GinPolMedProject ©
2 (48) 2018: 009-016 • ORIGINAL ARTICLE

Sexual activity and sexual satisfaction of women in low-risk and high-risk pregnancy

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AUTHORS' CONTRIBUTION: **(A)** Study Design · **(B)** Data Collection · **(C)** Statistical Analysis · **(D)** Data Interpretation · **(E)** Manuscript Preparation · **(F)** Literature Search · **(G)** Funds Collection

SUMMARY

Introduction. Pregnancy is a period of dynamic physiological, emotional and social changes which influence all the life spheres of a woman, including the sexual sphere. The article presents a concise review of studies concerning the impact of pregnancy on women's sexuality.
Aim. The aim of the presented study was to compare sexual activity and satisfaction of pregnant women, taking into consideration the case of low-risk pregnancy and high-risk pregnancy.
Material and methods. The study covered 131 patients: 68 women with low-risk pregnancy and 63 women with high-risk pregnancy. The measurement was based on the "Sexuality" scale of Fahrenberg's Questionnaire of Life Satisfaction FLZ (its Polish version by Chodkiewicz) and a self-constructed survey questionnaire.
Results. Sexual activity is more often taken up by women with low-risk pregnancy. The analysis proved the lack of statistically significant differences in the perceived sexual satisfaction between the group of women with low-risk pregnancy and those with high-risk pregnancy. Approximately one-fourth of women in both groups evaluate their sexual satisfaction as low. Nearly all the pregnant women indicated some obstacles to taking up sexual activity, i.e. concerns about the baby, difficulty with the choice of the best position or changes in breast sensitivity.
Conclusions. The condition of threat to pregnancy does not have a negative impact on pregnant women's evaluation of sexual satisfaction but does have a negative impact on taking up sexual activity. Pregnant women have many fears concerning the taking up of sexual activity. It is necessary for medical staff to educate and support women in that regard.
Key words: pregnancy; low-risk pregnancy; high-risk pregnancy; sexual activity; sexual satisfaction

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Word count: 3116 **Tables:** 4 **Figures:** 3 **References:** 25

Received: 15.03.2018
Accepted: 24.05.2018
Published: 28.06.2018

INTRODUCTION

An interest in sexuality of future mothers plays a significant role from both medical and psychological points of view, even more so that sexual satisfaction is a strong predictor of a global sense of contentment and happiness [1,2]. Sexual activity of pregnant women is still not explored well enough; only few studies have been conducted and produced results that are not always consistent [3,4]. Considering the complexity of factors associated with sexual activity of pregnant women (medical, psychological and sociocultural) and the connection of sexual satisfaction with a global sense of well-being as well as with contentment associated with one's relationship and health, research efforts with the goal to elucidate the influence of the phenomenon of sexuality on woman's health and well-being are surely worth undertaking. It is particularly interesting to compare sexuality of women with physiological pregnancy and those with high-risk pregnancy.

Studies addressing sexuality have so far focused largely on the definition, description, diagnosis and treatment of sexual dysfunctions. Although it is both a significant and needed research direction, it has only slightly contributed to the knowledge about factors affecting everyday sexual activity and satisfaction of a healthy woman remaining in a relationship [5]. This problem is also noticed in studies on sexuality of pregnant women. More attention has been devoted to the analysis of sexual dysfunctions than to the study on potential benefits arising from sexual activity and satisfactory sexual life of a married couple during pregnancy.

Researchers concur that sexual satisfaction not only refers to experiencing an orgasm. Janicka indicates that sexual intercourse satisfies both biological and psychological needs [6]. Older models of the analysis of sexual relations

(Masters and Johnson; Kaplan, Levin) were mainly centered on their physical aspect and consecutive phases [7]. However, these concepts did not explain complex sexual behaviors of a woman as they did not include the mental component. This approach has been changing lately. Basson, in a cyclical model of female sexual activity, distinguishes several psychosocial aspects that affect sexual activity of women [8]. The author notes that female desire and motivation to take up sexual activity result more from her response to sexual and extra-sexual stimuli than from a spontaneous biological reaction. In this case, the experience of an orgasm is an independent element; a woman may feel sexually satisfied despite the lack of an orgasm. Basson includes the physical and emotional sexual satisfaction as a link joining arousal and emotional intimacy. Meston and Trapnell emphasize the relational and personal nature of sexual satisfaction, which may be described using three dimensions: compatibility, communication and contentment [9].

