

The Effect of Family Structure and Family Support on Women's Coping with Fertility Treatments

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Abstract

Aims: To examine the difficulties women experience during fertility treatment, their support systems, and their coping with the treatment, in three family structures—the traditional heterosexual married couple, the single-parent family, and the single-sex family.

Design: The study employed a mixed methodology, in which quantitative and qualitative data were gathered simultaneously to explore women's difficulties while undergoing fertility treatments and their support systems.

Methods: A questionnaire that evaluates the women's coping with the fertility treatments and their support systems, where they exist. The questionnaire was distributed to a simple coincidental sample of 450 women ages 20–45 undergoing fertility treatments in Israel. In addition 15 interviews (five from each family structure) were conducted.

Results: Family structure affects women's coping with fertility treatments. Single women underwent more treatments (73.3%), in comparison with married women (65.3%) and women with a female partner (54.7%). Married women reported more emotional support from their family than did single women and women with a female partner and reported fewer negative emotions and more hope regarding the treatments. Women with a female partner reported greater partner support in comparison with married women $F(1,298) = 121.57, p < .01$.

Conclusions: The study shows that fertility treatments generate psychological distress that can have a devastating effect on a patient's psychological well-being, whatever their family type. Yet the potential sources of support do not always know how to behave during treatments or pregnancy loss. Nurses and other personnel should be aware that taking measures to prevent psychological problems that may affect the treatment's success is crucial, not only to reduce psychological symptoms, but also to improve a patient's chances of a successful pregnancy. Patients should be offered psychological counseling at every stage of fertility treatment.

Keywords: new family structures, fertility treatments, coping strategies, support systems, role of nurses.

Introduction

Infertility is a widespread global health problem that has become substantially more prevalent in recent years, according to the World Health Organization (WHO). Today it affects some 10%–15% of heterosexual couples in which the woman is of childbearing age (Moridi, 2019).

Whereas formerly marriage was the only accepted framework for having children, new fertility treatments have helped create new frameworks, such as single-parent families and families with same-sex parents. Awareness of their “ticking biological clock” is driving many women in their late 30s to undergo fertility treatments (Hashiloni-Dolev, 2013). Such treatments have emotional ramifications for all prospective parents, including heterosexual couples, single women, and lesbians. Women undergoing fertility treatments tend to be young and otherwise healthy, but the interventions and emotional effects of the treatments resemble those of a grave disease. This is especially true in a society like that in Israel, the location of this study, which places a strong emphasis on childbearing (Kaplan, 2012).

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Background

When attempts to conceive fail, individuals or couples may experience intensified grief and loss—either because society does not recognize such loss or because the individuals choose not to make their pain public. Sometimes the emotional effects of dealing with infertility stem from the actual treatments. Although these are now more advanced and often successful, many patients say that they have an impact on such aspects of their lives as spousal and social relations, overall quality of life, and functioning at work (Sela, 2007).

The Study

Because of the abovementioned emotional effects, this mixed-methodology study aims to examine the support systems within the families of women undergoing treatment. Unlike the many studies that have restricted their scope to the difficulties of women in married heterosexual couples, this study also examines and compares the coping of women in other family structures, specifically, single-parent families and same-sex families, thus broadening the knowledge concerning women's experiences as they attempt to conceive.

The reasons for turning to fertility treatments in each of these cases are different:

- Some 10% of all married couples fail to conceive naturally for at least a year. The sources of the infertility vary: male factor (26%), ovulation disorder (21%), unidentified (28%), and a combination of problems in the man and the woman. Whatever the source, however, it is treated in the woman who must bear the social consequences of childlessness.
- Single women in their late 30s who are not in a permanent relationship and are aware of their biological clock turn to fertility treatment that becomes more complex the older they get.
- Although most lesbian couples are young and generally have no fertility problems, they sometimes undergo IVF treatments to conceive (Margalit, 2014).

This study was conducted (May 2018–April 2019) in Israel, where the state subsidizes nearly unlimited cycles of fertility treatments for citizens, even for women who already have one or more children. This unique situation may limit the relevance of the findings for other countries, but it also allows an examination of the emotional effects of prolonged treatment, thus contributing another facet to an understanding of what women face in their attempts to conceive.

The following five research questions were explored: Does the family structure have an impact on a woman's ability to cope with fertility treatments? Is the dyadic support system of a heterosexual couple necessarily more stable than that of the support systems of single women or lesbians? Does the type of treatment influence women's coping with fertility treatments? Do women with children cope differently than women without? And does a patient's age affect her coping with fertility treatments?

