PRACTICES AND PERCEPTIONS ON SEXUAL ACTIVITY BEFORE AND DURING PREGNANCY AMONG WOMAN ATTENDING ANTENATAL CLINIC IN DAR ES SALAAM - TANZANIA

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Mmed (Obstetrics and Gynaecology) Dissertation

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CERTIFICATION

The undersigned certifies that he has read and hereby recommend for acceptance by the Muhimbili University of Health and Allied Sciences a dissertation entitled: “Practice and Perceptions on Sexual Activity during Pregnancy among Antenatal Clinic Attendees in Dar es Salaam – Tanzania” in partial fulfillment of the requirements for the degree of Master of medicine in Obstetrics and Gynaecology of the Muhimbili University of Health and Allied Sciences.

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Dr. Peter J.T. Wangwe

(SUPERVISOR)

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Date

DECLARATION AND COPYRIGHT

I, Dr. Joshua Johanson Garrison, declare that this dissertation is my own original work and that it has not been presented and will not be presented to any other university for a similar or any other degree award.

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Date _____

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Praise and glory be to my Almighty God who kept me alive and healthy from the beginning to the end of this study

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DEDICATION

This dissertation is dedicated to my mother Julitha L. Karama and my father Johanson J. Massay.

ABSTRACT

Background:

Pregnancy represents a significant period in the life of any woman and influences practices and experiences towards sexual activities. Changes occur in sexuality during pregnancy which may be physical or emotional. It is the responsibility of health care providers to address sexuality concerns, validate women's feelings, and provide suggestions of modifications in sexual practices to meet women's needs for sexual expression within the range of activities that are safe and acceptable. Inappropriate perceptions such as dilatation of birth canal to ease labour and delivery, dirty patch on the baby, abortion and preterm labour abound pregnancy sexuality in different societies leading to changes in the pattern of sexual behaviour during pregnancy. No study has been found to prove sexual intercourse in pregnancy as the cause of any undesired consequence or such perceived advantages.

Objective:

The broad objective of the study was to determine the practices and perceptions on Sexual activity before and during Pregnancy among Women attending Antenatal Clinic in Dar es salaam

Materials and Methods:

A descriptive cross-sectional study was carried out among 318 women attending antenatal clinic to determine their practices and perceptions on pregnanyc sexuality.Respondents were selected by systematic random selection from attendance register. Information on their demographic characteristics, practices and experience and perceptions was collected through interviewer administered structured and semi-structured questionnaires. The data so obtained were then entered and analyzed using SPSS program.

Results:

Generally, pregnancy sexuality practices and experiences were significantly different from pre-pregancy state as they were all negatively skewed in terms of rate of sexual activity, arousal, satisfaction, desire, orgasm, frequency and initiation of intercourse. More than 45% of respondents were in favour of sexual intercourse during pregnancy while about 34% were against it and the rest did not have an opinion. The perceived benefits of sexual intercourse in pregnancy included dilatation of birth canal (68.8%), initiation of labour (23%) and aiding growth and development (21.5%). Dirty patch on the baby's body (80.6%), abortion (49%) and preterm labour (13.0%)were the most frequently mentioned perceived adverse effects among respondents who were against it. More than 51% of them did not have sexuality discussion and 62.3% thought it was appropriate to discuss sexuality at the clinic and 70.0% prefered healthcare workers to initiate such discussion.

Conclusion and Recommendations:

The findings of this study shows that practices and experiences on sexual activity changed significantlycompared to pre-pregnancy state. The belief that the baby will be born with dirty patches on the body was a unique finding of this study which was not mentioned as a reason to avoid sexual intercourse in pregnancy by the respondents in other studies. Inappropriate reasons such as dilatation of birth canal, bleeding, premature labour and growth of the baby were consistent with other studies. There is evidence of lack of knowledge about sexual intercourse during pregnancy among the respondents. It is our opinion that issues of pregnancy sexuality be deliberately included in the routine health education at the antenatal clinic by the healthcare workers.

TABLE OF CONTENTS

ABBREVIATIONS

ANC	Antenatal Clinic
ED	Executive Director
FANC	Focused Antenatal Care
HIV	Human Immunodeficiency Virus
ICU	Intensive Care Unit
MNH	Muhimbili National Hospital
PI	Principal Investigator
RAs	Research Assistants
SPSS	Statistical Package for Social Science
STIs	Sexually Transmitted Infections
VDRL	Venereal Disease Research Laboratory
WHO	World Health Organization

OPERATIONAL DEFINITIONS

I. Perception - The state of being or process of becoming aware of something

II. Experience - An event or occurrence that leaves an impression on someone

III. Sexuality - the characteristic of the male and female reproductive elements and the constitution of an individual in relation to sexual attitudes and behavior

IV. Sexual activity – activities associated with sexual intercourse

V. Trimester(s) – a division of pregnancy into three equal parts of about 13 weeks each

VI. Sexual desire - a subjective awareness of desire for sexual satisfaction, irrespective of sexual activity

VII. Sexual satisfaction - a feeling of happiness or pleasure after achieving sexual gratification

VIII. Sexual arousal – a state of physical and psychological responses to mental or physical erotic stimulation

IX. Orgasm - The peak of sexual excitement, characterized by strong feelings of pleasure and by a series of involuntary contractions of the perineal muscles in female

CHAPTER ONE

1.0 INTRODUCTION

Pregnant women have health-care needs related to sexuality and sexual activity. In some settings health care providers may have questions related to sexual activity, sexual orientation, sexual practices, sexual satisfaction, and intimate partner violence on patient history forms, but they often offer little discussion on issues related to sexuality unless the patient raises the issues. Women's sexuality is intensely personal and individual[14]. Some changes which occur during pregnancy which may have effect in sexuality include physical, emotional, psychological, physiological and biological changes. It is within the scope of practice of each of the health care providers to address sexuality concerns, validate women's feelings, and provide suggestions of modifications in sexual practices to meet women's needs for sexual expression within the range of activities that are safe and acceptable[1, 2].

While the conception of a child is viewed as the ultimate expression of a couple's love, pregnancy is not always compatible with sexuality. The attending healthcare provider can help to minimize any negative impact by explaining the complex conditions affecting desire and satisfaction and encouraging a positive, pragmatic approach. A variety of physiological, social, psychological and anatomical changes occur in the gravid state[1-3]. Although most of these changes have been well documented, there is no reliable data regarding the female sexual response during pregnancy, leaving clinicians to rely on anecdotal experience to address patient concerns[4].

Pregnancy is a time of change. Women's bodies change, and relationships change as women and their families make plans to incorporate a new arrival into the family structure. Healthcare providers who work with pregnant women know that their physical and emotional responses to pregnancy are functions of their uniqueness as individuals[20]. However, some general patterns may be observed. The same is true of women's sexual expression during pregnancy. In the first trimester for example, the hormonal changes resulting from conception account for many of the physiological changes of early pregnancy, including fatigue, nausea

and breast tenderness[2-3, 21]. These hormonal changes may account for some of the changes in women's sexuality during the same period. Generally there is a decrease in sexual tension and a decrease in performance during this time, which may be due to the progesterone effect that causes systemic vasodilatation, thereby increasing pelvic engorgement during sexual arousal[21].

The nausea and vomiting experienced by many women during the first trimester may cause diminished feelings of eroticism and the breasts may become enlarged and quite tender[15]. Although a male partner may find larger breasts exciting, the female partner may find any breast or nipple stimulation to be painful rather than erotic. The profound fatigue and exhaustion during the first trimester may lead to insufficient energy to participate in or to enjoy sexual activity[16].

Traditionally, the increase in pelvic blood flow during the second trimester was thought to promote greater sexual activity, desire and satisfaction especially at mid trimester. However, more recent research contradicts these views[26]. A review of the literature has demonstrated a linear decline in sexual activity as pregnancy progresses. In addition, due to the quickening of the fetus at this time the couple may feel like there is a “third person" present during lovemaking, impeding intimacy, and possibly contributing to erectile dysfunction[6]. Numerous myths and taboos may preclude sexual activity including fears of injuring the fetus, though these fears are generally unfounded. Body image may also be a factor as the gravid uterus becomes obvious and weight gain occurs[23].

