

FACTORS THAT INFLUENCE THE DESIRE TO AVOID A NEW PREGNANCY. A SINGLE CENTER STUDY

Simona Elena Luncanu¹, Lavinia-Maria Pop², Magdalena Iorga^{2,3*}

1. “Cuza-Vodă” Obstetrics and Gynecology Hospital, Iasi, Romania

“Alexandru Ioan Cuza” University of Iasi, Romania

2. Faculty of Psychology and Education Sciences

“Grigore T. Popa” University of Medicine and Pharmacy Iasi, Romania

3. Faculty of Medicine

*Corresponding authors. E-mail: magdalena.iorga@umfiasi.ro

FACTORS THAT INFLUENCE THE DESIRE TO AVOID A NEW PREGNANCY. A SINGLE CENTER STUDY (Abstract). The **aim** of the study was to identify the factors that are related to the women’s desire to avoid a new pregnancy. **Material and methods:** A total of 197 mothers were questioned about the pregnancy after giving birth, and the study collected data about their sexual-related lives, the satisfaction with their relationship with partners and medical team, peripartum aspects, and their desire to have a new pregnancy in the next period, using *the Desire to Avoid Pregnancy Scale (DAP)*, a psychometric scale. The analysis of the data was done using the SPSS program, version 24. **Results:** The analysis of the data revealed that women declared that they were mostly satisfied with the relationships they had with their gynecologists ($M = 5.46 \pm 1.59$), the medical care they received from the nurses ($M = 5.49 \pm 1.43$), the hospitalization conditions ($M = 6.05 \pm 1.26$), the hospital food ($M = 5.86 \pm 1.33$), and the provision of medical equipment in the hospital ($M = 6.04 \pm 1.11$). The DAP subscales revealed the following results: *Cognitive Desire and Preferences* - $M = 20.26 \pm 3.79$; *Affective Feelings and Attitudes* - $M = 10.47 \pm 3.56$; and *Anticipated Practical Consequences* - $M = 7.93 \pm 3.22$ for a total DAP score of about $M = 37.56 \pm 10.75$ with scores ranging from 13 (0.6%, $N = 1$) to 56 (2.3%, $N = 4$). Married women had a significantly lower score on the DAP scale, both compared to women who lived in cohabitation and compared to those who no longer maintained a relationship with the child’s father. More results were obtained considering the variables age at first sexual contact, level of education, marital status, intended or unintended pregnancy, and satisfaction with medical care during pregnancy. **Conclusions:** There are a lot of factors that influence the desire of women to avoid a new pregnancy, and ob-gyn doctors and psychologists should take them into consideration when medical care is provided to mothers who have a pregnancy within a short time after giving birth. **Keywords:** PREGNANCY, THE DESIRE TO AVOID PREGNANCY SCALE, ROMANIA, TEENAGE PREGNANCY, SINGLE MOTHER, SATISFACTION WITH PREGNANCY, PAIN SCALE.

The birth rate for 2023 was about 17,464 births per 1,000 people, a 1.15% decline from 2022, and worldwide, fertility fell from

an average of 5 births per woman in 1950 to 2.3 births per woman in 2021, with an increased rate in poor countries (1).

More than half of pregnancies are unintended, and some trends can be identified in diverse countries: high rates of pregnancies among teenagers, an increase in the pregnancy rate among women older than 40, the desire to have children after reaching educational and financial stability, children born in a single-parent family (2, 3).

There are a lot of factors that influence the desire of women to have or not have children: the family model, the image of women in the cultural group, the influence of peers, the level of education, the marital status, the medical or sexual education, the type of family, the consumption of drugs, the financial status, the involvement in risky sexual behavior (4-7). Cultural norms related to pregnancy and reproduction can be determined by a variety of values and could be addressed through education about a responsible, healthy sex life, family planning, and emphasizing sexual behavior within marriage. In some cultures, pregnancies resulting out of wedlock may be considered immoral, causing social pressure, while in others, conceiving a child may be considered a cultural responsibility. Depending on a woman's status in a culture, the decision about pregnancy or appropriate family planning can be determined (8).

