SEXUAL BEHAVIOR DURING PREGNANCY: A DESCRIPTIVE CORRELATIONAL STUDY AMONG PREGNANT WOMEN

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ABSTRACT

This study investigated the extent of knowledge, beliefs, attitudes and behaviors on sexuality during pregnancy, and the relationship between the cited variables. The descriptive-correlational study was conducted on 170 pregnant women from the different barangays of Santa Rosa, Laguna, Philippines. A self-administered anonymous questionnaire divided into six sections and pertaining to the sexual knowledge, beliefs, attitudes, and behaviors of women during pregnancy were used. The level of knowledge of the respondents was below average, the impact of the beliefs related to sexuality during pregnancy was weak and the respondents in general had a quite positive attitude toward sexuality during pregnancy. Regarding sexual behavior, there was low sexual desire and a high practice of some non-coital behavior (kissing and cuddling). The mean of sexual intercourse was below average. Desire was correlated with attitude and gestational age; non-coital behavior was correlated with knowledge, attitude, age, and gestational age, while coital behavior was correlated to knowledge level only. Thus, women with a low level of knowledge on sexuality during pregnancy, and who apparently develop a negative attitude toward sexuality in pregnancy should get more attention during antenatal visits, though all pregnant women must be informed about sexuality during pregnancy.

Keywords: knowledge, beliefs, attitude, sexual behavior, pregnancy.

INTRODUCTION

Pregnancy is such a wonderful experience. It is wonderful in that the mother is willing to put aside her own interest for the health of her baby. It is the reason why the topic of sexual behavior during pregnancy is deemed an important topic in the 21st century. However, very few studies look at the behavioral modification that faces pregnant women as a great issue. Even the obstetrical books address the problem with a pair of tongs. It seems that sexual activity and pregnancy should not be put in the same bowl.

Hogan (as cited in Gokyildiz & Kizilkaya, 2005), defines pregnancy as a difficult period of life for women punctuated by physical and emotional changes that affect theirsexual lives. Those changes are generally thought to be associated with hormonal alterations that go with the evolution of pregnancy. There is no evidence however relating hormonal changes that occur in pregnancy to the sexual behavioral modification (Jurgense, 1985, as cited by Bitzer & Alder, 2000). It could therefore be non-hormonal factors that are more likely to provoke such changes in sexual behavior.

Many non-hormonal factors such as emotional, socio-economical, and cultural. Interestingly, the identity role of the woman, the fact of becoming a mother, the partner's reaction to pregnancy, and the woman's beliefs about sexuality are also included (Hogan as cited in Gokyidiz & Kizilkaya, 2005). In 1999, Von Sydow adds to the long list of factors influencing the women's sexual behavior during pregnancy, the misconceptions regarding the

benefits and harms of sexual activity. However, even nowadays, sexuality in pregnancy is hardly discuss during prenatal visits and some women may choose to avoid sex during pregnancy without discussing it with their health care provider (Lewis, 2006). It seems that sexuality during pregnancy is considered taboo nowadays and driven by myths, misconceptions, and misinformation (Read, 1999; Wong, Perry, Hockenberry, Lowdermilk, & Wilson, 2009). This study probed to investigate the extent of knowledge, beliefs, attitudes, and behavior regarding sexuality during pregnancy,and the relationship between the cited variables.

LITERATURE REVIEW

Knowledge on Sexuality during Pregnancy

As stated in the introduction, the first mistake made by health practitioners is to attribute the changes that pregnant women undergo, regarding sexual function during pregnancy, to the androgen level. Meanwhile, there are very limited studies correlating both. On the other hand, many studies have concluded that the sexual function in pregnancy is not associated with the androgen blood levels (Erol, Sanli, Korkmaz, Seyhan, Akman, & Kadioglu, 2007). If such mistake is avoided, thesexual needs of pregnant women and their partners could be met by giving them accurate information regarding sexuality in pregnancy (Murlagh, 2010).