The problem of female sexuality during pregnancy can be viewed from several perspectives. On the one hand, sexual activity of a pregnant woman may bring measurable benefits for herself and her partner, thereby reinforcing their contentment associated with their relationship [3]. Research has shown that pregnant women with higher levels of satisfaction from the relationship and of sexual satisfaction were characterized by more positive attitudes towards the role of a mother and showed a considerably lower level of fatigue and depression [10]. Evidence has been found that experiencing sexual satisfaction by pregnant women reinforces their sense of own value and leads to the maintenance of a stronger relationship and tighter bonds in marriage; it can also have a positive effect on the course and outcome of pregnancy [4,11]. An association between satisfaction from the relationship, mental well-being, sexual satisfaction and health seems to be rather unambiguous.

On the other hand, pregnancy, childbirth and breastfeeding have a negative effect on female sexual activity and sexual satisfaction of the married couple. Research indicates that pregnancy, especially in the first and third trimesters, may decrease sexual desire, the frequency of undertaking sexual intercourse and sexual satisfaction (with some individual differences) [3,10,12–14]. Pregnant women may exhibit anxiety associated with taking up sexual activity in fear of adverse symptoms related with a threat to the mother and her unborn child [3,15]. This particularly concerns women with complicated pregnancies. Sexual activity during physiological pregnancy has no negative effects on neonatal health [3].

A high-risk pregnancy is a special situation. Complications, irrespective of their nature, are treated as the basic cause of anxiety, fear and depressed mood of a woman and, in many cases, lead to chronic stress [16]. Exposure to chronic stress during pregnancy is a predictor of both ante- and postnatal depression. This situation also increases the risk of premature labor and neonatal low birth weight [17], thereby contributing to increased neonatal mortality [18]. A sense of threat may make a woman set sexual activity aside. Nonetheless, it seems interesting to ask whether it is always the case and whether it happens in all women with high-risk pregnancies.

The understanding of the dynamics of changes associated with sexual activity and satisfaction during pregnancy is crucial for accepting this sphere of life by both a woman and a man. There are a number of controversies and stereotypes concerning sexual activity and behaviors during pregnancy, which results from the lack of knowledge, poor exploration of this sphere of functioning by future parents and failure to adjust one's sexual expectations and behaviors to the specificity of the situation. Chances for practical solutions and specific directions can be acquired by broadening the knowledge in this subject.

AIM

The aim of the study was to evaluate sexual satisfaction and sexual activity of pregnant women, taking into consideration low-risk and high-risk pregnancies.

The following detailed research questions were set:

1. Are there any differences in perceived satisfaction from sexual activity and satisfaction from sexual life from before and during pregnancy?
2. Are there any differences in sexual satisfaction of pregnant women depending on undertaken sexual activity?
3. What does sexual activity look like in women with low-risk and high-risk pregnancies, and what are the obstacles to taking up sexual activity?
4. Are there any differences in sexual satisfaction between women in low-risk pregnancy and high-risk pregnancy?

It was expected that there would be differences in both sexual activity and sexual satisfaction between women in low-risk pregnancy and high-risk pregnancy. In particular, sexual activity and sexual satisfaction were expected to be lower in women with high-risk pregnancies.

MATERIAL AND METHODS

The study was conducted in the Silesia province among women reporting to a gynecological clinic for check-ups and in patients hospitalized at a maternal and fetal assessment unit. In total, 137 pregnant patients participated in the study. The women were divided into two groups depending on the type of pregnancy. The first group, referred to with an abbreviation LRP (low-risk pregnancy), consisted of patients in physiological pregnancy ($N_{LRP}=68$), whereas the second group, abbreviated HRP (high-risk pregnancy), was made up by women with high-risk pregnancies ($N_{HRP}=63$). The criterion of inclusion to the second group was a high-risk pregnancy in the form of threatened miscarriage, premature labor, fetal and maternal diseases and multiple pregnancy [17].

