

## THE EFFECT OF EDUCATION ON THE FORMATION OF STUDENTS' ATTITUDES TOWARDS PREGNANCY

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**Abstract:** *The level of education influences responsibility, awareness, and the perception of pregnancy as a significant life event. Pregnancy represents a crucial aspect of women's reproductive health, and attitudes toward it are shaped by various social and educational factors. The aim of this study was to examine whether the level of education affects female students' attitudes toward pregnancy. The research was conducted using a quantitative method, via an online survey consisting of 20 questions, with a total of 98 responses collected. The survey was anonymous and voluntary, and participants were exclusively female students under the age of 25, from different years of study. Results showed that 45% of respondents believe education significantly influenced their views on pregnancy planning. The most important factors in planning pregnancy included financial stability, health status, and age. Furthermore, 53% of students stated they would postpone pregnancy due to education, and 55% reported not feeling socioeconomically or psychologically mature enough to take on the role of a parent. When asked about the option of terminating an unplanned pregnancy during their studies, 52% of students said they would reject it, while 16.3% would consider abortion. The findings suggest that most participants possess self-awareness regarding their current economic and emotional state, which is why they do not consider pregnancy a present decision. A total of 90.8% of students agreed that education contributes to better parenting. Education plays a significant role in shaping attitudes toward pregnancy planning, which in the longterm leads to healthier and better-prepared future mothers, as well as a smoother experience of pregnancy and acceptance of the parental role.*

**Key words:** *pregnancy, education, female students, reproductive health*

### Introduction

Pregnancy among teenagers especially those that are at tertiary institutions seem to be an increasing problem with serious health implications for young mothers. This issue is worrisome on different fronts. First, given the alarming trend of HIV/AIDS pandemic and other sexually transmitted diseases, the health of these teenagers is put to threat. Second, they are exposed to psychological torture and in some cases, their schooling is adversely affected [1].

The report also shows that the underlying causes of teenage pregnancy include child marriage, gender inequality, and obstacles to human rights, poverty, sexual violence and coercion, national policies restricting access to contraception, age, and

appropriate sexual education, lack of access to education and reproductive health services and under-investing in adolescent girls' human capital. What is common in every region however is that girls from poor families living in rural or remote villages and not educated or having limited education are more likely to become pregnant than teenagers in urban areas who are rich, educated and literate. This report also shows that girls have little or lack information and also lack access to sexual and reproductive health services which include contraceptive information and services are also at risk of getting pregnant [1].

The identification and prevention of unintended pregnancies continues to receive attention [2]. Unintended pregnancies ending in a live birth are associated with a significantly heightened risk of poor newborn, child, and maternal health. Understanding whether a pregnancy was intended can be helpful when identifying women who might need a lot of prenatal support [2]. Worldwide, around 80 million unplanned pregnancies are estimated to occur annually. Whilst for some women an unplanned pregnancy may be welcome news, in certain situations unplanned pregnancies can lead to health, social and economic problems [3]. Most healthy, fertile couples become pregnant within the first 12 months of trying. Every month that a couple is trying to become pregnant there is about a 20% chance of a pregnancy [4]. Women are naturally more fertile in their 20s than their 30s but women are more often having children when they are aged 30-34 years old [4].

The terms "planned", "unplanned", "intended", "unintended", "wanted" and "unwanted" are often used in relation to pregnancy in health policy, health services and health research [5]. Pregnancy is an important transitional period in a new parent's life, and appropriate antenatal care, information and advice are important for new parents. The experience of having a new baby presents numerous challenges for women, as they deal with the physical and emotional postnatal changes associated with childbirth, and resume most aspects of their previous life roles. The aims of antenatal care are to optimize maternal and fetal health, to improve women's experience of pregnancy and birth, and to prepare women for motherhood [6].