The quality of sex education is one of the educational factors involved in the incidence of pregnancies. The more this education includes complex information related to notions of anatomy, physiology, sexuality, contraceptive methods, or family planning, the more the ability to make responsible decisions is increased. Education plays an important role in accessing medical services. Research shows that achieving high levels of education discourages teenage pregnancy (9).

Socio-economic factors can contribute to the incidence of pregnancy in adults and minors through the level of education. The higher this is, the greater the ability to make responsible family planning decisions. A limited or increased level of financial resources can contribute to access to medical monitoring and reproductive health services. Socio-economic factors can amplify each other, resulting in a lower or higher incidence of pregnancies depending on them (10, 11).

Additionally, the impact of religious factors on the desire to have children has significant echoes in general, but predominantly on women. The diversity of religious communities can significantly impact this aspect, and the factors that influence this decision can also be diverse. One of them referred to the specific rules of a religious doctrine regarding the onset of sexual life, sexuality, contraception, and family planning. Another aspect is the promotion of patriarchy, where women have a limited role in deciding whether to get pregnant or how many members of a family they have (12). The absence of sex education as determined by religious rules is another factor that affects the decision to get pregnant (13). The occurrence of pregnancies can also be influenced by social pressure on women and couples to have children or by restricting access to family planning and contraception services (14).

The aim of the present study was to identify the factors that are related to the desire to avoid pregnancy in women.

MATERIAL AND METHODS

Participants and data collection

The study was conducted between May 1st-15th, 2023, and the questionnaires were distributed to women hospitalized at the

Factors that influence the desire to avoid a new pregnancy. A single center study

“Cuza-Voda” Maternity Hospital in Iasi, Romania, after they gave birth. The participants were informed about the purpose of the study, about the fact that they could withdraw from the study whenever they wanted, without consequences, and about the confidentiality of the data. No incentive was given to respondents. The inclusion criteria were confinement after birth and filling out the questionnaire before the deadline. The exclusion criteria were questionnaires that were incomplete or submitted after the deadline. Finally, 179 questionnaires were included in the research.

The online questionnaire was created using the Google Forms application (Alphabet, Mountain View, CA, USA) and was developed to obtain detailed information about satisfaction with everything related to the act of giving birth and the desire to become pregnant.

a. The first part of the questionnaire gathered socio-demographic information (such as age, marital status, living environment, level of studies, number of children, and if they had a stable job).

b. The second part collected information about sex life and pregnancy (at what age the first sexual contact took place, how old they were when they got pregnant for the first time, if there were any miscarriages), as well as detailed information about the current pregnancy (the way they got pregnant, if the pregnancy was planned and wanted, if it was felt as difficult, the type of pregnancy, how many months of pregnancy they had when they consulted the gynecologist, and if the gynecologist counseled them during the pregnancy, the type of birth and if it was considered to be difficult, if they were assisted by a doctor during the birth, and if they were consulted

by a psychologist).

c. The third part of the survey aimed at the satisfaction of women who had just given birth with regard to the relationship with their gynecologists from all points of view (communication, how to explain the medical situation, medical care, emotional support, and the time given during consultations). It also aimed at these women's satisfaction regarding different aspects related to the communication of the patients with the nurses and the midwives in the hospital, the medical care received, the conditions of hospitalization, the conditions in the delivery room, the food received, and the provision of medical equipment in the hospital. Furthermore, the participants were asked how they appreciated the attitude of the gynecologist towards them and the extent to which they believed that the gynecologist considered all the aspects presented by the patient. In this section, questions were asked about the degree of women's satisfaction regarding the relationship with the family and the child's father, but also related to the lives they led both during pregnancy and before becoming mothers for the first time.

d. The final part of the questionnaire included one psychological tool - *the Desire to Avoid Pregnancy Scale* (DAP), which is a psychometrically validated measure of pregnancy preferences that was developed in the USA in 2019 (15, 16). The DAP scale covers three conceptual domains: (1) cognitive desires and preferences; (2) affective feelings and attitudes; and (3) anticipated practical consequences. Each item uses a Likert scale, scored 0–4, to ask women how much they agreed or disagreed with a statement about either becoming pregnant in the next 3 months or having a baby in the next year. The re-

sponses were averaged, and a higher score represents a higher DAP (16). The DAP scale showed good reliability, with a Cronbach's α of 0.95 (15, 16).