Sexual satisfaction was evaluated using the "Sexuality" scale of Fahrenberg's Questionnaire of Life Satisfaction FLZ. The Polish version was prepared by Chodkiewicz [19]. This scale is used to evaluate sexual satisfaction, i.e. contentment associated with sexual activity, sexual contacts and sexual compatibility. The authors of the "Sexuality" scale state that persons with high results positively evaluate their own sexual activity and sexual contacts. They are convinced that they can talk to their partners about sex without obstacles and that their sexual compatibility is good [19]. This measurement tool consists of 7 statements, and a respondent evaluates each of them on a 7-grade scale from "very unsatisfied" to "very satisfied." The questionnaire is characterized by fully satisfactory reliability [19]. The theoretical distribution of results falls in a range of 7–49 points.

Apart from the "Sexuality" scale, the respondents also filled in a survey about one's own sexuality during pregnancy, self-constructed by the author. The survey consisted of 18 closed questions about patient's demographic data, the course of pregnancy and selected aspects of intimate/sexual life and sexuality during pregnancy. Example questions are: *"Are you sexually active during pregnancy?", "What are your main obstacles to taking up sexual activity during pregnancy?" or "Do you feel anxious while taking up sexual activity?"*. The respondents also stated how satisfied they were with their current sexual activity and with their sexual activity before pregnancy, and evaluated their sexual satisfaction from before and during pregnancy on a 5-grade scale.

The results were analyzed statistically in SPSS for Windows. Statistical significance of intergroup comparisons was calculated using the Student's t-test, Wilcoxon test and the Pearson's chi squared test.

RESULTS

The comparison of both groups in terms of demographic characteristics shows that the respondents from the two groups were not significantly different with respect to age, marital status, education and place of residence. The mean age of women from both groups was similar: approximately 30 years (LRP group: $M=29.61$; $SD=4.13$; HRP group: $M=29.95$;

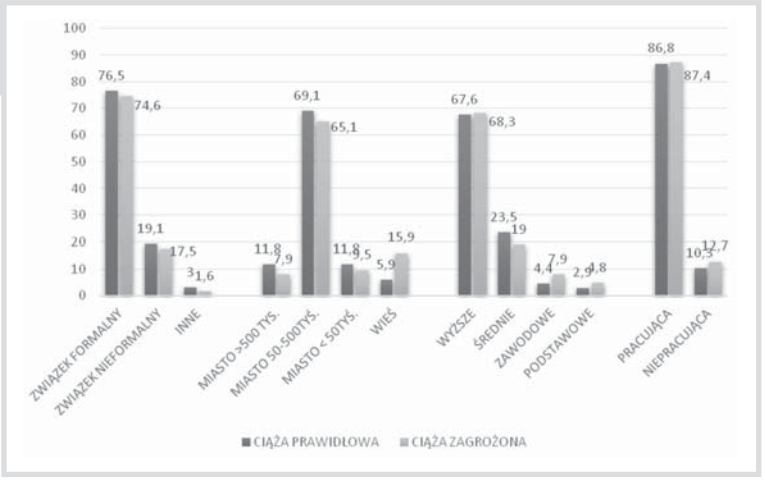

Fig. 1. Comparison the demographic data of women with low-risk and high-risk pregnancy (%)

SD=4.39). The age range was also similar in both groups: from 20 to 38 years in the LRP group and from 18 to 39 years in the HRP group. Detailed demographic data are presented in Figure 1.

A vast majority of the respondents in both groups were primiparous women. They constituted nearly all women from the LRP group (92.6%) and approximately two-thirds of the HRP group (63.5%). Most of the respondents were in the second and third trimesters of gestation (LRP group: 39.7% and 38.2%, respectively, and HRP group: 22.2% and 74.6%, respectively). The women usually claimed that their pregnancies were both expected and planned (LRP=77.9%; HRP=74.6%). The characteristics of the respondents in terms of pregnancy description and the frequency of taking up sexual activity are presented in detail in Table 1.

