



THE EFFECT OF EDUCATION AND EMPLOYMENT ON SEXUAL ACTIVITY AFTER CHILDBIRTH

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SUMMARY – The aim of the study was to explore the relationship between educational level, employment status and sexual activity after delivery. The study was conducted on 286 women with experience of vaginal delivery who completed the questionnaire about age, education, employment, and health status for themselves and partners. Time of the first intercourse and its frequency in the first year after childbirth was observed. Relationship between the variables observed was explored by using multiple linear regression. The mean pregnancy duration was 39 weeks. The mean age of participants was 29.9 (16 to 44) years. Most women had high education (n=170, 59.4%), 114 (39.9%) had secondary, and 2 (0.7%) had primary educational level. Although there were significant differences in the time of the first intercourse and maternal educational level (p=0.013872), partner's employment status (p=0.007403) and maternal age (p= 0.01107), as well as differences in the frequency of intercourse in the first year following delivery and partner's educational level (p=0.016929), multiple correlation coefficients indicated a very weak correlation. According to study results, the correlation of educational level, employment status and sexual activity after childbirth is weak.

Key words: Childbirth; Sexual activity; Intercourse; Socioeconomic factors

Introduction

Intimacy and sexuality are important life components between partners. Sexual life undergoes different stages and either progresses or gets worse over time. The birth of a child and parenting are defined as one of the three key components in family functioning^{1,2}. Sex life is an object of constant change in the family and social surroundings in a way that it affects mother's health, family planning, community functioning, and the relationship between partners. In parallel with changing trends in global economics, there is rapid expansion of higher education with implications on

global standard of living and health³. Somatic changes which impair sexual life after childbirth are well investigated. However, there is paucity of data regarding the impact of socioeconomic factors on sexual activity after childbirth.

The aim of the study was to investigate the relationship of educational level, employment status and sexual activity after delivery among women and their partners.

Subjects and Methods

The study was conducted on a sample of 286 women. Subjects were women with experience of vaginal delivery who attended antenatal clinic or gave birth in Sestre milosrdnice University Hospital Center during a period of two months. Only women with previous singleton pregnancy who underwent spontaneous vag-

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Received July 2, 2021, accepted November 26, 2021

inal delivery were included in the study. Participants received regular prenatal care and no obstetric complications were reported. The exclusion criteria were women with a history of complicated pregnancies, multiple pregnancies, those who underwent instrumental vaginal delivery or gave birth by cesarean section. Moreover, women who did not want to participate or did not fill out the questionnaire completely were not included in the study. For the purpose of the research, a questionnaire was designed with targeted questions about the age at the time of pregnancy, level of education, employment and health status of the respondents and their partners. Respecting the measures of discretion and confidentiality of data, the respondents answered questions about the time elapsed from the previous delivery, time of the first sexual intercourse and frequency of sexual intercourse in the first year after the birth of the child. Educational levels of participants and their partners were categorized into groups of participants who had elementary, secondary or higher educational level. In order to predict the outcome of dependent variables such as the time at onset of sexual intercourse after childbirth and number of sexual intercourses in the first year following delivery, by using a set of independent variables (maternal educational level, educational level of the partner, maternal employment status, employment status of the partner, and maternal age), multiple regression analysis was performed. Statistical Package for Social Sciences (SPSS v. 20.0)

was used. The study was approved by the institutional Ethics Committee.

Results

A total of 286 participants were included in study analysis. The average pregnancy duration was 39 weeks and average time between delivery and first sexual intercourse 8.7 weeks. The mean age of participants was 29.9 (SD=4.9; range 16-44) years. According to educational level, most women had high education (n=170, 59%), followed by those who had secondary education (n=114, 39.9%), and elementary educational level (n=2, 0.07%). In the population of male participants, 143 (50%) participants had secondary education, 141 (49.3%) participants had high education, and 2 (0.7%) had elementary educational level.

