

FACTORS CONTRIBUTING TO BETTER ADAPTATION TO INFERTILITY

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Jovana Jestrović¹, Ivana Mihić¹, Tijana Karić²

University of Novi Sad, Faculty of Philosophy, Novi Sad, Serbia
Institute of Criminological and Sociological Research, Belgrade, Serbia

Abstract. *Ever since the importance of the psychological aspects of infertility was recognized, researchers have been trying to define adaptation to this non-developmental crisis. Lately, more popular research has been concerned with the question of which factors contribute to better adaptation, rather than what that adaptation is. The majority of these studies are carried out with women who still face infertility, while the women who became parents after facing this crisis are included in just a few studies. Accordingly, the main aim of this research was to examine the opinion on the factors contributing to better adaptation to infertility, as well as the differences in opinion between women who took on the parental role after coping with infertility and those who did not. For that purpose, the Infertility Adaptation Factors Questionnaire was applied on a sample of 192 respondents. The questionnaire consists of 23 items, with four different factors. In their opinion, among the examined factors, the most important is togetherness and intimacy between partners, which is statistically more important than resources, social support and importance of the parental role, the least important factor in this study. There are no significant differences between those who became parents and those who are still dealing with infertility.*

Key words: *infertility, parents, nonparents, togetherness and intimacy.*

1. INTRODUCTION

Although most people believe that they can become parents whenever they want to, for some of them this belief proves to be wrong. One in six couples faces infertility at some point in their relationship and some of them never become parents. This mismatch between beliefs and that what is happening in reality is the reason why some authors called infertility an “unwelcome interruption to one’s planned life course” (Greil, Schmidt

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Corresponding author: Jovana Jestrović

University of Novi Sad, Faculty of Philosophy, Dr. Zorana Đinđića 2, 21000 Novi Sad, Serbia

E-mail: jovannajestrovic@gmail.com

& Peterson 2014). Regardless of the afore-mentioned, only after the first successful treatment of in vitro fertilization have researchers around the world paid more attention to the psychological aspects of infertility. These aspects were neglected for a few decades before that, when the main focus was on the medical aspects and diagnosis (Matthews & Matthews 1986).

The researchers who were interested in this construct tried to understand it from the perspectives of different theoretical approaches. One of them is the transactional theory of stress and coping (Lazarus & Folkman 1984). According to this theory, infertility is an unpredictable, negative and uncontrollable stressor that affects the overall functioning of the individual, but also the marital functioning and the partners' relationships with friends, family members and the wider community (Burns & Covington 2006). Before examining the factors which contribute to better adjustment and adaptation to infertility, it is necessary to answer the question of indicators of successful adaptation. Lazarus and Folkman (1984) suggested grouping these indicators into three main domains: morale, social functioning and somatic health, as to the person's ability to maintain well-being, keep participating in relationships with close ones, and to have good physical health.

The other framework which is commonly used in explaining the factors and the whole process of adaptation to infertility is the family system theory, which postulates that the easiest way to understand someone's behavior is observing interactions and systemic relationships (Bertalanffy 1968). A woman's adaptation to infertility is affected by the systemic nature of the relationship between partners. Based on the system theory framework, not only individual coping, but also the functioning between partners and their dyadic coping are crucial for successful adaptation (Peterson 2003).

In accordance with the above-mentioned, later researchers examined useful coping strategies for dealing with infertility and determined the factors related to individuals' or couples' ability to adapt to this non-developmental crisis. Their results indicate that people who are more likely to use the resource of social support and communicate honestly and openly about emotions with close people are better adapted to infertility (McDaniel, Hepworth & Doherty 1992), with partner support as a special form of social support (Ying, Wu & Loke 2015). Furthermore, partner support was recognized as the most important resource, more important than family and friends support (Martins, Peterson, Almeida, Mesquita-Guimaraes & Costa 2014). Women give special meaning to partner involvement during the treatment (Pasch & Christensen 2000), showing interest for conversation and shared decision-making (Daniluk 2001). Another coping strategy which is useful is the focus on positive sides and the ability to redefine goals and general adaptability. The results indicate that couples who are more willing to use this strategy have better relationships (Peterson, Pirritano & Schmidt 2011). In contrast, the greater the importance of parenting and the more they view it as a task they have to fulfil, the higher the perceived infertility stress and worse marital functioning, which is a sign of poor adaptation to the crisis (Edelmann, Humphrey & Owens 1994).

