

## Maternity through the eyes of (in)fertility - advantages, disadvantages, conditions underlying the decision to have a child - a comparative study

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**Abstract:** The main objective of this paper, which is part of a larger study, was to assess whether there is a difference in women's perception of the advantages, disadvantages, conditions underlying the decision to have a child, depending on the ability to conceive children naturally. The data were collected through Google Forms, with the participation of 189 women (95 infertile and 94 fertile). After informed consent was obtained, women were asked to fill up a dropdown questionnaire. The results revealed a significant difference between the two groups in all three aspects. The decision to procreate is conditioned by many more aspects among fertile women than infertile ones, whether they are mothers or not. Among conditions, we mention: being able to combine work and family life ( $U = 3464$ ,  $p = .006$ ), the possibility to benefit from maternity/child care leave ( $U = 3254.5$ ,  $p = .001$ ), traveling or doing things that with a child is less likely to do ( $U = 1189$ ,  $p = 0.025$ ) and achieving career goals ( $U = 3303$ ,  $p = 001$ ). In terms of advantages, infertile women attributed benefits such as personal fulfillment ( $U = 3607.5$ ,  $p = .012$ ), finding meaning in life ( $U = 3521$ ,  $p = .009$ ), own happiness ( $U = 3557$ ,  $p = .009$ ) and couple happiness ( $U = 3498$ ,  $p = .007$ ) to a greater extent compared to the other group. Regarding the disadvantages, fertile ones attributed to motherhood significantly more disadvantages (8 out of 10 items) than infertile women. The extreme desire of motherhood, in any circumstances, among infertile women is underlined by our results. It seems that this role has significantly less disadvantages for them, compared to fertile women. Even if maternity seems to be extremely important through the eyes of infertile women, childbearing is conditioned by many facts as our study showed. Because of these, it is essential to raise public awareness of the impact of delayed motherhood on reproductive outcome, of assisted human reproduction technologies and of the advantages and disadvantages of motherhood. This way, women can better prioritize aspects of their lives and make well-informed decisions about motherhood.

**Keywords:** Female Infertility, Motherhood advantages disadvantages, Conditions to parenthood

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## Introduction

The decision to have a child is an important aspect of women's life. Whether to become a mother or not, to have a child at a certain age or on specific circumstances are the questions that probably all the women ask themselves at least once in their lifetime.

Marinescu and Răbu (1999) attribute to the status of mother the advantage of offering women a special way of looking at the world, but also of assuming the perpetuation of the species.

Ștefan (1999) sees motherhood as a complex bio-psycho-social state, a setting in a special situation, through which the human need becomes more and more clearly aware. The same author emphasizes the fact that motherhood has the role of teaching us to relate, to reduce the psychological space and, moreover, to value, as women, the strengths of the personality.

A study on the total fertility rate in Romania (Jemna & David, 2018) highlights the fact that differences at the regional level are explained by differences in the rate of women's involvement in employment, urbanization, gross domestic product per capita, marriage rate and the mother's age at first birth. This indicator shows the average number of children born to a woman during her fertile life, given the fertility conditions of that year. In recent years, it is declining, up to a level of 1.53 live births per woman in Europe in 2019, far below 2.1 which is the optimum level – at which the population in a given area can remain stable (Eurostat, 2021). In our country fertility rate fell gradually in last five decades, from 2.9 children per woman in 1970 (Institutul Național de Statistică, 2012) to 1.3 children per woman in 2020. (Institutul Național de Statistică, 2020).

These facts, corroborated by the newer financial independence of women and the promotion of assisted human reproduction technologies are important pawns in the decision of women to postpone marriage and motherhood. From here to conception difficulties due to old age is just one more step.

So where do we stand in terms of motherhood? Is it the primary goal in women's life, or not? What do women think about this role: it brings more advantages or disadvantages? And the most important question: does all this (the perception of the important circumstances underlying the postponement of conception and the consequences of motherhood) differ depending on the fertility status?

To answer these questions, in our study, we aimed to assess the differences in women's perception of the advantages, disadvantages, preconditions for the decision to procreate, depending on their ability to have a naturally conceived child. The results will also help women make conscious choices about when, under what circumstances and whether to become a mother.

## Method

### Participants and procedure

To answer the above questions, we asked 189 women (94 fertile and 95 infertile) what do they think or thought about maternity before deciding to have a baby. Which were/are the conditions underlying the decision to procreate and the perceived advantages and disadvantages of motherhood.