Statistical analysis

The statistical analyses were performed using *IBM Statistical Package for Social Sciences* (SPSS) for Windows, version 24 (SPSS Inc., Chicago, IL, USA). The results for descriptive statistics were expressed as means and standard deviations (SD).

The normality of the data distribution was assessed using the Kolmogorov-Smirnoff test. Given the fact that all data are not normally distributed, a bivariate analysis will be performed, and non-parametric tests will be applied. To assess comparative results considering planning and wanting a pregnancy, the way to stay pregnant, the way to give birth to the child, and performing medical tests during the pregnancy, the Mann-Whitney test was performed.

The comparative results considering marital status were assessed using the Kruskal-Wallis H test to determine if there were statistically significant differences between more than two groups of an independent variable on a continuous or ordinal dependent variable.

The Spearman correlation was used to test the relationship between variables. A p -value < 0.05 was considered statistically significant.

Ethical approval

The study was conducted in accordance with the Declaration of Helsinki, and the protocol was approved by the Ethical Committee No. 5035/21.04.2023 of "Cuza-Vodă" Obstetrics and Gynecology Hospital, Iasi, Romania.

RESULTS

Socio-demographic data

The women in the study were, on average, $M = 28.43 \pm 7.50$ old (with a minimum of 13 and a maximum of 53 years old). More than half of them came from urban areas (55.5%, $N = 96$).

The participants of the study had a good level of education, less than half of them had completed university studies (44.5%, $N = 77$), and approximately one third of them had high school education (27.2%, $N = 47$). More than half of the women in the present study had a stable job (63.6%, $N = 110$).

Most of the participants were married (74.6%, $N = 129$), and less than half of the women had given birth to their first child (45.1%, $N = 78$). More than a third of the women declared that they had a second birth (33.5%, $N = 58$), while the rest declared that they still had two (14.5%, $N = 25$), three (2.3%, $N = 4$), four (1.7%, $N = 3$), five (2.3%, $N = 4$), or six or more children at home (0.6%, $N = 1$).

Information about sexual life, pregnancy, and birth

The average age at which women had their first sexual contact was $M = 17.84 \pm 3.27$. The average age at which women became pregnant for the first time was $M = 23.98 \pm 5.93$, the youngest mothers being 12 years old (1.2%, $N = 2$), and the oldest being 41 years old (0.6%, $N=1$). Less than a third of the women declared that they had miscarriages (27.7%, $N = 48$).

Regarding the current pregnancy, more than a third of the women did not plan to become pregnant (39.3%, $N = 68$). Most of the women in the present study got pregnant naturally (91.3%, $N = 158$), and a small part of them resorted to in vitro ferti-

Factors that influence the desire to avoid a new pregnancy. A single center study

lization (8.7%, N = 15). Additionally, most of the women had a single pregnancy (93.1%, N = 161), with a few of them having a twin pregnancy (5.8%, N = 10) or even a multiple pregnancy (1.2%, N = 2).

The number of months of pregnancy at which women consulted a gynecologist was on average $M = 2.87 \pm 2.25$. Most of the women in this study considered that they did not have a difficult pregnancy (78.0%, N = 135); instead, almost half declared that the birth was difficult (43.9%, N = 76), approximately one third of the women (28.3%, N = 49) stating that the pain felt throughout the birth and immediately after the birth was the greatest pain they had experienced. More than half of the women were consulted by a psychologist after birth (52.0%, N = 90).

Most of the women (96.0%, N = 166) were assisted by a doctor at birth, and a little more than half of them gave birth naturally (50.9%, N = 88). On average, the Apgar score obtained by the newborns was $M = 8.38 \pm 1.41$.