The case of sexual behavior in adolescents is increasingly worrisome because teenage sexual behavior is now exceeding the limits and quite alarming. This is supported by research showing 12.1% of adolescents have sexual behavior at risk of unwanted pregnancy. An unwanted pregnancy in adolescence is caused by several factors, one of which is the educational prospect, some of which do not know how to avoid pregnancy. Early childbirth is a major health risk for mothers, in low and middle income countries, complications of pregnancy and childbirth are the main causes of death in young women aged 15-19 years [7].

Increased sexual interest and lack of knowledge of adolescents about premarital sexual behavior, coupled with a lack of family openness in discussing sexual problems is one of the factors teenagers fall into the form of premarital sexual behavior. Knowledge is one of the predisposing factors for a risky pregnancy [7]. Pregnancy will cause minor changes to a woman's physical and emotional health. Every pregnancy entails the potential of unforeseen difficulties, which could lead to harm or, in the worst situations, the mother or the child's death. Every pregnancy demands,

and is entitled to, the proper care and labor preparation pregnant women and their families to be aware of and ready for pregnancy's potential implications before and during pregnancy, it is essential to have a greater awareness of birth preparedness and complication readiness [8].

The aim of the paper is to examine whether and to what extent the level of education affects the attitudes of female students towards pregnancy, including their attitude towards planning a pregnancy, making decisions about parenthood and the perception of their own readiness to assume the parental role.

### **Materials and Methods**

This research was conducted as a quantitative study aimed at examining the influence of education on the attitudes of female students toward pregnancy, specifically those aged up to 25 years. A total of 98 female respondents, all with student status, participated in the study. Data collection took place between June 24 and July 15, 2025.

Inclusion criteria for participation were: female gender, student status, and age not exceeding 25 years. All male individuals and female students older than 25 were excluded from the study. Participation was entirely voluntary and anonymous, and all respondents were informed in advance about the purpose and significance of the research.

The survey was created and distributed online to female students across three academic environments, Prijedor, Banja Luka, and Foca, ensuring greater sample diversity and reliability of the collected data. The research instrument consisted of an anonymous online questionnaire with a total of 20 questions. The first five questions focused on basic sociodemographic characteristics of the respondents (age, place of residence, year of study, faculty, etc.), while the remaining 15 questions addressed the main topic: attitudes toward pregnancy, opinions on pregnancy termination, and awareness of reproductive health.

All questions were closed-ended with predefined answer options, allowing for systematic data processing and comparison of results. For some questions, respondents could select only one answer, while others allowed multiple selections depending on the content. Since the study was conducted online, responses were automatically processed and presented in graphical form, including tables, which enabled clear and structured interpretation of the results.

### **Results**

According to age distribution, 19 respondents were between 18 and 20 years old (19.4%), the majority, 66 respondents were aged 21 to 22 (67.3%), while 13 respondents were between 23 and 25 years old (13.3%). The largest percentage of participants were enrolled in the first cycle of higher education (89.8%), followed by 8.2% in the second cycle, and only 2% in the third cycle. Regarding the year of study, 20 respondents were in their first year (20.4%), 48 in their second year (49%), 24 in their third year (24.5%), and 6 in their fourth year (6.1%). In terms of residence, 57

students lived in urban areas (58.2%), 27 in suburban areas (27.6%), and the smallest group – 14 students – lived in rural areas (14.3%). When asked about the number of siblings in their family, responses were as follows: 55 respondents had one sibling (56.1%), 27 had two (27.6%), 5 had three or more (5.1%), and 11 respondents reported having no siblings (11.2%) (Table 1).

Table 1. Demographic Data

<b>N=98</b>	<b>Category</b>	<b>Number</b>	<b>%</b>
Age	18–20	19	19.4%
	21–22	66	67.3%
	23–25	13	13.3%
Place of Residence	Urban	57	58.2%
	Suburban	27	27.6%
	Rural	14	14.3%
Cycle of Study	First	88	89.8%
	Second	8	8.2%
	Third	2	2%
Year of Study	First Year	20	20.4%
	Second Year	48	49%
	Third Year	24	24.5%
	Fourth Year	6	6.1%
Number of Siblings	One	55	56.1%
	Two	27	27.6%
	Two or more	5	5.1%
	None	11	11.2%

When asked whether the topic is important for everyday functioning, 71 respondents (72.5%) answered affirmatively, 25 (25.5%) responded “maybe,” and 2 (2%) stated that the topic is not important for daily life (Table 2).

