interview, and reported an opposite effect of increasing her self-confidence by coping with the fertility process.

### **Spouse Role**

Fertility difficulties can cause tension between the partners themselves. Situations when one partner is targeted as the one with the fertility difficulties can result in a sense of guilt within the marriage. Some participants who experienced fertility challenges reported they felt isolated and misunderstood by their partners, as they could not fulfill the Mitzva of Pru Urvu, “...Be fruitful, and Multiply” (Gen. 1:28). They felt they were the ones to blame in the situation due to the inability to provide their share in the creation of life, as their partner must not have expected any interruptions in the process. This resulted sometimes with a conflict with the partner’s family, who felt they deserved better. This led to guilty feelings by the spouse with identified fertility challenges. Some

of them wondered whether they had done everything they could in order to conceive a child, including treatments, research, and level of motivation. Others reported they felt guilty in regards to arguments they had with their spouse, as it may have resulted in a failure of a specific procedure.

Some of these conflicts take place in times when the cause of infertility is unknown as well. Participants indicate high-tension interactions and lack of time to focus on other aspects in their relationship, which can appear as though the relationship is being put on hold. Some participants stated they would not be surprised if there is a higher rate of divorce among couples who experience fertility challenges, as the stress is present at all times, and does not allow other points of growth or the strength to support the other spouse. Specifically, the financial hardship and hormonal changes were emphasized as a source of tension, and three participants had considered the option of divorce. A few participants described the attempts to conceive a child as “robotic” (0147), non-spontaneous, which took place at a certain time when ovulating, “like a job” (0150). For some, certain periods of time were harder than others to cope with. For example, communicating in the morning before work or in the evening was harder for some. For others, times of holidays and Shabbat dinners, which emphasized the void of not having children, were more challenging to cope with. Other examples were invitations for community events in which only one spouse took part, who would then not have the possibility to share the burden of answering people’s questions in regards to their fertility journey. One participant stated, “she stopped going in Brisses, which was also difficult because, for me, I was the representative, cause I realized, look, eventually we're gonna

have a kid and if we have a boy, I don't want to have to sacrifice these relationships” (0147).

Participants reported a need for additional effort to preserve the marriage. Those who had already conceived children prior to the time of my interview reported that, when looking back, the extra efforts taken eventually strengthened their relationship. In addition, some participants found it helpful for the male partner to be the one driving to the doctors' appointments and being responsible for other administrative aspects in regards to the treatments. However, prior to conceiving, there was an attempt for most couples to avoid discussing the issue of infertility, even though it was present in every aspect of their lives. For a few participants, this resulted in attempts to work longer hours and avoid spending time at home, since “you can end up taking it out on the people you love the most” (0150).

The level of attunement and understanding of both spouses in regards to the fertility condition was reported as different between the participants. In most cases, the female would be the one communicating with the physicians and taking the responsibility for gathering the required information in the treatment process. Usually, the men would show less interest in the fertility treatments and conversations with the physicians and the rabbis, while some with whom this was brought to their attention were then able to provide more support. However, often men who did not have a fertility issue felt they were not allowed to complain about their struggles in the process and had to be strong and supportive towards their spouse, as a “rock,” adding “and that's not always easy, you know, cause like I was disappointed every time it didn't work out. But I had to just keep, you know, I have a business, I had to keep working hard” (0147). In addition, men were

usually present in the social events in order to sustain their relationships in the community, as sometimes it was unbearable for the women to take part in them.

This difference between the partners' reactions to the fertility challenges can also be explained by the differences in the procedures they had to undertake. In addition to the physical difficulty, the partner with the fertility difficulty, mainly the female participants, were found to be more expressive with their emotions of sadness, worry and frustration, and would cry more often than men, who sometimes did "not understand why I'm feeling so sad" (0136). Another participant stated, "I didn't understand why he wasn't angry, um, and I really wanted him to be angry and he was, and he would cry, but he, he never got angry" (0139). In addition to the emotional difficulties, there were differences in the physical struggles of the ones who experienced the fertility difficulty, such as going through intrusive procedures, surgeries, and miscarriages, which also greatly affected their mental state. Moreover, due to biological differences, there was a difference in the sense of urgency in conceiving a child, as often, the male spouse would be willing to wait longer to start with the fertility treatments. As a result, some female participants reported they had to accept the differences between them and their spouses during the process. One participant describe it as "at the end of the day, he doesn't know what it feels like, cause it's my body" (0150).

These differences between the spouses might have been the reason for male participants to experience difficulties recalling times of procedures and appointments, and had to directly ask their spouse for guidance for the best way they can support them, as they were unsure of the ways to do so. In spite of the differences between the spouses and of the possible lower level of knowledge of the fertile spouse, the communication

between the rabbi and the couple in regards to halachic matters was often made with the man. Yet, at times, the couple decided the woman should be the one in contact with the rabbi as she had more knowledge of the procedures. In addition, these differences between spouses affected the level of involvement of their families, and participants reported that men tended to not share as much with their families as women would. Despite the differences among the couples, 10 of the participants indicated spousal support helped them the most during the fertility process. Participants reported they were very fortunate for the unconditional love and support they received from their spouse and that their struggles brought them closer to one another. Some realized that they want the marriage to succeed more than the fertility treatments, and others indicated it allowed them to have more quality time together and grow as a couple before bringing children to the world. In addition, participants disclosed that in some cases it allowed their families to see the high level of care they had for one another. One participant described the level of support by, “eventually it got us stronger in terms of communication, in terms of accepting, in terms of not blaming. It's not your fault or my fault, it's something that doesn't work together” (0140). Furthermore, the presence of the spouse in doctors’ appointments was expressed as very helpful. Moreover, participants explained that they would not consider divorcing their spouse in order to fulfill their desire for children, in spite family pressure and halachic permission to do so following 10 years. On the contrary, for most participants, the tension between them and the community only brought them closer to one another, and participants added that solely listening to one another could outweigh dark times for them.

### **Faith in the World of Infertility**

The process of fertility treatments among Orthodox Jewish couples involves different aspects in regards to faith. All participants were able to indicate benefits of believing in Hashem (Lord) in the process of their fertility journey, and a few mentioned Hashem was the first one they turned to for help and for answers they have searched for. Most participants stated how their belief played an important role. Hence, they indicated they were helpless in the process of fertility, and that the couple has limited control in the process, as the final decision is made by Hashem. Their belief in Hashem (Lord) created a sense of relief for these participants, who realized it is not in their hands, yet still put their utmost efforts into conceiving a child, and at times changed their prayers as an attempt to help in the process. One participant stated, “My prayers had a saying, Hashem [Lord] please give me a child, make me fertile. I started changing it to, Hashem, please hug my child, tell them I can’t wait to meet them and tell them that I’m ready for them whenever they’re ready. And it started changing my outlook a little bit” (0148).