Satisfaction regarding the doctor-patient relationship, the relationship with the medical staff, and the family

More than half of the women (64.2%, N = 111) who participated in the study declared that they were treated with respect by their gynecologist. Furthermore, more than half of the patients were very satisfied with the conditions in the delivery room (53.2%, N = 92). More than a third (36.4%, N = 63) said that the gynecologist considered all the aspects presented by the patients to a large extent.

On a scale from 1 (*very dissatisfied*) to 7 (*very satisfied*), women were mostly satisfied with the relationship they had with the gynecologist, the average being $M = 5.46 \pm 1.59$. Similarly, women were even more satisfied with the medical care they received from the midwives ($M = 5.49 \pm 1.43$), the hospitalization conditions ($M = 6.05 \pm 1.26$), the hospital food ($M = 5.86 \pm 1.33$), and the provision of medical equipment in the hospital ($M = 6.04 \pm 1.11$). Other detailed results are presented in first table.

TABLE I.
Self-rated items regarding satisfaction with the doctor-patient relationship and the relationship with the medical staff *

How satisfied are you with ...	1	2	3	4	5	6	7	M ± SD
the relationship with the gynecologist in the hospital?	1 (0.6)	4 (2.3)	16 (9.2)	40 (23.1)	19 (11.0)	19 (11.0)	74 (42.8)	5.46 ± 1.59
the time the gynecologist at the hospital allotted you during the consultations?	3 (1.7)	24 (13.9)	27 (15.6)	17 (9.8)	11 (6.4)	21 (12.1)	70 (40.5)	5.03 ± 2.00
the communication with the gynecologist in the hospital?	6 (3.5)	23 (13.3)	30 (17.3)	14 (8.1)	10 (5.8)	23 (13.3)	67 (38.7)	4.94 ± 2.05
the way in which the gynecologist clearly explained the details related to the medical situation?	7 (4.0)	29 (16.8)	22 (12.7)	13 (7.5)	9 (5.2)	21 (12.1)	72 (41.6)	4.96 ± 2.13
the medical care that the gynecologist in the hospital gave?	2 (1.2)	11 (6.4)	16 (9.2)	37 (21.4)	16 (9.2)	19 (11.0)	72 (41.6)	5.31 ± 1.74
the emotional support that the gynecologist in the hospital gave you?	41 (23.7)	22 (12.7)	11 (6.4)	8 (4.6)	10 (5.8)	15 (8.7)	66 (38.2)	4.35 ± 2.54
the medical care that the nurses in the hospital gave you?	2 (1.2)	2 (1.2)	9 (5.2)	34 (19.7)	37 (21.4)	27 (15.6)	62 (35.8)	5.49 ± 1.43

How satisfied are you with ...	1	2	3	4	5	6	7	M ± SD
the communication with the nurses in the hospital?	1 (0.6)	2 (1.2)	20 (11.6)	41 (23.7)	26 (15.0)	22 (12.7)	61 (35.3)	5.31 ± 1.53
the communication with the midwives in the hospital?	2 (1.2)	11 (6.4)	19 (11.0)	27 (15.6)	24 (13.9)	29 (16.8)	61 (35.3)	5.26 ± 1.69
the medical care you received during your hospitalization?	-	5 (2.9)	8 (4.6)	37 (21.4)	29 (16.8)	27 (15.6)	67 (38.7)	5.54 ± 1.44

* Number of answers (N) and percentage (%), means and standard deviations (M±SD)

Regarding the relationships with family members, around half of the participants declared that they were very satisfied, both with the relationship they had with the children’s fathers (52.0%, N = 90), and with the relationships with the families (48.6%, N = 84), the average being M = 5.93 ± 1.42, respectively M = 5.80 ± 1.52. In terms of their lives before becoming mothers for the first time (M = 5.79 ± 1.44) and during pregnancy (M = 5.66 ± 3.38), women’s satisfaction with life as a woman was slightly lower.

Desire to Avoid Pregnancy Scale (DAP)

The Cronbach Alpha score was 0.93 for the total scale, 0.87 for Domain 1 – Cognitive Desire and Preferences, 0.86 for Domain 2 - Affective Feelings and Attitudes and 0.74 for Domain 3 - Anticipated Practical Consequences.