Design

This study employed a mixed methodology, in which quantitative and qualitative data were gathered simultaneously to explore women's difficulties while undergoing fertility treatments and their support systems. Combining the data creates a deeper understanding of the women's experience.

Participants

The participants were 450 women, all of whom had undergone fertility treatments involving medication and IVF treatments, including transfer of frozen embryos. All were patients of an HMO's Women's Health Clinics and Assisted Reproductive Therapy (ART) Units.

Excluded from this study were spouses in need of a sperm donation and women patients in any of the following categories: had undergone ovulation follow-up (with no medication); was over 45 and had undergone treatment involving egg donation; was a surrogate; or was seeking to preserve fertility through freezing of ova. Fifteen interviews were conducted to arrive at a deeper understanding of the data regarding the psychological effects of treatment and women's support systems. The participants were selected randomly.

Data Collection

The quantitative data were gathered using a semi-open questionnaire with three sections: a demographic section; a section based on the Fertility Problem Inventory (Newton et al., 1999), providing a comprehensive evaluation of infertility-based stress by measuring its impact on social relations, intimacy, and sex life as well as how important parenting is for the prospective parents; and a ways of coping section that includes coping indexes based on Lazarus's transactional model of stress (1985).

A semi-structured interview was used for the qualitative aspect of the study. The interview questions included several content fields and topics derived from the research questions: nine core questions and two additional questions for the interviewees who were married or had a female partner. General demographic questions were followed by questions specific to the study.

All the participants were given a detailed explanation of the study. Those who agreed to take part signed an informed consent form.

The interviewers received a guide containing eight open-ended questions that had been evaluated in five pilot interviews. Following the pilot, minor changes were made, and one more question and a few more sub-questions were added. The interviews took place in the clinic or in the participant's home, in accordance with her choice. Each interview lasted approximately 45 to 60 minutes and was recorded with the participant's agreement.

Ethical Considerations

The ethics committee of the HMO in Israel approved the study on May 2018.

Participants who met the studies' criteria received a detailed explanation regarding the study, expressed interest, agreed to participate in it and signed an informed consent form.

Data Analysis

After the preset goal for statistical processing was achieved, the responses to the questions were coded, mostly based on the Likert scale. All the data from the questionnaires were entered in a Microsoft Excel table in accordance with the codes. Data analysis was conducted using SPSS software version 24.0 (IBM SPSS Statistics).

Based on the transcription a division into categories was made according to main mutual subjects and then 5 central themes were created.

Validity And Reliability

According to Newton et al., these 5 indexes represent good reliability, Alpha index is between 0.77 and 0.87 (while the general stress scale has Alpha index of 0.93).

Ways of coping questionnaire- Alpha index for these items is between 0.56 and 0.85.

All interviews were transcribed verbatim. Thereafter, the text was validated against the audio recordings

Results

All participants in the study were women who are of childbearing age, who were undergone fertility treatments.

Demographics

The participants were 450 women, ages 22–45 ($M = 36.41$, $SD = 5.18$). Their educational level ranged from high school graduation to a second or third degree: 3.8% finished high school, 16.7% had a non-degree certificate 49.7% had a BA, and 29.8% had an MA or higher degree. The sample consisted of three groups: 33.3% were married, 33.3% were single, and 33.3% had a female life partner.

Of the 300 women who were married or had a life partner, the partners' ages ranged from 24 to 54 ($M = 35.89$, $SD = 5.65$). Regarding the partners' education, 8% finished high school, 24% had a non-degree certificate, 52% had a BA, and 16% had an MA or higher degree. The 300 women were in relationships ranging from 1 to 20 years ($M = 5.77$, $SD = 3.80$).

Some 50% of the women already had one or more children ($M = 1.55$, $SD = 0.79$).

Number and type of treatments

Most of the women in the total sample had undergone hormonal therapy. Single women underwent more treatments than did married women and women with a female partner. About 14.7% of the total sample underwent forms of IVF, including frozen embryo transfer cycle; the percentage among single women was higher than that among married women and women with a female partner (Table 1).