Among the conducted research, there is a small number of those that included people who became parents after coping with infertility. The results of these studies consistently show that those couples share thoughts and ideas with each other more and have a greater sense of togetherness than couples who became parents spontaneously (e.g. Slade, Emery & Lieberman 1997).

The main aim of this study was to explore the opinion of women who faced or are still facing infertility on factors that contribute to better adaptation to infertility, and to determine whether there are differences in opinion between these two groups.

2. METHOD

2.1. The sample

The total number of respondents was 192 women, with age ranging from 22 to 50 ($M=35.61$; $SD=5.81$). After coping with infertility, 103 of them became parents, while 89 still have not. The respondents were all married, and neither they nor the partner had any children from a previous marriage. More than a half of them live in a big city (53.1%), 27.6% in a town and 19.3% in a village. Most of them estimate their income as average (74.0%), with almost the same number of these with worse (13.5%) or incomes better than average (12.5%). For 51.6% of them religion is important, while 28.1% find it neither important nor unimportant, and 20.3% do not find it important for their life. The educational background of the respondents was composed of 39.1% respondents with a bachelor's degree, 38% graduated from high school and a smaller had a college degree (11.5%), master's or doctoral degree (9.4%), or had just finished elementary school (2.1%).

The measuring instrument

Attitudes about factors that contribute to better adaptation to infertility were measured using the Infertility Adaptation Factors Questionnaire, created for the purpose of this study, based on theoretical approaches and previously conducted research (Daniluk 2001; Edelman et al. 1994; McDaniel et al. 1992; Peterson et al. 2011; Ying et al. 2015). The respondents were asked to answer the question "What could help couples better adapt to infertility?" by assessing 23 items using a five-point Likert-type scale ranging from 1 (completely unimportant) to 5 (completely important). The scale's overall Cronbach's alpha was excellent ($\alpha =.81$). The reliability of the extracted factors is presented in the results section.

2.3. Procedure

The study was conducted during 2019 and the beginning of the 2020 using the Google forms platform. The questionnaire was distributed in Facebook groups created so that women facing an infertility crisis could exchange experiences, and on authors' Facebook profiles. The respondents were asked to read the informed consent and then proceeded to complete the questionnaire. It was clearly emphasized that the research is completely anonymous and that the data will be used only for scientific purposes. Also, since for some of them it is a crisis they are currently facing, they were offered psychological support provided by educated family therapists.

3. RESULTS

3.1. Factor analysis of the Infertility Adaptation Factors Questionnaire

As the questionnaire was used for the first time in this study, the first step was a factor analysis, using the principal components method. Applying this method, seven factors with eigenvalues higher than 1 were extracted. Due to similar items that loaded on different factors, the authors decided to consult the Scree plot, which suggested a four-factor solution (Figure 1). After applying the Varimax rotation, the authors decided to keep 4 factors. The significance of the correlation matrix was determined by Bartlett's Test of Sphericity ($\chi^2 = 1601.96$, $p < .001$), and its suitability for factorization was suggested by the Kaiser – Meyer – Olkin Sampling Adequacy Test (KMO = .789).