There is a dramatic decline in sexual activity, interest, and satisfaction in women and men alike during the third trimester. This phase of pregnancy is marked by physical awkwardness and discomfort, heightened awareness of maternal body image, and preparations for birth. The couple may fear that sexual activity will induce labor, bleeding, injury to the fetus, and pain[19]. Androgen hormones such as testosterone, androstendione, and dehydroepiandrosterone promote sexuality in men and women. Diminished androgen levels in women especially during pregnancy have been proposed to contribute to the common sexual dysfunction during pregnancy. However, no studies to date have confirmed such a relationship[8].

2.0 LITERATURE REVIEW

For centuries, the pregnant body has connoted ripeness, fruition, abundance, and wealth. One look at a statue of the *Venus of Willendorf*, with her protruding belly and full breasts, reveals that ancient cultures also perceived pregnancy as sexy[23]. Yet, in our own modern culture, sexual expression during pregnancy is often considered a taboo subject and, when the topic is discussed, myths and misinformation about sex during pregnancy abound[23]. Concerns ranging from the belief that the unborn baby somehow knows sex is taking place, to fears that intercourse will cause a miscarriage often go unanswered for pregnant women and their partners. These worries often impede what should be a natural, healthy part of pregnancy sexual expression and lovemaking[20].

Research findings suggest that even health care providers are inconsistent with providing information and counseling about sexual matters in general. Reasons for their inconsistency are embarrassment, discomfort with their own sexuality, fear that asking questions of a sexual nature is an invasion of patient privacy, and worries that questions about sexuality will be interpreted as a form of sexual harassment and lead to legal ramifications[14]. A study by Katz, indicated that, education and training about sexuality and questioning patients about sexual functioning during pregnancy is not a routine part of the patient encounter and so may be forgotten[15]. Pregnant women and their partners need information about sexuality. Studies have shown that most patients believe such discussions are appropriate; however, they feel more comfortable if the health professional initiates the discussion in the antenatal clinic[14].

In a study done by Jagidesa et al participants response concerning the source of information on sexual activity during pregnancy indicated that majority of the women felt more comfortable to discuss the topic of sexual activity during pregnancy with midwives or nurses, to a lesser extent with social workers, and least with doctors. This might be related to traditional values, religious beliefs and possibly language barriers between doctors and their patients[13].

In a cross-sectional study of 141 pregnant women by Bartellas and colleagues 71% of the respondents who completed the questionnaires reported a decrease in sexual frequency

during pregnancy compared to pre-pregnancy activities. The third trimester of pregnancy appears to mark a particular period in which sexual behaviors become the most infrequent. During the first trimester, 96% of pregnant women engaged in vaginal intercourse, whereas only 67% did so by the third trimester[4]. Aslan and colleagues surveyed 40 healthy pregnant women using the Female Sexual Function Index (FSFI) questionnaire. Participants completed the questionnaire one time per trimester during their pregnancies and the results indicated that the frequency of intercourse decreased by more than 50% in the first and third trimesters compared to non pregnant state[3].

Another study done in Nigeria by Adinma et al revealed that the mean frequency of sexual intercourse during pregnancy generally decreased by over 35% compared to pre-pregnancy time and a significant number of participants abstained sexual intercourse during pregnancy for various reasons while another proportion believed that sexual intercourse in late pregnancy widens the vagina and facilitates labour. However, others believed that sexual activity during pregnancy is good for overall foetal well-being while there are others who believed that it can cause miscarriage in early pregnancy[2].

Conversely, DeJudicibus and colleagues used a questionnaire designed to have women recall how frequently they typically had intercourse before pregnancy and then during pregnancy and found an average of once per week before pregnancy and once per month during pregnancy, with a significant decline in the third trimester[7]. Gökyildiz and colleagues used a 63-question face-to-face interview to determine the effects of pregnancy on the sexual life of 150 women at ≥34 weeks' gestation, all of whom were experiencing a normal pregnancy. Before becoming pregnant, 84.7% of women had intercourse one to four times per week, which decreased to 70%, 61.3%, and 32% in the first, second, and third trimesters respectively[11].

Fok et al surveyed 298 pregnant Chinese women through self-administered questionnaires investigating sexual experience during pregnancy. The majority of women and their partners expressed concerns about the effects of sexual intercourse on the pregnancy and baby. The most common concerns were bleeding, labor, infection, rupture of membranes and damage to the fetus[9]. In an otherwise normal pregnancy, there is no conclusive data that indicate that sexual activity should be considered a threat to the fetus or a risk factor for

inducing miscarriage or early labour and delivery although study by Tan et al has indicated an association of sexual intercourse in late pregnancy (after 36weeks) with induction of labour in 20% of term pregnancy using a small sample of 28 women from which no meaningful conclusion could be drawn[31].In contrast to other studies, a study in South Africa by Jagidesa et al indicated that coital frequency remained unchanged or increased in 52% of the respondents while only 9% abstained from sexual activity once pregnancy was diagnosed. Abstinence from sexual activity in this study was related to religious and traditional practices[13].

3.0 STATEMENT OF THE PROBLEM

Although healthcare providers offer a wide range of services to women during antenatal clinics, they often offer no or little discussion on issues related to sexuality and sexual activity unless the patient raises the issue. Bartellas and colleagues (UK) revealed that only 29% of women had opportunity to discuss sexuality and sexual activity with their healthcare providers, and 76% of the women who did not discuss sexuality felt that it should have been discussed[4]. Studies in parts of Africa such as Nigeria and South Africa have revealed series of practices, experiences, myths and misconceptions regarding pregnancy sexuality[1-2,13]. There was no data found to illustrate the situation in Tanzania and this prompted the need for this study where several aspects of practices, experiences and perceptions on pregnancy sexuality in Tanzanian setting have been studied.

4.0 RATIONALE

The practices, experiences and perceptions on sexual activity during pregnancy and the extent to which this is addressed or not addressed during ANC in Tanzania is not well known due to lack of studies for reference. Furthermore, our focused antenatal care (FANC) does not directly address issues related to pregnancy sexuality and as a result this subject does not appear in ANC health education curriculum. Based on the findings of studies done elsewhere including China, South Africa and Nigeria, it was assumed that pregnant women in Tanzania have similar unmet needs regarding pregnancy sexuality as they have more or less similar socio-cultural backgrounds to the populations where studies have been done. So it is our hope that the findings of this study may lay down the foundation for improvement of health education curriculum at the ANC to encompass sexuality issues and thereby help couples avoid unnecessary marital disharmony resulting from infidelity of male partners which may lead to HIV infection and other STIs.

5.0 RESEARCH QUESTION

Are there any differences between pre-pregnancy and pregnancy sexuality in terms of practices and perceptions among antenatal women?

6.0 OBJECTIVES:

6.1 Broad objective

To determine Practices and Perceptions on Sexual activity before and during Pregnancy among Antenatal Women at MNH

6.2 Specific objectives

1. To determine the pre-pregnancy and pregnancy sexuality practices and experiences
2. To determine pregnant women's perceived effects of sexual intercourse during pregnancy
3. To determine the extent to which sexuality education is provided at the ANC
4. To determine preference of pregnant women regarding conduct of sexuality education at ANC

CHAPTER TWO

7.0 METHODOLOGY

7.1 Study design

A descriptive cross-sectional study

7.2 Study period

Data collection was done for 4 months from August to November, 2011.

7.3 Study setting

The study was conducted at MNH, specifically at the antenatal clinic (ANC) which is located in the maternity building. MNH is a tertiary level hospital and is among the four referral hospitals in Tanzania. It offers specialized obstetric services for Dar es Salaam city and its suburbs. MNH receives referred patients from municipal hospitals and from Coastal region.

The MNH antenatal clinic is located in the ground floor of the maternity building. It has six (6) consultation rooms where doctors attend pregnant women from Monday to Friday (except on public holidays). All pregnant women once they arrive at ANC they are registered and their vital signs taken at the reception by the nurse-midwives before they are attended by the doctors who are either Consultants/Specialists in Obstetrics and Gynaecology, Resident doctors in Obstetrics and Gynaecology or Registrars. Pregnant women attending ANC at MNH are in two categories namely, general patients (normal track with subsidized costs) and privately paying patients (fast track) who are the majority. Generally, there are in average 100 antenatal women in a day with an average of about 2000 pregnant women in a month and about 29000 antenatal women per year being attended at MNH (MNH antenatal clinic data, 2010), both fast track and normal track categories together.