Table 1: Treatments following attempts to get pregnant by marital status

	Married	Single	Female partner	Total
IVF / frozen cycle treatment	24 16.0%	35 23.3%	7 4.7%	66 14.7%
Clomiphene citrate IUI	28 18.7%	5 3.3%	61 40.7%	94 20.9%
Hormonal therapy	98 65.3%	110 73.3%	82 54.7%	290 64.4%

Effect of family structure

The data analysis of the questionnaires revealed that family structure affects how women undergoing fertility treatments cope. Married women reported the greatest degree of family support (from parents and siblings) during treatment, as compared with single women and women with same-sex partners, and the difference was significant $F(2,446) = 8.57, p < .05$, as shown in Table 2. However, women with a same-sex partner reported greater support from their partner than did married women $F(1,298) = 121.57, p < .01$.

As shown in Table 3, a significant association was found between marital status and type of support ($\chi^2 = 26.16, p < .001$). Among all women, encouragement and empathy were rated as the most common type of emotional support (22.3%). Women with a female partner reported the highest rate of empathy (28.7%). Listening and conversations were reported by 9.8% of the participants as additional types of support, and married women ranked highest (12.7%) in receiving such support. About half the sample (47.2%) reported having no emotional support from close family

Table 2: Means of family support and partner's support levels among women by marital status.

Marital status	Family support		Partner's support	
	Mean	Std. Deviation	Mean	Std. Deviation
Married	4.282	1.987	3.287	0.780
Single	3.927	1.754	-	-
Female partner	3.967	1.640	3.993	0.082
Total	4.058	1.802	3.640	0.657

Table 3: Sharing feelings with other people by marital status

	Married	Single	Female partner	Total
Encouragement / empathy	26 17.3%	31 20.8%	43 28.7%	100 22.3%
Listening	19 12.7%	11 7.4%	14 9.3%	44 9.8%
Giving advice	10 6.7%	22 14.8%	10 6.7%	42 9.4%
Reinforcement	17 11.3%	26 17.4%	8 5.3%	51 11.4%
No support	78 52.0%	59 39.6%	75 50.0%	212 47.2%

Emotional effects of type of treatment

Of the feelings in the course of the treatments, the most dominant were frustration, pain, and disappointment. The least experienced feelings were hope, sadness, and loneliness.

A significant difference was found between women undergoing different types of treatment. Women who underwent IVF treatment were significantly more affected emotionally than were women who underwent intrauterine insemination (IUI) or hormonal therapy. However, no differences were found in level of religious faith or acceptance of the situation in relation to the different types of treatment.

Effect of already having one or more children

Women who have no children were influenced more negatively than were women with children. Moreover, women with no children, more than women with children, reported believing that difficulties in getting pregnant are a matter of faith (Table 4).

Effects of the woman's age

As shown in Table 5, younger women had more support, but they also were affected more negatively by fertility treatments than were older women.

Table 4: Differences in effects of treatments by children

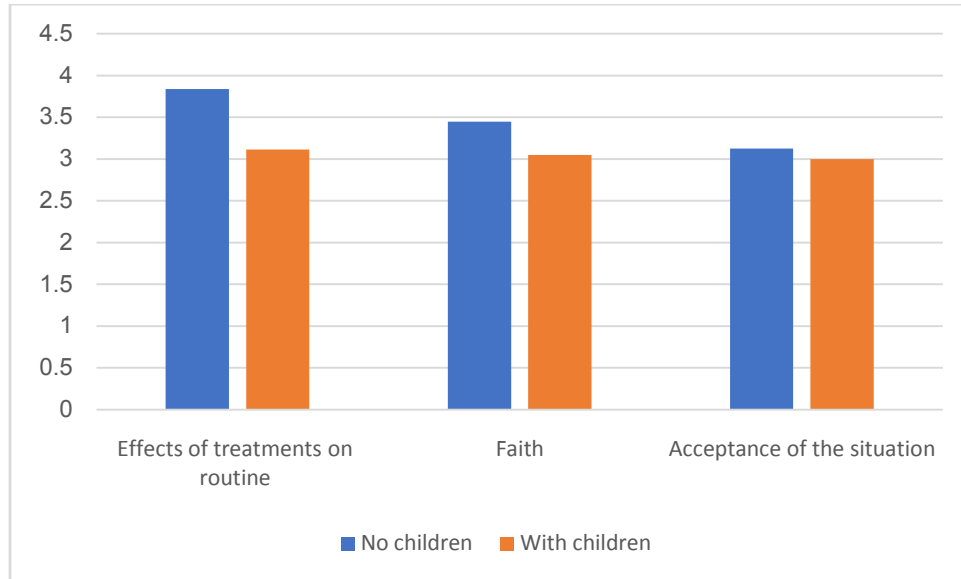


Table 5: Correlations between strategies of emotional coping and age

	Correlation with age
Family support	-.234*
Partner support	-.321*
Effect of treatment on relationship	-.281*
Effect of treatment on routine	-.315*

