

# The Influence of the Partner's Presence and Other Factors on Women's Satisfaction with Childbirth: A Single-Center Cross-Sectional Study

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## ABSTRACT

**Introduction:** Childbirth is a very complex psychological event for both the mother and the partner. Many studies have demonstrated the positive effect of the partner's presence at birth, not only on psychological outcomes but also on physical outcomes. In this study, we investigated the influence of the partner's presence during birth on the satisfaction of the mother, as well as which subpopulations of women had partners present more often and why.

**Materials and methods:** This was a single-center cross-sectional study conducted over the course of three months at Zabok General Hospital in 2015. All women who had given birth in that period were included in the study. Demographic data was analyzed, as well as answers to a specialized questionnaire. Statistical analysis included the Chi-square test, Fisher's exact test, and Student's T-test.

**Results:** The presence of the partner during childbirth did not significantly vary with respect to the age of the mother and pregnancy parity. On the other hand, the level of education of the mother presented significant differences regarding the presence of the partner. A vast majority of women whose partner was present at birth answered that this was a positive experience. If the partner was not present at birth, the most often reason was a mutual decision from both the mother and partner. A vast majority of women were also satisfied with the quality of healthcare services they were provided.

**Conclusion:** The results of this study contribute to a better understanding of the psychological aspects of childbirth for women. This is essential for the continuous betterment of partum and postpartum psychological care of women.

**KEYWORDS:** childbirth, mother-friendly hospital, partner at birth, patient satisfaction

## SAŽETAK:

UTJECAJ PRISUTNOSTI PARTNERA I DRUGIH ČIMBENIKA NA ZADOVOLJSTVO ŽENA PORODOM:

JEDNOCENTRIČNA PRESJEČNA STUDIJA

Uvod: Porođaj je vrlo složen psihološki događaj i za majku i za partnera. Mnoge studije pokazale su pozitivan učinak prisutnosti partnera pri porodu, ne samo na psihološke ishode već i na fizičke ishode.

U ovoj studiji istražili smo utjecaj prisutnosti partnera tijekom poroda na zadovoljstvo majke, kao i koje su subpopulacije žena imale češće prisutnost partnera i zašto.

**Materijali i metode:** Ovo je bila jednocentrična presječna studija provedena tijekom tri mjeseca u Općoj bolnici Zabok 2015. godine. U studiju su uključene sve žene koje su rodile u tom razdoblju. Analizirani su demografski podaci, kao i odgovori na specijalizirani upitnik. Statistička analiza uključivala je hi-kvadrat test, Fisherov egzaktni test i Studentov T-test.

**Rezultati:** Prisutnost partnera tijekom poroda nije se značajno razlikovala s obzirom na dob majke i paritet trudnoće. S druge strane, razina obrazovanja majke pokazala je značajne razlike u pogledu prisutnosti partnera. Velika većina žena čiji je partner bio prisutan pri porodu odgovorila je da je to bilo pozitivno iskustvo. Ako partner nije bio prisutan pri porodu, najčešći razlog bila je zajednička odluka majke i partnera. Velika većina žena također je bila zadovoljna kvalitetom pruženih zdravstvenih usluga.

**Zaključak:** Rezultati ove studije doprinose boljem razumijevanju psiholoških aspekata poroda za žene. To je bitno za kontinuirano poboljšanje psihološke skrbi za žene tijekom poroda i nakon poroda.

**KLJUČNE RIJEČI:** porođaj, partner, prijateljska bolnica, zadovoljstvo bolesnika

## INTRODUCTION

Childbirth is one of the major determining factors of long-term health in children but also a psychologically complex event for the mother and her partner. A healthy delivery is the delivery of a full-term and mature child from the 37th to the 42nd week of pregnancy. The course and outcome of a healthy birth are determined by three basic factors: the child as the object of birth, the birth canal, and the forces of birth [1]. Physicians are tasked with the management of childbirth based on guidelines, monitoring, and experience. Each stage of labor has a prescribed duration, quality, and a certain progress which is manifested by the dilatation of the cervix, the descent of the head, and finally childbirth [2]. This extremely concise physiology of natural childbirth is a scenario in which the key role is played by the team of a midwife, doctor, and mother. However, the partner is also a vital part of this process.