For these DAP subscales, we obtained the following results: *Cognitive Desire and Preferences* - M = 20.26 ± 3.79, *Affective Feelings and Attitudes* - M = 10.47 ± 3.56 and *Anticipated Practical Consequences* - M = 7.93 ± 3.22.

The total DAP score was on average M = 37.56 ± 10.75, scores ranging from 13 (0.6%, N = 1) to 56 (2.3%, N = 4).

Comparative and correlational analysis

A Mann-Whitney U test was run to determine if there were differences in the

DAP total score between women who planned the pregnancy and wanted to be pregnant and those who didn’t. The DAP total score was statistically significantly higher in women who did not want the pregnancy (Mdn = 42.00) than in women who wanted to be pregnant (Mdn = 32.00), (p < 0.01, U = 829.00, z = - 4.080).

The comparative analysis also showed that there were differences in the DAP score, in the variable that refers to the way that women got pregnant (p = 0.043, U = 195.00, z = -2.028), in the sense that women who got pregnant naturally had a higher score on this scale (Mdn = 38.00) than women who got pregnant through in vitro fertilization (Mdn = 27.00).

The results showed that there was a significant difference regarding the score obtained on the *Desire to Avoid Pregnancy Scale* and the way in which the women gave birth to their babies (p = 0.008, U = 996.50, z = -2.657), in the sense that those who had a natural birth had a higher score on this scale (Mdn = 40.50), compared to those who underwent a caesarean section (Mdn = 33.50).

The results of the Mann-Whitney test (p = 0.001, U = 622.50, z = -3.462) showed that there was a significant difference in the total score on the DAP scale and the item that investigated whether women had medical investigations during pregnancy. Thus, the total DAP scores were significantly lower in women who had these analyses (Mdn = 35.00), compared to women

Factors that influence the desire to avoid a new pregnancy. A single center study

who did not have medical investigations during pregnancy (Mdn = 43.00). Additionally, the results of the Mann-Whitney test showed that there was a significant difference in terms of the total DAP score for the variable that measures whether the women were advised by a gynecologist during pregnancy ($p = 0.001$, $U = 259.00$, $z = -3.355$). Thus, women who were not followed or advised by any doctor during pregnancy had a significantly higher score on the DAP scale (Mdn = 51.50), compared to those who were advised by a gynecologist, regardless of whether this was a woman (Mdn = 35.00) or a man (Mdn = 35.00).

A Mann-Whitney U test was run to determine if there were differences in the DAP total score between women who felt different degrees of pain during pregnancy. Thus, the results ($p = 0.042$, $U = 5.00$, $z = -2.030$) showed that those who felt a little pain during pregnancy obtained a significantly lower score on the DAP scale (Mdn = 24.00), compared to those who felt the highest degree of pain (Mdn = 42.00).

There were significant differences on the DAP scale among women depending on how concerned they were with their health and the fetus status during pregnancy ($p = 0.001$, $U = 622.50$, $z = -3.462$). Thus, women who had had medical investigations during pregnancy had a significantly lower score on the DAP scale (Mdn = 35.00), compared to those who had not (Mdn = 43.00).

A Kruskal-Wallis H test was conducted to determine if there were differences in total DAP scores between the type of relationship that mothers had with the child's father: the "married" ($n = 76$), "in cohabitation" ($n = 29$), and "I am no longer in a relationship with the child's father" ($n = 5$)

groups. The mean ranks of the DAP scores were statistically significantly different between groups, $\chi^2(2) = 21.015$, $p < 0.001$. A post hoc Mann-Whitney U test was run to determine which groups were different from which other groups. This post hoc analysis revealed statistically significant differences in the DAP scores between married women (Mdn = 33.50) and women who were cohabiting with the child's father (Mdn = 43.00) ($p = 0.001$, $U = 626.00$, $z = -3.414$); married women (Mdn = 33.50) and mothers that were no longer in a relationship with the child's father (Mdn = 56.00) ($p = 0.001$, $U = 20.50$, $z = -3.329$).