*p < .05

Analysis of the 5 main themes

Fifteen interviews were conducted (5 for each family structure). The women’s ages ranged between 28 and 44 (M = 36). The education distribution showed that 6.6% finished high school, 46.6% had a non-degree certificate, 33.3% had a BA, and 13.3% had an MA or higher degree. These women were in relationships lasting from 2 to 9 years (M = 4.9). In this sample, 33.3% of the women had children (M = 1.8).

The main concepts obtained from the data were categorized into five main themes and their subcategories. (see Figure 1 for an example of how the themes were diagrammed).

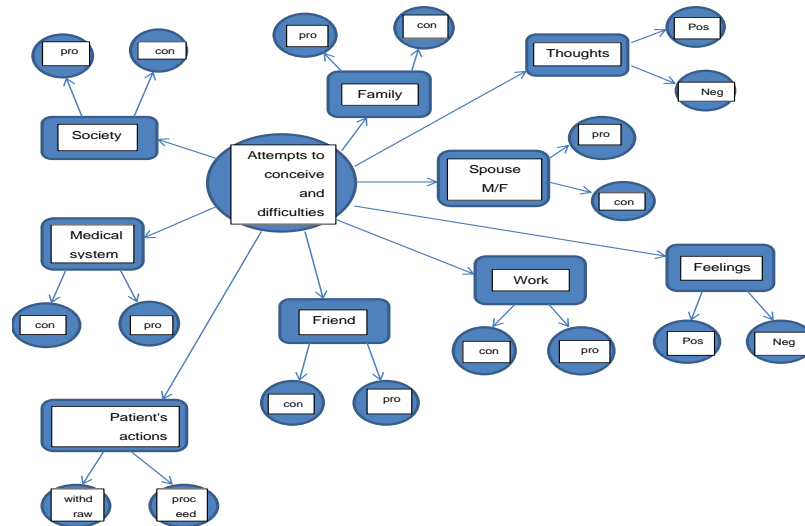
The five main themes

1. Attempts to conceive and the attendant difficulties
2. Response to finding out about the problem
3. Choosing an appropriate solution and beginning treatment
4. Coping with the outcomes of the chosen treatment
5. Being in treatment

Sub-themes

- The patients’ support resources – These constituted six additional sub-themes: Israeli society, the family, the spouse (male/female), friends, work, and the medical system. For each sub-theme there were two additional sub-themes—pro or con- meaning whether those support resources in fact support the patient or generate stress.
- Thoughts – The thoughts arising in a patient in the course of a treatment process could be either positive or negative (generating two additional sub-themes). Examples of negative thoughts might be that the anticipated pregnancy would never happen, or why for others it happens so easily. An example of positive thinking and faith: It will happen.
- Feelings – Feelings aroused in a patient following the treatment process could be positive or negative (generating two additional sub-themes).
Examples of negative feelings: frustration, despair, anger. Example of a positive feeling: hope.
- Actions – What a patient did in each situation: deciding to proceed to more advanced treatments, staying with the current treatment, or taking a break from treatment. The two additional sub-themes were advance or withdraw.

Figure 1. Example of a diagram of a theme



Attempts to conceive and the accompanying difficulties

Most people aspire to become parents someday and believe that when they decide to attempt conception proactively, pregnancy will ensue within a month or two. The participants reported that they thought conception would occur easily.

A patient's potential support systems—society, the family, the spouse, friends, the workplace, and the medical system—can also prove to be sources of pressure and even a lack of support. Israeli society is conservative regarding childbirth and family, exerting pressure on women through questions or even direct remarks, and women must contend with prying questions that occasionally border on harassment.

When attempts to conceive fail, doubts and negative thoughts begin to crop up, for example, perhaps something is not right, and later, Why isn't it happening? Most interviewees said they experienced negative thoughts. Attempts to conceive begin with excitement and expectation. After several months without success, worries set in and eventually become a form of stress, causing the couple to seek medical help. Most interviewees reported negative feelings following failed attempts to conceive.