Unfortunately, there is a tendency for health providers to presume that a pregnant woman does not need sexual advice especially when she does not feel comfortable having such discussion. Runeborg (2008) reminds that sexual education is not only for children and young people but it is important as well for all adults who still lack information or are engaged in new situations that require new kinds of knowledge. Pregnant women stick completely to Runeborg's statement when it is considered that even though for getting pregnant they needed a minimum of information about sexuality. Pregnancy is a new experience, which comes with a couple of physical and psychological changes that influence the body image and sexual behavior. Therefore, pregnant women need new information regarding those changes to be able tobettercope up. Also because it is a certitude that sexual problems during pregnancy may have a negative effect on marital bonds and may be an obstacle for the adaptation of women to this transient phase (Aslan, Aslan, Kızılyar, Ispahi, & Esen, 2005).

The lack of information that faces pregnant women regarding sexuality during pregnancy is documented in the literature. In Olusegun and Ireti's (2011) study, women were asked questions about what they know as guidelines for sexual intercourse in pregnancy. Of the total number, 0.5 % said it was not allowed under any circumstance while only 24.3 % knew that it was not allowed if there are certain complications. Of the total percentage 7.4% felt that it could be allowed occasionally, 30.9 % felt that it could not allowed in the first three months, while 2.7 % thought it could not allowed on the last month, and 39.4 % believed that it was not allowed anytime during pregnancy. They concluded that despite the relatively high level of education of the women studied, there was poor knowledge on the basic guidelines concerning sexual intercourse in pregnancy. More disturbing was the fact that this poor knowledge did not seem to improve with higher order pregnancies.

Beliefs on Sexuality during Pregnancy

Pregnant women experience various fears during pregnancy, including concerns about the baby's health, her husband's sexual interest, and her own body image (Taylor & Pernoll,

1991; Thorpe & Ling, 1992). Those fears, as stated above, concerning the baby's health and sexual intercourse are largely related to what the woman believes about her sexuality during pregnancy—what she can do and what she cannot do.

Murkoff and Mazel (2008) have listed not less than six fears related to the beliefs of pregnant women : the fear of causing a miscarriage, the fear that having an orgasm will stimulate miscarriage or early labor, the fear that the fetus is "watching" or "aware," the fear of "hitting" the baby on the head, the fear that sex will cause infection, and the belief that sex in late in pregnancy will cause premature labor. Moreover, pregnant women often fear that coitus would provoke abortion or that it would harm the fetus, thus, they feel it necessary to avoid sexual intercourse (Andrews, 1997), therefore, the fear of injuring the fetus in its first months of life may serve also to diminish interest in sexual activities (Lewis & Black, 2006). Lewis and Black (2006) further states that some women believe that sexual activity is acceptable only for the purpose of procreation. Once they are pregnant, procreation is no longer possible and these women may feel the sense of guilt engaging in sexual activity because it will not end with pregnancy.

It may seem incredible to go through all those beliefs, but what can be noticed here is that the main concern of the pregnant women is their baby. Some studies corroborate that assertion. Bartellas, Crane, Daley, Bennet, and Hutchens (2000) reported that 49% of women worry at some point that sexual intercourse may harm the pregnancy. Most of the pregnant women studied by Fok, Chan, and Yuen (2005) were concerned about the possible adverse effects of sexual intercourse on the baby (82.9%). Their worries were principally bleeding (74.8%), labor (60.7%), infection (60.7%), rupture of membranes (54%), and fetal damage (71.8%). Finally, Adinma (1995) revealed that 30.2 percent of her respondents believed that sexual activity might cause abortion in early pregnancy. In all those cases, there was a significant decrease in women's sexuality. Having vaginal sex will not have a negative impact on pregnancy. However, many pregnant couples are hesitant to engage in sexual activities as pregnancy progresses for fear of hurting the child. That common misconception needs to be addressed more often and openly by health practitioners (Denoon, 2010, citing Goldstein).

Attitude towards Sexuality during Pregnancy

The problem of female sexuality during pregnancy is almost as old as the world because the human female is the only species that can boast to any sexual activity during pregnancy (Still, 1986). Freud (1936) had refuted brilliantly the claims of those who would differentiate the sexual and the reproductive functions in woman and treat them as if they could be separately studied (Ludovici, 1953).

