



ST PAUL'S HOSPITAL MILLENNIUM MEDICAL COLLEGE
KNOWLEDGE, ATTITUDE AND PRACTICE TOWARDS BREAST
CARE AMONG PREGNANT WOMEN WHO COME FOR ANC
FOLLOW UP AT SPHMMC

PREPARED BY- DR. LULIT FEKADU

ADVISORS:

MR. SHIKUR MOHAMMED (MPH, Ass. Prof. of Epidemiology)

DR. SISAY KIRBA (MD, Ass. Prof of OBGYN)

A RESEARCH REPORT SUBMITTED TO ST. PAUL'S HOSPITAL MILLENNIUM
MEDICAL COLLEGE DEPARTMENT OF PUBLIC HEALTH IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF MEDICINE.

SEPTEMBER, 2017

ADDIS ABABA, ETHIOPIA



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Acknowledgement

I am grateful to God, my family and my advisors who are always there for me. I'm also thankful to St. Paul's hospital millennium medical college for assisting me in doing my research and giving me the chance to practice research and methodology. I'm grateful to my fellow intern friends who assisted me in filling my questionnaires and regular OBGYN OPD nurse staff. I owe a great deal of gratitude and appreciation to my advisor Mr. Shikur Mohammed and Dr. Sisay Kirba for providing valuable suggestion, guidance and support throughout the period of this study.

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Acronyms and Abbreviations

ANC- antenatal care

GA- gestational age

LNMP- last normal menstrual period

MCH- maternal and child health

OPD- outpatient department

OBGYN- obstetrics and gynecology

FMoH: Federal ministry of health

SEC: Socioeconomic class

SPHMMC: St Paul's hospital millennium medical college

SPSS: Statistical package for social sciences

UNICEF: United Nations Children Education Fund

WHO: World Health Organization

Abstract

Background: This study is on the knowledge, attitude and practice of breast care in pregnant women at the SPHMMC department of obstetrics and gynecology regular OPD. It is intended to help us determine how many of the women have knowledge about it, how they feel about it and how many of them practice it. See where the problem is and work on it for the better health of mothers and neonates.

Methods: A questionnaire was used to collect data from the pregnant women. It had different portions about knowledge, attitude and practice. It was drawn in English language. It was filled by pregnant women who came to SPHMMC OBGYN regular OPD. They were selected randomly. Data was collected from March to August 2017. Descriptive statistics was employed to describe the study participants. Chi-square test was used to test association between variables.

Results: 80.3% of the antenatal mothers have never heard about the complications of lack of breast care in pregnancy. The mean knowledge score of respondents were found to be 3 and 78.5% of them have inadequate knowledge on breast care during pregnancy. 53.3% of the antenatal women believe breast care during pregnancy important. 89.7% of them believe that breast problems in perinatal period can be prevented by breast care in pregnancy. The mean attitude score of the respondents were found to be 2. 90.0% of the respondents have a positive attitude score. Only 10.3% of the antenatal women practice breast care in pregnancy. 80.0% of the women who practice breast care do it 2-3 times monthly. Of those antenatal mothers who do not practice breast care, 94.5% stated that they do not know about breast care. All of the antenatal women who practice breast care in pregnancy have poor practice score.

Conclusion: This study showed that significant number of pregnant women who had ANC follow up at SPHMMC have inadequate knowledge, good attitude and poor practice on breast care during pregnancy. Therefore, this can be solved by including breast care and practice methods in teachings to all pregnant women. Health care professionals better also include breast examinations on routine ANC follow up visits. Educate mothers to identify breast infections and nipple problems early and advise them to seek medical attention early.

Key words; antenatal mothers, breast problems, lactation, puerperium

Introduction

Background of the Study

Breast infection, inverted nipples, and other breast related problems are one of the commonest problems seen in mothers in the puerperium. If this problem is not treated properly it can affect the lactation and lead to breast problems. Awareness of the breast problems and care of breast from the antenatal period will help the mothers prevent breast problems. This study attempts to assess the knowledge of antenatal mothers regarding breast problems and identify at which point in the chain we have to work to promote awareness on breast problems (1).

Many physiological changes occur during pregnancy in all the system of the pregnant mother including in their breast as a result of hormonal changes. This causes increased blood flow and changes in the breast tissue, which makes the breasts, feel swollen, sore, tingly, and unusually sensitive to touch. This is the actual period when the breast development occurs and prepares for the breastfeeding. Mothers during pregnancy and postnatal period lack the knowledge regarding care of breast and proper breast feeding techniques or stop the breast feeding due to various reasons. This can lead to several breast problems in the puerperal period and the common ones are nipple retractions, breast engorgement, plugged milk duct, breast infection and insufficient milk supply which are originated from conditions that lead the mother to inadequately empty the breasts. Incorrect techniques, not frequent breast feeding and breast feeding on scheduled times, pacifiers and food suppliers can predispose these breast problems (2,3).