In response to failure in recurring attempts to conceive, a prospective parent has two options: to advance or withdraw. Most interviewees decided not to wait and turned to a gynecologist or fertility specialist to determine the cause.

Response to finding out about the difficulty

The diagnostic procedure begins with the woman. Should the doctor find that the problem lies with her, only she will be examined. Knowing that there is a fertility problem results in severe reactions of shock, mourning, denial, anger, repression, emotional outbursts, sadness, and depression.

Most interviewees reported that the examination revealed that for some the problem lay with them, for some it lay with the spouse, and for yet others no problem was detected, and the investigation continued. Occasionally, a concern arises from a discussion of the subject with family members, friends, colleagues, or professionals. Such concerns intensify if preliminary tests reveal a fertility problem in one or both spouses and are unable to trace the source of the problem.

Once the problem is diagnosed or cannot be identified and there is already a label of infertility, there is fear of the unknown, uncertainty, and hope that the problem will be resolved. Not always does a woman know what treatment entails, and occasionally this leads to negative thoughts, as most of the participants reported. Infertility arouses intense feelings of envy and anger toward the fertile world, including friends, neighbors, and siblings. Coping with such negative and extreme feelings is difficult. As most of the participants reported, infertile women may feel awful about themselves, and such feelings, in turn, lead to feelings of guilt and shame. At this stage, a patient may start fertility treatments or seek a second medical opinion. Some prefer to wait before beginning treatment.

Choosing the appropriate solution and beginning treatment

Regardless of the source of the problem, the woman is the one who must undergo the invasive medical procedures. This is the beginning of a journey whose conclusion is unknown. In the beginning of treatment, a patient must decide whether to reveal the difficulties she is going through, and to whom, or to wait until the treatment is successful. She wonders whether talking about the problem helps or whether it is better to keep it to herself.

The waiting period between the end of the treatment and the pregnancy test is accompanied by continuous thoughts, anxieties, and concerns about what is going on inside. The wait is exceedingly difficult, the interviewees said. The emotions range between expectation that the treatment will work and disappointment when the period arrives. For some participants, receiving the first negative answer was a powerful blow because they did not believe the treatment could fail. After several unsuccessful treatments, patients face two options: moving to more complex treatments (such as IVF) or continuing the current treatment. Most of the interviewees chose to move to more complex treatments.

Coping with the outcomes of a chosen process

Fertility treatments can end in menstruation or pregnancy. Occasionally, a pregnancy ends in a miscarriage, causing great anguish and making it difficult for most patients to cope. Uncertainty regarding the outcome of treatment generates frustration, and some participants reported focusing on negative thoughts so that they would not be disappointed if the treatment failed. The drugs prescribed to some patients can also give rise to mood fluctuations. The participants described feelings of pain, emptiness, loneliness, and frustration when the anticipated pregnancy did not come about after many treatment attempts. Although the treatments are mentally exhausting, the participants reported, most of them chose to continue, to try other treatments, or to change doctors in order to try another form of treatment. Some decided to take a break.

Being in treatment

Fertility treatments become increasingly complex, cumbersome, and exhausting and may continue over a long period, causing some patients to despair. The longing for a child and the sense of helplessness, the interviewees reported, lead many women to try “supermarket treatments” (various diets, visits or prayers addressed to “holy” people, alternative medicine) in their desire to do everything within their power to conceive.

Occasionally, when treatments drag on, they are accompanied by a loosening of significant social and interpersonal relationships (such as family, friends, work colleagues, and others in the close environment), the participants reported. Intimacy may also suffer, and the continuous stress may interfere with sexual performance. Society’s view that all the means are at women’s disposal and all they need to do is use them ignores the difficulties, suffering, and high cost of the co-pay. Participants said they felt they would sink into an “abyss of despair” if they did not give birth.

The longer and more complex the process, the greater the difficulty and its projection onto every aspect of the women’s lives, the participants said. Some of the participants tried to be optimistic, whereas others found it difficult and had negative thoughts, specifically, that they would never conceive.

Fertility treatments are demanding and disruptive of life routines. As a result, some of the participants felt high and unfamiliar levels of stress, anxiety, anger, harm to their self-image, and difficulty in their daily functioning. Some experienced an emotional roller coaster ranging from optimism and hope to disappointment and depression.

Some participants underwent treatment after treatment, thinking that the more one failed, the more confident one could be of success the next time. In contrast, some chose to take a break. Only one participant decided to give up treatment completely.

