Original Research Article

Sexual behaviour in pregnancy among antenatal women attending a secondary hospital in southern India

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ABSTRACT

Background: The objectives of our study were to estimate the prevalence of antenatal women who had ever experienced sexual activity (only genital sex) in the present pregnancy; to assess their knowledge and practice towards sexual activity and to identify the socio-demographic variables associated with abstinence of sexual activity during pregnancy.

Methods: This is a cross sectional study which included antenatal women, who visited the investigators for regular health check-ups and were asked to take part in the study after giving their consent.

Results: Eighty-seven (80%) out of 108 subjects responded to the question as to whether they ever had sexual intercourse (SI) during the current pregnancy. Overall prevalence of the Sexual Intercourse during pregnancy in our study was 54% (95%CI is 43.4-64.6%). Sixty nine (63.9%) women believed that sexual intercourse was safe in pregnancy. Out of the 69 women who believed sex is safe in pregnancy, majority (79.8%) reported that it widened the birth passage.

Conclusions: The present study finds that most of the women are not keen to discuss the topic of sexual behaviour even if confidentiality is maintained. Majority of the women in our study were willing to discuss with a doctor or husband if there is a sexual health related problem; whereas one fourth of the women would continue to bear such problems without discussing it with anyone. Sex during pregnancy is a topic which women are reluctant to discuss irrespective of their socio-economic and cultural background.

Keywords: Sexual behaviour, Antenatal period, South India

INTRODUCTION

The few months of pregnancy in a woman’s life is characterised by physical, hormonal and psychological changes. Sexual activity in pregnancy is varied and may be determined by various hormonal, cultural, social and economic factors. Women also undergo various health problems related to sexuality that need to be addressed with care.1,2 However, seeking health care for problems related to sexual activity is not common. This is because couples are not comfortable enough to discuss private issues openly, even with their physicians.1 This applies to a pregnant woman as well.1 In pregnancy, couples often avoid sex because of various perceived complications like increased chance of abortion, infection, pre-term labour and chance of haemorrhage.1,4 It is however difficult to find evidence to support this. Overall, sexual intercourse is safe in an uncomplicated pregnancy.5 Studies show a possible increased chance of urinary tract infections (UTI) and other sexually transmitted diseases (STD) in pregnancy if appropriate protection is not taken.6,7 Young Indian women often avoid sharing their
sexual problems due to various reasons such as lack of knowledge, shyness, lack of resources and so on. Many couples seek advice from unreliable sources or choose to ignore such problems. The objectives of our study were to estimate the prevalence of antenatal women who had ever experienced sexual activity (only genital sex) in the present pregnancy; to assess their knowledge and practice towards sexual activity and to identify the socio-demographic variables associated with abstinence of sexual activity during pregnancy.

METHODS

Study design: Cross sectional study.

Study duration: October, 2015 and November, 2015

Setting

The community health department of Christian Medical College (CMC) has been providing maternal and child health services to the residents of Kaniyambadi block, a rural development block in Vellore district, Tamil Nadu for the past 50 years. This includes a population of 1,14,000. (Health Management and Information System, 2015; CMC Vellore).

The study was conducted in the out-patient (OP) setting of Community Health and Development (CHAD) hospital which serves as a secondary care hospital catering to the needs of the block as well as surrounding areas. There are both OP and in-patient (IP) facility in the hospital for different health conditions. OP facility includes general as well as specialty clinics for conditions like maternal and child health, chronic diseases like diabetes and mental health etc. The important maternal health related services in the hospital includes normal and assisted delivery, Caesarean section and sound referral system to Christian Medical College (tertiary health care centre). In 2016, on average 300 ante-natal women presented in ANC clinic every week; whereas the average was 32 for high risk ANC clinics. Total 3264 deliveries took place in 2016.

Participants

Antenatal women, who visited the investigators in CHAD OPD for regular health check-ups, were asked to take part in the study after giving their consent. Women diagnosed to be pregnant by urine pregnancy test and were able to read and understand Tamil/ English, were eligible for the study. However, any condition where sexual intercourse was contraindicated in the subject, such as history of per vaginal bleeding, history of premature rupture of membrane, cervical encirclement operation, endometriosis with history of dyspareunia or metabolic condition like diabetes and hypothyroidism was excluded.

Tool: Self-administered pretested questionnaire in Tamil.