Others viewed Hashem as the form of keeping hope, explaining that without believing in Hashem, it means they had lost their hope. Therefore, for them, continuing their prayer served as an action towards their beliefs. Some also indicated that others’ prayers for them were a supportive act to keep their own faith. Two participants shared that once their husband’s procedures were over in the fertility treatment, the husband’s role was to pray for them. A few participants mentioned prayer as a form of coping with their fertility status and made them feel closer to God as well. One participant changed his beliefs towards Hashem, and as a result of success in his journey following seven years of attempts, he decided to become religious and follow the halacha as he could not

explain his success in the process otherwise. In addition, five participants, who eventually succeeded in conceiving children, especially those who were able to conceive naturally after all their failed attempts, indicated that God supported them in doing so at the most suitable time in their lives. Others, who had not succeeded in conceiving yet, trusted that God would support them when time is right for them. Furthermore, participants reported that during the time of their treatments they were uncertain of the reason behind their unsuccessful attempts, yet believed there indeed was a reason and that they had to trust God in the process. A participant was able to express a conflict between their belief system and the fertility treatments by, “I'm doing treatments because I know that's what I'm supposed to do but in the end of the day I care more about what Hashem wants than what the doctors want” (0136).

Most participants expressed difficulty finding benefits of not believing in Hashem, in spite of the obstacles in the fertility process. They added that they feel there has to be a sense of belief in the process. According to participants, in cases of not believing in Hashem, the belief system would turn to science instead of Hashem, as the couples would have to believe in the procedures offered as the only factor in successful pregnancies. However, when physicians were not able to explain the success or failure of fertility treatments, participants related that to proof of God's involvement. In addition, participants indicated that non-Orthodox Jewish couples would not suffer from similar stressors, such as the pressure of having children and halachic restrictions, yet would miss the community's support at the same time. In regards to the latter, a few participants disclosed they were able to keep their strong belief system partially due to the support they received from Puah in regards to halachic matters.

However, participants experienced significant conflicts with Hashem. Some felt betrayed after a long period of strong faith, and still were working on repairing that faith even after giving births. One participant explained, “I definitely feel like it's changed a lot since then. Um, I definitely felt much closer before I went through this whole process than I did after. Um, and I'm still working on healing that and rebuilding my spiritual relationship with that” (0138). Another participant, who was certain he would not have his own biological children, experienced difficulties sustaining faith in God as well. A unique rupture in the belief in God was in times of miscarriage, when the couple experienced difficulties understanding the reason of Hashem taking their children away after giving them the opportunity to carry them for weeks. In addition, anger was expressed towards God by some participants due to seeing others succeeding in conceiving, as well as for their own pain and suffering in the process. Furthermore, one participant said she felt guilty for not praying enough to God and felt pressured to do so. Moreover, some participants' level of faith in their success of fertility treatments was affected by the faith their physicians had in them during the process, which could decrease their faith in Hashem as well. Nevertheless, some participants viewed these ruptures as an opportunity to strengthen their faith in Hashem in the long term.

There were other supportive aspects of participants' faith through the fertility process. For example, success in their work or school environments increased participants' confidence level in general, and specifically their confidence in the fertility treatments, as they were able to gain back some control in the process. Some were using work or did something else to feel essential as an escape from facing their infertility at any given time, while trusting in God to successfully conceiving children. In addition,



three participants indicated that their realization of neglecting their own self-care directly affected their level of faith, and two of them were able to conceive a child following practicing self-care. One participant stated, “that's when we took a break and I was like, I need, I need me, I need to work on me. I need to get me back because me is gone. Like I am not who I am. And during that break we went on vacation with another couple and we just did things that we love to do and that's when it happened” (0148). Furthermore, nine participants indicated they had practiced traditional virtues, Segulot, in the community in order to increase their chances of conceiving a child by strengthening the relationship with God and receiving stronger support from the community. However, the faith in the latter diminished throughout time for most participants, and in some cases, these Segulot only increased their level of stress and feelings of hopelessness as it felt too public and intrusive.

### **Procedural Stressors**

Following the couple's understanding that there might be a fertility challenge, or that they are considered infertile, they need to go through procedures that can increase their level of stress. The most common process participants reported is using Clomid and hormone shots to stimulate ovulation. Couples who failed with this process usually continued with IUI, using different hormones shots, and often repeated this process several times prior to going through IVF, both with fresh and frozen embryos. Specifically, the hormone shots for the IUI were reported as an emotional struggle for some, and was a physical challenge with much pain for others. However, some participants did not go through some of these procedures due to a genetic component that would prevent a process from working; within this group, some had to go through a

surgical process prior to using a certain fertility procedure. Eight participants reported they struggled financially with these procedures, especially with funding the IVF procedure. Some sought external support from Bonei Olam, and one participant found a way to do so through state coverage and university insurance. In general, being proactive in the process was reported as helpful in coping during that time.

The IVF procedure, which was used by most of the participants, could result in high stress by itself. First, for a few participants, IVF felt unnatural to them, and they had an issue with its process. According to participants, one reason was the amount of hormones they were given in this process, which affected their mood. One participant reported fear and the feeling of taking a risk by going through IVF, and was concerned she would not survive this procedure. After two months, she decided it was worth taking that risk, and viewed this process as traumatic in retrospect. She stated, “I had a fear of dying. If they put me to sleep, I would never wake up. So that was rock bottom for me ... are kids so important that you’re willing to die for [them]” (0140). In the IVF process, the couple can view the number of eggs they can produce in different ways. For some, a low number of eggs lowered their level of hope having children of their own. For others, in the case where they had a large amount of eggs it caused frustration, as they did not know the reason for failure with most of their eggs. However, in the latter situation, participants were relieved by their understanding of the higher potential of future pregnancies. Lastly, receiving the answer from the fertility doctor about the results of the IVF procedure was reported as a significant stressor by one participant, who often received negative news. Seven participants reported they, or their partner, experienced one or more miscarriages. In some cases of multiple miscarriages, the couple lost much of their hope to have a

successful pregnancy, and one participant required testing of her embryos in order to decrease the chances of future miscarriages. The female participants experienced it as a significant struggle and betrayal by God, whom they thought had answered their prayers after a long period of attempts. One participant reported her miscarriage was especially traumatic as her “first introduction to my female body” (0152). This was especially difficult, according to another participant, since she had already started sharing the news with family and friends, and then had to go through the process of letting them know of the bad news (0148). Following the difficult news, most of these participants reported they went through a procedure of Dilation and Curettage (D&C) in order to remove tissue in the uterus and prevent infection and heavy bleeding, which was “traumatic,” according to some of them. A few decided to not go through D&C, and had to wait several weeks for the fetus to leave the body naturally, which was emotionally distressing as well. In one case, a female participant decided to take a break from attempting to conceive a child, and instead did egg retrieval procedures “instead of wasting your eggs every month” (0143). A different participant, who went through multiple miscarriages, disclosed she preferred not knowing the embryo’s gender due to the chances of an additional miscarriage and concern over becoming too attached to them. She disclosed, “Did you just tell me that I’m having a baby boy? And she goes, well I assume that you would want to know? I said, no, I don’t want to know because they [the physicians] might lose this child and now I’m going to know it’s a boy” (0144).