In studying the psychological aspects and implications of childbirth for the mother, the role of the partner in this process cannot be overlooked. In Western society, it has become common for women to have their partners physically present at birth, as many studies have shown that this improves physical and psychological outcomes [3]. Moreover, the partners of pregnant women have key roles of support during the entire course of the pregnancy, which has also been demonstrated as highly beneficial in the literature [4]. The psychological well-being of the mother during childbirth has been shown to directly affect the process of labor itself. This is done through neurohormonal mechanisms in which oxytocin plays a key role [5]. This fact further emphasizes the importance of the partner's presence during childbirth, with the purpose of providing a greater feeling of safety and security to the birthing mother. Finally, studies have shown that prepartum, intrapartum, and postpartum emotional and psychosocial

support can greatly influence the occurrence of postpartum depression [6]. This also places great importance on the partner's support during childbirth but also during pregnancy and in those early days of parenthood.

The aim of this study was to investigate the effect of the partner's presence during childbirth on the satisfaction of the mother who gave birth in the maternity department of the Department of Gynecology and Obstetrics of the Zabok General Hospital, in the period from October 1<sup>st</sup>, 2015 to December 31<sup>st</sup>, 2015. The focus is on mothers' attitudes about the role of their partner's presence during childbirth, and mothers' satisfaction with the attitude of the staff in the delivery room and afterbirth department, all within the framework of defining the key steps in achieving dignified birth care for mother and child.

## MATERIAL AND METHODS

This was a single-center cross-sectional study that compared data from two unequal cohorts of patients. All patients who gave birth in the maternity department of the Zabok General Hospital and the Croatian Veterans Hospital, in the three-month period from October 1<sup>st</sup>, 2015 to December 31<sup>st</sup>, 2015 were included. There was no exclusion criteria. The participants were asked to submit their personal data, such as age, education level, and pregnancy parity, as well as fill out a questionnaire. Relevant data regarding the questionnaire included whether the patients were satisfied with their experience, as well as the reasons why the partner was not present at the birth if not present. Previous attendance at a pregnancy course and its influence on satisfaction during childbirth were investigated. Satisfaction with the staff in the maternity ward of the Department of Gynecology and Obstetrics of the Zabok General Hospital and the Croatian Veterans

Hospital was also analyzed.

Categorical data were presented in absolute and relative frequencies. Numerical data are presented with arithmetic mean and standard deviation in the case of distributions that follow normal. Differences or associations between categorical variables were tested with the Chi-square test and Fisher's exact test. Differences of normally distributed numerical variables between two independent groups were tested by Student's T-test. All p-values were two-sided, while the significance level is set at  $\alpha=0.05$ . The SPSS statistical program (version 16.0, SPSS Inc., Chicago, IL, USA) was used for statistical analysis.

## RESULTS

During the three-month period (from October 1, 2015, to December 31, 2015), 125 women in labor were hospitalized at the Gynecology Department of the Zabok General Hospital.

Through the questionnaire that consisted of 16 questions, which was filled out by each woman in labor, the following results were obtained regarding the role of the partner's presence during childbirth on the satisfaction of the woman in labor.

The respondents included in this study, a total of 125 of them, were on average  $28.5 \pm 4.9$  years old, ranging from 17 to 42 years of age. No significant difference was found in the age of women in labor whose partners were present at birth compared to women in labor whose partners were not at birth ( $p=0.342$ ; Student's T-test) (Figure 1).