The analysis revealed statistically significant differences in sexual activity between women in low-risk pregnancy and high-risk pregnancy. Compared to the high-risk pregnancy group, significantly more women from the low-risk pregnancy were sexually active (36.5% and 70.6%, respectively). More than a third of women from the high-risk pregnancy group decided to abstain from sexual activity (42.9%) in accordance with the doctor's orders. In the group of low-risk pregnancy, such a recommendation was issued to five women (7.4%). Interestingly, a half of the women from the low-risk pregnancy group (52.6%) did not engage in sexual activity despite the lack of such medical indications. As for the women with high-risk pregnancy, this percentage equaled 18.2%. The data from Table 1 indicate that a doctor did not always discuss these issues with the patients. The problem of sex was more often discussed in the low-risk pregnancy group (19.1%) than in the high-risk pregnancy group (11.1%). The analysis also involved the assessment of obstacles and concerns associated with sexual activity in pregnancy in both groups. Almost all women encountered certain obstacles to sexual activity (LRP=92.2%; HRP=96.1%). The most common obstacle in both groups was a concern about the child (LRP=47.1%; HRP=52.4%). The women from the high-risk pregnancy group also mentioned pregnancy-related symptoms (30.2%) and difficulty with the choice of a position (15.9%). The women from the low-risk pregnancy group enumerated breast tenderness (26.5%) and difficulty with the choice of a position (22.1%). The outcomes are presented in Figure 2.

The respondents were also asked to describe their concerns associated with sexual activity. Concerns were reported by almost a half of the women from the low-risk pregnancy group (47.0%), while this percentage was even higher in the women from the high-risk pregnancy group (62.7%). The most frequently reported

Tab. 1. Description of pregnancy and the frequency of sexual activity. A comparison of the women from the low-risk pregnancy (LRP) group and high-risk pregnancy (HRP) group

	N (%)		TEST		
	LRP ***N* = 68**	**HRP** ***N* =63**	*Pearson's Chi²*	***df***	***p***
Trimester of gestation					
Trimester I	12 (17,6)	1 (1,6)			
Trimester II	27 (39,7)	14 (22,2)	**19,411**	**2**	**0,001**
Trimester III	26 (38,2)	47 (74,6)			
Pregnancy:					
first	63 (92,6)	40 (63,5)	**18,401**	**1**	**0,001**
next	4 (5.9)	23 (36,5)			
Pregnancy:					
planned	53 (77,9)	47 (74,6)	**0,371**	**1**	**0,543**
not planned	14 (20,6)	16 (25,4)			
Sexual activity					
YES	48 (70,6)	23 (36,5)	**11,682**	**1**	**0,001**
NO	19 (27,9)	33 (52,4)			
Abstaining from sexual activity recommended by a doctor					
YES	5 (7,4)	27 (42,9)			
NO	48 (70,6)	23 (36,5)	**26,091**	**2**	**0,001**
Not discussed	13 (19,1)	7 (11,1)			

concerns, especially in the high-risk pregnancy group, were: fear of miscarriage/premature labor (34.9%), fear of "harming the baby" (22.2%) and fear of infection (22.2%). The data are presented in Figure 3.

In order to provide answers to the next research questions, namely whether there any differences in sexual satisfaction of women in low-risk and high-risk pregnancy and whether there are differences in sexual satisfaction between women who take up and do not take up sexual activity, intergroup comparisons were made. The analysis of the Student's T test for independent samples showed the lack of statistically significant differences in perceived sexual satisfaction between the groups. The results are displayed in Table 2. However, the assessment of sexual satisfaction in sexually active and inactive women indicated statistically significant differences between the analyzed groups. Pregnant women who were not sexually active rated their sexual satisfaction lower (M=35.25, SD=7.71) than those who were sexually active (M=39.50, SD=6.19). The complete analysis is shown in Table 3.

Additionally, a comparative analysis also involved the statements of the respondents concerning their subjective assessment of contentment associated with their activity and sexual satisfaction from before and during pregnancy (Table 4). The non-parametric Wilcoxon analyses were statistically significant. The declared contentment associated with one's own sexual activity before pregnancy was higher (Mrangl = 44.69) than at the time of the study (pregnancy) (Mrangl = 39.00). The differences between one's sexual satisfaction before and during pregnancy were also statistically significant (Mrangl = 46.94 and 16.21, respectively).