The fertility process was reported as very difficult and challenging by participants, without the ability to take an emotional break along the way. There was a struggle with uncertainty for participants going through a procedure for the first time, as

well as with multiple failed attempts and their emotional turmoil, such as feelings of grief, or apathetic responses. Receiving a phone call from the fertility doctor, for example, was considered by most participants as a stressful event they tried to avoid or for which they tried to have their spouse with them at the time. In two cases, participants reported they decided to take a break from the medical procedures and any conscious intentions to conceive, and were able to conceive naturally in the following two cycles. However, all these attempts involve a high level of uncertainty, and most couples presented this as a challenge, as they would have wished for a clear and specific solution. As a result, they preferred to lower their expectations in order to reduce their disappointment in case of a failure.

### **Quantitative Data**

Thirteen out of the 15 participants sent their response to the GAD-7 and PHQ-9. However, two of those participants did not send the forms back to me, instead responding via email that “all responses are zero.” Due to the possibility they did not respond to the questionnaires accordingly, their responses were removed from this section’s results. Since the amount of responses was not significant statistically, this information was interpreted qualitatively. In addition, the results of the two instruments indicate the levels of depression and anxiety in the two weeks prior to participants recording their responses, and some of them were not answered for several months following their interview. Therefore, the results of the questionnaire may not correlate with participants’ reports in their interviews. One participant wrote on her GAD-7 form that her responses were “related to something in the family that week,” and another wrote that she had “general worries as a mother,” which were not related to the fertility process.

The tables in Appendix F and in Appendix G depict the quantitative results of the GAD-7 and the PHQ-9, respectively, which are discussed in this section. The averages of the responses on the GAD-7 and PHQ-9 were 7.64 and 5.09 respectively, and indicate mild levels of anxiety and depression. The overall average of female participants was 7.71 on the GAD-7 and 4.71 on the PHQ-9, which indicate mild levels of anxiety and depression. In regards to the effect of children at the time of responding to the instruments, there was an average of 5.4 on the GAD-7 and 1.8 on the PHQ-9 for participants who had children at the time of the interview, and suggest mild anxiety and no depression, respectively. Participants without any children presented with an average of 9.5 on the GAD-7 and 7.83 on the PHQ-9, which suggest mild to moderate level of anxiety and mid level of depression, respectively. More specifically, there was one male participant who had a child at the time with the results of 14 on the GAD-7, and 4 on the PHQ-9, which suggest a moderate anxiety and no depression, respectively. Three male participants, who did not have children, had an average response of 5.33 on the GAD-7 and 6.33 on the PHQ-9, which indicate mild levels of anxiety and depression. Four participants, who had a child at the time, had a result of 3.25 on the GAD-7 and 1.25 on the PHQ-9, which suggest no anxiety or depression. Three female participants, who did not have children, had an average response of 13.67 on the GAD-7 and 9.33 on the PHQ-9, which indicate a moderate level of anxiety and mild-moderate level of depression, respectively.

In terms of the main factor for the fertility challenges, in case of a male factor, there were averages scores of 9 for both the GAD-7 and PHQ-9, which indicate mild levels of anxiety and depression. In case of a female factor, there was an average score of

6.6 on the GAD-7 and 5.4 on the PHQ-9, which present mild levels of anxiety and depression. When the fertility reason was unexplained medically, there was an average of 10.67 on the GAD-7 and 3.33 on the PHQ-9, which indicate a moderate level of anxiety and no depression. In addition, there was one case of both male and female factors, which was responded by a female participant, who scored 1 on both the GAD-7 and PHQ-9, and presented with no anxiety or depression at the time. Specifically, there was one response by a male participant with a male factor, who responded 14 on both the GAD-7 and PHQ-9, which indicate moderate levels of anxiety and depression. There was also one response by a female participant with a case of a male factor, and responded 4 on both the GAD-7 and PHQ-9, which indicate of no anxiety or depression. In terms of female fertility factor, male participants averaged 1 and 2.5 on the GAD-7 and PHQ-9, respectively, which suggest no anxiety or depression. However, female participants responded averagely 10.33 and 7.33 on the GAD-7 and PHQ-9, respectively, and presented with a moderate level of anxiety and mild depression. In regards to unknown factors, there was one response by a male participant with an unexplained factor, and responded 14 on the GAD-7 and 4 on the PHQ-9, which indicate a moderate level of anxiety and no depression, respectively. In terms of female participants in that regard, their average responses were 9 and 3 on the GAD-7 and PHQ-9, respectively, and indicate a mild level of anxiety and no depression.

In order to strengthen the results of the GAD-7 and PHQ-9, they were related as qualitative data as well. First, it was found that the relationship between themes that were collected in this study and the quantitative results was not significant. However, as an attempt to view the GAD-7 and PHQ-9 results in a more distinctive way, they were

divided to “high” and “low,” by choosing the results of “mild” level and higher for “high” and lower levels for “low.” In addition, in order to relate to the fact these instruments related to recent presence of depression and anxiety, it was decided to make a distinction between participants who were considered as infertile at the time of the interview and those that were not. It was found that five participants met the “high” criteria for the GAD-7, while four of them were the only ones who still did not conceive a child and were identified as the infertile partner. The other participant was a male participant who had his first child, and responded in much greater detail than others in the study. However, he mentioned that he lacked the ability to express his stress due to his role in the marriage; he stated “the husband is the one who has to be like the rock” (0147). In regards to the PHQ-9, four out of the five participants mentioned above met the “high” criteria. Those were also the ones who were not able to conceive a child and were identified as the infertile partner.

## Chapter V: Discussion

Results discussed in the present study include important to acknowledge, consider, and evaluate in the community at large, and the Orthodox Jewish specifically (see Appendices E, F, and G). There are clinical implications to be potentially used, and possibilities for future research. In addition, it is important to recognize themes that align with previous research among other populations, as well as unique themes for the Orthodox Jewish community. This section will discuss the latter.

Consistent with the current study, the role of children in the infertile couple's lives was discussed by Brito (2018) in a qualitative study among infertile Mexican women living in the United States. Brito (2018) emphasized the stigma, pressure, and inner conflict they experienced by their families and community when they were unable to conceive, which led to an avoidance and isolation. Women in this study described these reactions as well, which signifies the importance of having children in the Orthodox Jewish community. This present study was also consistent with a study with Iranian women, which indicated that women tended to avoid interacting with children and pregnant women due to experiencing high stress, which led to a decreased social support (Rashidi, Hosseini, Beigi, Ghazizadeh, & Farahani, 2011).