More recently, premarital counseling and contraception were discussed in most gyneco-obstetrical books, but rarely, was mentioned the issueon sexuality during pregnancy and the post-partum period. It was because of the lack of reliable studies published that provided factual data on the subject. Such lack reflected, too, the attitude of the society towards sexuality and its difficulty in accepting that pregnant women have sexual needs (Still, 1986). Nowadays, there are certainly more materials being published regarding sexuality during pregnancy. Nonetheless, still the general attitude regarding pregnant women's sexuality remains the same and this seems to affect their own attitude toward sexuality.

Some literature do not present pregnant women as directly linked with the negative attitude toward sexuality during pregnancy, but more often the attitude of those pregnant women is

driven by their beliefs about the potential harm on their unborn baby (Uwapusitanon & Choobun, 2004). This is even supported by Ijzen and Fishbein's theory which stipulates that belief determines one's attitude on a given behavior, so the "person's attitude toward a behavior can be predicted by multiplying the evaluation of each of the behavior's consequences by the strength of the belief" (McEwen & Wills, 2011, p. 293). Other factors such as the lack of knowledge, anger, and fear are presented as facilitators in the rise of a negative attitude toward sexuality during pregnancy among pregnant women (Brown, Bradford, & Ling, 2008). Some women do not think that sexual intercourse during pregnancy is a necessity. They are having hard time finding a concrete and meaningful reason for having sex during pregnancy. Even though over 65 percent of Naim and Buttho's (2000) respondents found sexual activity gratifying, over 40 percent did agree that the purpose of sexual activity during pregnancy is just to fulfill the marital obligations, therefore the partner is mostly the initiator of sexual activity during pregnancy (44% for the partners only and only 0.7% for the pregnant women only).

A positive attitude regarding sexuality during pregnancy is also noted in the literature. Adinma (1995, 1996) concludes that the attitude toward sexuality among African women during pregnancy and after childbirth is positive. She recommends therefore to consider the positive attitude in the overall management of sexuality in the pregnant African woman. Still in Nigeria, Bello, Olayemi, Aimakhy, and Adekunle (2011) concluded that their respondents had a positive attitude towards sexuality during pregnancy and indicated an interest in discussing sexuality with their caregivers. In Asia during the same period of Adinma's study, Al Bustan, El Tomi, Faiwalla, and Manav (1995) in their study of "Maternal sexuality during pregnancy and after child birth" on Muslim Kuwaiti women demonstrated that a positive attitude toward sexuality in pregnancy has a positive impact on sexual behavior during pregnancy too.

Sexual Behavior during Pregnancy

Fluctuations in sexual desire are effectively normal during pregnancy. Most women admit that their libido change at least to some degree in pregnancy and according to Pillitteri (2008) sexual desire is largely influenced by the estrogen level and the mother's beliefs. In addition, the researchers agree that sexual desire is the factor least affected during pregnancy. It is even known to be higher than pre-pregnancy at certain gestational ages. Allen and Fountain (2007b) call on the health-care providers and the childbirth educators to validate that increase in sexual desire within the range of normalcy and to encourage women to explore non-coital means of intimacy with their partners, including cuddling, fondling, or masturbation to maintain closeness and relieve sexual tension.

There is panoply of non-coital activity: caressing, kissing, cuddling, fondling, massaging, sucking, oral sex, masturbation, and many others gesture of showing love and tenderness (Allen & Fountain, 2007b; Orshan, 2008; Pilliteri, 2010). Concerning women throughout their lifespan, non-coital behaviors are as important as coital activity and can be more important by the time of pregnancy because of the discomfort brought by the woman's state. However, pregnancy is known to lead to a decrease on both coital and non-coital behaviors (Atputharajah, 1987).