7.4 Study population

All pregnant women attending ANC at MNH.

7.5 Study sample estimation

In this hospital based study a systematic sampling method was used in selection of the study participants. The required sample size for this study was determined by using the estimated prevalence of the variable of interest which was the need for sexuality education during pregnancy at ANC. According to *Bartellas et al* 76% of women interviewed thought that there was a need for sexuality education in the ANC[4]. Because we did not have the study indicating such need in our setting, 76% was used as the proportion of those who wish to have information about sexuality during pregnancy. The desired level of confidence (95% confidence interval with standard value of 1.96) was used and the acceptable margin of error was 5% with standard value of 0.05. Therefore, substituting these values in the formula below, i.e.:

$$n = \frac{t^2 p(1-p)}{m^2}$$

Where n = required sample size

p = estimated proportion of the need for information on sexuality during ANC; in this case 76% was used

t = confidence level at 95% (standard value of 1.96)

m = margin of error at 5% (standard value of 0.05)

Therefore, the required minimum sample size was 280 assuming 95% confidence and 80% power and we interviewed 318 pregnant women who consented.

7.6 INCLUSION CRITERIA

All pregnant women attending ANC at MNH

7.7 EXCLUSION CRITERIA

Women with cervical incompetence / cervical cerclage

Recurrent foetal losses

Chronic diseases like hypertension and diabetes mellitus

Women with history of per vaginal bleeding during index pregnancy

7.8 DATA COLLECTION AND SAMPLING PROCEDURE

Data collection was done from August to November, 2011 during official days and office hours from Monday to Friday from 9.00hrs to 15.30hrs with exception of Public holidays. Two trained research assistants (RAs) who were present at the ANC from Monday to Friday administered the questionnaires and at least one RA was present every day. A pilot study was done a week before the beginning of data collection, necessary corrections of the questionnaires were made and the cards of the piloted respondents were clearly marked so that they were not re-interviewed during the actual data collection

A systematic sampling was employed whereby clients' register was used to sample out the participants. Based on the fact that, about 100 pregnant women attended ANC per day (normal and fast tracks together) and there were 86 working days during the study period (weekends and public holidays excluded), an extrapolated total population of 9000 women used as a numerator (based on previous ANC statistics) versus a sample size of 300 participants (as a denominator) at the beginning of the study. Therefore, the formula $\frac{N}{n}$ was used to determine the sampling interval where **N** = Total study population during study period (which was estimated at 9000) and ***n*** = estimated sample size at the beginning of the study (which was projected to be = 300). Thus substituting these values into the formula, every 30^{th} participant was selected systematically after randomly selecting the first participant from the register in a particular day, for instance 1^{st}, 31^{st}, 61^{st}, 91^{st}, 121^{st}, and so on. In case of refusals and those who did not meet inclusion criteria the RAs had to move on to the next 30^{th} client in the register. On average between 3 and 4 participants were interviewed per day.

After selecting the participants RAs briefly talked to the clients in privacy before entering the consultation room, requesting them to participate in the interview after explaining the purpose of the study, and participants were asked to spare part of their time for a brief questioning after being attended by the doctors. Those who consented to participate in the study were asked to fill in the consent forms shortly before interview and they were then interviewed and their responses were filled in the questionnaires by the RAs. For the purpose of this study, refusals were defined as those who were approached and refused to participate in the study outright and those who agreed to participate in the study but changed their minds before answering questions. Consented participants were those who agreed to participate and have answered the questions. The RAs regularly kept the records of the total number of pregnant women who were approached and refused and the number of those who did not meet criteria for inclusion. At the end of the study, the number of pregnant women who attended antenatal clinic during the study period was also noted by the PI.

The arrangement was made with the nurse in charge to provide a separate room which was used for interview in order to observe privacy. Participants were requested to pass by the chosen interview room after being attended by the clinicians. Those who were going to the laboratory for investigation or to the pharmacy for drugs were given a freedom for either to finish up with the pharmacy and/or laboratory then come back for interview or finish up with the interview then proceed to the next service depending on their convenience and time. Filling in one questionnaire took approximately 10 to 15 minutes.

Data were collected by using structured and semi-structured standard questionnaires (which were translated to Swahili language) adopted from the validated and internationally acceptable ***Pregnancy Sexual Response Inventory (PSRI)*** questionnaire format which has been used in several studies referred to in this study[5]. Demographic data of the consented women were obtained from the antenatal cards and appropriately filled in the questionnaire by the RAs. Information on practices and experiences was obtained from the participants by asking questions on rate of sexual activity, frequency of sexual intercourse, sexual satisfaction, sexual desire, sexual arousal, orgasms and initiation of sexual intercourse before and during pregnancy. On the other hand, information about perceptions was obtained by asking participants to give their opinion regarding effects of sexual activity during pregnancy.

Finally, participants were asked to give their views as to whether they ever discuss sexuality matter during ANC or not, and what are their opinion concerning such discussion at the ANC. The RAs read the stems of the questions only (without reading the choices/options) clearly and where necessary, made clarifications to the participants and their responses were filled in the questionnaires accordingly. RAs clearly wrote the corresponding numbers of the responses in the respective boxes including single and multiple responses on the questionnaires. Responses for open-ended questions were written clearly on the spaces provided for each question.

To avoid repeatition in the subsequent visit, the participants' cards were marked distinctively in the front page for clarity and visibility by the RAs. However, in the event where the mark was not clearly visible for some unexplained reasons, the participants were enquired by the RAs as to whether they have ever participated in the study or not, just to ensure that they are not interviewed more than once. The collected data were proof read by the PI for quality assurance, and the participants whose information were improperly filled in were traced over the mobile phones to make necessary corrections. Fortunately, there were only a few improperly filled in questionnaires which were rectified over the mobile phones of the participants, and a few wrongly filled in questionnaires whose participants' mobile phone numbers were not recorded or not reachable, their available information was analyzed and the deficiencies were stated in the footnotes in the result section.

7.9 DATA ENTRY AND ANALYSIS

Data entry and analysis was done by using a Statistical Package for Social Science (SPSS) ver. 16 computer software. The *Chi Square test for trend* was used to determine the statistical significance of the difference between pre-pregnancy and pregnancy sexuality experience and practice and a *p-value* of less than *0.05* was regarded as statistically significant.

7.10 ETHICAL ISSUES

Information about individual's sexuality bears ethical significance and deserves high level of confidentiality. For this reason, interviews were conducted on individual basis and in a private room. Participants' information was used absolutely for the purpose of this research. Anonymity was highly maintained in all the questionnaires and all participants who agreed to participate in the study were required to fill in the informed consent forms. Freedom of participation, refusal to participate or withdrawal from the study without prior information was clearly explained to all participants. Participants were ensured that confidentiality on the information given was of paramount importance and that the data will never be retrieved for the purposes other than this study.

Ethical clearance was obtained from the MUHAS – Senate Research and Publication Committee, and permission to conduct the study was granted by the MNH Executive Director.

7.11 STUDYLIMITATIONS

Methodological limitations may have made this study deficient of some important information. For instance, it was not possible to determine the trend of pregnancy sexuality experience and practice between trimesters because there was uneven distribution of the respondents in the 1^{st}, 2^{nd} and 3^{rd} trimesters of pregnancy and as such no valid results could be obtained from this as there were only 8 respondents in their first trimester. Secondly, the fact that majority of respondents (almost 79%) had secondary or college/university education might imply that the findings were skewed towards better educated than less educated women.

Confounders such as duration of relationship/marriage, whether or not women live with their male partners, previous history of episiotomy, perineal tear, genital mutilation and mode of delivery were not sought and might have in some way affected the study findings. Since women were deemed to remember their pre-pregnancy sexual practices and experiences, and because the pre-pregnancy period was so remote, it is possible that the study findings to some extent were affected by recall bias.

