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Female sexual functioning during pregnancy

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ABSTRACT

Sexuality is a fundamental, biological function of every human body, regardless of age, gender or race. However, the need for intimacy, closeness and sexual activity changes over time; it is influenced by the age, experience, physical and health condition. Sex is also one of the most important domains of the quality of life (QoL). However, this topic is still uneasy and rarely discussed, even though female sexual dysfunction (FSD) is a common problem, which affects 20% to 50% of women. Moreover, women experience processes that do not affect men, such as menstruation, pregnancy and menopause. In this review we focused on pregnancy, since sexual life of pregnant women alters during pregnancy due to the physiological, anatomical and hormonal changes in her body. Nonetheless, woman can keep having sex during a physiological pregnancy, but this issue is rarely addressed by physicians-gynecologists. Therefore, the aim of this manuscript was to discuss female sexuality during pregnancy.

Keywords: pregnancy; sexual functions; female sexual dysfunction

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INTRODUCTION

Sexuality is defined as "a basic necessary instinct needed to survive and to continue human species" [1]. Female sexual dysfunction (FSD) is a common healthy issue affecting from 20% to 50% of women and its prevalence increases with with age [2, 3]. Pregnancy is a state of carrying a developing embryo or fetus within the female body. This changes her anatomy, physiology, hormonal and emotional state altering sexual life of pregnant woman during pregnancy [4]. Although majority (86–100%) of couples declare they are sexually active during pregnancy period, majority of pregnant women feel the deterioration of their sexual life [5]. They experience decreased sexual intercourse and sexual desires during pregnancy that negatively affect their mood and well-being [6]. Whereas sexual health is one of the most important domains of the quality of life (QoL), sexual dysfunction (SD) is a serious problem [7]. Unfortunately, this issue is still uneasy and rarely discussed, as well as undervalued by the physicians-gynecologists who rarely address this problem. However, in order to better understand the needs of patients, and thus optimize the care for a pregnant woman, holistic approach in gynecological management is crucial. Even more so, that reduction of sexual activities during pregnancy very often results from fears and superstitions related to the potential risks to the health of the mother and child [8]. The most common ones are bleeding, induction of pre-term labor, infection, fetal damage, and the rupture of membranes [9].

Therefore, the aim of this review is to discuss sexual problems during pregnancy.

IMPACT OF PREGNANCY ON FEMALE SEXUAL FUNCTIONING

Female sexual functioning changes with the progression of her pregnancy. During the first trimester the female body must adapt to neurohormonal changes responsible for inducing drowsiness, mood swings, fatigue, nausea and vomiting, breast enlargement and tenderness, increased frequency of urination, abdominal bloating, shortness of breath and low back pain. These symptoms tend to develop abruptly as early as in 5–8 weeks of gestation and occur daily [10]. Such state has a clear negative impact on female's sexual desire and her QoL during preagnacy.

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First trimester is also the time of the greatest fluctuations in the frequency of sexual intercourse:

from normal pre-pregnancy activity to complete discontinuation of sexual contacts. In the study by Fok et al. [9], more than one-third of women stopped vaginal intercourse during pregnancy most probably because of the fear it may cause miscarriage, premature labor, or fetal damage [9]. Although there is no clear evidance of the negative impact of sexual activity during the first trimester bleeding, pregnant woman tends to avoid sexual intercourses and they are advised to do so by their physicians-gynecologists [11, 12].

On the other hand, Corbaciolgu et al. discovered a very interesting fact that women who were aware of their pregnancy had a significantly lower frequency of sexual intercourse than those who were unaware of their pregnancy in early gestation [13]. This observation may suggest that during pregnancy woman's sexual needs do not decrease but pregnant women may voluntarily resign from sexual intercourse because of the fears concerning both their and their child's health.

In the second trimester of pregnancy sexual intercourse are usually more frequent and of better quality compared to those during the 1st trimester [10, 14]. This may be explained by greater interest in sexuality and reduction in the physical symptoms of pregnancy, which makes woman feel better [15]. Due to the vascular changes in the vagina and vulva, satisfaction may be even greater than before pregnancy [16].