DISCUSSION

Sexuality in pregnancy depends on various biological, psychological and social factors. Most authors note that sexual activity and sexual satisfaction of women decline during pre-

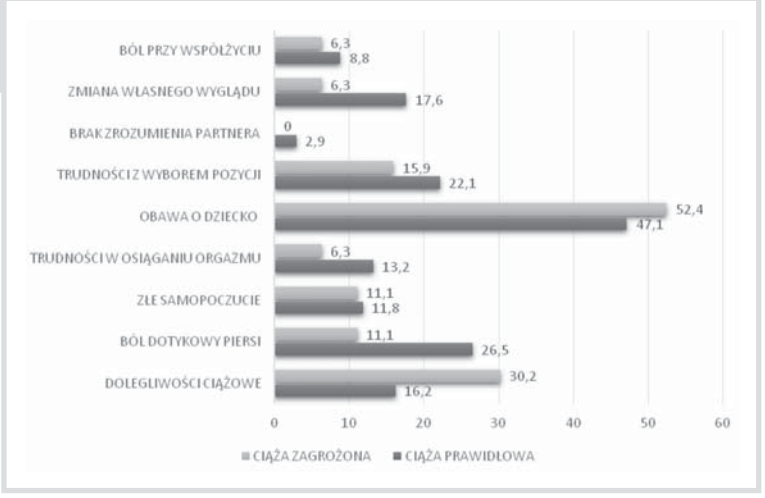

Fig. 2. Obstacles to sexual activity. A comparison of the low-risk and high-risk pregnancy groups

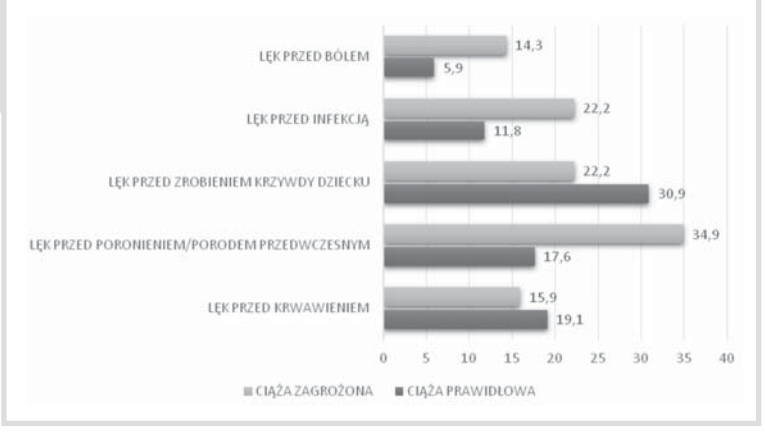

Fig. 3. Concerns associated with sexual activity. A comparison of the women with low-risk and high-risk pregnancies (%)

gnancy [25]. Similar conclusions are drawn from the present study. The analysis of the statements of the respondents shows a significant decline in contentment related with one's sexual activity and in sexual satisfaction during pregnancy compared to those perceived before pregnancy.

The analysis demonstrates that what differentiates the investigated groups in terms of sexual satisfaction is the fact of taking up or not taking up sexual activity. Pregnant women who did not take up sexual activity rated their sexual satisfaction as lower compared to women who were sexually active. These results are in line with those reported by other authors who have stated that sexual activity, the number of vaginal intercourse episodes and feeling of desire decline during pregnancy, which might translate into lower sexual satisfaction of pregnant women and women in the postnatal period [24–26]. Some of many reasons of deciding not to engage in sexual activity may be lower libido [10] as well as increased concerns about the child or about eliciting a potential miscarriage, premature labor or vaginal bleeding [15,20,25]. Our study shows that the respondents had similar concerns. When evaluating the role of psychological factors, authors emphasize that sexuality during pregnancy largely depends on the pregnant woman's own perception [21]. Another reason of not engaging in sexual activity may be the lack of knowledge about sex during pregnancy. The present study yielded an alarming conclusion that doctors not always discuss sex issues with their pregnant patients. These results are consistent with those of other authors who confirm that gynecologists too seldom talk with pregnant women about changes that they may expect in sexual life [3, 25]. The lack of knowledge may contribute to numerous concerns of both the mother and her partner, thereby preventing satisfactory sexual activity which helps to develop the feeling of closeness that is so much necessary for the future mother and her partner in this period.