In the present study, knowledge about infertility appeared as a key protective factor against stress for the couple. Furthermore, receiving social support, even if it was not accessible to most participants at the beginning of their treatments, was also reported as a protective factor. This was consistent with studies among fertile and infertile couples from Saudi Arabia and Pakistan, which indicated poor knowledge about infertility, while infertile couples expressed willingness to consider treatment options (Ali, et al., 2011;



Abolfotouh, Alabdrabalnabi, Albacker, Al-Jughaiman, & Hassan, 2013). A reassuring finding of Wojcieszek, & Thompson (2013) was that by brief education on infertility and its treatments, there may be a significantly higher understanding of the issue. Sabarre, Khan, Whitten, Remes, & Phillips (2013) found a high level of knowledge among multi-ethnic students from Ottawa University in regards to infertility diagnoses, risk factors, and treatment options. Bunting, Tsibulsky, & Boivin (2012) explained that this might be due to a higher level of education. However, this was not aligned with the present study, as it included participants with higher level of education, who were lacking infertility knowledge; only when participants had cases of infertility in their families or had experienced infertility themselves were they able to gain that knowledge.

Social support and stress had a significant role in infertile Orthodox Jewish couples' lives. This was consistent with a study with Iranian women, which found a negative significant relationship between social supports and infertility stress (Rashidi, Hosseini, Beigi, Ghazizadeh, & Farahani, 2011). This was only one factor amongst many that affected participants' level of stress in our present study, yet a significant one. In their study, Martins, Peterson, Almeida, Mesquita-Guimarães, & Costa (2013) found a relationship between women who experienced low family support, and high level of stress, which then increased their husband's level of stress. Martins, Peterson, Almeida, & Costa (2011) reported in another study that support from family and friends was negatively correlated with infertile women's stress levels. Similar correlations were found in the current study, both by participants who received support from family and friends, and participants who did not.

In similarity to other forms of faith, such as the Catholic Church, there are community gatherings at the religious place of worship (i.e., synagogue), which include the presence of children, especially on holidays. This increased the couple's level of stress as shown by Feske (2012), which is consistent with the present study. In addition, it appears that the community is involved in each other's lives, including the infertile couples, which was a common stressor as well. Feske (2012) also highlighted conflicts with the local spiritual leader, and religious laws that often directed the fertility treatments, which appeared in the present study as well. Moreover, previous research also presented unique stressors for males and females, as a result of their unique roles in the relationship, while female participants tended to experience a higher level of burden (Ying, Wu, & Loke, 2015). However, in the present study, there was an additional component related to faith, which kept the couples hopeful in regards to future fertility option, experiencing lower levels of responsibility by fully trusting God in the process. In addition, couples who had already conceived children at the time of the interview reflected that they were pleased with their process. They were able to talk about the experiences with the perspective of now having their current children.

Similar to previous research, shame and self-image issues were prevalent among participants who were identified as infertile (Galhardo, Pinto-Gouveia, Cunha, & Matos, 2011). In addition, some female participants in the present study indicated they had no purpose of having a female body and felt it had no use, which was emphasized in the study of Hollos & Whitehouse (2014). However, unlike previous studies, some female participants in this study indicated they would still be considered infertile in the view of the community, even if they had one or two children, as they are expected to have more.

Similarly to the role of the spouse in the present study, Martins et al. (2013) found that low partner support led to a higher level of stress of the participant. However, most participants in the current study indicated a higher level of support by their spouse. This present study added to this information and showed that by involving the spouse and sharing responsibility with them in the treatment process, the infertile spouse's level of perceived support increased. Furthermore, adding to previous studies, in this study the fertile spouse also had the role of representing the couple at events in the Orthodox Jewish community. Moreover, due to the importance of conceiving children in the Jewish religion, the family of the fertile spouse sometimes pressured the couple to divorce. On the positive side, in the present study, couples indicated their relationships were strengthened as a result of their fertility treatments, and most of them related to their relationship as the strongest support during the fertility process.

Similar to the present study, previous research discussed the fertility treatments couples go through in their attempts to conceive, yet in less detail about the process of considering going through IVF (Deka & Sarma, 2010). Berger, Paul, & Henshaw (2013) also emphasized the exhaustion couples feel as a result of the continuing treatments, with uncertainty of when they would stop or succeed. In addition, previous literature addressed the emotional significance of miscarriages and the sense of failure among both genders, as well as the effect on their self-esteem (Berger et al., 2013; Fisher & Hammarberg, 2012). However, in the present study, there were ethical issues the participants discussed in regards to their belief system in the process of conceiving a child, and specific treatments used, as well as the role of God in the process.

In terms of the quantitative data used in this study, previous research shows the GAD-7 and PHQ-9 are reliable and valid instruments to use with individuals with infertility (Omani-Samani, Maroufizadeh, Ghaheri, & Navid, 2018; Maroufizadeh, Omani-Samani, Almasi-Hashiani, Amini, & Sepidarkish, 2019). Previous research was also consistent with this present study in that individuals currently going through fertility treatments experience higher scores on the GAD-7 (Omani-Samani, Maroufizadeh, Almasi-Hashiani, & Amini, 2018); and women score higher than men (Carter et al, 2011). However, previous research shows no significant difference between male and female participants on the PHQ-9, while the present study showed higher scores for female participants (Wilson et al., 2014). In addition, Carter et al. (2011) reported that infertile couples underestimate their levels of anxiety and depression when discussing it verbally, in comparison to their GAD-7 and PHQ-9 results; this was not always the case in this study, although a few participants tended to minimize the emotional effect of the process on their lives both verbally and on the instruments above.

### **Clinical Implications**

This study focuses on a population that tends to keep emotionally-sensitive information to themselves, in time confiding in their close circles of friends, family and rabbis, and less so with mental health professionals. However, there are principles to keep in mind in supporting professionals who work with Orthodox Jewish couples. All participants expressed some level of desire to be understood with their fertility status and supported by others. More importantly, they needed to be validated and to have their condition normalized. Knowledge and exposure of the infertility phenomenon is a key component in resolving feelings of shame, dysfunction and low self-worth through

validating the experience of infertility (Jordan, 1997). Having this information available to the Orthodox Jewish community can prevent stigma and promote curiosity and empathy. In addition with educating the community, there can be a greater solidarity and understanding of ways to support those who struggle. On one hand, this support seems not to be accepted by everyone in the same manner, yet on the other hand, it teaches ways to be attuned with others, which can compensate for that gap.

The Orthodox Jewish community would benefit from training and information shared by their community leaders, the rabbis. The rabbis, who might not have all the knowledge themselves about infertility and its stressors, would need to be educated as well in the information provided in this study and future research. Hence, the halachic and medical information is not enough, due to the need to recognize stressors, obstacles and ruptures of the couples with their community and family members. Rabbis would also need to recognize their own deficits and limitations, and make their own exploration with couples in order to support them in the most effective way. Training could be provided to the community together with mental health professionals who specialize in the field of infertility and could train other mental health professionals. In order to increase the community's participation, it can be helpful to provide this information as part of community gatherings, in synagogues or community events (i.e., holidays). Without this topic openly discussed, the struggles of couples who experience infertility will remain.

The female partners seem to need the community's support the most in the majority of the cases, due to multiple factors: they define themselves as mother figures from a young age; they are tested first for infertility; they go through the great majority of

the fertility treatments; and some view their only role as raising children. The inability to do the latter can create a strong conflict with their identity, as well as their relationship with God. However, it is more common to find support for women who experience infertility than for men, as it is assumed that men are not the ones with the fertility issue. Men also experience strong shame and emotional struggles, issues which appear to be discussed less frequently, as they might focus on being the financial providers of the household instead.