Sample size

Assuming that the prevalence of intercourse in pregnancy was 50%, we intended to interview 100 pregnant women considering relative precision as 20%.

Data collection and data entry

During the antenatal clinic, the authors approached their patients for taking part in the study after explaining the purpose of the study. The self-administered questionnaire was given to women who agreed to take part in the study. The questionnaire had two parts. First section was intended to collect socio-demographic variables and second section for knowledge and practice related to sexual intercourse (SI). The present study specifically looked for genital sex with the husband. Respecting local cultural sentiments, we did not ask for any other form of sexual activity such as oro-genital, anal-intercourse with the husband; nor any history related to homosexual activities or hetero sexual activity with person/s other than husband.

Statistical analysis

Data was entered in ‘Epidata version 3.0’ and analysed in SPSS version 20. All the counts were expressed as proportions. Bivariate and multivariate analyses were performed to look for associated risk factors. Significance level was fixed at \( \alpha = 0.05 \).

RESULTS

We approached 207 women to take part in the study. However, the final number of participants was 108, giving us a refusal rate of 47.6%. The socio demographic and pregnancy profile has been depicted in Table 1.

Eighty-seven (80%) out of 108 subjects responded to the question as to whether they ever had sexual intercourse (SI) during the current pregnancy. Among the 87 responders, 47 (54%) subjects experienced SI in the current pregnancy. Therefore, overall prevalence of the SI in our present study was 54% (95% CI is 43.4-64.6%). Table 2 describes the major reasons for complete abstinence from SI in different trimesters.

Condom use

Six out of 47 subjects, who had sexual activity in the present pregnancy, used condom at least once. This gives the prevalence of condom use in the current pregnancy as 12.8% (95% CI: 3.0-22.6%). The present study didn’t look for regularity of condom use.

Knowledge on safety of having sex in pregnancy

Sixty nine (63.9%) women believed that sexual intercourse was safe in pregnancy. However, 24 (22.2%) women did not think it to be safe and rest of the 15...
(13.9%) women were not sure about the safety. Out of the 69 women who believed sex is safe in pregnancy, majority (79.8%) reported that SI widened the birth passage.

Major source of information related to sexual activity has been depicted in Table 3.

To assess the willingness towards health care seeking, the participants were asked who they would discuss a sex related problem with Table 4.

We looked for the socio-demographic variables for predicting the possibility of abstinence from SI in pregnancy (Table 5). The non-responders were excluded during the logistic regression model. None of the predictors was significant in our study.

**Table 1: Socio demographic and present pregnancy profile.**

| Socio demographic characteristics | Frequency (%) |
|-----------------------------------|---------------|
| **Age (years)**                   |               |
| Mean (SD)                         | 24.2 (3.6)    |
| Range                             | 18-33         |
| **Duration of marriage (years)**  |               |
| Mean (SD)                         | 3.1 (2.6)     |
| Range                             | 1-13          |
| **Education of subject (%)**      |               |
| Primary (1-4th standard)          | 0 (0)         |
| Middle (5th-8th standard)         | 10 (9.3)      |
| Secondary (9th-12th standard)     | 51 (47.2)     |
| College level                     | 47 (43.5)     |
| **Education of husband**          |               |
| Primary (1-4th standard)          | 2 (1.9)       |
| Middle (5th-8th standard)         | 15 (13.9)     |
| Secondary (9th-12th standard)     | 47 (43.5)     |
| College level                     | 44 (40.7)     |
| **Occupation of the subject**     |               |
| Working outside home (%)          | 14 (13)       |
| Home maker (%)                    | 94 (87)       |
| **Per capita monthly income (INR)** |            |
| Mean (SD)                         | 3,175 (4,888) |
| Median                            | 1,750         |
| Range                             | 250-40,000    |
| **Gravida**                       |               |
| Primigravida                       | 52 (57.8)     |
| Multi gravida                     | 51 (47.2)     |
| **Gestational age**               |               |
| 1st trimester                     | 10 (9.3)      |
| 2nd trimester                     | 38 (35.2)     |
| 3rd trimester                     | 60 (55.6)     |

*Primigravida- First pregnancy; Multi gravida - if pregnant for 2 or more occasions irrespective of outcome; 1st trimester- <12 weeks; 2nd trimester- 12-28 weeks; 3rd trimester- >28 weeks.