According to Main, Grisso, Snyder, Chiu, and Holmes (1993) Hippocrates had conferred to sexual intercourse the power to lead to abortion. Some traditions, such as those held by the British strongly dissuade sexual intercourse during pregnancy (Nicolson, 1990). The cultural

prescriptions generally affect the women's response regarding sexual intercourse during pregnancy. However, researchers have not found that coitus is contraindicated during pregnancy in a healthy pregnant woman (Wong et al., 2009). In addition, even the Bible, as conservative as it is known, does not advice against sexual intercourse during pregnancy.

Sexual intercourse can be prohibited during pregnancy in case of vaginal bleeding, placentae preavia, premature dilatation of the cervix, premature rupture of the membrane (PROM), history of premature delivery, multiple pregnancy, engaged fetal head, and the presence of infection (Murkoff, 2008; Orshan, 2008; Wong et al., 2009; and Ricci, 2009). The potential physical effects of the sexual activity during pregnancy then must be discussed with the health care practitioner. The pregnant woman and her partner cannot decide to stop sexual intercourse without consulting the health care provider since other options as non-coital behavior may be explored (Andrews, 2005).

METHODOLOGY

A descriptive-correlational study was used to define the knowledge, beliefs, attitudes, and behavior of pregnant women regarding sexuality during pregnancy and the relationship between these variables. The descriptive design was utilized to describe the general characteristics of the respondents in terms of the level of knowledge, beliefs, attitudes, and behavior regarding sexuality during pregnancy. The result of the personal characteristics (age, parity, gestational age, and educational attainment) was also part of the descriptive design. Correlational design, was used to determine if there was a significant relationship between knowledge, beliefs, attitudes and sexual behaviors during pregnancy.

Participants were purposively sampled from women consulted from December 2011 to January 2012 at different health centers of Santa Rosacity,in the province of Laguna.Women were eligible for this study if they are at the time of the study (a) between 15 and 49 years of age, (b) diagnosed as pregnant for at least 5 weeks, (c) able to read and write in Tagalog or English, (d) married or had a partner, and (e) have no sexual function disability and other severe pregnancy complications. A self-constructed questionnaire was used to collect data on sexual knowledge, belief, attitude, and behavior during pregnancy.

The pilot study that followed the expert's validation served test of reliability to certify the accuracy of the instrument. Except the question pertaining to knowledge, all the questions were measured using a four point linkert scale. The data was gathered the whole month of December 2011 through the first week of January 2012. Around 250 questionnaires were returned, but just 170 were useful. To respect the confidentiality, there was no name in the questionnaire. Moreover, the respondents were informed verbally by the midwives of the purpose of the study.Only those who agreed had been taken as participants. Descriptive and inference statistics were applied to analyze the data using SPSS.

RESULTS

The range of age among the 170 respondents, was between 15 and 48 years old; majority of the respondents were 20-29 years old. Regarding parity, 44 respondents (25.4%) were in their second pregnancy. The respondents on their third and fourth pregnancy were 41 (24.1%).The first trimester had the highest number of respondents at 35.5%. Finally there were 102 respondents (60%) who finished high school or were high school graduates.

The computation of the central tendency revealed the level of knowledge, the extent of beliefs on sexuality during pregnancy, and the attitude toward sexuality during pregnancy among the respondents (see Table 1). Concerning the level of knowledge the classification in Table 1 recorded a grand mean score result of M = 11.91 and a standard deviation of 4.05 which revealed a level of knowledge below average. Regarding the extent of beliefs in relation to sexuality during pregnancy, the overall mean score M = 2.72 of the respondents' beliefs, fall into the category high mean score, which means that the impact of the beliefs regarding sexuality during pregnancy was weak among respondents. However, three questions revealed specifically some of the concern of the respondents were those with the lowest mean scores. These questions got the lowest mean score and they were: "*sexual intercourse in the third trimester facilitate labor* (M = 2.40)," *sexual intercourse in early pregnancy may lead to miscarriage* (M = 2.52), *the baby can feel us when we make love* (M = 2.55).