In terms of the mental health field, there is a need for professionals who specialize in working with the Orthodox Jewish community. In order to do so, they have to be knowledgeable with the characteristics of the population, traditions, ways of communicating, and halachic restrictions. Specifically, it appears that there is a lack of support for men who struggle with infertility. In order to overcome the shame and for this population to reach out for support, it would be beneficial to have this option openly provided in an anonymous manner. One way to do so is by scheduling appointments with mental health providers on a regular basis for couples, who seek services from Jewish organizations, such as Puah, Yesh Tikva and Bonei Olam, or fertility doctors, as part of their general process of treatments. The latter would be a proactive form of support, without the need for the couple, or one partner, to reach out and ask for help, which would probably be harder to do, and normalize their struggles.

There are also important aspects to take from the quantitative data. Orthodox Jews meet the expectations of higher levels of anxiety and depression among those who currently experience infertility and have a sense of responsibility for the couple's stressors. This suggests that participants who had children at the time of the interview

may have also experienced high levels of anxiety and depression when they were still considered infertile, which was they indicated verbally. More significantly, other infertile Orthodox Jewish couples who did not participate in this study might have suffered from depression and anxiety as well.

### **Limitations**

Due to the convenience sample of the study and low number of participants, there is a need for caution in generalizing the results of this study for different reasons. First, there were twice as many female participants as males. Second, there were only three participants with only a male infertility factor. Third, there was only one participant who had to use services of a donor in the fertility process. Fourth, participants were mainly from Los Angeles County and New York. Fifth, 10 out of the 15 participants were directly involved with Puah and Yesh Tikva organizations, and so would not well represent others who do not reach out for support. In addition, since this topic is not discussed often in the Orthodox Jewish community, those who were willing to participate in this study are likely to be more open in general than others who were reluctant in participating. Sixth, most of the participants had already given birth had to recall their level of past struggle. However, this might have allowed them to be more open about their difficult experiences. Lastly, the method of interviewing was inconsistent in the study; three participants were interviewed via phone, five via video call, and seven via face-to-face meeting. This could have affected the level of comfort participants felt during the interview.

Interviewing the participants via phone instead of in a face-to-face interview had the potential to affect the level of rapport between the interviewer and the interviewee. It

may have weakened the depth of data gathered in the study and, therefore, also its validity, as some of the participants might be more reserved. However, Sturges & Hanrahan (2004) found that there were no significant differences in the validity level between phone versus face-to-face interviews.

The interview questions are also a matter to explore. There might be questions that could have been added to the interview in order to expand the information gathered in a more thorough way. For example, some participants spoke for over 20 minutes following specific questions, and were describing matters that were not directly asked about, which could have been provided by other participants, if they had been asked. In addition, if some of the closed-ended questions were phrased differently, it might have been possible to gather additional information from some participants.

There were additional limitations in regards to the quantitative data collected. Since most participants did not experience infertility at the time of the interview, their levels of depression and anxiety were not affected by their fertility status, as the instruments refer to the two weeks prior to the time they were administered. Even among those who did not have any children, they could have had different stressors in their lives that affected their responses, and may feel uncomfortable disclosing them. In addition, this data was not always aligned with the responses of the interviewees, who presented with high levels of stress in their fertility process.

### **Future Research**

This study is the first to gather personal testimonials by individuals from the Orthodox Jewish community who experience fertility challenges. As expected, it did not cover all possible aspects that are relevant and useful to support this population. One



possible route would be to find a way to gather information from all of those who start seeking support from designated Jewish organizations—such as Puah and Yesh Tikva—by using open- and closed-ended questions in a written or computerized form. This could provide a larger scale of participants who are in a similar stage of their fertility process, as well as providing both quantitative and qualitative information. Another possibility is to focus on specific mental health factors, such as comparing the phenomenon of postpartum depression among this population in comparison to secular couples; or the relationship of parents with their children following fertility treatments in comparison to couples who did not experience infertility and the relationship with their children. Furthermore, it is possible to explore the unique aspect of this population by thoroughly comparing its results to similar studies with other religious populations, such as the Catholic Church or the Church of Jesus Christ of Latter-day Saints (LDS Church), who have strong and different belief systems. Lastly, it would be interesting to explore the role of grief in case of miscarriage among Orthodox Jewish couples in comparison to the standard grieving process in the Jewish tradition.

### **Conclusion**

The purpose of this research was to examine unique stressors among Orthodox Jewish couples who experience infertility challenges. Both individuals who went through these challenges in the past and individuals currently going through similar ones were included in the study. This study was the first to gather personal testimonials by Orthodox Jewish couples in comparison to past literature reviews by examining their stressors while going through infertility treatments. Unique stressors were shared by the participants in relation to their traditions, faith, and role of the community, following a

challenging recruitment process of participants due to the closed nature of the community.

The main themes that were found during the study were children in the Orthodox Jewish tradition; knowledge; social support; social pressure; cultural stressors; self-image; spouse role; faith in the world of infertility; and procedural stressors. In addition, quantitative data was collected, yet was used mainly in a qualitative manner due to the low amount of participants. In spite of this study's focus on a specific population, there were similarities between this group and other Middle-Eastern and religious populations, as well as with other Western populations that go through infertility. However, some themes remained unique to the Orthodox Jewish community.

Previous research presented similarities with the current study, especially in terms of the social pressure from family, friends and the larger community, as well as the impact on the sense of self-worth. The role of children was found to be similarly significant as well, especially in communities with high levels of involvement. In addition, the increase in the levels of depression and anxiety were similar to other studies. However, the present study was the only one that included all components altogether, including additional stressors in regards to religious laws and lack of knowledge, even in times of having a higher level of education. It seems likely to find similar components to those of Orthodox Jewish couples in other societies with a strong religious faith.

There were also several protective unique factors for Orthodox Jewish couples, such as their level of faith, as well as the pro-life approach of Judaism. The latter, in combination with the advancement of fertility treatments, promoted some flexibility in the religious Jewish law, halacha, for couples to go through them, in spite of some

hesitation by couples themselves. This flexibility will most likely continue to evolve, along with the relevant technology. In addition, the relationship with the spouse was also found to be the most helpful component for Orthodox Jewish couples in coping with stressors, once they were discussed more openly. Furthermore, the resources available specifically for Jewish and Orthodox Jewish couples, such as the organizations Puah, Yesh Tikva, and Bonei Olam were also a strong protective factor in the process.

In view of finding significant stressors and protective components for Orthodox Jewish couples, there is a need to find a way to use this information to promote empathy through curiosity, awareness, and normalization of the process. This can ease the process for some of these couples and many others, and can be achieved by providing education to the general population and to rabbis, as well as better access to mental health support. In addition, some participants disclosed conceiving children naturally following a reduction of their stress, and this should be explored further. Future research should continue to explore these stressors by using a larger scale of participants, and by finding additional unique and similar components to other populations, as well as tools for mental health professionals to implement.