CHAPTER THREE

8.0 RESULTS

During the study period 8545 pregnant women attended ANC at MNH out of whom 5212 (61%) were private patients (fast track) and 3332 (39%) were general patients (normal track). Four hundred and twenty three women were enrolled to participate in the study, but 32 (7.6%) were excluded as they did not meet criteria for inclusion, 73(17.3%) participants out of 391(92.4%) who met inclusion criteria declined to participate in the study for different reasons. Three hundred and eighteen participants (75.2%) took part in the study.

Table I: Socio-demographic Characteristics of Respondents (*N = 318*)

Characteristic	Number (*n*)	Percent (*%*)
Age (Years)		
≤ 20	1	0.3
21 to 25	11	3.5
26 to 30	115	36.1
31 to 35	122	38.4
Above 35	69	21.7
Marital Status		
Married	284	89.3
Single	30	9.4
Divorced	1	0.3
Separated	3	0.9
Education Level		
Primary	67	21.1
Secondary	150	47.2
College/University	100	31.4
No formal Education	1	0.3
Occupation		
Not Employed	77	24.2
Employed	124	40.9
Business woman	108	34.0
Others	3	0.9
Religion		
Christian	191	60.1
Muslim	127	39.9
Gravidity		
Primigravida	103	32.4
Gravida 2	119	37.4
Gravida 3	63	19.8
≥Gravida 4	33	10.4
Trimester of Pregnancy		
First Trimester	8	2.5
Second Trimester	170	53.5
Third Trimester	140	44.0

Majority of the respondents were in the age group of 26 to 35 (74.5%) with the mean age of 25 years (SD +/- 4) and most were married (89.3%). Most of them had secondary (47.2%) and college/university (31.4%).

Table II: Distribution of Respondents' Pre-Pregnancy and Pregnancy Sexuality Practice and Experience

Experience/practice	Before Pregnancy (N=316)*		During Pregnancy (N=311)*		*P- Value*
	Frequency(n)	Percent (%)	Frequency(n)	Percent (%)	
Rate of Sexual Activity					
Low	54	17.1	181	57.3	
Normal	145	45.7	117	37.0	< 0.02
High	118	37.2	18	3.7	
Extent of Satisfaction					
Not satisfied	18	5.7	79	25.4	
Somehow satisfied	28	8.9	143	46.0	<0.0001
Satisfied	270	85.4	89	28.6	
Extent of Arousal					
Poor	18	5.7	103	32.5	
Very Poor	9	2.8	44	13.9	
Regular	106	33.3	131	41.3	<0.03
Excellent	185	58.2	39	12.3	
Extent of Sexual Desire					
Once per week	48	15.2	134	42.5	
2-3 times per week	209	66.2	143	45.4	
>3 times per week	51	16.1	4	1.3	<0.0001
No desire at all	8	2.5	34	10.8	
Trend of Orgasm					
Never	14	4.4	56	17.7	
Rarely	29	9.2	115	36.2	
Once in a while	61	19.2	101	31.9	<0.0001
Often	213	67.2	45	14.2	
Frequency of Intercourse					
None in a week	28	8.8	113	35.8	
1-2 times per week	120	37.9	183	57.9	<0.0001
≥3 times per week	169	53.3	20	6.3	
Initiation of Intercourse					
Forceful	9	2.8	62	19.5	
Spontaneous	95	29.9	45	14.2	
Partner initiates	35	11.0	160	50.3	<0.0001
Bilateral efforts(any)	179	56.3	51	16.0	

* Missing information

There was an overall change in both practices and experiences. Rate of sexual activity was low in 57.3% of respondents during pregnancy as compared to 17.1% of respondents before pregnancy and 37.2% had high sexual activity before pregnancy while only 5.7% had high rate of sexual activity during pregnancy. More than three quarters (85.7%) of the respondents were satisfied with sexual activity before pregnancy but less than a third (28.6%) of the respondents had satisfactory sexual activity during pregnancy and only 5.7% were not satisfied before pregnancy while more than 25% were not satisfied during pregnancy. These differences were all statistically significant ($p<0.05$), indicating that pregnancy state is associated with a decreased sexual activity and satisfaction.

Before pregnancy 91.5% had regular or excellent sexual arousal but this decreased to 53.6% during pregnancy and more than 46% had either poor or very poor sexual arousal during pregnancy. Similarly, sexual desire changed from 2 to 3 or more times per week to once or no desire per week in 83.3 and 56.2 before and during pregnancy respectively. Orgasm was never or rarely experienced in 54% of women during pregnancy as compared to less than 14% before pregnancy while only 14.2% often achieved orgasm during pregnancy as opposed to 67.2% before pregnancy. Pregnancy sexuality practices were found to be significantly affected. More than 91% of respondents had frequency of sexual intercourse 1 to 3 or more times per week before pregnancy, but this decreased to about 64% during pregnancy and about 35% of them could stay the whole week without sexual intercourse when they became pregnant. Male partners were the main initiators of sexual intercourse (50.3%) compared to pre-pregnancy state where sexual intercourse could be initiated by any partner in about 56%, spontaneous in 30% of the respondents. Another 30% of them said sexual intercourse during pregnancy has been forceful without desire. All these differences were statistically significant ($p<0.05$) implying that pregnancy is associated with decreased sexual arousal, desire, frequency and orgasm.

Table III: Distribution of Respondents' Perceptions on Sexual Intercourse during Pregnancy

Perception	Responses	Frequency (n)	Percent (%)
Opinions on Intercourse	Is a good thing	144	45.6
(N=316*)	Is not a good thing	108	34.2
	I don't know	64	20.2
	Total	**316**	**100.0**
Perceived Benefits (n=144)			
	Marital Responsibility	27	18.8
	Religious reasons	9	6.3
	Prevents STIs & HIV	23	16.0
	Helps initiation of Labour	33	23.0
	Dilates birth canal	99	68.8
	Helps growth & Development	31	21.5
	Calms down sexual desire	8	5.6
	Others	7	4.9
	Total	**237**	**164.9†**
Perceived Harmful Effects			
(n=108)	Dirty Patch on the baby	87	80.6
	May cause Premature labour	14	13.0
	May cause abortion	53	49.1
	May knock the baby	8	7.4
	May cause bleeding	7	6.5
	May harm baby's eyes	4	3.7
	May affect growth &Devt	5	4.6
	others	5	4.6
	Total	**183**	**169.5†**

*****Missing information

† Total percentage is more than 100% due to multiple responses

Majority 144 (45.6%) perceived sexual intercourse during pregnancy as a good practice, while 108 (34.2%) perceived it as a bad practice and 64(20.2%) did not know any consequence of it. However, numerous inappropriate perceptions were mentioned in both categories.

Among the perceived inappropriate benefits of sexual intercourse during pregnancy included initiation of labour if done in late pregnancy, dilatation of birth canal, enhancement of growth and development of the baby and one sporadically mentioned benefit was the belief that it makes male babies sexually strong with good libido in future. The inappropriate perceived harmful effects of sexual intercourse during pregnancy included dirty patch on baby's body at birth, premature labour, abortion, bleeding, effect to the baby's eyes, fear of knocking the baby and other sporadically mentioned effects such as future prostitution in a female babies, albinism, decreased growth and development of the baby, future bed wetting and future bald headedness

Table IV: Distribution of Responses on the Extent and Preference of Sexuality Education

Responses	Number (*n*)	Percent (%)
Sexuality Discussed?	**n=314***	
YES	153	48.7
NO	161	51.3
Discussion Appropriate?	**n=318**	
YES	198	62.3
NO	8	2.5
Don't Know	112	35.2
Who Should Start?	**n=197***	
Health worker	138	70.0.
Pregnant woman	24	12.2
Any of the above	35	17.8

One hundred and sixty one (51.3%) of the respondents said no discussion took place at ANC, majority (62.3%) said sexuality discussion was appropriate and 70.0% said discussion should be started by health care provider.