This cross-sectional study is based on an online sample. Data were collected between April and June 2021, through Google Forms. Participation in the study was voluntary and anonymous and a participation agreement was obtained from all participants before data collection. The main selection criteria for the study are female gender. Participants in the infertile group must have female-factor infertility and have not been able to conceive for at least 1 year despite their active sexual life (without using the contraceptives methods).

The age of our participants ranged from 20 to 53, with a mean age of 33.24 (SD = 6.64). The most of them finished their master studies (45.5%), work as employee with executive position (58.7%), are in a stable relationship (92.1%) and are childless (60.8%). The descriptive statistics are detailed in Table 1.

**Table 1.** Descriptive data: socio-demographic characteristics and infertility - specific parameters of studied population

	Frequency	Percent
<b>Highest level of education</b>		
ISCED <sup>a</sup> 2: Lower secondary education	2	1.1
ISCED 3: Upper secondary education	23	12.2
ISCED 4: Post-secondary non-tertiary education	11	5.8
ISCED 6: Bachelor's or equivalent level	65	34.4
ISCED 7: Master's or equivalent level	86	45.5
ISCED 8: Doctoral or equivalent level	2	1.1
<b>Occupational status</b>		
student	10	5.3
employee - executive position	111	58.7
employee - management position	19	10.1
freelancer	17	9
employer	5	2.6
retired	2	1.1
housewife	7	3.7
unemployed	2	1.1
maternity leave	16	8.5

<b>Stable relationship</b>		
yes	174	92.1
no	15	7.9
<b>Do you have children?</b>		
yes	74	39.2
no	115	60.8
<b>Medical Condition</b>		
infertile	95	50.3
fertile	94	49.7
Total	189	100.0

*Note.* <sup>a</sup>ISCED = International Standard Classification of Education

## Measures

The conditions underlying the decision to have a baby were assessed using the questionnaire drawn up by Lampic and colleagues (2006). It has 13 questions which refers to conditions as follow: a stable relationship, a partner with whom can share responsibilities, feeling mature enough but not “too old”, having a good economy, completing studies, the possibility to combine work with family life, access to childcare, having a sufficiently-large home, professional satisfaction and last but not least having friends who already have or are expecting a child. Alpha Cronbach’s value .77 indicated a good internal consistency of this scale (Lampic et al., 2006). In our study, the internal consistency was .918, measured with the same coefficient.

The advantages and disadvantages of the role of mother were assessed using the questionnaire drawn up by us, which was based on the tool also created by Lampic and colleagues (2006). It sums 27 items, 17 for advantages and 10 for disadvantages. Alpha Cronbach’s indicated a good internal consistency for both scales: .949 in case of advantages and .932 in case of disadvantages.

We also included a drawn-up questionnaire with socio - demographic data including age, highest level of education, professional status, relationship status, medical condition, motherhood status. All the data were analyzed through SPSS-20. Because the variables were both numerical and categorical, we used Mann Whitney and chi-square to test if the groups significantly differ from each other. For descriptive purposes, we have included numerical and / or percentage frequency tables.

## Statistical analyses

All the data were analyzed through SPSS-20. The Mann–Whitney U-test was used to compare infertile and fertile women’s attitudes towards parenthood and conditions underlying the decision to have a baby, because independent

variable had 2 levels and the dependent variable was ordinal. For descriptive purposes, we have included numerical and / or percentage frequency tables.

## Results

### The conditions underlying the decision to have a baby

In terms of the conditions underlying the decision to have a baby we supposed that there are differences between fertile and infertile women in terms of the conditions underlying the decision to procreate, those with infertility conditioning this decision to achieving goals in professional life, financial situation and living conditions, significant more compared to the fertile ones.

As can be seen in Table 2, the most important conditions preceding the decision to have a child, regardless of the fertility status, are those related to involvement in a stable couple relationship, with a partner they can rely on, followed by feeling sufficiently mature, the importance of a good financial situation and job stability.

Comparing the two groups, we can see that data change. Statistically significant differences have been found regarding conditions as: having a stable relationship, ( $U = 3862.5$ ,  $M$  rank 1 = 88.66,  $M$  rank 2 = 101.41,  $Z = -1.965$ ,  $p = .049$ ), the combination of professional and family life ( $U = 3464$ ,  $M$  rank 1 = 84.64,  $M$  rank 2 = 105.65,  $Z = -2.728$ ,  $p = .006$ ), the possibility to benefit from childcare ( $U = 3254.5$ ,  $M$  rank 1 = 82.26,  $M$  rank 2 = 107.88,  $Z = -3.342$ ,  $p = .001$ ) and achieving the career goal ( $U = 3303$ ,  $M$  rank 1 = 82.77,  $M$  rank 2 = 107.36,  $Z = -3.191$ ,  $p = .001$ ). In all three cases, fertile women found them more important than infertile ones, when they decided to become mothers. Comparisons with the Mann Whitney test were performed on the raw scores, ranging from 1 (not important) to 5 (very important).