Discussion

Fertility treatments have long been the subject of discussion as to when, where, and why they should be used, and by whom. A large part of this discussion concerns the use of assisted reproductive technologies (ART) to create families that diverge from the traditional model of a heterosexual couple and their children (Nazem et al., 2019). The current study was designed to understand the emotions and coping strategies of women in three types of families undergoing fertility treatment.

Single women

According to the literature, single women who seek fertility treatments are usually in their late 30s who choose to become single mothers because of their ticking biological clock, their desire to achieve motherhood, and the understanding that a life partner will not turn up. Studies supporting the findings of the current study, such as Hashiloni-Dolev (2013), indicate that female fertility is age dependent, meaning that fertility starts declining in the early 30s and decreases significantly in the late 30s. Older women require a greater number of treatments to conceive. Therefore, Israeli policy is that from age 39 a woman may be offered access to IVF as the initial therapy.

The impact of infertility on spousal relationships

Studies have shown that the stress of trying to achieve parenthood has a negative effect on the quality of a heterosexual couple's relationship. Studies that support the current research findings, including Tao et al. (2012), indicate that infertility has serious consequences for the social and mental well-being of those involved.

This can be problematic because the couple's relationship is seen as the most important source of support in the context of fertility treatments. In contrast, a study by Borneskog et al. (2014) that examined the quality of relationships among lesbian and heterosexual couples undergoing reproductive therapy found that lesbian couples reported stable relationships and high satisfaction with their relationship even after unsuccessful treatment, but that heterosexual couples reported a decline in relationship quality. It has been suggested that same-sex couples may be more effective than their heterosexual counterparts in navigating conflicts and that they work harmoniously on shared tasks. Some suggest that women are better support providers than men and that female life partners provide better support, which may explain the low level of fertility-related conflict in lesbian couples. Although Chachamovich's (2009) study of quality of life among men and women contending with infertility does not support the current study's findings that infertility can be stressful, it suggests that the couple's shared status generates close mutual support for their thoughts and feelings and thus has a positive effect on their relationship.

The emotional effects of treatment, especially of IVF

Nahrin et al. (2017) found that infertility almost always causes a greater degree of emotional distress in women than in men. The woman may feel embarrassed each month that the attempt to conceive fails. For every month that pregnancy does not occur, many hours are filled with hope followed by disappointment or even despair.

Although the literature shows that many women who undergo IVF treatment experience significant distress, IVF continues to be used even after treatments have failed. Yuan (2013) found that IVF treatment is psychologically and emotionally stressful, and that the stress before, during, and/or after treatment is multidimensional. Chronic stress is caused by the threat of permanent infertility and loss of hope. Another source of stress is the threat of the treatment itself, such as oocyte retrieval, and the possibility of failure at each of the stages of the treatment. Oocyte retrieval and the waiting period for a pregnancy test were found to be the most stressful aspects of the IVF cycle. A systematic review in 2007 of 27 studies focusing on women's emotional adjustment to various stages of IVF treatment indicated that women undergoing IVF treatment reported a higher level of emotional distress than other infertile women.

Secondary infertility

According to the World Health Organization, secondary infertility is the inability of a woman or to carry a pregnancy to a live birth after having previously become pregnant or successfully given birth. According to Bradow (2011), much of the research on infertility and the psychological effects of its diagnosis and treatment focus on primary infertility. The experiences of women and couples coping with secondary infertility and the possible difference in the psychological consequences have been neglected, both in research and in clinical practice. Secondary infertility can be just as devastating as primary infertility. People want not only to form a family, but to have the family size they desire.

Secondary infertility treatment is usually the same as that used in relation to primary infertility. White & McQuillan (2006) assume that because couples or individuals with secondary infertility may already have a biological child, they do not suffer as much as those with primary infertility when deciding to stop trying to conceive. However, they did not find a significant difference in distress between couples with primary and secondary infertility. That study assessed only the possible difference in the level of distress when couples decided to stop trying to conceive and did not address what the couples experienced during diagnosis and treatment.

What seems to be missing in the literature is an exploration of the experiences during the diagnosis and treatment of secondary infertility of couples who already have children.

The connection between a woman's age and coping

The literature includes two articles that compare the difficulties associated with fertility treatments in younger women and older women, but no articles were found that compare differences in coping in younger women and older women (Gourounti et al., 2012; Marino, 2010). The interviews in the current study show that all patients initially assumed that they would have no problem conceiving because they believed they were fertile and had not experienced problems previously.