*****Missing information

CHAPTER FOUR

9.0 DISCUSSION

In this study practices, experiences and perceptions of pregnant women regarding sexuality during pregnancy was determined and the finding indicated an overall change in both practices and experiences. Our findings on changes in sexual practices and experiences are consistent with those of other studies by Ademeyi et al, Bartellas et al, and Orji et al where over 50% of women had reduced sexual activity during pregnancy and only about 30% had satisfactory sexual activity during pregnancy[1,4,27]. This may be explained by the fact that, pregnancy poses a range of altered physique ranging from physiological, psychological to emotional changes leading to decreased interest in sexual activity.

The changes in sexual arousal, sexual desire, frequency of intercourse and orgasm are perfectly normal fluctuations during pregnancy resulting from pregnancy related physiological changes which result to fatigue and discomfort and probably pregnant women have a lot of expectations, fantasies and fear of miscarriage and in later stage of pregnancy they are abound with a psychosocial transition to parenthood state and thus less concentration to sexual activities which may be the reason for decreased satisfaction, arousal, desire and even become deficient of orgasm. A study by Adeyemi et al (Nigeria) revealed more or less similar findings were 54.5% had poor arousal during pregnancy, 48.5% were either taking longer or not achieving orgasm and sexual desire was absent in 13.4% of the respondents[1].

Our findings of decreased sexual frequency and forceful initiation of sexual intercourse during pregnancy compared to pre-pregnancy state are a little bit contrary to the findings by Naim M et al where overall frequency of intercourse decreased to 30% during pregnancy and male partners were as well the initiators of intercourse in 44% of the respondents[26]. These variations may be due to discomfort caused by altered endocrine environment of pregnancy, perceived lack of attractiveness, lack of knowledge on the appropriate sexual practice during pregnancy, fear and other potentially negative attitudes, all leading do decreased interest and thus frequency of sexual intercourse. Male partners' poor attendance to ANC could also explain the decreased frequency of sexual intercourse during pregnancy and as a result they do not get opportunity to address their concerned regarding negative attitudes and

misconceptions attached to pregnancy sexuality especially if the wife (female partner) did not ask or get information on this at the ANC.

There were several inappropriate perceived benefits among the respondents who were in favour of sexual intercourse during pregnancy as well as inappropriate perceived harmful effects of sexual intercourse during pregnancy among the respondents who were against it. Except for dirty patch on the baby's head/body, the findings by Adeyemi et al, Adinma, Fork et al and Jagidesa et al regarding perceived benefits and barriers of sexual intercourse in pregnancy are consistent with these in several aspects with only minor variations in their occurrences[1,2,9,13]. Lack of clear understanding about the appropriate trend and practice of sexual intercourse during pregnancy among pregnant women may be the main reason attributable to these unrealistic perceptions which lack evidence based scientific background. Some respondents sporadically mentioned future prostitution in female babies, male babies being sexually strong in future, bald headedness in male babies, baby being born albino and bed wetting in a baby as other perceived effects of sexual intercourse in pregnancy. These unfounded perceptions which preclude sexual activity during pregnancy may be partly a result of lack of knowledge which resulted from lack of formal sexuality education at our ANC and partly a result of ethnic and traditional teachings to the couples on what is right and what is not right as far as pregnancy sexuality was concerned in a given society.

To date, no study has been found to prove the dangers of sexual intercourse during pregnancy apart from a study by Tan et al which has indicated an association of sexual intercourse in late pregnancy (after 36weeks) with induction of labour in 20% of term pregnancy using a small sample of 28 women from which no meaningful conclusion could be drawn[31]. Presence of prostaglandin E_2 in the semen, breast stimulation, coitus and orgasm are thought to induce labour later in pregnancy (after 36weeks) but yet reliable evidence for this is lacking[31].

Discussion regarding pregnancy sexuality issues was found to be a rare agenda during ANC encounters and as such pregnant women do not get opportunity for addressing their pregnancy sexuality concerns. Obviously, majority wanted the talk about their sexual matters but it was not provided by the health care providers. Our findings indicate that, pregnant women have the unmet needs on pregnancy sexuality which appeared to be only

opportunistically and may be partially discussed at our setting. The manner in which pregnancy sexuality is discussed at our ANC has no logical arrangement as do other antenatal health education topics which form the specified components of ANC health education curriculum.

10.0 CONCLUSION

Generally, rate of sexual activity, desire, satisfaction, arousal, orgasm and frequency of intercourse during pregnancy had significantly decreased compared to pre-pregnancy state. Male partners were the main initiators of sexual activities and less than half were in favour of sexual intercourse in pregnancy while the remainder were either against it or did not know any consequence of such practice. However, those who supported or were against it had inappropriate perceptions. Majority of the respondents showed interest in discussion on sexuality issues with their service providers. Contrary to findings by other studies, fear of dirty baby at birth, male baby being sexual strong in future, future female prostitution, albinism, future bald headedness and bed wetting were the unique findings of our study.

11.0 RECOMMENDATIONS

Sexuality education should be a necessary component of reproductive health education provided by reproductive health workers at different settings so that pregnant women and their partners are well informed about the changes that occur during pregnancy and how they interfere with their sexual performance. It is our opinion that these findings form a platform for deliberately including sexuality issues in the routine health talks/education provided at ANC and an opportunity should be given for discussion in privacy for those who may be ashamed to talk about their sexuality in public.. Further studies are recommended to assess similar aspects in a broader scope that will incorporate issues related to male partners, comparable distribution of trimesters of pregnancy and to use a study design that will address confounders such as previous episiotomy, perineal tears, genital mutilation and mode of delivery.

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APPENDICES

Appendix I

PSRI QUESTIONNAIRE (Items comprising the Original version of the PSRI)

I - Demographic characteristics	
1- Mother's age: Partner's age:	2- Gestational age:
3- Partnership status? (1) married/ living together (2) single (3) other_____	4- Education Level: (1) basic level (2) high school (3) college/university
5- Religion (1) Catholic (2) Evangelical (3) other_____	6- Do you work? (1) no (2) yes, and I currently have a job (3) yes, but I am currently unemployed
7- Do you have children? () no () just one () two or more	8- Do you smoke? () yes, often or very often () yes, but just sometimes () no
9- Do you drink? () yes, often or very often () yes, but just sometimes	10- Do you use illicit drugs? () yes, often or very often () yes, but just sometimes

() no	() no
11- Did you plan your pregnancy? () yes () no	12- Do you use condoms? () no () yes, but I stopped before I became pregnant () yes, often or very often
II- Sexual behavior/ activity before and during pregnancy	
13-In your opinion, did your frequency of sexual activity change after you became pregnant? (1) yes, it decreased (2) no, it stayed the same (3) yes, it increased	14a- Before your pregnancy, how many times per week did you have sexual intercourse? (1) none (2) 1-2 times (3) 3 or more times
14b- In the first trimester of pregnancy, how many times per week did you have sexual intercourse? (1) none (2) 1-2 times (3) 3 or more times	14c- At present, how many times per week are you having sexual intercourse? (1) none (2) 1-2 times (3) 3 or more times
15a- How would you rate your sex life before you became pregnant (0 = lowest, 10 = highest)? (1) 0-3	15b- How would you rate your sex life at present (0 = lowest, 10 = highest)? (1) 0-3

(2) 4-7 (3) 8-10	(2) 4-7 (3) 8-10
16a- How do you think your partner would rate his sex life before you became pregnant (0 = lowest, 10 = highest)? (1) 0-3 (2) 4-7 (3) 8-10	16b- How do you think your partner would rate his sex life at present (0 = lowest, 10 = highest)? (1) 0-3 (2) 4-7 (3) 8-10
17a- Were you satisfied with your sexual life before you became pregnant? (1) no (2) somewhat (3) yes	17b- Are you satisfied with your sexual life during pregnancy? (1) no (2) it was OK I suppose (3) yes
18a- How would you rate your arousal before your pregnancy? (1) poor/ very poor (2) regular (3) excellent	18b- How would you rate your arousal during your pregnancy? (1) poor/ very poor (2) regular (3) excellent
19a- Were you having any sexual difficulties before your pregnancy? (1) yes (2) no	19b- Have you been having any sexual difficulties during your pregnancy? (1) yes (2) no