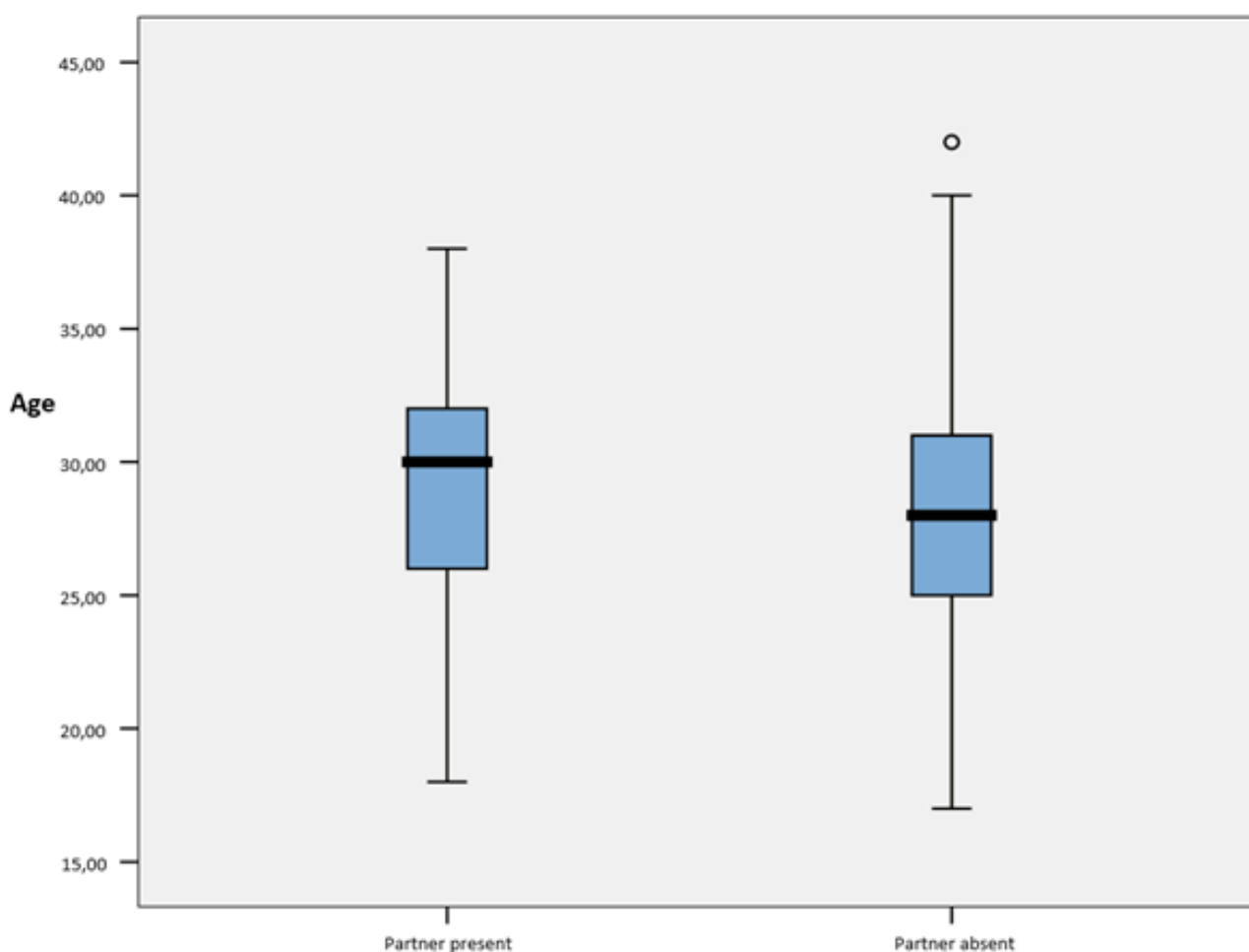


Figure 1. Age distribution in groups of women with present/absent partners at birth

Mothers in labor whose partners were at birth had an average age of  $29.2 \pm 4.6$  years, ranging from 18 to 38 years, while mothers whose partners were not at birth had an average age of  $28.3 \pm 5.0$  years, ranging from 17 to 42 years.

Further demographic analysis included stratification by parity of the mother and education (Table 1).

*Table 1. Demographic distributions with respect to education and parity*

Division	Category	Number (%)	p-value*
Education	Elementary school education	3 (2.4)	<0.001
	Secondary vocational education	79 (63.2)	
	High school education	13 (10.4)	
	University degree	29 (23.2)	
	PhD degree	1 (0.8)	
Parity	1	59 (47.2)	<0.001
	2	44 (35.2)	
	3	16 (12.8)	
	4 or more	6 (4.8)	

\*Chi-square test

The majority of women had given birth for the first time (47.2%). Also, the majority of women giving birth were those with completed secondary vocational education (63.2%), which is significantly more compared to respondents with completed elementary school education (3.4%), respondents with completed high school education (10.4%), or respondents with a university degree or PhD degree (24%).

Statistical analysis showed a significant association between professional education and the presence of a partner at birth (Table 2).