The method of multiple linear regression to analyze the time at onset of sexual intercourse after childbirth as a dependent variable and a set of independent variables (maternal educational level, educational level of partner, maternal employment status, employment status of partner, and maternal age), yielded the values of $R=0.270$ and $R^2=0.073$. Although statistically significant differences between maternal educational level, partner's employment status and maternal age ($p=0.013872$, $p=0.007403$ and 0.01107 , respectively) were determined (Figs. 1 and 2), the multiple correlation coefficient $R=0.270$ indicated a very weak correlation between the observed values of the time at onset of sexual intercourse after childbirth

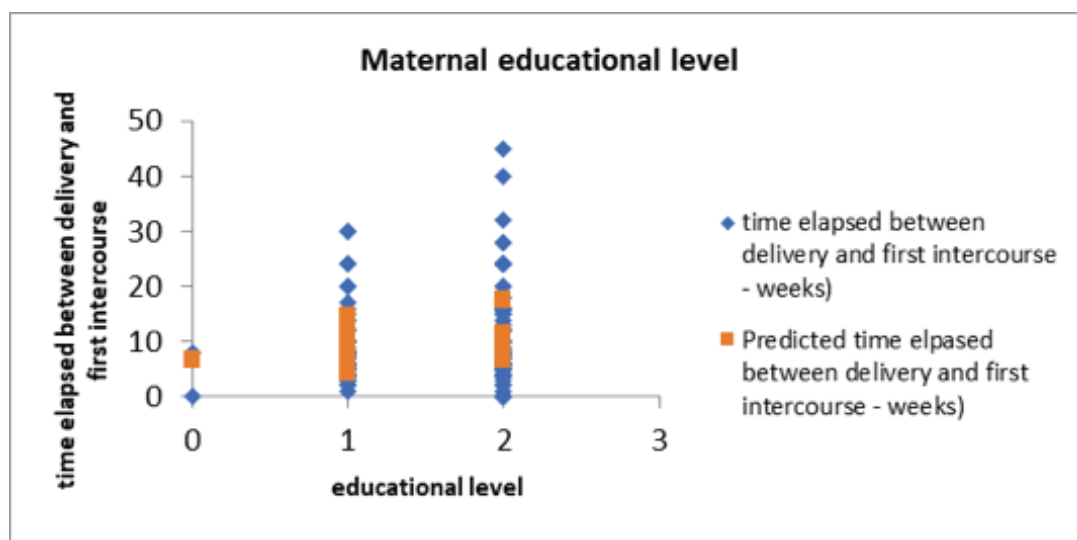


Fig. 1. Effect of maternal educational level on timing of the first intercourse.

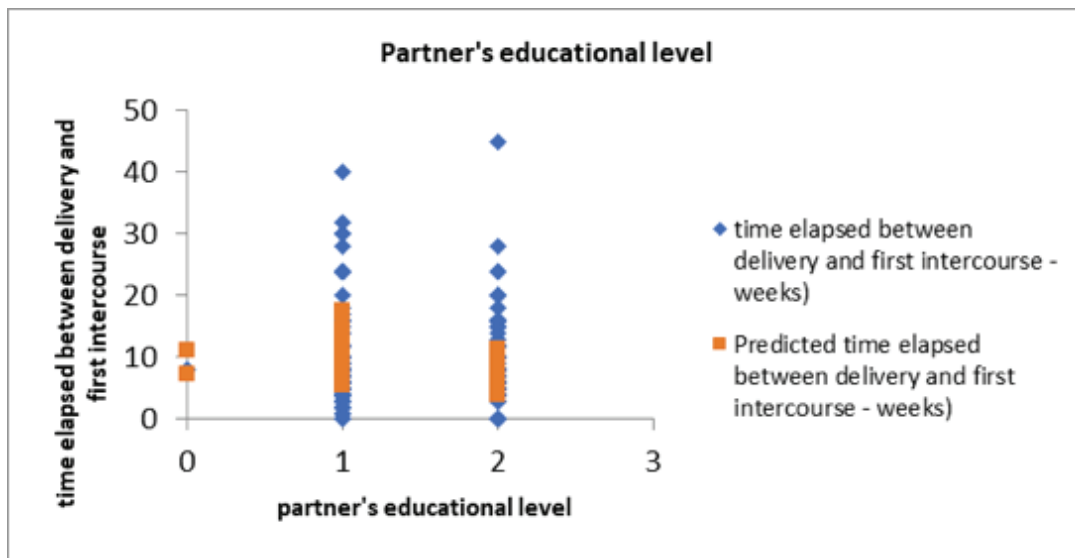


Fig. 2. Effect of partner's educational level on timing of the first intercourse following delivery.