20- Do these difficulties distress you? (1) yes (2) somewhat (3) no	21a- How often did you experience sexual desire before your pregnancy? (1) a few times a week (2) once a day (3) other (depending on the occasion)
21b- How often have you been experiencing sexual desire during your pregnancy? (1) a few times a week (2) once a day (3) others (depending on the occasion)	22- What happened to your sexual desire after you became pregnant? (1) it decreased (2) it stayed the same (3) it increased
23a- How often did you achieve orgasm before your pregnancy? (1) never/rarely (2) sometimes (3) often or very often	23b- How often have you been achieving orgasm during your pregnancy? (1) never/rarely (2) sometimes (3) often or very often
24a- Did you experience pain during sexual intercourse before you became pregnant? (1) yes (2) no	24b- Have you been experiencing pain during sexual intercourse since you became pregnant? (1) yes (2) no

25a-The initiation of intercourse before pregnancy was: (1) forced, without any desire (2) partner usually made the first move (3) spontaneously or spontaneously with stimuli	25b- The initiation of intercourse during pregnancy is? (1) forced, without any desire (2) partner usually makes the first move (3) spontaneously or spontaneously with stimuli
26a- In your opinion, do you think your partner had any sexual difficulties before your pregnancy? (1) yes (2) no	26b- In your opinion, do you think your partner has been having any sexual difficulty during your pregnancy? (1) yes (2) no

Appendix II

CONSENT FORM

Introduction

I am Dr Garrison Joshua Johanson, a researcher from Muhimbili University of Health and Allied Sciences (MUHAS). I will be doing a research on sexuality and sexual activity during pregnancy among pregnant women attending Antenatal clinic at MNH. The aim of this research is to determine experience, beliefs and perception of pregnant women regarding sexuality and sexual activity and to find out whether or not there is a need for sexuality education during antenatal clinic at MNH. The findings of this research will be used to improve the care of pregnant women by giving them appropriate information about this matter.

Participation in the Study

You are kindly requested to participate in this study because you are one of the beneficiaries of the information about sexuality and sexual activity in pregnancy. If you accept to participate in this study your particulars/information will be taken and used for the purpose of this research and this will certainly not bother you or cause any discomfort to you.

Confidentiality

You are strongly assured of confidentiality of the information so obtained and that it will only be used for the purpose of this research and anonymity will highly be observed when collecting data and compiling report.

Risks

No anticipated risk or harm that may result from participating in this study.

Benefits

Your participation in this study is very beneficial to your fellow pregnant women, MNH and the country at large as this will help the health care providers and policy makers to put down protocols for correct way of giving information on sexuality and sexual activity in pregnancy

to women during their antenatal period. You are also informed that there will not be any payment in the form of cash money or any other form.

Right of Participation in the Study

Participation in this study is purely optional. You have the right to participate or decline from participating without giving any explanation and you have the freedom to withdrawal any time during the course of study without prior information.

Contact Person

The principal investigator Dr Garrison Joshua Johanson (Mob. 0713-308097) is a key contact person with regard to any queries about this study.

However, in the event of questions about your rights as a participant, you may call the Chairman of the University Senate Research and Publications Committee, MUHAS P.O. Box 65001, Dar Es Salaam. Telephone; 2150302-6.

Signing the Consent

If you agree to participate in this study please sign in this consent form.

I …… have read and understood the contents of this form and I have been given satisfactory explanation with all my questions answered. I therefore consent to participate in this study.

Signature of Participant ……..... Date ……

Signature of Research Assistant ……....……. Date ……

Appendix III

RIDHAA YA KUSHIRIKI KATIKA UTAFITI

UTANGULIZI

Mimi naitwa Dk. Garrison Joshua Johanson, mtafiti kutoka chuo kikuu cha sayansi ya tiba Muhimbi. Ninafanya utafiti kuhusu masuala ya kujamiiana wakati wa ujauzito kwa mama wajawazito wanao hudhuria kliniki ya ujauzito katika hospitali ya taifa Muhimbili. Lengo la utafiti huu ni kubaini uzoefu, imani na uelewa wa mama wajawazito kuhusu masuala ya kujamiiana na kuona kama kuna haja ya elimu zaidi kwa mama wajawazito kuhusu suala hili wakati wanapokuwa kliniki katika hospitali hii. Matokeo ya utafiti huu bila shaka yatasaidia kutoa mwongozo wa namna nzuri ya kutoa elimu kuhusu kujamiiana wakati wa ujauzito na hivyo kutoa huduma iliyobora zaidi kwa mama wajawazito katika hospitali ya taifa Muhimbili.

Kushiriki katika utafiti huu

Unaombwa kushiriki katika utafiti huu kwani wewe ni miongoni mwa washika dau wa elimu kuhusu masuala ya kujamiiana wakati wa ujauzito. Utakapo ridhia kukubali katika utafiti huu, unahakikishiwa kuwa habari zako na maelezo yoyote utakayotoa wakati wa kujibu maswali ya dodoso yatatumika kwa makusudio na malengo ya utafiti huu tu na kuwa hii haitakuletea usumbufu wowote au kusababisha hali yoyote ya kutokuridhisha kuhususiana na ujauzito wako au namna nyingine yoyote.

Usiri wa Taarifa za Mshiriki

Unahakikishiwa tena kuwa taarifa zozote zitakazopatikana kutoka kwako wakati wa utafiti huu zitapewa usiri mkubwa sana na hazitatumika kwa malengo mengine yoyote tofauti na utafiti husika. Kuhakikisha hilo dodoso utakayojibu maswali husika haitakuwa na jina lako wakati wote wa utafiti na hata baada ya utafiti.

Athari za Utafiti huu kwa Mshiriki

Hakuna athari au madhara yoyote yatakayokupata kutokanana na kushiriki katika utafiti huu.

Faida ya kushiriki katika utafiti huu

Ushiriki wako katika utafiti huu unafaida kubwa sana kwako wewe na kwa mama wengine wajawazito. Pia utakuwa umeisaidia hospitali yetu ya Taifa ya Muhimbili na nchi ya Tanzania kwa ujumla kwani hii itasaidia kutoa mwongozo katika kuandama mtaala mahususi wa elimu bora ya afya ya uzazi kwa akina mama wajawazito katika kliniki zetu. Unafahamishwa pia kuwa hakutakuwa na malipo yoyote kwa njia ya fedha au njia nyingine yoyote ile.

Haki ya kushiriki au kutokushiriki katika utafiti huu

Ushiriki wako katika utafiti huu ni wa hiari kabisa. Unayo haki ya kushiriki au kutokushiriki bila kulazimika kutoa taarifa. Pia unayo haki ya kukataa kuendelea kushiriki/kuacha kujibu maswali wakati wowote utakapojisikia kufanya hivyo na hakutakuwa na hatua yoyote itakayochukuliwa dhidi yako au kulaumiwa kwa kufanya hivyo.

Mawasiliano

Wasiliana na mtafiti mkuu, Dk. Garrison Joshua Johanson kwa simu namba **0713-308097** wakati wowote utakapokuwa na maswali au jambo lolote lenye kuhitaji ufafanuzi kuhusu utafiti huu.

Hata hivyo, endapo utakuwa na maswali kuhusu haki yako kama mshiri unaweza pia kuwasiliana na Mwenyekiti wa Baraza la utafiti na Uchapishaji wa Chuo kikuu cha sayansi ya tiba Muhimbi, S.L.P. 65001, Dar es salaam. Simu namba 2150302-6

Kukubali kushiriki

Ukikubali kushiriki tafadhali thibitisha kwa kujaza na kusaini sehemu ya fomu hii hapa chini. Mimi …… nimesoma/nimesomewa na kuelewa yaliyomo kwenye fomu hii na maswali yangu yote yamejibiwa vizuri. Hivyo ninakubali mwenyewe kwa hiari yangu bila kushurutishwa au kushawishiwa kushiriki katika utafiti huu.