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## Appendix A: Semi-Structured Interview Questions

Dear madam/sir,

Thank you for taking the time and participating in this interview. My name is Itay and I am a doctoral student in clinical psychology at Antioch University, Santa Barbara. The questions in this interview are a part of a dissertation study which is meant to assess the stressors among couples in the Orthodox Jewish community who experience infertility. The ultimate goal of this study is to use this information to identify new ways to provide support and solidarity to Orthodox Jewish couples who will experience infertility in the near future.

Participation in this study is confidential, and there will be no need at any time for you to provide your name, address or other personal identifiers. Thank you for your cooperation. Please answer the questions in the best way you can; it would be especially useful if you can provide information that you might have found helpful when you first realized you experienced fertility difficulties.

### General information:

Q1: What is your age?

Q2: Do you consider yourself as Ashkenazi or Sephardic?

Q3: What is your affiliation to the Halacha? Do you consider yourself as an Ultra Orthodox/Orthodox/ modern Orthodox/ Masorati/ Dati or in another form?

### Fertility Questions:

Q4: When did you first realize you wanted a child?

Q5: What is most important for you about having a child?

Q6: For how long have you been trying to conceive a child?

Q7: Do you currently have any children?

Q8: Before you realized you had fertility difficulties/were infertile, what was your knowledge about infertility (i.e. from relatives, friends, people from your community)? Please describe as much information as you can about your prior awareness of infertility issues.

Q9: How did you realize you were infertile?

Q10: What did you communicate with your rabbi in regard to your infertility? In what ways was it helpful or difficult? Was it before you communicated with your primary care doctor?

Q11: What did you communicate with your primary care doctor in regard to your infertility? In what ways was it helpful or difficult?

Q12: How did it impact you emotionally when you first realized you were or might be infertile (i.e. in terms of your level of stress, any feelings of anxiety, any difficulty functioning, any difficulty sleeping, any change in your social involvement (such as seeing friends or seeing family)?

Q13: How did you first attempt to cope with realizing you were infertile?

Q14: How has infertility affected your relationship with your spouse?

Q15: How has infertility affected your mood?

Q16: Can you please tell me about your experiences of disclosing to people that you were infertile (please indicate the order and number of people to whom you disclosed your infertility issues)?

Q17: Why did you tell them?

Q18: How did you feel after telling them (i.e. judged, supported, unsupported)?

Q19: Were there any restrictions from the Halacha in regard to fertility treatments that you felt that made it difficult for you to cope with your infertility (i.e. Nidah, fertility checks on Shabbat, temperature measuring and other physical exams that you had to do)?

Q20: Please describe your level of stress while experiencing these restrictions.

Q21: During the time of going through fertility treatments, have you ever experienced an elimination process of embryos? If so, how did it affect you emotionally? Did you feel this contradicted in any way the Halacha?

Q22: How did you come to use Puah/Yesh Tikva?

Q23: Which services do you use from Puah/Yesh Tikva?

Q24: How have the services you received from Puah/Yesh Tikva affected your mood?

Q25: How have the services you received from Puah/Yesh Tikva affected your level of hope?

Q26: Do you typically find it beneficial to communicate with your rabbi before communicating with your primary care doctor?

Q27: Have you ever thought you might not be able to have a child? Did you think of other options, such as adoption?

Q28: Were you ever worried that if you adopt a child, your child will not be considered Jewish? Please explain.

Q29: What factors about your faith do you feel helped you cope better than others who might not believe in God or don't follow the Halacha?

Q30: What do you believe may help others who do not follow the Halacha to cope better with infertility than people from the Orthodox Jewish community?

Q31: Are there things that you consider as unique stressors to Orthodox Jewish couples who experience infertility (in this community)?

Q32: Which fertility treatments did you have (i.e. IVF)? What was it like for you to go through these procedures?

Q33: What are your beliefs in terms of fertility treatments? Did those beliefs change from the time you realized you had fertility problems until today?

Q34: Did you experience birth/s or pregnancy/ies in the past? Were they from fertility treatments? Can you describe the experiences you went through during these pregnancies? If you lost a pregnancy, what was it like to go through such a loss?

Q35: What do you consider to be the most difficult experience for you in going through infertility and fertility treatments?

Q36: What do you consider helped you most in coping with infertility and with fertility treatments?

Q37: Please describe the level of stress you experienced in regard to infertility from your spouse, parents, parents-in-law, siblings, siblings-in-law, other family members, and community members. How did it make it more difficult for you?

Q37: Please describe the level of support you experienced in regard to infertility from your spouse, parents, parents-in-law, siblings, siblings-in-law, other family members, and community members. How did these supports help you?

For females specifically:

Q39a: Does being unable to conceive a baby affect your self-confidence or sense of self-worth? How? Do you find yourself feeling any shame about having fertility difficulties? How does the infertility you experienced affect your sense of yourself as a mother?

Q40a: Did you carry (or do you plan to carry) a baby from an egg that is not yours?

- If yes - what do you think about this idea? How was it for you?

- If not – is there (or will there be) another woman that will carry your child? How do you feel about this idea? (is that in a conflict with your beliefs in any way?)

Q41a: Did you experience or will experience any IVF treatments or other invasive treatments? How is it for you emotionally? Do you feel any guilt about undertaking such procedures because they are seen by some to challenge the Halacha? Does this affect your level of stress?

For males specifically:

Q39b: Does being unable to conceive a baby affect your self-confidence or sense of self-worth? How? Do you feel any shame in this regard? How does your difficulty with fertility affect your sense of yourself as a father?

Q40b: Did you conceive a child in a fertility treatment with an egg that is not your wife's?

- If yes - what do you think about this idea? How did it affect you emotionally?
- If not – is there (or will there be) a use of semen of another man to conceive your child? What are your various feelings about taking this step?

Q41b: Did you have to use your semen (or will you in the future) as part of a fertility treatment? How does it affect you emotionally? Does it involve guilt in terms of the Halacha? Does it affect your level of stress?

### Appendix B: Patient Health Questionnaire – 9 (PHQ-9)

Over the last 2 weeks, how often have you been bothered

by any of the following problems?  
(Use “ ” to indicate your answer)

	Not at all	Several days	More than half the days	Nearly every day
1. Little interest or pleasure in doing things	0	1	2	3
2. Feeling down, depressed, or hopeless	0	1	2	3
3. Trouble falling or staying asleep, or sleeping too much	0	1	2	3
4. Feeling tired or having little energy	0	1	2	3
5. Poor appetite or overeating	0	1	2	3
6. Feeling bad about yourself — or that you are a failure or have let yourself or your family down	0	1	2	3
7. Trouble concentrating on things, such as reading the newspaper or watching television	0	1	2	3
8. Moving or speaking so slowly that other people could have noticed? Or the opposite — being so fidgety or restless that you have been moving around a lot more than usual	0	1	2	3
9. Thoughts that you would be better off dead or of hurting yourself in some way	0	1	2	3

FOR OFFICE  
CODING 0 + \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_



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 =Total Score:
 

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If you checked off any problems, how difficult have these problems made it for you to do your work, take care of things at home, or get along with other people?