**Table 2.** Descriptive statistics important circumstances for the decision to have children

Items	Total		Fertile		Infertile	
	N=189	%	N=94	%	N=95	%
1 That I live in a stable relationship important and very important	147	77.8	80	85.1	67	70.6
2 That I have a partner with whom I can share the responsibility important and very important	152	80.5	82	87.2	70	73.7
3 That I feel sufficiently mature important and very important	130	68.8	67	71.3	63	66.3
4 That I/we have a good economy important and very important	120	63.5	67	71.3	53	55.8
5 That I have completed my studies important and very important	87	46.1	48	51.1	39	41.1
6 That my work can be combined with having children important and very important	88	46.6	52	55.3	36	37.9
7 That I have access to childcare						

	important and very important	105	55.6	63	67	42	44.2
8	That I/we have a home that is sufficiently large						
	important and very important	116	61.3	64	68.1	52	54.7
9	That I have a permanent position						
	important and very important	130	68.8	68	72.3	62	65.3
10	That I want to have children before I am 'too old'						
	important and very important	96	50.8	47	50	49	51.5
11	That I have had time to travel and do other things that may be difficult to do with children						
	important and very important	46	24.4	25	26.6	21	22.1
12	That I have advanced in my profession						
	important and very important	44	23.3	29	30.9	15	15.8
13	That my friends have had children or are expecting children						
	important and very important	22	11.6	11	11.7	11	11.6

*Note.* To illustrate the main answers of the participants, we present the percentages for the answer: 4 = important, and 5 = very important, cumulated, which indicates the recurrent importance of the presented conditions.

Excluding from the analysis women who already have a child, the differences between the two groups (fertile / infertile) have changed. If in the large group there were statistically significant differences in the importance of a stable relationship, in the case of participants who did not have children (n = 115) these differences were no longer observed between fertile and infertile women (U = 1289, z = -1.57, p = .116). Instead, in addition to the 3 statistically significant differences reported above - combining professional life with family (U = 1044, M rank 1 = 51.92, M rank 2 = 69.40, Z = -2.752, p = .006), the possibility to benefit from maternity leave or childcare (U = 1004, M rank 1 = 51.39, M rank 2 = 70.40, Z = -3.011, p = .003), achieving the career goal (U = 814, M rank 1 = 48.85, M rank 2 = 75.15, Z = -4.17, p = .000), in terms of the conditions underlying the decision to have a child, another 3 are added. Women with infertility find less important conditions such as having friends who have children (U = 1130, M rank 1 = 53.85, M rank 2 = 65.78, Z = -1.96, p = .050), traveling or doing things that a child is less likely to do, (U = 1189, M rank 1 = 53.07, M rank 2 = 67.25, Z = -2.25, p = .025) or job stability (U = 1157, M rank 1 = 53.43, M rank 2 = 66.58, Z = -2.17, p = .030) to unlike the other participants, who also attach greater importance to these conditions.

### **The changes that motherhood brings**

We presume that expectations about motherhood differ depending on the medical condition: women with a diagnosis of infertility attribute more advantages and less disadvantages to this role, compared to those who have no difficulty in procreating.

In the comparative analysis between the groups of fertile women (2) and infertile women (1), the Mann Whitney U test showed statistically significant differences in the items "8. I will feel a fulfilled woman" (U = 3607.5, Z = -2.52,

$p = .012$ ), “10 I will feel that I have found the meaning of my life” ( $U = 3521$ ,  $Z = -2.61$ ,  $p = .009$ ), “13 I will be happier” ( $U = 3557$ ,  $Z = 2.62$ ,  $p = .009$ ), “14 We, as a couple, will be happier” ( $U = 3498$ ,  $Z = -2.71$ ,  $p = .007$ ). In all 4 situations, women diagnosed with infertility attributed these benefits to the role of mother to a greater extent, compared to the other group of women (Item 8: M rank 1 = 104.03, M rank 2 = 85.88; Item 10: M rank 1 = 104.94, M rank 2 = 74.96; Item 13: M rank 1 = 104.56, M rank 2 = 85.34; Item 14: M rank 1 = 105.18, M rank 2 = 84.71).

Regarding the disadvantages of motherhood, women who have no difficulty in procreating attributed to the role of mother significantly more disadvantages than women with infertility. In the Table 3 we detail the 8 out of 10 items in which the differences were statistically significant.