Similarly, the median DAP score for women who were cohabiting with the child's father (Mdn = 43.00) and women who were no longer in a relationship with the child's father (Mdn = 56.00) ($p = 0.016$, $U = 23.00$, $z = -2.417$) was statistically significantly different. In conclusion, married women had a significantly lower score on the DAP scale, both compared to women who lived in cohabitation and to those who no longer maintained a relationship with the child's father.

The Spearman correlation analysis found significant correlations between the age at which women had their first sexual contact and the age at which they had their first pregnancy ($r = 0.658$, $p < 0.001$), in the sense that the older the women were when they had their first sexual contact, the later in life their first pregnancy would appear. Our results showed that there was a negative correlation between the total score of the DAP and the age at which women became pregnant for the first time ($r = -0.198$, $p = 0.038$), in the sense that the higher the age at which women became mothers for the first time, the lower the score on the DAP scale.

The level of education influences various aspects of sexual life. Thus, the results indicated a significantly positive correlation between the level of education and the age at which women had their first sexual contact ($r = 0.676$, $p < 0.001$), in the sense that the more educated the women were and the more they studied, the older they were when they started a sexual relationship for the first time. Moreover, the level of education correlates with the age at which women became pregnant for the first time, in the sense that the more educated the women were, the older they became pregnant ($r = 0.753$, $p < 0.001$).

A strong positive correlation was identified between the item that measures the degree of satisfaction women had with life during pregnancy and the Apgar score of the child at birth, in the sense that the more satisfied the women were with the way they lived during pregnancy, the higher the child's Apgar score ($r = 0.202$, $p = 0.008$).

The results indicated that the number of children correlated positively with the relationship women had with their families ($r = 0.150$, $p = 0.048$), in the sense that the more satisfied they were with their family relationships, the more children the women had.

At the same time, the number of children correlated negatively with the pain experienced during childbirth, in the sense that the more children the women had, the less pain they experienced during childbirth ($r = -0.164$, $p = 0.031$). In addition, the level of pain felt during childbirth correlated negatively with the age at which women became pregnant ($r = -0.357$, $p < 0.001$), in the sense that the older the women were when they became pregnant, the less pain they felt during childbirth.

Our results showed that there was a negative correlation between the total score of the DAP and the age at which women became pregnant for the first time ($r = -0.198$, $p = 0.038$), in the sense that the higher the age at which women became mothers for the first time, the lower the score on the DAP scale. Similarly, the mother's satisfaction related to the relationship with the child's father, respectively with the gynecologist were strongly negatively correlated with the DAP score, so the more the mothers were satisfied with both the relationships with the child's father ($r = -0.249$, $p = 0.009$) and the gynecologist ($r = -0.269$, $p = 0.005$), the lower the score on the DAP scale.

A strong negative correlation was identified between the total score of DAP and women's satisfaction with the lives they had before becoming mothers for the first time, meaning the higher the women's satisfaction, the lower the DAP score ($r = -0.294$, $p = 0.002$). Similarly, patients' satisfaction with the medical care given to them by the gynecologist in the hospital and satisfaction with the emotional support given by the gynecologist in the hospital were negatively correlated with the total DAP score, in the sense that the more the women were satisfied with the medical care ($r = -0.218$, $p = 0.022$) and emotional support ($r = -0.243$, $p = 0.010$) provided by the gynecologist, the lower the score on the DAP scale.

DISCUSSION

The present study identified the variables that related to the desire of women to avoid a new pregnancy in research conducted in a single center in north-eastern Romania. The results identified that the age, the level of education, the level of

Factors that influence the desire to avoid a new pregnancy. A single center study

pain, the intention of pregnancy, the type of delivery, and the support offered by the family, partner, or medical staff were very important when it came to wanting a new pregnancy. We found that married women registered a significantly lower score on the DAP scale, both compared to women who lived in cohabitation and compared to those who no longer maintained a relationship with the child's father.

The medical care offered during pregnancy and during hospitalization seemed to influence the DAP scores. Women who had medical investigations during pregnancy had a significantly lower score on the DAP scale compared to those who did not. The more the women were satisfied with the medical care ($r = -0.218$, $p = 0.022$) and emotional support ($r = -0.243$, $p = 0.010$) provided by the gynecologist, the lower the score on the DAP scale.