Table 2. Is the topic important for everyday functioning?

<b>Response</b>	<b>Number</b>	<b>%</b>
<b>Yes</b>	71	72.5%
<b>No</b>	2	2%
<b>Maybe</b>	25	25.5%

The majority of students reported having received education in the field of reproductive health (85.7%), while 14.3% had not (Table 3).

Table 3. Have respondents received education in reproductive health?

<b>Response</b>	<b>Number</b>	<b>%</b>
<b>Yes</b>	84	85.7%
<b>No</b>	14	14.3%

When asked whether education influenced their attitude toward pregnancy planning, 44 respondents (44.9%) confirmed it had, 31 (31.6%) said it had not, and 23 (23.5%) partially agreed (Table 4).

Table 4. Does education influence attitudes toward pregnancy planning?

<b>Response</b>	<b>Number</b>	<b>%</b>
<b>Yes</b>	44	44.9%
<b>No</b>	31	31.6%
<b>Maybe</b>	23	23.5%

A large majority of respondents (93.9%) believe that pregnancy planning is important, while 6.1% do not (Table 5).

Table 5. Is pregnancy planning important?

<b>Response</b>	<b>Number</b>	<b>%</b>
<b>Yes</b>	92	93.9%
<b>No</b>	6	6.1%

The most important factors in pregnancy planning identified by respondents were: health status (92.9%), financial stability (87.8%), age (68.4%), career (31.6%), and workplace relationships (8.2%). Respondents could select up to three options (Table 6).

Table 6. Most important factors in pregnancy planning

<b>Factor</b>	<b>Number</b>	<b>%</b>
<b>Health status</b>	91	92.9%
<b>Financial status</b>	86	87.8%
<b>Age</b>	67	68.4%
<b>Career</b>	31	31.6%
<b>Workplace relations</b>	8	8.2%

Regarding postponing pregnancy due to education, 52 respondents (53.1%) answered “yes,” 21 (21.4%) answered “no,” and 25 (25.5%) were uncertain. Additionally, 76 respondents (77.6%) stated they had thought about when they would like to have children, while 22 (22.4%) had not (Table 7).

Table 7. Pregnancy postponement and planning

<b>Question</b>	<b>Response</b>	<b>Number</b>	<b>%</b>
<b>Would you postpone pregnancy due to education?</b>	Yes	52	53.1%
	No	21	21.4%
	Maybe	25	25.5%
<b>Have you thought about when you want to have children?</b>	Yes	76	77.6%
	No	22	22.4%

When asked whether education contributes to better parenting, 89 respondents (90.8%) answered “yes,” while 9 (9.2%) answered “no.” A majority of respondents 68 (69.4%) agreed that society does not talk enough about responsible family planning, 6 (6.1%) believed it is sufficiently discussed, and 24 (24.5%) partially agreed (Table 8).

Table 8. Education and societal discourse on family planning

Question	Response	Number	%
<b>Does education contribute to better parenting?</b>	Yes	89	90.8%
	No	9	9.2%
<b>Is family planning sufficiently discussed in society?</b>	Yes	6	6.1%
	No	68	69.4%
	Partially	24	24.5%

Nearly half of the respondents 48 (49%) knew someone in their environment who experienced an unplanned pregnancy during their studies, while 50 (51%) did not. Regarding contraception, 45 respondents (45.9%) stated it is necessary in every situation, 43 (43.9%) said it depends on the situation, and 10 (10.2%) did not support contraception (Table 9).