Not difficult  
at all  
...

Somewhat  
Difficult  
...

Very  
difficult  
...

Extremely  
difficult  
...

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Developed by Drs. Robert L. Spitzer, Janet B.W. Williams, Kurt Kroenke and colleagues, with an educational grant from Pfizer Inc. No permission required to reproduce, translate, display or distribute (see Appendix H).

### Appendix C: Generalized Anxiety Disorder 7-item (GAD-7) scale

Over the last 2 weeks, how often have you been bothered by the following problems?	Not at all sure	Several days	Over half the days	Nearly every day
1. Feeling nervous, anxious, or on edge	0	1	2	3
2. Not being able to stop or control worrying	0	1	2	3
3. Worrying too much about different things	0	1	2	3
4. Trouble relaxing	0	1	2	3
5. Being so restless that it's hard to sit still	0	1	2	3
6. Becoming easily annoyed or irritable	0	1	2	3
7. Feeling afraid as if something awful might Happen	0	1	2	3
<i>Add the score for each column</i>	+	+	+	
Total Score ( <i>add your column scores</i> ) =				

If you checked off any problems, how difficult have these made it for you to do your work, take care of things at home, or get along with other people?

Not difficult at all \_\_\_\_\_  
 Somewhat difficult \_\_\_\_\_  
 Very difficult \_\_\_\_\_  
 Extremely difficult \_\_\_\_\_

Source: Spitzer RL, Kroenke K, Williams JBW, Lowe B. A brief measure for assessing generalized anxiety disorder. *Arch Intern Med.* 2006;166:1092-1097.

## Appendix D: Consent Form

Thank you for considering participating in this research. Before doing so, we would like to provide you with information about the research.

**Purpose of the research:** The purpose of the research is to understand the challenges Orthodox Jewish couples experience due to infertility. The main goal is to create a product (i.e. brochure) that will bring support and relief to Orthodox Jewish couples who will experience infertility soon. The primary function of the brochure will be to help Orthodox Jewish couples understand that they are not alone in the process, as well as to help them better understand what to expect, including the feelings that may arise as they go through this difficult process. The information you provide will also help counsellors better understand what couples experience to provide better care.

**What you will do in this research:** If you decide to volunteer, you will be asked to participate in one interview to be conducted either in person, via video call, or over the telephone. You will choose the form of contact by the interviewer in the bottom of this form (Note: There is a higher preference on the part of the researcher for meeting in person or a video call, since the information will be gathered more accurately in those forms of contact). During the interview, you will be asked questions about your experience with infertility and what helped you along the way. You will also be asked questions about the challenges and feelings you experienced during this process. With your permission, I will tape record the interviews so I don't have to make so many notes, and be able to have your accurate responses. You will not be asked to state your name, nor will any identifying information be connected with the recording.

**Confidentiality:** Your responses to interview questions will be kept confidential. At no time will your actual identity be revealed (i.e. name, address, age). The recording will be kept in a locked filing cabinet within a locked room, and no one will have access to the recordings except the interviewer. Please be aware that the interviews need to be coded from verbatim transcriptions. But, the same confidentiality procedures will be used to safeguard the transcribed interviews. Only myself, the interviewer will have access to the transcripts, which will not have your name attached to them, and which also will be kept in a locked filing cabinet within a locked room. The transcripts and all other research materials will be kept for 7 years and then be destroyed.

The data you give me will be used for my doctoral dissertation, and may be used as the basis for articles or presentations in the future. I won't use your name or information that would identify you at any point, including any potential publications or presentations.

**Time required:** The interview will take approximately 2 hours.

**Risks:** Since this is a sensitive topic, some of the questions may cause discomfort. When this happens, the interviewer will attempt to provide emotional support, and possibly suggest taking a break, skip a question, and if necessary, terminate the interview. If in any case this is not relieving the level of discomfort, you are encouraged to let the interviewer know about it, ask for breaks, skip questions and/or ask to terminate the

interview yourself. In addition, I will provide you with optional individual therapy and support group options in a location of your choice.

**Benefits:** This is a chance for you to tell the story of your experience, which many times is found to be relieving. In addition, others who will soon be experiencing infertility and will experience similar challenges, will benefit from the information you provide. If you like, you will also have access to the results of the study, which may provide you with support and a sense of relief as well.

**Participation and withdrawal:** Your participation in this study is completely voluntary, and you may refuse to participate or withdraw from the study at any time without penalty or loss of benefits to which you may otherwise be entitled. You may withdraw by informing the experimenter that you no longer wish to participate (no questions will be asked), as well as by contacting the representative of either the Puah or Yesh Tikva organization. You also may skip any question during the interview, but continue to participate in the rest of the study.

**Contact:** If you have questions or concerns about this research, please contact the researcher: Itay Kohane, 602 Anacapa st. Santa Barbara, CA 93101; xxx-xxx-xxxx; xxxxxxxx@xxxxxxx.xxx. You may also contact the faculty member supervising this work: Dr. Daniel Schwartz, Chair and Core Faculty, 602 Anacapa st. Santa Barbara, CA 93101; xxx-xxx-xxxx x5309; xxxxxxxxxxxx@xxxxxxx.xxx.

**Agreement:** The nature and purpose of this research have been sufficiently explained and I agree to participate in this study. I understand that I am free to withdraw at any time without incurring any penalty. In addition, participating in the study will not affect your services at Yesh Tikva or Puah.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Name (print): \_\_\_\_\_

What forms of contact do you agree the interviewer to contact you by (please circle all that apply):

- a. In person.
- b. Video call.
- c. Phone call.





Theme	136	138	137	139	140	143	144	146	147	148	150	152	153	155	156
Lack of support from family		X				X	X	X	X	X		X	X		
Taboo		X	X		X	X			X			X			X
Lack of faith in God due to infertility/ anger/ questioning		X			X		X	X		X	X	X	X		X
Physical difficulties		X							X	X		X		X	X
Other ways after IVF		X					X								
Knowledge = power and active participation		X					X	X	X			X			
Fear of failure of attempt (i.e. news from doctor, failed cycle)		X			X			X		X					
Empathy		X			X							X			
Differences in relating to your children		X	X	X				X			X				X
Self-care		X								X					X
Male Factor			X		X								X		X
Female Factor											X	X			
Sense of blame/guilt			X		X			X		X			X		X
Ceremonies/sgulot/rituals in ajdunt/before treatment	X	X	x	X	X		X		X	X	X				
Children now		X	X				X								
Emotionally withdrawn			X					X		X					X
Sperm test for men-stressors, and men stressors			X						X				X		X
Community support			X	X	X	X	X	X	X	X		X	X		X
Pro-creation act with sperm			X												
Infertility - Medical reason				X								X			
Lack of privacy				X	X				X	X	X				
Female stressors				X	X	X	X			X		X			
loss/miscarriage/grief						X						X	X		
infertility				X					X						
Dealing with the unknown				X	X			X	X	X		X	X	X	
Disclosing/sharing with others after having a child		X	X	X	X		X		X	X					