The last third trimester is the time of the lowest libido and lowest frequency of sexual compared with the previous trimesters of pregnancy [17]. Because of the fear of inducing labor or harming the child, many couples decide to stop sexual activity. Moreover, the changes in woman's body shape and in her anatomy may make it difficult to perform sexual intercourse.

However, sexual activity in late pregnancy is not associated with an increased risk of neither severe complications such as: low birthwaight, premature rupture of membranes or perinatal death, nor preterm birth [18, 19]. Sexual abstinence also has no clear role in prevention of prematurity [20].

This hypothesis is still controversial and needs further studies. Semen's prostaglandins released during orgasm can, in theory, increase activity of myometrial muscles [21].

On the other hand threatened preterm defined as the progression of cervical dilatation and ripening caused by regular uterine contractions occurring before 37 weeks of pregnancy is a serios perinatal complication. In this case restriction of sexual activity is routinely recommended, because of its still theoretical risk of inducing urterine contractions. However, data on that theory are contradictory and no firm conclusion can be drawn [22, 23].

Sexual activity that may lead to orgasm should be completely avoided in patients with placenta previa because of previously mentiond induction of uterine contractions, which in turn may provoke bleeding [24]. Additionally, insertion of penis or other„object" into the vagina may cause direct disruption of placental attachment to uterine wall. This recomendations are also not supported by objective published studies but extrapolated from observations that gynaecologivcal examination can often cause serious bleeding from placenta previa. Avoidance of sexual intercourse is also recommended for patients with preterm prelabor rupture of membranes [24]. As long as it is comfortable, most sexual positions are allowed during pregnancy as well as oral sex.

FEMALE SEXUAL DYSFUNCTION DURING PREGNANCY

Aydin et al. [25] in their study comparing sexual functions of pregnant and non-pregnant women demonstrated that SD was experienced by 91.08% of pregnant women and 67.61% of control subjects. Their results show higher rates compared to other published reports; Bartellas et al. [26] for *e.g.*, found SD in 49% of pregnant women. The authors explained their findings by cultural habits — Turkish womens' attitude to abstain from sexual activities in their entire life may be caused by the general tendency taught by parents. Nonetheless, the rates show that the problem is relevant.

The authors also analyzed various parameters influencing sexual function in pregnant and non-pregnant women, and they found that trimester, gravidity, parity, and abortion were those domains that influenced sexuality most in different ways. Also, physiological and psychological changes experienced by a woman during pregnancy period had impact on her sexual life [18].

Additionally, Brazilian team demonstrated that the factors associated with SD were young age of pregnancy, low income and the type of health service (private vs public one) [27]. This finding is very important since physicians must bear in mind that economic and social situation of their patients have equal influence on their health condition as physical and physiological factors.

Khalesi et al. [28] performed a study to assess the effect of pregnancy on sexual function of couples, and they demonstrated that sexual interest in pregnant women was decreased in the first trimester, increased in the second trimester and decreased at the end of the third trimester but in male it was either variable or decreased. Similar observation had Daid et al. [29]. In their study there was a significant difference in the incidence of difficulties in desire, arousal, lubrication, satisfaction and pain between first and second

trimester combined, as compared to the third trimester of pregnancy [29].

Erol et al. [30] assessed sexual function scores and androgen blood levels of women during pregnancy. The authors observed lower sexual activity during the third trimester compared with the first two trimesters of pregnancy, although it was not associated with lower androgen levels.

These data are consistent with other authors' observations [31, 32].

A Turkish team studied effects of pregnancy on sexuality, and they reported that dyspareunia was common in this group and pregnancy had a negative impact on orgasmic quality. Both influenced coital frequency, which declined as the month of the pregnancy increased [33]. This outcome confirms observation that FSD during pregnancy is a relevant problem, and third trimester is the time of the lowest frequency of sexual activity [15].

While evidence show that sexual wellbeing is important for a better QoL, women with SD feel problems in self-esteem and emotional distress [34].

Moreover, pregnancy is a condition which has an important impact not only on woman's QoL, but also on the sexual relationship between the couples [35]. Sexual function for any couple is determined by several different psychological, cultural, ethical, sociological, organic, and neurological factors [36].