The results of the present study also show that, even though there were certain significant differences in sexual activity between women with low-risk and high-risk pregnancies, there were no differences in sexual satisfaction between the two groups. What is the meaning of the results which state that fewer women with high-risk pregnancies are sexually active? These outcomes seem natural and can be explained with medical orders as the women from this group were more frequently recommended sexual abstinence. This explanation, however, refers only to some of the respondents. The study reveals that a suggestion to decide not to engage in sexual activity was made to only slightly more than one-third of the women with

Tab. 2. Comparison of sexual satisfaction between women with low-risk pregnancy (LRP) and high-risk pregnancy (HRP)

VARIABLE	GROUP I LPR		GROUP II HRP		Student's T test	
	M	SD	M	SD	t	p
Sexual satisfaction	37,54	6,77	38,06	7,55	-0,413	0,680

*p < 0,05

Tab. 3. Comparison of sexual satisfaction between sexually active (SA) and sexually inactive (SI) women

VARIABLE	GROUP I AS		GROUP II NA		Student's T test	
	M	SD	M	SD	t	p
Sexual satisfaction	39,50	6,19	35,25	7,71	3,392	0,001

*p < 0,05

Tab. 4. Wilcoxon test. A comparison of contentment associated with one's own sexual activity before and during pregnancy

	Before pregnancy		Currently		*Test Z*	*p*
	Rank average	*Sum of ranks*	*Rank average*	*Sum of ranks*		
How do you assess your sexual satisfaction?	46,94	3802,50	16,21	113,50	-7,727	0,001
How do you assess your sexual activity?	44,69	3799,00	39,00	117,00	- 7,739	0,001

high-risk pregnancies, while much more of them (almost a half) decided not to be sexually active. It is therefore probable that there were also other reasons, more psychological, which affected this decision. The results are in line with those of other researchers. In foreign studies, a considerable majority of pregnant women declared satisfaction from the emotional bond with their partners and contentment related with their sexual life [21]. These results should be viewed rather optimistically as difficulties associated with high-risk pregnancy do not deteriorate the quality of the intimate life in the opinion of women themselves. When interpreting the obtained results, it must be highlighted that pregnant women (both with physiological and high-risk pregnancies) can draw satisfaction regardless of whether or not they experience an orgasm. The Basson's model indicates that an orgasm is not crucial to provide satisfaction to women [8]. The specificity of female sexual function is quite complex, which is confirmed by women's sexuality during pregnancy. Satisfaction of women may also result from the fulfilment of the need for closeness with the partner, which is not always sexual. The phenomenon of female sexual satisfaction is multidimensional and complex. That is why one cannot expect simple associations between desire, sexual activity of women and their satisfaction from this sphere of life.

Reliable knowledge on sexuality during pregnancy may contribute to the reduction of concerns and anxiety associated with sexual activity. Complete understanding of changes occurring in the sexual sphere during pregnancy may reduce anxiety and change stereotypical convictions, thereby leading to greater acceptance of sexual activity and bringing satisfaction in this sphere of functioning [3]. It seems that there is a need for a simple screening procedure to be used in medical practice in order to promptly help to find out problems associated with the assessment of a pregnant woman's sexual life. This screening procedure could be a part of the medical assessment of a patient. Plouffe indicates the value of a simple and short questionnaire that can help reach the problems and fears of patients [22]. This questionnaire consists of 3 following questions: (1) *Are you sexually active?*; (2) *Do you have any problems in this area?*; (3) *Do you feel any pain during intercourse?*. A short screening procedure would be certainly helpful to distinguish pregnant women with problems in the sphere of sexual health [23].

CONCLUSIONS

1. Contentment associated with undertaken sexual activity and sexual satisfaction decline during pregnancy compared to those perceived before pregnancy.
2. Pregnant women remain sexually active, but the course of pregnancy affects their sexual activity. Women with high-risk pregnancies more often abstain from sexual activity, which cannot always be explained with medical orders.
3. High-risk pregnancy has no influence on perceived sexual satisfaction of women despite the differences noted in sexual activity between the high-risk and low-risk pregnancy groups. This could mean that there are certain compensating factors.
4. Women with physiological and high-risk pregnancies enumerate a range of obstacles to sexual activity. They usually mention fear about the child and difficulty with the choice of a position. Women should receive education in this regard.
5. Doctors should provide their patients with information about sexual activity and its influence on the course of pregnancy.