Theme	136	138	137	139	140	143	144	146	147	148	150	152	153	155	156
Relief after having a child happened		X	X	X						X					X
Shame					X	X	X	X	X	X	X	X	X		X
Prayers	X?	X?	X?	X?	X						X				
IVF process/trauma anesthesia					X				X			X			
Medical procedures						X									
The phone call for results	X	X	X			X									
Multiple attempts/miscarriages							X								
Donor											X				X
Comparison/competition											X		X		
Ideas for support											X	X	X		X

Table E2

*Narrowed List of Themes Found in the Semi-Structured Interview*

Knowledge	
Children in the Jewish Orthodox Tradition	
Social support	
Cultural stressors	
Social pressure	
Self-Image	
Spouse role	
Faith in the world of infertility	
Procedural Stressors	



## Appendix F: GAD-7 Results

Table F1

### *GAD-7 Results*

Participant	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Total	Comments
156-M	2	2	3	3	1	2	1	14	Male factor -w/o a child
150	2	3	3	3	3	3	2	19	w/o a child; female factor
155-M	0	0	0	0	0	0	0	0	w/o a child; female factor
147-M	2	2	3	2	1	1	3	14	Unknown factor
146	0	0	0	0	0	1	0	1	Male and female factors
138	1	1	0	1	0	0	0	3	Related to something in the family that week; unknown factor
139	2	0	1	0	0	1	1	5	"General worries as a mother"; female factor
136	3	3	2	2	1	2	2	15	w/o a child; unexplained
140	0	1	1	0	1	0	1	4	Male factor
137-M	0	0	0	0	0	0	0	0	Male factor -w/o a child - did not answer questionnaires but wrote via email "all is zero"
143	0	0	0	0	0	0	0	0	w/o children; did not answer questionnaires but wrote via email "all is zero"; female factor
0153-M	0	0	0	0	0	1	1	2	w/o a child; female factor
152	1	2	2	1	0	1	0	7	w/o a child; female factor
								AVG	7.64

Table F2

### *GAD-7 Results Per Gender and Participants Who Have or Do Not Have a Child*

	Male	Female	AVG
With a child	14.00	3.25	5.40
W/O a child	5.33	13.67	9.50
AVG	7.75	7.71	

Table F3

### *GAD-7 Results Per Gender and Infertility Factor*

	Male	Female	AVG
Male factor	14.00	4.00	9.00
Female factor	2.50	7.33	5.40
Unknwn factor	4.00	3.00	3.33
Male+female	N/A	1.00	1.00

(See Appendix H for permissions.)

## Appendix G: PHQ-9 Results

Table G1

### *PHQ-9 Results*

Participant	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Total	Comments
156-M	2	2	3	2	2	1	1	1	0	14	Male factor -w/o a child
150	3	1	1	2	2	1	2	1	0	13	w/o a child; female factor
155-M	0	0	1	1	0	0	0	0	0	2	w/o a child; female factor
147-M	0	0	1	1	1	1	0	0	0	4	Unknown factor
146	0	0	1	0	0	0	0	0	0	1	Male and female factors
138	0	0	0	0	0	0	0	0	0	0	Related to something in the family that week; unknown factor
139	0	0	0	0	0	0	0	0	0	0	"General worries as a mother"; female factor
136	1	1	0	2	0	1	0	1	0	6	w/o a child; unexplained
140	1	0	0	1	2	0	0	0	0	4	Male factor
137-M	0	0	0	0	0	0	0	0	0	0	Male factor -w/o a child - did not answer questionnaires but wrote via email "all is zero"
143	0	0	0	0	0	0	0	0	0	0	w/o children; did not answer questionnaires but wrote via email "all is zero"; female factor
0153-M	0	0	0	0	2	1	0	0	0	3	w/o a child; female factor
152	0	1	2	2	2	1	0	1	0	9	w/o a child; female factor
										AVG	5.09

Table G2

### *PHQ-9 Results Per Gender and Participants Who Have or Do Not Have a Child*

	Male	Female	AVG
<b>With a child</b>	4.00	1.25	1.80
<b>W/O a child</b>	6.33	9.33	7.83
<b>AVG</b>	5.75	4.71	

Table G3

### *PHQ-9 Results Per Gender and Infertility Factor*

	Male	Female	AVG
<b>Male factor</b>	14.00	4.00	9.00
<b>Female factor</b>	2.50	7.33	5.40
<b>Unknwn factor</b>	4.00	3.00	3.33
<b>Male+female</b>	N/A	1.00	1.00

(See Appendix H for permissions.)

## Appendix H: Permissions

Permissions from Pfizer for inclusion of PHQ-9 and GAD-7.

The screenshot shows a web browser window with the URL [phqscreeners.com](http://phqscreeners.com). The page has a blue header with the text "Welcome to the Patient Health Questionnaire (PHQ) Screeners". Below the header, the main content is divided into two columns. The left column is titled "Screener Overview" and contains two paragraphs of text. The right column is titled "Select a Screener" and features a dropdown menu labeled "PHQ and GAD-7 Screeners" with a search box below it. Below the search box are two links: "Click here to access the Instruction Manual" and "Bibliography by author". At the bottom of the page, there is a footer with the Pfizer logo on the left and links for "Privacy Policy" and "Terms of Use Agreement" on the right.

phqscreeners.com

Welcome to the Patient Health Questionnaire (PHQ) Screeners

### Screener Overview

Recognizing signs of mental health disorders is not always easy. The Patient Health Questionnaire (PHQ) is a diagnostic tool for mental health disorders used by health care professionals that is quick and easy for patients to complete. In the mid-1990s, Robert L. Spitzer, MD, Janet B.W. Williams, DSW, and Kurt Kroenke, MD, and colleagues at Columbia University developed the **Primary Care Evaluation of Mental Disorders (PRIME-MD)**, a diagnostic tool containing modules on 12 different mental health disorders. They worked in collaboration with researchers at the Regenstrief Institute at Indiana University and with the support of an educational grant from Pfizer Inc. **During the development of PRIME-MD, Drs. Spitzer, Williams and Kroenke, created the PHQ and GAD-7 screeners.**

The PHQ, a self-administered version of the PRIME-MD, contains the mood (PHQ-9), anxiety, alcohol, eating, and somatoform modules as covered in the original PRIME-MD. The GAD-7 was subsequently developed as a brief scale for anxiety. The PHQ-9, a tool specific to depression, simply scores each of the 9 DSM-IV criteria based on the mood module from the original PRIME-MD. The GAD-7 scores 7 common anxiety symptoms. Various versions of the PHQ scales are discussed in the Instruction Manual.

**All PHQ, GAD-7 screeners and translations are downloadable from this website and no permission is required to reproduce, translate, display or distribute them.**

Select a Screener

PHQ and GAD-7 Screeners

Select a Screener

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