Table 9. Unplanned pregnancy and contraception

Question	Response	Number	%
<b>Do you know someone who had an unplanned pregnancy?</b>	Yes	48	49%
	No	50	51%
<b>Contraception usage</b>	Always necessary	45	45.9%
	Depends on the situation	43	43.9%
	Do not support it	10	10.2%

A total of 54 respondents (55.1%) stated they do not feel emotionally, financially, or personally stable enough to take on the role of a parent. Another 39 (39.8%) felt partially stable, while only 5 (5.1%) felt fully stable. Most respondents 60 (60.2%) would postpone pregnancy if their partner was not ready, even if they were. Twenty-three (23.5%) were unsure, and 15 (15.3%) said they would not postpone.

Regarding the option of terminating an unplanned pregnancy during studies, 16 respondents (16.3%) would consider it, 51 (52%) would not, and 31 (31.6%) were unsure. When asked whether they would postpone pregnancy until reaching a certain level of financial or psychological stability, 65 respondents (66.3%) answered “yes,” 24 (24.5%) were unsure, and 9 (9.2%) answered “no” (Table 10).

Table 10. Parental readiness and pregnancy decisions

Question	Response	Number	%
<b>How stable do you feel to take on the role of a parent?</b>	Fully stable	5	5.1%
	Partially stable	39	39.8%
	Not stable at all	54	55.1%
<b>Would you postpone pregnancy if your partner is not ready?</b>	Yes	60	60.2%
	No	15	15.3%
	Unsure	23	23.5%
<b>Would you consider terminating an unplanned pregnancy during studies?</b>	Yes	16	16.3%
	No	51	52%
	Unsure	31	31.6%
<b>Would you postpone pregnancy until reaching financial/psychological stability?</b>	Yes	65	66.3%
	No	9	9.2%
	Unsure	24	24.5%

## Discussion

The results of this study align with existing findings on the importance of education in shaping female students' attitudes toward family planning. While numerous studies address reproductive health and contraception among young people, only a few explicitly emphasize the educational process as a decisive factor. Based on the collected data, it can be concluded that education not only provides information but also fosters critical thinking and a responsible approach to future parenthood, confirming its role in shaping young people's attitudes and behaviors.

Mudrić et al. (2024) published a study titled *Knowledge and Attitudes of Health Studies Students on Fertility*, involving 336 undergraduate and graduate students from the University Department of Health Studies at the University of Split 213 (63.4%) female and 123 (36.6%) male participants. The study examined students' knowledge and attitudes toward fertility and their intentions regarding childbearing. One of the fundamental life choices is whether a person wants to have children. In Croatia, this issue is particularly relevant due to the concerning decline in fertility rates. It is analyzed within the framework of social sciences and is also part of political discourse and policy analysis.

Motivations for childbearing are linked to biological predispositions, social pressure, and rational decision-making. The study aimed to assess whether knowledge about fertility contributes to a rational approach to the decision to have children. Although such decisions should ideally be based on rational considerations, this aspect remains underexplored. Motivations differ between men and women: while both associate childbearing with happiness and well-being, women additionally cite the experience of motherhood and identity development as strong determinants of their desire to have children.

In our study, the desire to have children was present in nearly all respondents 331 (98.5%) stated they want to become parents. This reflects a strong sense of

responsibility toward their reproductive role. These findings are consistent with other international studies. For example, a study conducted in Finland among university students found that 94% expressed a desire to have children, while a similar study in the United States reported 88% with the same intention. [9].

In our research, 323 respondents (96.2%) stated that having children is “very” or “extremely” important. This slightly higher percentage may be attributed to the persistence of traditional values in our society regarding children and the growing awareness of reproductive roles. However, greater fertility knowledge is associated with higher education levels. This suggests that improving educational programs could enhance fertility awareness.

The data also revealed that most respondents held misconceptions about fertility and basic facts related to infertility. Students underestimated the prevalence of infertility and the impact of conditions such as mumps, while overestimating the influence of a healthy lifestyle on fertility. In fact, more than half of the respondents had inaccurate perceptions. For instance, 36.9% were unaware that female fertility declines after the age of 36. A broader study among university students showed that 20.9% did not know this fact. This is concerning, especially considering that fertility begins to decline in the late twenties and becomes more pronounced after 36. Without efforts to raise awareness about fertility decline, women may unknowingly postpone pregnancy, mistakenly believing their fertility remains intact [10].