**Table 3** Mann Whitney U: The Disadvantages of Maternity - the comparison between Women with and Without Difficulties in Childbirth

Items		Infertile n=95	Fertile n=94	
		Mean rank1	Mean rank2	<i>p</i>
18	My relationship with my life partner will become tense	86.64	103.45	.024
19	I will have less freedom	76.78	113.41	<.001
20	I will show less interest in the labor market	85.4	104.7	.012
21	I will have less time dedicated to work and career	79.66	110.51	<.001
22	I will have less time for my hobbies	76.69	113.5	<.001
23	I will have a more precarious financial situation	88.48	101.59	.087
24	I will have less time dedicated to travel, vacations	88.48	101.59	.09
25	I will have a less active social life	85.49	104.61	.013
26	I will have less time for my little pleasures	82.38	107.76	.001
27	My body will undergo changes that I will not be satisfied with.	87.4	102.68	.048

The same idea was kept in the analysis of the gross score at the two scales, women without infertility attributing to maternity significantly more disadvantages than the other group of women ( $U = 3082.5$ ,  $Z = -3.68$ ,  $p < .001$ ). In the case of the advantage scale, there are no statistically significant differences between the two groups ( $U = 3839.5$ ,  $Z = -1.66$ ,  $p = .096$ ). Analyzing both the disadvantages taken one by one and as a total score, it can be seen from the data presented that the hypothesis is confirmed.

## Discussions

The postponement of conception for various reasons (financial, perceived disadvantages of motherhood, job stability, etc.) can have several consequences, as shown by studies in the field, among which we mention a higher rate of involuntary childlessness and smaller families than desired due to increased infertility and fetal death with higher female and male age (Schmidt et al., 2012) and difficulty to achieve a successful pregnancy and a higher level of anxiety (Molina-Garcia et al., 2019).

Kaiser and colleagues (2009) found that motherhood is perceived as an opportunity to reevaluate priorities, goals, preferences, in a word, life. These results may be also supported by our study. As we can see in our results, once the diagnosis is received, the prioritization of aspects of women's lives changes radically. It seems that it is not women with infertility who think about fulfilling other goals before deciding to become mothers, but those who are fertile. Reprioritization of life was also observed in women with type 1 diabetes when they became mothers. If treating diabetes was not such a big issue before pregnancy, when they realized they had another life to take care of, their priorities changed (Carlsson et al., 2017).

These results may be justified, in agreement with Langher and colleagues (2019), by the extreme desire for motherhood among infertile women - they are more stressed - they desperately want a baby and they want it now. Probably the medical condition determined them to think only about their current desire and not about what they have thought before they decided to have a child. And this may be a limit of our study. It is mandatory, in future research, to take into consideration this variable, and to be controlled.

Another study (Ganle et al., 2020) conducted on disabled women, showed that the strong desire to experience the joy of motherhood motivated, among other aspects, the women with physical disability, visual impairment, speech and hearing impairment, epilepsy and albinism to become mothers.

Having a child under any circumstances, among infertile women, seems to be the meaning of their lives, bringing many more benefits and significantly less costs, unlike those who have no problems conceiving. This idea was outlined also by McQuillian and colleagues (2008), who found that motherhood is the most important goal of women and the ultimate source of satisfaction. Their extreme desire for motherhood makes them focus only on this goal: having a baby. And all this information raises further questions:

*What if, even with the help of a specialist, they cannot procreate? Will they cope with this or will they blame themselves for postponing the conception, being exposed to the risk of mental health?*



*And what will they procreate and find the difficult part of being a mother? Will they be able to cope? Or will they face postpartum depression because of their unrealistic expectations?*

*Also, we wonder ... aren't these conditions, in fact, important for all women? ... And do some of them fail to inform themselves and take care of their reproductive health while hunting for their other goals; and when they decide it's time to have a child may be too late for their body?*

One of the strengths of our study is the internal consistency of the scales. Improving the original scale (Women's and men's opinion on the impact of parenthood) and separating the advantages from disadvantages helped us obtaining a better value on Cronbach's Alpha. The number of participants and their division into two groups almost equal in number was another strength.

However, our study has some weaknesses and it does leave some questions open for further research. One of them, already mentioned before, is that we didn't took into consideration the extreme desire of motherhood variable. Another is that our study was conducted on an on-line sample. Finally, the design of our study- a cross-sectional one- does not give us the opportunity to draw significant conclusions about the causal relationships between the variables.

In conclusion, it is essential to raise public awareness of the impact of delayed motherhood on reproductive outcome, of assisted human reproduction technologies and of the advantages and disadvantages of motherhood. This way, women can better prioritize aspects of their lives and make well-informed decisions about motherhood.

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