and predicted values determined by the regression model. Considering variability in the observed values of the time at onset of sexual intercourse after childbirth, in the applied regression model and $R^2=0.073$, indicated that only 7.3% of the variability in the time at onset of sexual intercourse after childbirth could be explained by these five independent variables. Furthermore, the methods of multiple linear regression between the number of sexual intercourses in the first year after childbirth as a dependent variable and a set of independent variables of maternal education level, partner's educational level, maternal employment status, partner's employment status and maternal age, found the values of $R=0.226$ and $R^2=0.051$. There was a statistically significant difference between partner's educational level and frequency of intercourse in the first year following childbirth ($p=0.016929$). However, the multiple correlation coefficient of $R=0.226$ indicated a very weak correlation between the observed values. Considering the variability in the observed values of the number of sexual intercourses in the first year after childbirth and $R^2=0.051$, only 5.1% of the variability in the number of intercourses in the first year following delivery could be explained by five independent variables.

Discussion

Findings and interpretation

In the postpartum period, sexuality returns to its pre-pregnancy intensity 6 weeks after delivery. By

that time, variations in sex life are influenced by both somatic and psychologically-conditioned changes⁴. Some of the common symptoms in the postpartum period are perineal pain, urinary incontinence, tiredness, and depression^{5,6}. In terms of maternal health and family planning, according to different definitions and approaches, the possibility of conception should be avoided 3, 6, 9, 12 and 18 months after giving birth⁷. Analyzing sociodemographic indicators, a short interval between the two pregnancies was observed in young women but also in women with high educational attainment⁸.

In our study population, most of the participants had secondary or tertiary education with a low proportion of participants with elementary education. Sestre milosrdnice University Hospital Center is a tertiary care hospital in the capital of Croatia, which delivers health care to patients with complex medical needs, including high-risk pregnancies. In recent years, advanced maternal age as a direct outcome of life conditions, socioeconomic circumstances, and high rate of success of *in vitro* fertilization methods is an increasing trend and was found to be associated with adverse pregnancy outcomes^{9,10}. Women decide to become pregnant at the age when they complete their education. Hence, it is reasonable to assume that the increasing age of pregnant patients in our study was associated with high educational level. Women with lower levels of education were reluctant to participate

in this research and some of them were distrustful. One of the reasons could be prejudice on this subject. Another important factor that may affect sexual activity is the presence of partner with regard to his employment, since existential and sociological reasons are interpolated in the description of these complex relationships. In our research, significant difference was found between employment status of women's partner and the time elapsed between delivery and first sexual intercourse. Although partner's educational level which may reflect his role for providing, emotional, social support, as well as alleviating stressor due to everyday tasks and care for baby should be important, the effect of educational status on the frequency of intercourse in the first year following delivery slightly differed between female and male participants. Similar to women, men also experience business and social stresses or pressures which may affect sexual activity after childbirth.

Strengths and weaknesses of the study

Obstetric causes and their effect on postpartum sexual activity are very important. Still, women return home soon after delivery and live in various socioeconomic circumstances after obstetric healing. In order to examine the isolated effect of educational level and employment status on sexual activity after childbirth, only healthy subjects with uncomplicated pregnancies and postpartum courses were included in the study. The research was conducted over two months to avoid the impact of natural disasters such as earthquakes or pandemics related to extended time period. However, the results obtained would have been more reliable if we analyzed additional factors such as occupation and working hours of both partners, level of income, urban or rural environment, geographical area, number of household members, healthy and unhealthy lifestyle habits (smoking, consumption of alcohol or other substances), as well as the conditions and place of residence. Despite that, this study represents a single-center experience, it is one of the few studies designed to investigate the implications of educational level and employment status on sexual activity after childbirth rather than causative obstetric complications.