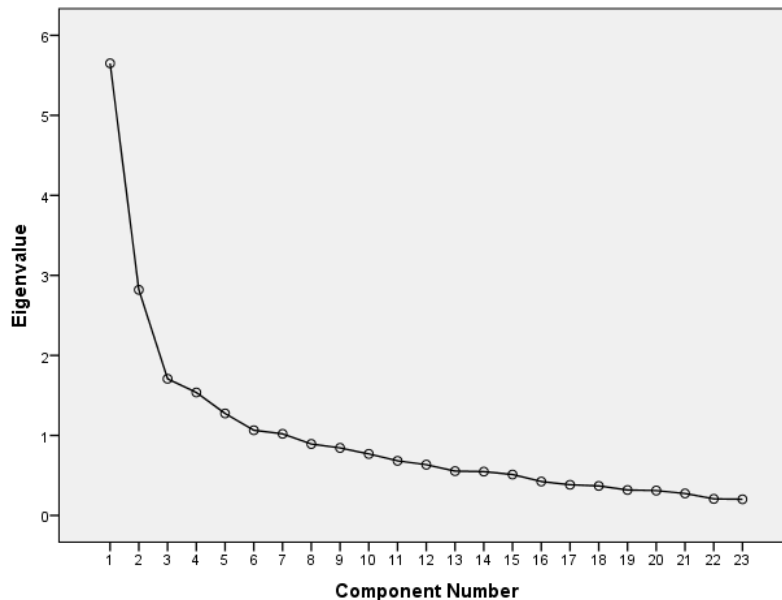


Fig.1 Infertility Adaptation Factors Questionnaire's Scree plot

Based on the values from the component matrix (Table 1), it can be noted that the items are grouped quite meaningfully and correctly around four extracted factors, which are named: Togetherness and intimacy, Importance of the parental role, Resources (personal characteristics, medical resources, and finances) and Social support. The first factor, named Togetherness and intimacy, refers to togetherness during the decision-making process, but also to paying attention to intimacy and all the aspects important for the relationship, regardless of the actual crisis. The second one, named Importance of the parental role, contains items about the importance of parenthood for their marriage and life as a whole. The third factor is more diverse and it refers to all the resources important for facing the infertility problem, like medical support and finances, but also some personal characteristics as adaptability or persistence. This subscale has poor reliability, which could be due to this diversity of items, and the results on this scale should be interpreted with caution. The fourth factor refers to all the aspects of social support - talking about the problem with friends and family, but also to support from colleagues and the whole community.

Table 1 PCA Component matrix

	Component			
	1 $\alpha = .82$	2 $\alpha = .79$	3 $\alpha = .57$	4 $\alpha = .70$
11) Providing support to each other in all domains of the treatment process (joint scheduling of examinations, visits to doctors, seeking treatment options, discussing the problem ...)	.488			
12) Togetherness in decision-making about the treatment	.640		.318	
4) Participating in activities in which they participated before infertility (e.g. hobbies, socializing, rituals they have as a couple)	.581		.309	
5) Often exchanging intimacy with their partner (giving compliments to each other, hugging, kissing ...)	.786			
15) Engaging in sexual intercourse without the idea that this time it will result in conception	.714			
17) Being committed to the partnership (choosing to stay in it no matter what)	.711			
19) Paying attention to unpleasant emotions (disappointment, sadness, anger, helplessness) that appear as reaction to stress and openly showing them to close people (family members, relatives, friends)	.402		-.336	.346
20) Giving importance to togetherness in a relationship with one's partner (spending time together, having mutual friends, making joint decisions related to the household...)	.764			
21) Talking openly with their partner about how they feel every day	.761			
22) The ability to change goals and expectations from the future related to parenting (adoption, giving up parenthood and setting other goals...)	.511			
2) Believing that parenthood is key to a good marriage		.810		
6) Believing that a person is really fulfilled only when they become a parent		.840		
8) Giving a lot of importance to religion and prayer		.506		
23) Believing that parenthood is a task that every person is obliged to fulfil		.854		
1) Knowing the cause of infertility			.499	
3) Being generally adaptable (both husband and wife)			.450	
4) The support of medical staff during the treatment process (commitment, understanding, providing necessary information...)			.559	
10) Being persistent in achieving their goals			.640	
16) Having a financial situation that allows for medical expenses			.495	
5) Talking openly about one's problem with friends				.735
7) Talking openly about one's problem with family and relatives				.822
9) Having support from superiors and colleagues (e.g. showing understanding for occasional more frequent absence from work)			.394	.641
18) Having the support of the community in dealing with the problem (availability of information, free medical treatment, psychological support...)				.507

Note: Only factor loadings >.30 are presented.

Correlations between the factors are presented in Table 2. It can be noted that all factors correlate positively and significantly, except one insignificant correlation between Togetherness and intimacy and the Importance of the parental role.