Sahihi ya Mshiriki ……..... Tarehe ……

Sahihi ya mtafiti msaidizi ……..…… Tarehe ……

Appendix IV

QUESTIONNAIRE

Serial number _____

Phone Number_____

1. Age of the participant in years

2. Referral status
    1. From home
    2. From nearby health facility
    3. Others

3. Partnership status
    1. Married
    2. Single
    3. Divorced
    4. Separated

4. Educational level
    1. Primary
    2. Secondary
    3. College/University
    4. No formal education

5. Occupation
    1. Employed
    2. Not employed
    3. Business
    4. Others

6. Religion
    1. Christian
    2. Muslim
    3. Others

7. Gravidity
    1. Primigravidagravida
    2. Gravid 2
    3. Gravid 3
    4. ≥Gravid

8. Parity
    1. Para 0
    2. Para 1
    3. Para 2
    4. Para 3
    5. ≥Para 4

9. Trimester
    1. First
    2. Second
    3. Third

10. Gestational age (in weeks)
    1. Below 14
    2. 14 – 28 weeks
    3. 29 – 40 weeks
    4. More than 40 weeks

11. Do you have children?
    1. No
    2. Just one
    3. Two
    4. Three
    5. Four or more

12. Did you plan your pregnancy

    1. Yes
    2. No

13. In your opinion, did your frequency of sexual activity change after you became pregnant?

    1. Yes, it decreased
    2. No, it stayed the same
    3. Yes, it increased

14. Before your pregnancy, how many times per week did you have sexual intercourse?

    1. None
    2. 1 to 2 times
    3. 3 or more times

15. In the first trimester, how many times per week did you have sexual intercourse?

    1. None
    2. 1 to 2 times
    3. 3 or more times

16. At present, how many times per week are you having sexual intercourse??

    1. None
    2. 1to 2 times
    3. 3 or more times

17. How would you rate your sex life before you became pregnant?

    1. Low
    2. Normal
    3. High

18. How would you rate your sex life at present?

    1. Low
    2. Normal
    3. High

19. How do you think your partner would rate his sex life before you became pregnant?

    1. Low
    2. Normal
    3. High

20. How do you think your partner would rate his sex life at present?

    1. Low
    2. Normal
    3. High

21. Were you satisfied with your sexual life before you became pregnant?

    1. No
    2. Somehow
    3. Satisfied

22. Are you satisfied with your sexual life at present (during pregnancy)?

    1. No
    2. Somehow
    3. Satisfied

23. How would you rate your arousal before pregnancy?

    1. Poor
    2. Very poor
    3. Regular
    4. Excellent

24. How would you rate your arousal during your pregnancy?

    1. Poor
    2. Very poor
    3. Regular
    4. Excellent

25. Were you having any sexual difficulties before your pregnancy?

    1. Yes
    2. No

26. Have you been having any sexual difficulties during your pregnancy?

    1. Yes
    2. No

27. How often did you experience sexual desire before your pregnancy?

    1. Once per week
    2. Twice a week
    3. 2 to 3 times per week
    4. 3 or more times per week
    5. No desire at all

28. How often have you been experiencing sexual desire during your pregnancy?

    1. Once per week
    2. Twice a week
    3. 2 to 3 times per week
    4. 3 or more times per week
    5. No desire at all

29. What happened to your sexual desire after you became pregnant?

    1. It decreased
    2. It remained the same
    3. It increased

30. How often did you achieve orgasm before your pregnancy?

    1. Never
    2. Rarely
    3. Sometimes
    4. Often

31. How often have you been achieving orgasm in your pregnancy?

    1. Never
    2. Rarely
    3. Sometimes
    4. Often

32. Did you experience pain during sexual intercourse before you became pregnant?

    1. Yes
    2. No

33. Have you been experiencing pain during sexual intercourse since you became pregnant?

    1. Yes
    2. No

34. The initiation of intercourse before pregnancy was:

    1. Forced without any desire
    2. Spontaneously with stimuli
    3. Partner usually made the first move
    4. Any one of us could make a move

35. The initiation of intercourse during pregnancy is:

    1. Forced without any desire
    2. Partner usually makes the first move
    3. Any one of us could make a move
    4. Spontaneously with stimuli
    5. I don't have sexual intercourse

36. In your opinion, do you think your partner had any sexual difficulties before your pregnancy?

    1. Yes
    2. No

37. In your opinion, do you think your partner has been having any sexual difficulties during your pregnancy?

    1. Yes
    2. No

38. In your opinion, do you think sexual intercourse is a good thing during pregnancy?

    1. YES (proceed to question 39)
    2. NO (go to question 40)
    3. I don't know (go to question 42)

39. If YES, why do you think sexual intercourse is a good thing during pregnancy?

1. Marital responsibility
2. Religious reasons
3. Prevents one from HIV and other STIs
4. Helps initiation of labour in term pregnancy
5. Helps dilate baby's pathway for ease of delivery
6. Helps growth and development of the baby
7. Calms down my sexual desire
8. Others (please specify/mention)

_____

_____

_____

40. In your opinion, do you think sexual intercourse during pregnancy is harmful?

1. Yes (Proceed to question 41)
2. No (go to question 42)
3. I don't know (go to question 42)

41. If YES, what are some of the adverse effects that you know?

1. Dirty patch on baby's head
2. May cause premature labour
3. May cause abortion
4. Baby is watching/aware
5. May knock the baby
6. May cause bleeding
7. May harm baby's eyes
8. May affect baby's growth in the womb
9. Others (please specify/mention)

_____

_____

_____

_____

42. Do you discuss sexuality matters with your attending health care provider during ANC?

    1. YES
    2. NO (proceed to question 43)

43. In your opinion, do think sexuality discussion at ANC is appropriate?

    1. YES
    2. NO (leave the rest of the questions)
    3. I don't know (leave the rest)

44. If you ever discuss sexuality with your health care provider, who normally initiates the discussion?

    1. Health Care Provider
    2. Pregnant woman
    3. Any one of the above

45. In your opinion, who do you think should initiate the discussion at ANC?

    1. Health Care Provider
    2. Pregnant woman
    3. Any one of the above

Appendix V:

Questionnaire – Swahili Version

Namba ya Dodoso _____

Namba ya simu _____

1. Umri (miaka)
2. Hali ya rufaa (kutoka wapi)

    1. Nyumbani

    2. Hospitali zingine

    3. Zinginezo

3. Hali ya ndoa
    1. Nimeolewa na ninaishi naye
    2. Sijaolewa
    3. Tumeachana kwa talaka
    4. Tumetengana kwa muda
    5. Zinginezo
4. Elimu
    1. Msingi
    2. Sekondari
    3. Chuo
    4. Sijasoma
5. Umeajiriwa?
    1. Hapana
    2. Ndiyo
    3. Nafanya biashara
    4. Zinginezo

6. Dini
    1. Mkristo
    2. Muislamu
    3. Zinginezo

7. Mimba ya ngapi?
    1. mimba ya kwanza
    2. Mimba ya pili
    3. Mimba ya tatu
    4. Mimba ya nne
    5. Mimba zaidi ya nne

8. Umezaa mara ngapi?
    1. Sijawahi kuzaa
    2. Mara moja
    3. Mara mbili
    4. Mara tatu
    5. Mara nne
    6. Zaidi ya mara nne