Table 1
Measure of Central Tendency for knowledge, Beliefs and Attitudes

Statements	**Mean**	**Std deviation**	**Verbal interpretation**
Level of knowledge	11.91	4.05	Below average
Extent of beliefs	2.72	0.92	Weak
Attitude toward sexuality in pregnancy	2.66	0.45	Quite positive

Note. The mean scores of the respondents is categorized as follow: 3.50-4.0=very high,2.50-3.49=high, 1.50-2.49=low, 1.00-1.49=very low. A very high, high, low, and very low mean on beliefs is interpreted as a very weak, weak, strong, and very strong impact of beliefs regarding sexuality during pregnancy.

Sexual Behavior

The overall mean of M= 3.36, for sexual desire reveals that the sexual desire of the respondents was low. Moreover, the study revealed that with a mean score of 2.43, fear stands to be one of the main reasons given by pregnant women, which plays a role in their attitude toward sexuality in pregnancy.

Regarding the non-coital behavior, the following results were observed: 32.1 % acknowledged that they "*always*" practiced cuddling and 22.9 % of the respondents admitted doing such "*most of time*". A number of 93 respondents fell under those two categories. Cuddling was therefore the main non-coital behavior practiced among the respondents, followed by kissing (63 respondents falling under the categories "*always*" and "*most of times*"), while masturbation stands to be the less common non-coital behavior with up to 66.5% of the respondents who have never used it, followed by breast fondling. A total of 28 respondents were under the two cited categories. The overall mean of the non-coital behavior was M = 2.73, which was interpreted as an average practice of non-coital behavior.

Regarding the frequency of coital behavior (table 2), a number of 31 respondents (18.2%) stopped vaginal intercourse during pregnancy, while the highest score (28.2%) was felt on answer b "*once a month*," this was followed by 25.3% for the answer "*once a week*," and the lowest score (0.6%) fell under the category "*5 to 6 times a week.*" Finally, the mean score of the respondents was M = 2.90, which was interpreted as a low frequency of sexual intercourse. The results related to coital behavior are summarized in Table 2.

Table 2
Frequency of Coital Behavior

	Frequency	Percent
How often do you have sexual intercourse?		
Not at all	**31**	**18.2**
Once a month	**48**	**28.2**
Twice a month	24	14.1
Once a week	**43**	**25.3**
2-4 times a week	22	12.9
5-6 times a week	**1**	**0.6**
Others (When we are in need)	1	0.6

Note: Mean = 2.90, Std. Deviation = 1.38; Scale of the mean: 6.50-7.00 = extremely high, 5.50-6.49 = very high, 4.50-5.49 = high, 3.50-4.49 = average, 2.50-3.49 = low, 1.50-2.49 = very low, and 1.00-1.49 = extremely low

Correlation between the Variables

The p values of .001, .003, and .022 and the correlation coefficients r of .252, .227, and .176, respectively for sexual desire, non-coital behavior, and coital behavior revealed that there is a strong and significant relationship between the attitude towards sexuality during pregnancy and the sexual behavior during pregnancy. Precisely, the higher the attitude, the higher the sexual desire; the higher the attitude, the higher the practice of non-coital behavior; and the higher the attitude, the higher the frequency of coital behavior.

With a p values of .000 and .008; and correlation coefficients r of .285 and .204, respectively for non-coital and coital behavior, there was a modest but significant relationship between knowledge on sexuality during pregnancy and sexual behavior during pregnancy (Table 3). Specifically, the higher the level of knowledge, the higher the practice of non-coital behavior and the higher the knowledge, the greater the number of coital activity during pregnancy. With a correlation coefficient r = -.191 a relationship was found on a level of significance of 0.05 between the variables age and the non-coital behavior, while with r = -.202, gestational age was correlated with sexual desire (Table 4). There were two moderator variables that showed a weak but significant relationship with the maternal sexual behavior during pregnancy. It means that the younger the age, the higher the practice of non coital behavior, and the smaller the number of week, the higher the sexual desire.