*Table 2. Numbers of present/absent partners across different levels of education*

Education	Number of present partners (%) (n=38)	Number of absent partners (%) (n=87)	p-value*
Elementary school education	0 (0.0)	3 (3.4)	0.030
Secondary vocational education	18 (47.4)	61 (70.1)	
High school education	7 (18.4)	6 (6.9)	
University degree	13 (34.2)	16 (18.4)	
PhD degree	0 (0.0)	1 (1.1)	

\*Fisher's exact test

It was observed that women in labor whose partner was present at the childbirth had significantly more often completed high school (7, 18.4%) or university (13, 34.2%) education. Mothers with a higher level of education were more interested in their health and issues related to childbirth itself.

No significant difference was found with regard to the parity of

the mother (Table 3).

*Table 3. Numbers of present/absent partners across different parities*

Parity	Number of present partners (%) (n=38)	Number of absent partners (%) (n=87)	p-value*
1	19 (50.0)	40 (46.0)	0.793
2	12 (31.6)	32 (36.8)	
3	6 (15.8)	10 (11.5)	
4 or more	1 (2.6)	5 (5.7)	

\*Fisher's exact test

Statistical analysis showed that out of a total of 125 respondents, a significantly lesser proportion of respondents (38) had a partner present at birth. Almost all mothers whose partners were present at the birth were positively satisfied (Table 4). Additionally, all found the presence of the partner helpful and the majority felt the partner contributed to the satisfaction of their stay in the maternity ward.

*Table 4. Answers of mothers whose partners were present at birth (n = 38)*

Question	Answer	Number (%)	p-value*
Are you satisfied with your partner's presence?	Yes	38 (100.0)	<0.001
	No	0 (0.0)	
Did the presence of your partner help you?	Yes	38 (100.0)	<0.001
	No	0 (0.0)	
Did the presence of the partner contribute to the feeling of satisfaction with the stay in the maternity ward?	Yes	36 (95.0)	<0.001
	No	2 (5.0)	

\*Chi-square test

The analysis also showed that the most common reason for a partner not being present at birth was the joint decision of both parents (Table 5). This is followed by the refusal of the partner and refusal of the mother, while the C-section was the rarest reason.

*Table 5. Reasons for partners not being present at birth (n = 83)*

Reason	Number (%)	p-value*
Partner did not want to be present	18 (22.0)	<0.001
Mother did not want the partner to be present	9 (11.0)	
Neither partner nor mother wanted the partner to be present	52 (63.0)	
C-section	4 (5.0)	

\*Chi-square test

Further analysis involved questions not specific to either subgroup (Table 6).

Table 6. Answers of mothers for other questions (n = 125)

Question	Answer	Number (%)	p-value*
Did you attend the course for pregnant women?	Yes	50 (40.0)	0.111
	No	75 (60.0)	
Did your partner attend the course for pregnant women?	Yes	26 (20.8)	<0.001
	No	82 (65.6)	
Were you satisfied with the quality of the course for pregnant women?	Yes	115 (92.0)	<0.001
	No	10 (8.0)	
Were you satisfied with the medical staff in the delivery room?	Yes	124 (99.2)	<0.001
	No	1 (0.8)	
Were you satisfied with the medical staff in the afterbirth department?	Yes	124 (99.2)	<0.001
	No	1 (0.8)	
Were you satisfied with the medical staff in the children's room?	Yes	122 (97.6)	<0.001
	No	3 (2.4)	

\*Chi-square test

These results showed that the partner significantly more often did not attend the course for pregnant women and that the vast majority were satisfied with the quality of the course for pregnant women. Also, the vast majority of women in labor are satisfied with the work of the staff in the delivery room, the work of the staff in the afterbirth department, and the work of the staff in the children's room.

## DISCUSSION

In this study, a total of 125 women who had given birth at Zabok General Hospital were evaluated. The demographic data and questionnaire answers were subject to statistical analysis in order to assess the differences in the observed parameters and patient satisfaction.