Discomfort of pregnancy can affect the satisfaction of both men and women [37]. Inability to satisfy partner's sexual expectation is usually thought-out as a faintness and leads to decrease in self-esteem and well-being [38]. However, data also demonstrate that partners with low educational level and women who experienced preconceptional SD have a higher risk of developing/experience SD during pregnancy [39]. Thus, pregnant women and their partners need professional counseling about healthy sexual functioning in pregnancy. Proper communication and education are crucial.

SEXUAL HEALTH DURING POSTPARTUM PERIOD

Data show that only 12–14% of couples deny sexual problems after the childbirth [40].

According to the literature, the most common disorder after delivery appears to be that of sexual pain as a consequence of perineal trauma [41].

The extent of a birth injury is the main postpartum risk factor for dyspareunia. Breastfeeding is associated with low vaginal intercourse, as well as low sexual desires and satisfaction, not only of women, but also their partners. During this period, females more often suffer from dyspareunia, and thus postpone returning to sexual activity. Moreover, episiotomy is associated with a higher prevalence of a postpartum dyspareunia [42].

A Turkish study examined the relation between females' sexual functions before conception, during pregnancy and the postpartum period. The authors observed that sexual life during pregnancy and the postpartum period correlated with prepregnancy sexuality. There was no relation between pregnancy and postpartum sexuality. All of the participants who had SD before conception continued to experience it during pregnancy, and the majority of them had a significant level of SD during postpartum period [43]. Theses results show that sexuality before conception plays an important role in maintaining sexuality during pregnancy and the postpartum period.

In a Tunisian study to evaluate sexual functions of women in postpartum using questionnaire, the authors identified relevant SD faced by the respondents. In their study the average time to re-start sex after delivery was nine weeks. In postpartum, a change in sexual behavior and lower frequency of sexual intercourse were observed in 73% of cases. Some factors such as instrumental vaginal delivery, breastfeeding, body image disturbances (37%), fatigue (24%) and lack of availability (60%) influenced the resumption of sexuality. The major SD reported during postpartum included desire disorders (31%), altered vaginal lubrication (31%), painful intercourse (14%) and decreased sexual satisfaction (33%) [44].

Serati et al. [45] have reviewed the articles on sexual function during pregnancy and after childbirth, published from 1960 up to date. The authors found that sexual function significantly declined during pregnancy, particularly in the third trimester and this persisted for 3–6 months following delivery. The lack of adequate information and education about sexual functioning in pregnancy and concerns about the possible fetus damage were the most relevant factors responsible for the decline/resignation from sexual intercourse during pregnancy. Breast-feeding, dyspareunia, and postpartum pelvic floor dysfunction were the causes for the delay in resuming sexual activity after childbirth [45].

Byrd at al. [46] conducted a study on couples' sexual behavior during pregnancy and postpartum period. They reported that approximately 90% of couples engaged in sexual intercourse at first and third trimester and during postpartum, but only approximately 19% did it at the second trimester.

On average, couples resumed intercourse at seven weeks postpartum which is also the time of the first postpartum gynecological check-up visit. The role of physician-gynecologist is to advise patient to resume sexual activity when she feels comfortable and experience no pain or fatigue. Breastfeeding women had significantly less sexual intercourses

and were less satisfied with their sexual life than those who were not. The way of delivery did not impact sexual functions in a very different way, however women who were delivered by cesarean section resumed vaginal intercourse earlier than those who gave birth vaginally [46].

CONCLUSIONS

Sexuality is an important function of human's life and in couple relationship, with a great impact on QoL. Female sexual functioning is affected during pregnancy and postpartum period with a relatively high prevalence of SD, especially in the first and third trimesters and after delivery. Education, preconceptional sexual functions and adequate counseling about sexuality during pregnancy may help to reduce concerns, fears and the rate of FSD.

Article information and declarations

Author contributions

E. Szymanska — contextualisation, writing, supervision; R. Kisielewski — data collection, draft preparation.

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Conflict of interest

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