Table 3
Summary of the Correlation Analysis between Knowledge, Attitude, and Sexual behavior

	Sexual desire			Non-coital behavior			Coital behavior		
	r	p-value	Interpre-tation	r	p-value	Interpre-tation	r	p-value	Interpre-tation
Attitude	0.252	0.001	Signifi-cant	0.227	0.003	Signifi-cant	0.176	0.022	Signifi-cant
Knowledge	0.290	0.167	NS	0.285	0.000	Signifi-cant	0.204	0.008	Signifi-cant

Table 4
Correlation Analysis Results Between the Personal Characteristics and Sexual Behavior during Pregnancy

	Sexual desire			Non-coital behavior			Coital behavior		
	r	p-value	Interpre-tation	r	p-value	Interpret a-tion	r	p-value	Interpre-tation
Age	-0.061	0.430	NS	-0.191*	0.024	significant	0.100	0.196	NS
Parity	-0.010	0.893	NS	0.100	0.197	NS	0.090	0.241	NS
Gestatio-nal age	0.009	-.202*	significant	0.119	0.128	NS	-0.05	0.518	NS
Educatio-nal attainment	-0.044	0.573	NS	-0.083	0.280	NS	0.070	0.363	NS

NS: not significant; *refer to the significant coefficient

Predictors of Maternal Sexual Behavior During pregnancy

Respondent attitude and gestational age were the two factors that explained the variation in sexual desire during pregnancy. Precisely, the study revealed that respondents with a positive attitude (b = .240) had experienced higher sexual desire during pregnancy than those with negative attitude which had a lower libidos. While concerning gestational age (b= -.239), higher stages predict a lower libido.

The practice of non-coital behavior showed to be affected by the level of respondents' knowledge, the respondents age, their attitude toward sexuality during pregnancy, and the gestational age. Meaning, the higher the knowledge level, the more the practice of non-coital behavior; the younger the age, the more the practice of non-coital behavior; a positive attitude is associated with a high practice of non-coital behavior, while the higher the gestational age, the lower the practice of non coital behavior. Finally, knowledge was the only factor associated with sexual intercourse during pregnancy. The variable knowledge has yielded a standardized coefficient b of 0.228, which means thatthe higher the level of knowledge, the greater the frequency of coital behavior among the respondents and vice-versa (Table 5 present these results).

Table 5
Predictors of Maternal sexual behavior

	R^2	Adjusted R^2	b	F	p
Attitude[1]	0.058	0.052	0.240	7.049	0.002
Gestational age[1]	0.057	0.050	-0.239	10.355	0.002
Knowledge[2]	0.090	0.085	0.264	15.981	0.001
Age[2]	0.031	0.110	-0.189	5.606	0.012
Attitude[2]	0.027	0.132	0.174	4.967	0.022
Gestational age[2]	0.022	0.149	-0.151	4.272	0.040
Knowledge[3]	0.052	0.046	0.228	8.739	0.004

Note. 1. Predictors of sexual desire, 2. Predictors of non-coital behavior, 3. Predictors of coital behavior

DISCUSSION

Almost 100 % of the pregnant women in the Philippines attend prenatal checkup, but Lavado, Lagrada, Ulep, and Tan (2010) pointed out that despite the high prenatal care coverage among Filipino pregnant women, the infant and maternal mortality remains to be a big issue. They conclude that the quality of care should be the main indicator rather than the quantity for evaluating maternal health. Lack of the information regarding sexuality during pregnancy seems logically affected by the quality of cares, or the quality of health talk in the Philippines. Therefore, the below average level of knowledge revealed among the respondents of this study can be attributed to the lack of systematic discussions on sexuality during pregnancy.

This study does not escape that fact and follows similar results from many previous studies. Naim and Bhutto (2000) and Bello et al. (2011)with respectively 22.7 % and 14% of the respondents concerned with possible miscarriage cause by sexual activity. The respondents of Bartellas et al. (2000) and Fok et al. (2005) believe that sexual activity may harm the fetus. So, the large number of beliefs in relation to sexuality during pregnancy may be attributed to the possible harm it can cause on the fetus as concluded by Uwapusitanon and Choobun (2004). A windshield review of the literature in the Philippines would not yield answers on the belief that the scalp is dirtied by sexual intercourse and there is no supporting material on this. The beginning of such hearsay could have been transferred orally from one generation to another.