The average age of the mothers who were included in the study was  $28.5 \pm 4.9$  years, with a total range of 17 to 42 years. Statistical analysis showed that there was no significant difference in age distribution depending on whether the partner was present at birth or not. A similar result was demonstrated in the study by Redshaw M et al., in which there was no significant difference in the percentage of present partners between age groups [7]. Analysis of demographic distribution by education level revealed that most of the women included in the study had completed secondary vocational education as their highest completed degree. Discovered differences in distribution suggest that the level of education significantly impacted whether the partner was present at birth. Women with completed high school education were the only category in which a greater number of partners were present at birth, while in the other categories, more partners

were absent. However, comparing relative percentages between the two groups, it can be noted that women with university degrees make up a much larger proportion of those with present partners than of those with absent partners. In the completed elementary school and PhD degree categories, no partners were present at birth. In regard to parity, a majority of women included in the study were primiparous. The presence of the partner did not significantly vary with respect to parity. Other studies investigating these distribution differences found that demographic data such as age, class, or ethnicity are not major correlates for the presence of the partner [8].

Analysis of questionnaire answers revealed the satisfaction level of the mothers with the entire birth process. Specifically, we asked those whose partners were present at birth to give us their feedback on the experience. A vast majority of the participants gave positive feedback regarding their partner's presence. In the subgroup of women whose partners were not present at birth, we investigated the reason behind it. The majority of women answered that it was a mutual decision they and their partners had agreed upon. The positive reaction to the partner's presence is in line with the majority of previously published literature. Evans K et al., in their systematic review on the topic, concluded that having a trusted partner during birth increases their satisfaction with the process through a stronger sense of support and value [9]. Another study, published by Uhawenimana TC et al., states that women frequently desire their partner's involvement in the process of childbirth [10]. The study by Sutcliffe KL et al. also states the importance and influence of birth partners and places an emphasis on childbirth education strategies [11].

One study, published by Rice K et Williams S, investigated the emotional impact of partners being excluded from childbirth during the COVID-19 pandemic [12]. The study states these restrictions deprived both women and their birth partners of an experience that was important to them. A study by Chabbert M et al. identified predictors for negative childbirth experiences, one of which was the absence of the partner [13]. Golubitsky A et al. observed the partner's involvement in childbirth from a different angle [14]. In their findings, the authors state that up to 6% of fathers experience symptoms similar to those of posttraumatic stress disorder after having been present at childbirth. The review published by Poh HL et al. also reports that fathers who had participated in childbirth had mixed feelings regarding their experience [15].

Other questions in the questionnaire were not specific to either group. Answers revealed that a majority of women and majority of partners did not attend pregnancy courses. Regarding satisfaction with the hospital staff, a vast majority of women were satisfied with the staff in the delivery ward, afterbirth department, and children's room. This is of significant importance, as satisfaction with medical personnel also greatly influences the overall experience. In a study published by Haller A et al., the authors concluded that good communication skills of medical staff greatly influence women's overall satisfaction with healthcare services during childbirth [16]. The importance of quality nutri-

tion and hygiene conditions is also emphasized. The importance of communication, both verbal and non-verbal, is further supported by findings published by Ahmed HM [17]. Another study, published by Ergin A et al., states that a key component of quality healthcare in midwifery is a compassion-based practice [18]. Findings published by Liu Y et al. suggest that women are generally highly satisfied with midwife-led maternity care, due to factors such as prenatal counseling, the option of free positioning during the first labor stage, and others [19].

### CONCLUSION

This study represents a valuable contribution to the understanding and betterment of partum and postpartum psychological care for women. As a result of this research, General Hospital Zabok, as one of the pioneers of Maternity Hospital Friends of Mothers and Children in Croatia, contributed to the creation of the Manual for Health and Non-Health Care Workers of Maternity Hospitals "Maternity Ward - Friend of Mothers and Children" [20]. This was issued in November 2020, when the 10 steps of the Maternity Ward - Friend of Mothers and Children initiative were defined in the Republic of Croatia. Precisely, steps three and four of this manual refer to the right of all mothers to have partners or another person of their choice at childbirth, providing them with the necessary support.

#### Statements and declarations

**Author contributions:** All authors contributed to the study conception and design. Material preparation, data collection and analysis were performed by Ivana Erceg Ivkošić, Rajko Fureš, and Ksenija Hrestak. The first draft of the manuscript was written by Ksenija Hrestak and Luka Bulić and all authors commented on previous versions of the manuscript. All authors read and approved the final manuscript.

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**Ethical standards:** This study was approved by the ethics committee of Zabok General Hospital (Sep 2015, 4092/4) and conducted in accordance with the Helsinki Declaration.

**Consent to participate:** Informed consent was obtained from all individual participants included in the study.

**Consent to publish:** All participants agreed to publication of findings produced by the study.

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