REFERENCES

1. **Rosen CR, Bachman GA**. Sexual Well-Being, Happiness, and Satisfaction, in Women: The Case for New Conceptual Paradigm. *J Sex Marital Ther* 2008;34:291-297.
2. **Nomejko A, Dolińska-Zygmunt G, Zdrojewicz Z.** Poczucie jakości życia a satysfakcja z życia seksualnego – badania własne. *Seksuol Pol* 2012;10(2):54-60.
3. **Makara-Studzińska M, Wdowiak A, Plewik I et al**. Seksualność kobiet w ciąży. *Seksuol Pol* 2011;9(2): 85-90.
4. **Makara-Studzińska M, Wdowiak A, Plewik I et al.** Wpływ aktywności seksualnej kobiet w ciąży na stan zdrowia noworodka. *Seksuol Pol* 2011;9(2):57-63.
5. **Sieber S, Germann N, Barbir A et al.** Emotional well-being and predictors of birth-anxiety, self-efficacy, and psychosocial adaptation in healthy pregnant women. *Acta Obstet Gynecol* 2006;85:1200-1207.
6. **Janicka I.** Staż wspólnego życia a satysfakcja seksualna partnerów kohabitujących. *Psychologia Rozwojowa* 2008; 4:37-48.
7. **Skrzypulec V, Nowosielski K**. Cykl reakcji seksualnej u kobiety. *Ginekol Pol* 2009;80:440-444.
8. **Basson R.** The Female Sexual Response: A Different Model. *J Sex Marital Ther* 2000;26:51-65.
9. **Meston C, Trapnell P.** Development and validation of a five-factor sexual satisfaction and distress scale for women: The Sexual Satisfaction Scale for Women (SSS-W). *J Sex Med* 2005;2:66–81.
10. **De Judicibus MA, McCabe M.** Psychological factors and the sexuality of pregnant and postpartum women, *J Sex Res* 2002,39(2):94-103.
11. **Malarewicz A, Szymkiewicz J, Rogala J.** Sexuality of pregnant women. *Ginekol P*ol. 2006;77(9):733-9.
12. **Syty K, Łepecka-Klusek C, Pilewska-Kozak AB et al.** The influence on sexual satisfaction among women. *Wiad Lek* 2012;65(3):157-161.

13. **Barclay LM, McDonald P, O'Loughlin JA.** Sexuality and pregnancy. An interview study. *Aust N Z J Obstet Gynaecol.* 1994;34(1):1-7.
14. **Byrd JE, Hyde JS, De Lamater JD et al.** Sexuality during pregnancy and the year postpartum. *J Fam Pract.* 1998; 47(4):305-8.
15. **Sipiński A, Kazimierczak M, Buchacz P et al.** Sexual behaviors of pregnant women. *Wiad. Lek* 2004; 57 Suppl 1: 281-4.
16. **Bielawska-Batorowicz E.** Psychologiczne aspekty prokreacji. Wydawnictwo Śląsk: Katowice 2006.
17. **Szymona-Pałkowska K.** Psychologiczna analiza doświadczeń rodziców w sytuacji ciąży wysokiego ryzyka. Towarzystwo Naukowe Katolickiego Uniwersytetu Lubelskiego, Lublin: 2005.
18. Rocznik Demograficzny 2012, GUS, Warszawa 2012; źródło: http://www.stat.gov.pl/cps/rde/xbcr/gus/rs_rocznik_demograficzny_2012.pdf. Dostępny: 15.03.2018.
19. **Chodkiewicz J.** Adaptacja polska Kwestionariusza Zadowolenia z Życia (FLZ). *Stud Psychol* 2009;47:5-21.
20. **Stadnicka G, Iwanowicz-Palus G.** Psychoseksualne aspekty życia dojrzałej kobiety. [w:] Psychologia w położnictwie i ginekologii. Makara-Studzińska M, Iwanowicz-Palus G (red.). Wydawnictwo Lekarskie PZWL, Warszawa 2009: 122-137.
21. **Naldoni LMV, Pazmino MAV, Pezzan PAO et al**. Evaluation of sexual function in Brazilian pregnant women. *J Sex Marital Ther* 2011;37:116-129.
22. **Plouffe I**. Screening for sexual problems through a Simple questionnaire. *Am J Obstet Gynecol*, 1985;151(2):166-9.
23. **Lamont J et al.** Female sexual health consensus clinical guidelines. *J Obstet Gynaecol Can*, 2012;34(8):1-56.
24. **Gökyildiz S, Beji NK.** The effects of pregnancy on sexual life. *J Sex Marital Ther*. 2005;31(3):201-15.
25. **Bartellas E, Crane JMG, Daley M et al**. Sexuality and sexual activity in pregnancy, *BJOG,* 2000;107:964-968.