Some studies have demonstrated that beliefs had either positive or negative impacts on the outcome of the sexual activity during pregnancy (Naim & Bhutto, 2000; Bello et al., 2011). A weak impact can be justified by the fact that Filipino women in general do not share many beliefs regarding sexuality during pregnancy or the questions chosen may not fit the reality as perceived by the Filipinos. It might, therefore, be expected not to have a change in the respondents' sexuality if "belief" was the only variable that could affect the sexuality in pregnancy. Unfortunately, many other factors need to be considered.

Regarding the respondents attitudes, it is important to know that a positive attitude toward sexual activity during pregnancy has a positive impact on sexual behavior (Al Bustan et al., 1995). What matters therefore for the health provider is to foster "communication and a constructive attitude toward these normal functions of a woman's body" and this will "help to support a positive view of the most incredible, normal biological function that a woman has: birthing and nurturing a child from her own body (Allen & Fountain, 2007a, p. 35).

The result of sexual behavior during pregnancy among the respondents may lead to the conclusion that even though the pre-pregnancy frequency of the libido of the respondents is not known, it seems hard to think that those pregnant women during the time they do not bear any child have the same low libido. It therefore looks reasonable to conclude that there is a reduction of sexual desire among the pregnant women of Santa Rosa during pregnancy. The result of this study seems to corroborate the other findings of the previous research. In other words, the reduction of sexual desire is known in literature. Still (1986), Aslan et al. (2005), Fok et al. (2005), and Gokyildiz and Kizilkaya (2005) present similar results. In particular, the women in the study of Fok et al. (2005) experienced a decrease in sexual desire in 60 %

of the case. Worries about the possible negative outcome of the pregnancy were mainly the cause of that decrease. On the other hand, Bing and Colman (as cited in Still, 1986) presented the cases of some women who experienced an increase libido through their pregnancy. However, even in case of the evidence of inevitable changes in the sexuality during pregnancy, communication seems to play a very important role. So, "when a couple knows early in pregnancy that such changes may occur, they can be interpreted in the correct light (i.e. as a difference, not as loss of interest in the sexual partner)." Health teaching in this case should really be concentrated on the patient needs and concerns, and should provide all the answers that the client needs when they are requested (Pilliteri, 2008, p.94).

Unfortunately, though the literature on sexual behavior during pregnancy has been putting emphasis on enhancing the knowledge of pregnant women on their sexuality, especially in order to dispel the different myths and beliefs that surround the matter, there was no reported study correlating statistically the level of knowledge and the sexual practice during pregnancy. This study, therefore, brings to light relevant findings that support the importance of educating pregnant women in relation to their sexuality. To extend this, the need of giving more information definitely seems to be the key to helping develop a positive attitude toward sexuality during pregnancy and therefore ameliorates the sexuality of the couple during the childbearing period (Adinma, 1995; Allen & Fountain, 2007a; Bello et al., 2011).

CONCLUSION

In the past, the variability of sexual behavior in pregnancy was accounted to hormonal factors such as the diminution of androgen level (Erol, Sanli, & Korkmaz as cited by Brown et al., 2008). However, Hogan (as cited in Gokyidiz & Kizilkaya, 2005) and Von Sydow (1999) present many non-hormonal factors including: emotional, socio-economic and cultural, the mother's identity role, the fact of becoming a mother, the partner's reaction to pregnancy, and the woman's beliefs about sexuality, but also, the misconceptions regarding the benefits and harms of sexual activity. The list can be much longer and will certainly support the idea that various factors influence the couple's sexual behavior during pregnancy. This study' s unique contribution is that it shows statistically that two more factors—the attitude towards sexuality in pregnancy and the knowledge level of the pregnant women affect sexual behavior in pregnancy. This implies that the pregnant women with a limited knowledge on sexuality during pregnancy and who apparently develop a negative attitude toward sexuality during pregnancy, certainly related to the beliefs they hold on to the matter are less likely to engage in sexual activity.

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