How many treatments cycles?

How many treatments cycles a woman should undergo is the subject of a substantial debate in the literature. Smith et al. (2011) found that transition to IVF after 3 failed IUI cycles resulted in faster pregnancy than performing 6 IUI cycles before IVF. Data from the Society for Assisted Reproductive Technology (SART) show that cumulative pregnancy rates stabilized after 3–4 cycles of fertility treatment. However, the pregnancy rate for each treatment cycle decreased gradually from a maximum of 30% for couples undergoing one treatment cycle to about 20% for couples undergoing 6 or more cycles.

Brandes et al. (2011) found that whereas the average incidence of clinical miscarriage varies between 10% and 15%, miscarriage rates after fertility treatments range from 18% to 30%. Important risk factors are a woman's age, previous pregnancy loss, obesity, and smoking. Rafaat et al. (2015) found that a history of infertility and fertility treatments increases the likelihood of an ectopic pregnancy. However, Pezeshki et al. (2000) found that women who conceived after fertility treatments did not show an increased risk of miscarriage compared to women who conceived spontaneously.

The effect of prolonged fertility treatment

Infertility is described in the literature as affecting women's mental health. Ezzell et al. (2016) found that the more demanding and invasive the medical treatments are, the greater the reported symptoms of anxiety and depression. Each treatment cycle is accompanied by a cascade of emotions such as anger, betrayal, guilt, sadness, and even hope. Research shows that emotional difficulty reaches a peak between the second and third year of fertility treatments. Sometimes a couple is grappling with the issue of when to stop medical treatment after failing. Other times the members of a couple differ in their desire to quit or continue treatment, and this may trigger mutual accusations and anger.

Limitations

One of the great challenges in assessing the level of distress of women with infertility is the accuracy of self-report measures. Women may pretend to be more mentally healthy than they really are. Also, they may have heightened feelings of hope or optimism before starting fertility treatment, which is when most distress assessments are conducted. The medications used in treating infertility include Clomifen, Letrozole, and gonadotropins, which are related to phenomena such as anxiety, depression, and irritability. Thus, in assessments of women's symptoms during treatment, it is difficult to distinguish the psychological impact of infertility from the side-effects of the drug. Because the State of Israel funds an almost unlimited number of fertility treatments, the findings of this study may be unique to Israel. However, this potential limitation is offset by the insights gained by studying the coping strategies of women who are in fertility treatment over long periods of time.

Conclusions

According to the World Health Organization, infertility is "a disease of the reproductive system defined by the failure to achieve a clinical pregnancy after 12 months or more of regular unprotected sexual intercourse."

This definition excludes lesbian couples and single heterosexual women: Sexual relations between lesbian couples do not lead to conception, and although single women may have heterosexual intercourse, it may not be regular and/or unprotected. Yet, lesbian and single women, regardless of their sexual orientation, are all infertile in a sense because they may not be able to reproduce through intercourse. The term "social infertility," which appears in the bioethics literature to refer to individuals who are unable to reproduce due to factors associated with their partner (Bioethics Research Library), may be appropriate for these two categories of patients.

The current study shows that fertility treatments generate psychological distress that can have a devastating effect on a patient's psychological well-being, whatever their family type. The support systems available to patients—including the society, the family, friends, and even the spouse—do not always know how to behave during treatments or pregnancy loss. Nevertheless, most patients succeed in coping with the requirements of the treatments and believe that they do not need professional support. Many patients receive referrals for professional help only in a crisis, which may lead to a view of such a referral as a form of “punishment”—an indication that they should be able to cope with the treatment more positively. Some 20% of patients experience significant distress that greatly depletes their coping resources (Pasch et al, 2016).

Practical Recommendations

Nurses and other personnel should be aware that taking measures to prevent psychological problems that may affect the treatment's success is crucial, not only to reduce psychological symptoms and prevent anxiety and depression, but also to improve a patient's physical health and chances of a successful pregnancy. Patients should be offered psychological counseling at every stage of fertility treatment, and not only when treatment fails. Before treatment begins, the medical procedures and their possible consequences should be explained to couples and individuals. Patients exhibiting substantial psychological distress should be identified and referred for professional help. The fertility treatment protocol should include an assessment of the psychological factors of couples and individuals.

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