As the literature proved, the DAP scale was considered to be a very useful tool to identify the desire of women to avoid a new pregnancy. It was shown to be highly predictive of pregnancy, with women with the lowest DAP score having an 80% chance of becoming pregnant within 12 months (16).

One of the most important factors was related to peripartum experiences and self-rated pain during childbirth. Studies showed that women's desire to remain pregnant depends on their previous experience with unwanted pregnancies, the birth of children with comorbidities, and the existence of severe pain and trauma during the previous birth (17, 18).

Our study identified that the more educated the women were, the later they became pregnant again. Some other results from the scientific literature showed that young women in serious relationships, who

were depressed, and who were not pursuing postsecondary education had a greater desire for pregnancy (19).

The results proved that the more satisfied the women were with their lives during pregnancy, the lower the score on the DAP scale. The present results are in congruence with some others presented by studies focusing on the desire of female patients to have a new pregnancy; for example, having access to medical care or having support from the partner increases the desire for a new pregnancy. Difficult marital relationships, intimate violence, or low income increase the rate of avoiding pregnancy. Moreover, studies have shown that women with an unintended pregnancy have more children than those with a planned pregnancy (20-23).

The present study has some limitations. First, there is not a large enough number of participants to make the results generalizable. Second, the questionnaire was filled out by women with a minimum level of literacy, and no uneducated women were able to read and fill it out. Third, the study did not take into consideration mental or psychological problems, the religious context, or the ethnicity of respondents that could also influence the decision to become pregnant or avoid pregnancy (24, 25).

CONCLUSIONS

Taking into consideration all the factors that are associated with the desire of women to avoid a new pregnancy, educational, psychological, and medical interventions should be shaped by these variables. Therefore, psychologists, physicians, nurses, and family planning counselors must consider all the challenges that women, teenage or adult, may face when they attempt to have children.

CONFLICT OF INTEREST AND FUNDING

The authors declare that there is no con-

flict of interest, and they received no specific funding regarding this scientific research.