Table 2 Factor correlations for the Infertility Adaptation Factors Questionnaire

	2	3	4
1) Togetherness and intimacy	.060	.423**	.321**
2) Importance of parental role		.266**	.202**
3) Resources			.312*
4) Social support			-

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

3.2. Descriptive statistics

The respondents from the two groups consider togetherness and intimacy to be the most important factor for successful adaptation to infertility, while the least important was the importance of the parental role (Figure 2).

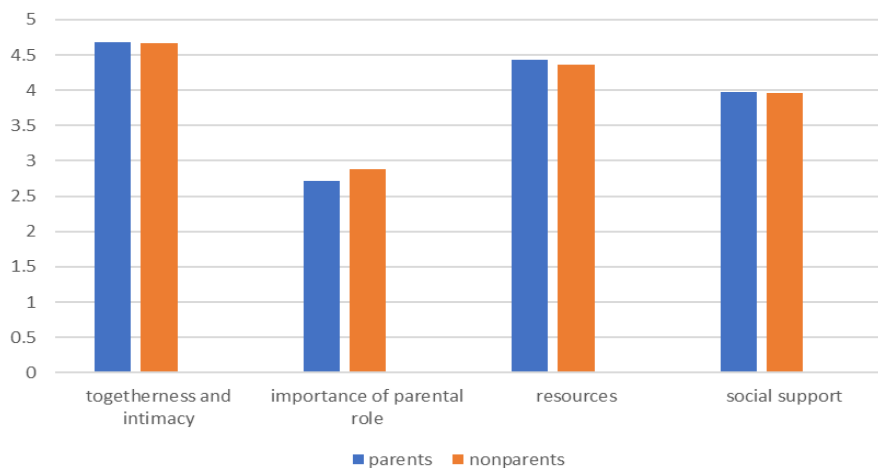


Fig. 2 Importance of different factors among parents and nonparents

The significance of differences in importance of different factors for adaptation was assessed by t-tests for paired samples. The results indicate that togetherness and intimacy among partners is statistically more significant for adaptation to infertility than any other factor (Table 3).

Table 3 Differences in importance of different factors

	df	<i>t</i>
Togetherness - Importance of parental role	191	21.01**
Togetherness - Resources	191	6.55**
Togetherness - Social support	191	11.08**

** $p < .01$

3.3. Differences between parents and non-parents

A set of t-tests for independent samples was used to examine the differences in importance of different factors between the two groups. The results show that there are no significant differences between the groups (togetherness and intimacy $t(190) = .272$, $p = .786$; importance of the parental role $t(190) = -.980$, $p = .328$; resources $t(190) = .824$, $p = .411$; social support $t(190) = .175$, $p = .861$), which means that women who have still not become parents and those who became mothers after facing infertility have similar attitudes and ideas about what is most important for adaptation to infertility.

4. DISCUSSION

There are numerous quantitative, but also qualitative studies that aimed to explore the adaptation to infertility and factors that contribute to successful adaptation. Since they are difficult to reach, very few of these studies included women or couples who became parents after facing infertility and none examined the differences between parents and nonparents. The current research was carried out with the aim of examining the factors perceived as important for adaptation to the infertility crisis by women who faced or are still facing infertility.

The respondents from both groups consider the most important factor to be togetherness and intimacy, with a pattern of open communication and sharing among partners, trying to live the life they did before the infertility problem and setting the relationship between them a priority. These results are in accordance with the previous studies that indicated the importance of partnership and involvement of both partners in the treatment (Daniluk 2001), but also with those that refer to their partner's support as vital for adaptation, more important than other forms of social support (Martins et al. 2014). Nevertheless, these findings could also be due to the samples in the studies and maybe it would be different if their partners were included, not only women. This assumption is based on the findings of previous studies that indicated that women are the ones who give special meaning to the partner's involvement during the treatment (Pasch & Christensen 2000). The next is the factor referring to a different type of resource that could be helpful in the process of facing infertility, such as support from the medical staff, financial resources or some personal characteristics. These results are in accordance with previous studies that demonstrate the importance of medical support (Malin, Hemminki, Rääkkönen, Sihvo & Perälä 2001) and the couples' income (Becker, Castrillo, Jackson & Nachtigall 2006) for the adaptation and the process of dealing with the crisis. Also, one of important factors is general adaptability, and the ability to redefine goals, which is correlated with better adaptation and a better relationship between partners (Peterson et al. 2011). The respondents find perceived social support to be an important factor for adaptation to crisis, which was also found to be important in previous studies – especially sharing experiences with close ones, which gives them a sense of connection (Jenkins 2019). The importance of the parental role is shown to be the least important factor for adaptation to infertility in both groups, and the potential explanation could lie in the characteristics of the sample, with most than half of the respondents living in a big city and having a high level of education. Furthermore, the item which refers to the importance of religion in the process of facing infertility loads on this factor, which could indicate that this factor reflects more traditional beliefs in general. These beliefs were found to be least important in our sample.