Differences in results and conclusion in relation to other studies

While sexual abstinence after childbirth is favored in some African regions where it is influenced by men's attempt to maintain polygamy or belief that ejaculate

could contaminate breastmilk, the trend of early resumption of coitus is increasing. Evidence for Western society shows that abstinence from intercourse takes two months around the delivery^{11,12}. The most reported reasons for delaying coitus after delivery are dyspareunia, fatigue, sleep deprivation and mood changes, whereas evidence for perineal and genital damage at the time of delivery and delayed resumption of sexual intercourse is conflicting^{12,13}. According to studies investigating demographic variables, age of women and economic difficulties were predictive for decreased sexual activity^{14,15}. Employment situation and financial status of women may contribute to earlier resumption of sex life after delivery¹⁶. The possible explanation of this phenomena may be that educated women and those with better job positions wish to have another child and avoid longer career breaks, thus seeking to continue their careers as soon as possible, balancing between work and family life. Moreover, these trends are largely influenced by social policy of each country that supports fertility. The main outcomes in our study were the time elapsed between delivery and first intercourse, as well as the frequency of intercourse in the first year following delivery. In a study by Adanikun *et al.*, the earliest time from delivery to first intercourse was two weeks while 35.8% practiced intercourse between 6 and 12 weeks following delivery and 27.6% had intercourse in the first six weeks after childbirth¹². These results are consistent with our study. In a research conducted by Sahin and Erenel, nearly all female participants started sexual activity 40 days after delivery¹⁷. A systematic review analyzing 8 studies reports that median time of resuming sexual intercourse was 6 to 7 weeks¹⁸.

Conclusion

Sexual activity during the postpartum period is influenced by physical, psychological, hormonal, and sociocultural factors, with great emphasis on the care for newborns. According to this study, correlation between educational level, employment status and sexual activity after childbirth is weak. Nevertheless, additional research on different socioeconomic conditions may contribute to better understanding the women's general health in the time period after childbirth. Interventions to improve family planning, choosing appropriate contraceptive methods, and promoting responsible sexual behavior are a prerequisite for quality postpartum care.

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Sažetak

UTJECAJ OBRAZOVANJA I STATUSA ZAPOSLENJA NA SEKSUALNU AKTIVNOST NAKON POROĐAJA

A. M. Potkonjak, H. Vraneš, I. Djaković i H. Soljačić Vraneš

Cilj istraživanja bio je ispitati povezanost stupnja obrazovanja, statusa zaposlenja i seksualne aktivnosti nakon porođaja. U istraživanju je sudjelovalo 286 žena s iskustvom vaginalnog porođaja i jednak broj njihovih partnera. Ispitanici su ispunili upitnik o dobi, obrazovanju, statusu zaposlenosti i zdravstvenom stanju. Promatrano je vrijeme prvog seksualnog odnosa i njihove učestalosti u prvoj godini nakon porođaja. Ispitivanje povezanosti navedenih pokazatelja provedeno je metodom višestruke linearne regresije. Prosječno trajanje trudnoće iznosilo je 39 tjedana gestacije. Srednja vrijednost dobi ispitanica bila je 29,9 godina (16 do 44 godine). Većina ispitanica bile su visoko obrazovane žene (n=170, 59,4%), 114 (39,9%) ih je imalo srednje obrazovanje, a dvije žene imale su primarno obrazovanje (0,7%). Dokazana je statistički značajna povezanost između vremena proteklog od porođaja do prvog seksualnog odnosa i stupnja obrazovanja žene (p=0,013872), statusa zaposlenosti partnera (p=0,007403), dobi žene (p=0,01107), ali i povezanost između učestalosti seksualnih odnosa u prvoj godini nakon porođaja i stupnja obrazovanja partnera (p=0,016929). Koeficijent višestruke korelacije ukazuje na vrlo slabu korelaciju između promatranih varijabla. Rezultati istraživanja pokazuju slabu povezanost stupnja obrazovanja, statusa zaposlenja i seksualne aktivnosti nakon porođaja.

Ključne riječi: *Porođaj; Seksualna aktivnost; Spolni odnos; Obrazovanje; Zaposlenost*