### **Conclusion**

Based on the defined objectives, applied methodology, and analysis of the collected data, the following conclusions can be drawn:

1. The majority of female students consider reproductive health and pregnancy planning to be important for everyday functioning, and recognize the significant role of education in this context.
2. More than half of the respondents (55.1%) reported not feeling stable enough to take on the role of a parent. This indicates that most young women under the age of 25 experience uncertainty, primarily in emotional, financial, and personal aspects.
3. Nearly half of the respondents (45.9%) believe that contraception is necessary in every situation, reflecting a high level of awareness about its importance, while still allowing room for situational flexibility.
4. A large majority (90.8%) believe that their education would contribute to better parenting. This demonstrates that young women view education as a key factor in raising children responsibly and effectively.
5. More than half of the respondents (53.1%) would postpone pregnancy due to education, suggesting that during their academic years, they do not feel ready for parenthood and prioritize their studies.
6. The results of this study indicate that most female students are aware

of the importance of pregnancy planning and that education plays a crucial role in shaping their attitudes on the subject. The data show that a significant number of respondents still do not consider themselves ready to assume parental responsibilities, emphasizing the importance of continued education and personal development. Additionally, most students highlight the importance of contraception, recognizing it as a responsible method of preventing unintended pregnancy and an essential component of reproductive health preservation.

7. Planning for future parenthood, disease prevention, and maintaining reproductive system health are vital for women's overall well-being. In this domain, healthcare professionals especially graduate nurses, play a key role as intermediaries between patients and the healthcare system, providing education, counseling, and support.

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## UTICAJ OBRAZOVANJA NA FORMIRANJE STAVOVA STUDENTICA PREMA TRUDNOĆI

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**Sažetak.** *Nivo obrazovanja utiče na odgovornost, informisanost i percepciju trudnoće kao jednog od životnih događaja. Trudnoća je važan segment reproduktivnog zdravlja žene, a stavovi se oblikuju kroz različite društvene i obrazovne uticaje. Cilj ovog istraživanja je bio ispitati da li nivo obrazovanja utiče na stavove studentica prema trudnoći. Istraživanje je sprovedeno kvantitativnom metodom koristeći online anketu koja je sadržavala 20 pitanja, a ukupno je prikupljeno 98 odgovora. Anketa je bila anonimna i dobrovoljna, a učestvovala su isključivo studentice starosti do 25 godina i različitih godina studija. Rezultati su pokazali da 45% ispitanika smatra da je obrazovanje značajno uticalo na njihov stav o planiranju trudnoće, a kao najznačajniji faktori prilikom planiranja trudnoće obuhvatali su odgovore kao što su finansijska stabilnost, zdravstveno stanje i starosna dob. Čak 53% studentica izjavilo je da bi odložile trudnoću zbog obrazovanja te da se njih 55% još uvijek ne osjeća dovoljno socioekonomski, psihološki zrelo da bi bile u ulozi roditelja i emocionalno stabilno da bi bile u ulozi roditelja. Opciju prekida neplanirane trudnoće tokom studija odbilo bi 52% studentica dok bi 16.3% pristalo na abortus. Iz istraživanja se može zaključiti da većina posjeduje samosvijest o svom trenutnom ekonomskom i emocionalnom stanju, zbog čega ne razmatra trudnoću kao trenutnu odluku. Da bi obrazovanje doprinijelo boljem roditeljstvu složilo se 90.8% studentica. Obrazovanje značajno utiče na formiranje stavova o planiranju trudnoće. Obrazovanje značajno utiče na formiranje stavova o planiranju trudnoće, što se dugoročno odražava na zdrave i dobro pripremljene buduće majke, a svakako i lakši prolazak kroz trudnoću i prihvatanje nove uloge.*

**Ključne riječi:** *trudnoća, obrazovanje, studentice, reproduktivno zdravlje*