Although some authors reported that, as early as 6 months after giving birth, women who faced infertility believe that they have left this crisis behind them (Hjelmstedt et al. 2004). Testing the differences between the two groups indicates that there are no differences in any of the measured factors. Women who became and who still have not become parents find the same factors more or less important for the adaptation to the current or the crisis which they faced successfully in the past. A potential explanation could be that they really left that experience behind them, but asked about the adaptation experiences, they can recall them. This absence of differences is an obvious indicator that no matter if they faced or are still facing it, they nevertheless give key importance to the quality of their relationship and the possibility of relying on their partner (Daniluk 2001). These findings support the system theory and highlight the importance of dyadic coping (Peterson 2003).

However, when interpreting the results, it is important to mention that the exact moment of when they became parents was not collected in the demographic questionnaire, and the differences in recalling the experience from memory may be possible between those who became mothers lately and those who became mothers years ago. This is also demonstrated as a result of some previous studies that show that there is a tendency to “forget” the whole process a few years later, with a similar level of parental stress to parents who conceived naturally (Hjelmstedt, Widström, Wramsby & Collins 2004). In any case, a recommendation for future studies is to take this into account, as well as include male respondents in the study.

5. CONCLUSION AND CLINICAL IMPLICATIONS

Perhaps the main result of this study is the one regarding recognition of the importance of partner support and dealing with this topic on the dyadic level, observing the problem as a common one - a crisis which affects them as a couple, not as a problem of a person who has a medical diagnosis. These results add to the guidelines for creating support programs for facing infertility, which could be oriented towards the couple and improving partnership skills, in contrast to the individual approach, which is in line with global trends when it comes to the topic of infertility (Burns & Covington 2006). At the very end, the partner is actually the only person who is constantly with the woman during the process of dealing with infertility and from whom the expectations are usually the highest.

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FAKTORI KOJI DOPRINOSE BOLJOJ ADAPTACIJI NA NEPLODNOŠĆU

Sa prepoznavanjem značaja bavljenja psihološkim aspektom neplodnosti istraživači su pokušavali da definišu adaptiranost na ovu nerazvojnu krizu. U poslednje vreme popularnija istraživanja su ona koja se bave pitanjem koji su to faktori koji doprinose boljoj adaptiranosti, namesto bavljenja time šta ona jeste. Najveći broj ovih istraživanja sprovodi se na ženama koje se i dalje suočavaju sa krizom neplodnosti, dok su ona koja ove faktore ispituju na onima koje su se nakon suočavanja sa neplodnošću ostvarile u roditeljskoj ulozi malobrojna. U skladu sa navedenim, osnovni cilj sprovedenog istraživanja bio je ispitati mišljenje koji faktori doprinose boljoj adaptiranosti na neplodnost, kao i razliku u mišljenju između žena koje su se ostvarile u roditeljskoj ulozi nakon suočavanja sa neplodnošću i onih koje nisu. U tu svrhu na 192 ispitanice primenjen je upitnik Faktori adaptacije na neplodnost. Upitnik se sastoji od 23 stavke i obuhvata 4 različita faktora. Prema mišljenju ispitanica, među merenim faktorima, najvažniju ulogu ima zajedništvo i intimnost među partnerima, koji se izdvojio statistički značajnijim od resursa, socijalne podrške i značajnosti roditeljske uloge, kao najmanje značajnog faktora u ovom istraživanju. Rezultati ukazuju na odsustvo razlika među ispitanicama koje su postale majke i onih koje se još uvek suočavaju sa ovim problemom.

Ključne reči: neplodnost, roditelji, neroditelji, zajedništvo i intimnost.