9. Umri wa mimba (miezi)
    1. Chini ya miezi 3
    2. Miezi 3 hadi 6
    3. Zaidi ya miezi 6

10. Umri wa mimba (wiki)
    1. Chini ya wiki 14
    2. Wiki 14 hadi 28
    3. Wiki 29 hadi 40
    4. Zaidi ya wiki 40

11. Una watoto?

    1. Hapana
    2. Moja
    3. Wawili
    4. Watatu
    5. Wanne
    6. Zaidi ya wanne

12. Ulipanga kubeba mimba hii?

    1. Ndiyo
    2. Hapana

13. Kwa maoni yako, kunatofauti katika tendo la kujamiiana baada ya kubeba mimba?

    1. Ndiyo, imepungua
    2. Hapana, hakuna tofauti na kabla ya ujauzito
    3. Ndiyo, imeongezeka

14. Kabla ya kubeba mimba, ulikuwa unajamiiana mara ngapi kwa wiki ?

    1. Hatufanyi kabisa kwa wiki nzima
    2. Mara 1 au 2 kwa wiki
    3. Mara 3 au zaidi kwa wiki

15. Katika miezi mitatu ya kwanza, mlikuwa mnajamiiana mara ngapi kwa wiki?

    1. Hatufanyi kabisa kwa wiki nzima
    2. Mara 1 hadi 2 kwa wiki
    3. Mara 3 au zaidi

16. Kwa sasa mnajamiiana mara ngapi kwa wiki?

    1. Hatufanyi kabisa kwa wiki nzima
    2. Mara 1 hadi 2 kwa wiki
    3. Mara 3 au zaidi

17. Unakadiria vipi hali yako ya kujamiiana kabla ya ujauzito?

    1. chini
    2. Kawaida
    3. Juu

18. Unaweza kukadiria vipi hali yako ya kujamiiana wakati huu wa ujauzito

    1. chini
    2. Kawaida
    3. Juu

19. Unadhani mwenzi wako anaweza kukadiria vipi hali yake ya kujamiiana kabla hujawa mjamzito

    1. chini
    2. Kawaida
    3. Juu

20. Unadhani mwenzi wako anaweza kukadiria vipi hali yake ya kujamiiana wakati huu wa ujauzito wako?

    1. chini
    2. Kawaida
    3. Juu

21. Ulikuwa unaridhika na tendo la kujamiiana kabla hujawa mjamzito?

    1. Hapana
    2. Naridhikia kiasi
    3. Ndiyo

22. Je, unaridhika na tendo la kujamiiana wakati huu wa ujauzito?

    1. Hapana
    2. Naridhika kiasi
    3. Ndiyo

23. Je, unakadiriaje hali yako ya msisimko wakati wa tendo la kujamiiana kabla hujawa mjamzito?

    1. Dhaifu
    2. Dhaifu sana
    3. Nasisimka kawaida
    4. Nasisimka vizuri sana

24. Je, unaweza kukadiria vipi hali yako ya msisimko wakati huu wa ujauzito?

1. Daifu
2. Dhaifu sana
3. Nasisimka kawaida
4. Nasisimka vizuri sana

25. Ulikuwa unapata taabu yoyote katika tendo la kujamiiana kabla ya ujauzito?

1. Ndiyo
2. Hapana

26. Umekuwa ukipata taabu yoyote katika tendo la kujamiiana wakati huu wa ujauzito?

1. Ndiyo
2. Hapana

27. Ulikuwa unatamaani tendo la kujamiiana kwa kiasi gani kabla ya ujauzito?

1. Mara moja katika wiki
2. Mara 2 katika wiki
3. Mara 2 hadi 3 katika wiki
4. Mara 3 au zaidi kwa wiki

28. Umekuwa ukitamani tendo la kujamiiana kwa kiasi gani wakati huu wa ujauzito?

1. Mara moja katika wiki
2. Mara 2 katika wiki
3. Mara 2 hadi 3 katika wiki
4. Mara 3 au zaidi kwa wiki

29. Hali ya kutaka/kutamani kujamiiana ilikuwaje baada ya kuwa mjamzito?

1. Imepungua
2. Hakuna tofauti na kabla ya ujauzito
3. Imeongezeka

30. Ulikuwa unafika kileleni wakati wa kujamiiana kwa kiasi gani kabla ya ujauzito?

1. Sijawahi kufika kileleni
2. Mara chache sana
3. Mara moja moja
4. Kila mara

31. Umekuwa ukifika kileleni kwa kiasi gani wakati huu wa ujauzito?
    1. Sijawahi kufika kileleni
    2. Mara chache sana
    3. Mara moja moja
    4. Kila mara

32. Ulikuwa unapata maumivu yoyote wakati wa kujamiiana kabla ya kuwa mjamzito?
    1. Ndiyo
    2. Hapana

33. Umekuwa ukipata maumivu yoyote wakati wa kujamiiana wakati huu wa ujauzito?
    1. Ndiyo
    2. Hapana

34. Kuanza kwa tendo la kujamiiana kabla ya ujauzito kulikuwaje?
    1. Kwa kulazimishwa bila ashiki (hamu) yoyote
    2. Bila kulazimishwa/kwa msisimko usioshurutishi.
    3. Mpaka mwenzi wangu aanze kuhitaji
    4. Nilikuwa naweza kuanzisha hata mimi

35. Kuanza kwa tendo la kujamiiana wakati huu wa ujauzito kumekuwa:
    1. Kwa kulazimishwa bila ashiki (hamu) yoyote
    2. Bila kulazimishwa/kwa msisimko usiowakulazimisha.
    3. Mpaka mwenzi wangu aanze kuhitaji
    4. Ninaweza kuhitaji na hata kuanzisha hata mimi
    5. Sifanyi kabisa kwa sasa

36. Kwa maoni yako, unadhani mwenzi wako alikuwa na tatizo lolote/ugumu wowote wa kujamiiana kabla ya ujauzito wako?
    1. Ndiyo
    2. Hapana

37. Kwa maoni yako, unadhani mwenzi wako analo tatizo lolote/ugumu wowote wa kujamiiana wakati huu wa ujauzito wako?
    1. Ndiyo
    2. Hapana

38. Kwa mawazo yako, unadhani ni vizuri kuendelea kufanya tendo la kujamiiana wakati wa ujauzito?

    1. Ndiyo (endelea swali la 39)
    2. Hapana (nenda swali la 40)
    3. Sijui (nenda swali la 42)

39. Kama unadhani ni vizuri kuendelea na tendo la kujamiiana wakati wa ujauzito, unadhani hilo linafaida gani?

    1. Ni wajibu wa ndoa
    2. Dini inatuelekeza kuendelea kujamiiana wakati wa ujauzito
    3. Inasaidia kujiepusha na magonjwa ya zinaa na UKIMWI kwakuwa mwanaume hatakuwa na wanawake wengine nje ya ndoa
    4. Inasaidia kuanzisha uchungu wakati wa kujifungua ukifika
    5. Inasaidia kutanua njia ili mtoto apite kwa urahisi wakati wa kujifungua
    6. Inasaidia ukuaji na maendeleo ya mtoto akiwa tumboni
    7. Inanisaidia kumaliza ashiki/hamu yangu ya kujamiiana wakati wa ujauzito
    8. Zinginezo (tafadhali taja hapa chini)

    _____

    _____

    _____

40. Kwa maoni yako, unadhani tendo la kujamiiana linamadhara wakati wa ujauzito?

    1. Ndiyo (endelea swali la 41)
    2. Hapana (nenda swali la 42)
    3. Sijui (nenda swali la 42)

41. Kama unadhani tendo hilo lina madhara wakati wa ujauzito, madhara/athari hizo ni zipi?

    1. Mtoto atazaliwa na uchafu kichwani/mwilini
    2. Uchungu unaweza kuanza kabla ya wakati
    3. Mimba inaweza kutoka
    4. Mtoto atakuwa anatuona/anajua tunajamiiana
    5. Uume wa mwanaume unaweza kumgusa/kumgonga mtoto
    6. Inaweza kusababisha kutokwa na damu
    7. Inaweza kudhuru macho ya mtoto
    8. Inaweza kuathiri ukuaji wa mtoto kabla na baada ya kuzaliwa
    9. Zinginezo (tafadhali taja hapa chini)

    _____

    _____

    _____

42. Je, huwa unajadiliana na mhudumu wa afya kuhusu masuala ya kujamiiana wakati wa ujauzito katika kliniki?

    1. Ndiyo (endelea swali la 43)
    2. Hapana (endelea na swali la 43)

43. Kwa maoni yako unadhani ni vizuri kujadili maswala ya kujamiiana wakati wa ujauzito katika kliniki?

    1. Ndiyo
    2. Hapana (acha maswali yaliyo baki)
    3. Sijui (acha maswali yaliyobaki)

44. Kama huwa mnajadili masuala haya, nani huwa mwanzilishi wa mjadala juu ya mada hiyo?

    1. Muhudumu wa afya
    2. Mama mjamzito
    3. Yeyote kati ya hao

45. Kwa maoni yako, nani anapaswa kuanzisha mjadala kuhusu suala la kujamiiana wakati wa ujauzito?

    1. Muhudumu wa afya
    2. Mama mjamzito
    3. Yeyote kati ya hao