Twenty-eight (25.9%) subjects had a plan to resume sex after delivery. The median duration after which they wanted to resume sex was 6 months (range 1-24 months). Rest of the 80 (74.1%) subjects didn’t have any such plan.

**Table 2: Reasons for abstinence in different trimesters.**

| Reasons for abstinence | Frequency (%) |
|------------------------|---------------|
| **Less privacy**       |               |
| 1st TM, n=53 (%)       | 6 (11.3)      |
| 2nd TM, n=36 (%)       | 4 (11.1)      |
| 3rd TM, n=23 (%)       | 2 (8.7)       |
| **Husband did not want** |              |
| 1st TM, n=26 (%)       | 1 (1.9)       |
| 2nd TM, n=14 (%)       | 0 (0)         |
| 3rd TM, n=12 (%)       | 1 (4.3)       |
| **Husband staying away** |               |
| 1st TM, n=24 (%)       | 24 (45.3)     |
| 2nd TM, n=16 (%)       | 16 (44.4)     |
| 3rd TM, n=12 (%)       | 12 (5.2)      |
| **Culturally not accepted** |             |
| 1st TM, n=4 (%)        | 4 (7.5)       |
| 2nd TM, n=1 (%)        | 1 (2.8)       |
| 3rd TM, n=0 (%)        | 0 (0)         |
| **Other reasons (not specified)** |         |
| 1st TM, n=18 (%)       | 18 (33.0)     |
| 2nd TM, n=14 (%)       | 14 (38.9)     |
| 3rd TM, n=7 (%)        | 7 (30.4)      |
| **Didn’t respond**     |               |
| 1st TM, n=0 (%)        | 0 (0)         |
| 2nd TM, n=1 (%)        | 1 (2.8)       |
| 3rd TM, n=1 (%)        | 1 (4.3)       |

*34 non-responders.

**Table 3: Source of information (n=74).**

| Source of information | Frequency (%) |
|-----------------------|---------------|
| Books                 | 2 (2.7)       |
| Doctor                | 1 (1.3)       |
| Friends               | 6 (8.1)       |
| Husband               | 46 (62.2)     |
| Magazines and internet| 3 (4.1)       |
| Mother                | 16 (21.6)     |

**Table 4: Preference of first contact person if there is a possible sex related problem (n=108).**

| With whom subjects want to discuss | Frequency (%) |
|-----------------------------------|---------------|
| Doctor                            | 26 (24.1)     |
| Husband                           | 51 (47.2)     |
| Mother                            | 4 (3.7)       |
| Others (not specified)            | 2 (1.9)       |
| None                              | 25 (23.1)     |

**DISCUSSION**

The present study finds that most of the women are not keen to discuss the topic of sexual behaviour even if confidentiality is maintained. However, the findings suggest that sexual activity is not uncommon in pregnancy as half of the respondents have experienced it in the current pregnancy. Nevertheless, there is always a chance that the respondents who hadn’t experienced it yet could still do so leaving us with 54% as an underestimation of the actual value.
Although we didn’t get a significant difference in prevalence in respect to three trimesters, previous studies from various parts of the globe have shown that sexual activity decreases with the increase of gestational age.10–12 This was due to various reasons but mostly due to fear of harm to the foetus. The present study, however, was not powered enough to detect this difference.

Table 5: Bivariate and multivariate analysis for abstinence of SI in pregnancy.