REFERENCES

1. The Global Economy. https://www.theglobaleconomy.com/rankings/birth_rate/ accessed April 10th, 2023.
2. McKay A. Trends in teen pregnancy in Canada with comparisons to USA and England/Wales. *Canadian Journal of Human Sexuality* 2006; 15(3/4): 157-162.
3. Wong SP, Twynstra J, Gilliland JA, Cook JL, Seabrook JA. Risk factors and birth outcomes associated with teenage pregnancy: a Canadian sample. *Journal of pediatric and adolescent gynecology* 2020; 33(2): 153-159.
4. de Angelis C, Nardone A, Garifalos F, *et al.* Smoke, alcohol and drug addiction and female fertility. *Reproductive Biology and Endocrinology* 2020; 18(1): 1-26.
5. Gomez AM, Arteaga S, Ingraham N, Arcara J, Villaseñor E. It's not planned, but is it okay? The acceptability of unplanned pregnancy among young people. *Women's Health Issues* 2018; 28(5): 408-414.
6. Macutkiewicz J, MacBeth A. Intended adolescent pregnancy: A systematic review of qualitative studies. *Adolescent Research Review* 2017; 2: 113-129.
7. Duma OO, Rosu ST, Manole M, Petrariu FD, Constantin B. Disparities in the access to primary healthcare in rural areas from the county of Iasi-Romania. *Med Surg J - Rev Med Chir Soc Med Nat Iasi* 2014; 118(3): 743-748.
8. Akella D, Jordan M. Impact of social and cultural factors on teen pregnancy. *Journal of Health Disparities Research & Practice* 2015; 8(1): 41-61.
9. Mohr R, Carbajal J, Sharma BB. The influence of educational attainment on teenage pregnancy in low-income countries: A systematic literature review. *Journal of social work in the global community* 2019; 4(1): 2 / doi: 10.5590/JSWGC.2019.04.1.02
10. Dičkutė J, Padaiga Ž, Grabauskas VJ, Nadišauskienė RJ, Basys V, Gaižauskienė A. Maternal socioeconomic factors and the risk of low birth weight in Lithuania. *Medicina* 2004; 40(5): 475-482.
11. Korenčan S, Pinter B, Grebenc M, Verdenik I. The outcomes of pregnancy and childbirth in adolescents in Slovenia. *Slovenian Journal of Public Health* 2017; 56(4): 268-275.
12. Lucero SM, Pargament KI, Mahoney A, DeMaris A. Links between religious and spiritual coping and adjustment among fathers and mothers during first pregnancy. *Journal of Reproductive and Infant Psychology* 2013; 31(3): 309-322.
13. Jabeen M, Gul F, Wazir F, Javed N. Knowledge, attitude and practices of contraception in women of reproductive age. *Gomal Journal of Medical Sciences* 2011; 9(2): 223-229.
14. Mirzaee F, Hasanpoor-Azghady SB, Amiri-Farahani L. Correlation between religious coping, demographic and fertility factors, and pregnancy anxiety of Iranian primiparous women: a cross-sectional study. *BMC Psychiatry* 2022; 22(1): 1-9.
15. Rocca CH, Ralph LJ, Wilson M, Gould H, Foster DG. Psychometric evaluation of an instrument to measure prospective pregnancy preferences: the desire to avoid pregnancy scale. *Medical care* 2019; 57(2): 152-158.
16. Hall JA, Barrett G, Stephenson JM, Edelman NL, Rocca C. Desire to Avoid Pregnancy scale: clinical considerations and comparison with other questions about pregnancy preferences. *BMJ Sexual & Reproductive Health* 2023 / doi: 10.1136/bmjshr-2022-201750.
17. Whybrow R, Webster LM, Seed PT, Sandall J, Chappell LC. The effectiveness of decision aids for pregnancy related decision-making in women with pre-pregnancy morbidity; systematic review and meta-analysis. *BMC Pregnancy and Childbirth* 2022; 22(1): 81 / doi: 10.1186/s12884-022-04402-x.

Factors that influence the desire to avoid a new pregnancy. A single center study

18. Killingley J. Sustainable birth: case-loading. *MIDIRS Midwifery Digest* 2016; 26(4): 452-453.
19. Weitzman A, Barber JS, Kusunoki Y, England P. Desire for and to avoid pregnancy during the transition to adulthood. *Journal of Marriage and Family* 2017; 79(4): 1060-1075.
20. Clark CJ, Silverman J, Khalaf IA, *et al.* Intimate partner violence and interference with women's efforts to avoid pregnancy in Jordan. *Studies in family planning* 2008; 39(2): 123-132.
21. Carpenter E, Everett BG, Greene MZ, Haider S, Hendrick CE, Higgins JA. Pregnancy (im) possibilities: Identifying factors that influence sexual minority women's pregnancy desires. *Social work in health care* 2020; 59(3): 180-198.
22. Aiken AR, Borrero S, Callegari LS, Dehlendorf C. Rethinking the pregnancy planning paradigm: unintended conceptions or unrepresentative concepts? *Perspectives on sexual and reproductive health* 2016; 48(3): 147-151.
23. Kuroki LM, Allsworth JE, Redding CA, Blume JD, Peipert JF. Is a previous unplanned pregnancy a risk factor for a subsequent unplanned pregnancy ? *American Journal of obstetrics and gynecology* 2008; 199(5): 517-e1.
24. Socolov DG, Iorga M, Carauleanu A, Ilea C, Blidaru I, Boiculese L, Socolov RV. Pregnancy during adolescence and associated risks: an 8-year hospital-based cohort study (2007-2014) in Romania, the country with the highest rate of teenage pregnancy in Europe. *BioMed Research International* 2017; Article ID 9205016 / doi: 10.1155/2017/9205016.
25. Iorga M, Pop LM, Gimiga N, Păduraru L, Diaconescu S. Assessing the Opinion of Mothers about School-Based Sexual Education in Romania, the Country with the Highest Rate of Teenage Pregnancy in Europe. *Medicina* 2021; 57(8): 841.