| Variables          | Frequency in abstinence group (%); n=40 | Unadjusted OR (95% CI) | Adjusted OR (95% CI) | P value for adjusted analysis |
|--------------------|----------------------------------------|-------------------------|-----------------------|-------------------------------|
| Subject age        |                                        |                         |                       |                               |
| ≥24 years          | 18 (46.2)                              | 1.0 (0.4-2.4)           | 0.8 (0.3-2.7)         | 0.7                           |
| <24 years          | 22 (45.8)                              |                         |                       |                               |
| Duration of marriage |                                        |                         |                       |                               |
| ≥2 years           | 20 (48.8)                              | 1.2 (0.5-2.9)           | 0.6 (0.1-2.4)         | 0.5                           |
| <2 years           | 20 (43.5)                              |                         |                       |                               |
| Education (subject) |                                        |                         |                       |                               |
| <12th standard     | 23 (47.9)                              | 1.2 (0.5-2.8)           | 1.3 (0.5-3.7)         | 0.6                           |
| ≥12th standard     | 17 (43.6)                              |                         |                       |                               |
| Education (husband) |                                        |                         |                       |                               |
| <12th standard     | 24 (48.0)                              | 1.2 (0.5-2.8)           | 1.2 (0.4-3.5)         | 0.5                           |
| ≥12th standard     | 16 (43.2)                              |                         |                       |                               |
| Working status     |                                        |                         |                       |                               |
| Working outside    | 3 (23.1)                               | 0.3 (0.1-1.2)           | 0.3 (0.07-1.35)       | 0.1                           |
| Working at home    | 37 (50.0)                              |                         |                       |                               |
| PCI (INR)          |                                        |                         |                       |                               |
| <1750              | 19 (42.2)                              | 0.7 (0.3-1.7)           | 0.4 (0.2-1.2)         | 0.1                           |
| ≥1750              | 21 (50.0)                              |                         |                       |                               |
| Gravida            |                                        |                         |                       |                               |
| Multi gravida      | 22 (52.4)                              | 1.7 (0.7-3.9)           | 2.5 (0.6-11.2)        | 0.2                           |
| Primigravida       | 18 (40.0)                              |                         |                       |                               |

We found the main reason for abstaining from sex was ‘husband staying away’. The local custom of staying in mothers’ house during major period of pregnancy is probably the main reason for avoiding sex. Although privacy is another minor reason, a larger proportion of the respondents didn’t reveal the actual reason for the same. Various myths can be associated with it as found by studies elsewhere. Fear of harm to the baby is the usual reason for avoiding sexual activity in pregnancy, fear of abortion in first trimester and premature rupture of membrane during the latter half of the pregnancy.1,13

Only one out of eight respondents ever used condom during coitus in pregnancy. This practice increases the chance of transmission of STD and poor pregnancy outcome. As pregnancy is not possible while pregnant, couples avoid condom use. None of the previous studies mentioned this issue. However, the prevalence of ever use of condom among eligible non-pregnant couples from similar settings have been reported to be similar.14,15 NFHS IV data for Vellore district shows that only 0.2% of the eligible couples are using condoms. However, this captures only the current users and not the ever users of condoms. More than one-third of the respondents, in the present study, either thought that sex is not safe in pregnancy or don’t have a clear idea about it. Majority of the other respondents viewed that sex helps in the way that the act actually widens the genital passage and helps in delivery. We found that the husband and the mother were the main sources of information related to sexual behaviour in our setting. However, Banerjee et al showed that the main sources of information are friends and family members, except the husband, unlike our findings.3 In contrary to these findings, in socio-economically advanced set-up, doctors remained the major source of information in spite of the fact that majority didn’t disclose their sexual problems.1 Importantly, in the present study, the participants hardly got any information from the health care providers. Lack of proper information regarding sexuality in pregnancy can influence the quality of care and can be attributed to lack of systematic discussions on this issue.16 This is probably more important in Indian settings where adolescent pregnancies are still high and adolescents lack information on sexuality.17 However, one-third of the subjects didn’t respond and this could be due to the fact that they don’t have any source or assistance in obtaining information.

Majority of the women in our study were willing to discuss with a doctor or husband if there is a sexual health related problem; whereas one fourth of the women would continue to bear such problems without discussing it with anyone. Similar finding was brought up in a
similar setting where a good number of patients didn’t avail treatment for sexual problems due to lack of knowledge and self-confidence. Banerjee et al mentioned that women are hardly allowed to take a decision on their own. The same situation can prevail in our setting as well which will prevent women from getting the correct information and practicing a safer sexual life.

**Limitations**

This is a very sensitive issue and a good number of women showed some reservation to participate. Also, the present study couldn’t capture the knowledge and practice of the pregnant women who will attend hospitals of either primary or tertiary care level.

**CONCLUSION**

Sexual activities during pregnancy is not uncommon. In present context, most of these activities are unprotected. Most of the women are reluctant to discuss on this topic irrespective of their socio-economic and cultural background. Husbands and mothers play a crucial role in sharing knowledge on health issues related to sex.

**Recommendations**

A family centred approach, sharing the right information during first time registration for pregnancy to the couple can be helpful in gaining the confidence of the women. This information could be combined along with other recommendations for a pregnant woman such as diet, physical activity and personal care. Also, exploratory studies can help in addressing the knowledge gap for making a sound policy towards a rightful and safe pregnancy.

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**Ethical approval:** Not required

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