It is also stated that the proper and adequate management of these conditions is fundamental, as if not treated they result in breast complications in the post natal period. The prevalence of breast problems in the postnatal period is very high. It is evidenced that the incidence rate of breast engorgement in the world is 1:8000 and in India it is 1: 6500. About 20% postnatal mothers especially primigravida mothers are affected with breast engorgement within four days of postnatal period (3).

Identification of factors that attribute to lack of knowledge, negative attitude and lower practice rate, will also help to decide on allocation and distribution of health resources. Besides lack of breast care in pregnancy has a major impact on proper breastfeeding. And exclusive breastfeeding

in the first six months of the baby is essential. This will help in developing intervention measures both at the institutional and national levels. Therefore, this study will try to fill this gap and describe the combined pattern of knowledge, attitude and practice of breast care and will form an epidemiological database for further studies on it and help in allocation of scarce resources towards those causes with significant burden, hence the importance of this publication (4).

STATEMENT OF THE PROBLEM

Some of the commonest complications of lack of breast care are breast infections which can lead to breast abscess, inverted nipples, breast engorgement and flat nipples. Among this breast engorgement is the commonest affecting one mother in eight thousand deliveries around the world. It is as common as 20% in primiparas (3).

In a Grampian study 33% of all women experienced breast problems in the first two weeks and 28% thereafter. This may be an underestimation, because some of the women may have considered these problems as baby feeding problems. Apart from overt mastitis, a relatively rare condition of these problems may have comprised engorgement, sore, cracked, bleeding or inverted nipples (2).

This study aims to assess the knowledge and attitude and practice of pregnant women at SPHMMC OBGYN regular OPD and observe the pattern in our country.

Literature Review

According to the international journal of recent scientific research published in September 2015, a study was done at a high institute of public health in Egypt, Alexandria university aimed to assess knowledge, attitudes and practices of expectant mothers in relation to ante-natal breast care in Assiut and to find out factors affecting their knowledge, attitudes and practices. The present study was carried out in the ante-natal clinic at Assiut General Hospital and three Maternal and Child Health Centers in Assiut. Fifty women were selected from each of the previously mentioned settings. A specially designed interview sheet was used to collect the necessary data. It included questions related to knowledge, attitudes and practices of expectant mother in relation to ante-natal breast care (4).

The findings of the present study revealed that one quarter of the study sample (25.5%) lacked basic and essential knowledge about ante-natal breast care, most of older women (88.2%) were more likely to have poor knowledge in relation to ante-natal breast care, the higher educated women (66.7%) were more likely to have good knowledge compared to 33.5% of lower educated women. It was also observed that the majority of working women (90%) were more likely to have good knowledge compared to housewives (10%). Most of the primigravida women (88.2%) were more likely to have poor knowledge in relation to ante-natal breast care compared to 11.8% of women whose gravidity was less than 5 (4).

In Assiut governate, Egypt, interviews were conducted with 200 randomly selected pregnant women attending prenatal clinics at the maternal and child health (MCH) centers in Kolta, Gharb El-Balad, and Arnoub and at Assiut General Hospital to determine their knowledge, attitudes, and practices as they relate to prenatal breast care. 18% reported prenatal breast care to be important for promotion of proper breastfeeding. 20% did not know that prenatal breast care is important to maternal and fetal well-being. Factors associated with seeking prenatal care included: younger than 30, higher education, gravidity less than 5 and greater than 0, and working outside the home ($p < 0.05$ for each factor). Recommended ways nurses can encourage pregnant women to seek prenatal breast care include education via mass media, home visits, improved quality of prenatal care, screening for high-risk women, increased number of MCH centers and prenatal clinics in rural areas, and adequate supply of medication, supplies, and equipment in these facilities. [4]

In another study done in Yenepoya Nursing college, Yenepoya University, Mangaluru university, India, done in June 2015, a non-experimental descriptive design was adopted for the study. Hundred primigravidae in 2nd and 3rd trimester attending antenatal OPD in Yenepoya Medical College hospital at Mangaluru were selected by using non-probability, purposive sampling technique.

The calculated reliability was found to be 0.88 which indicated that the tool was reliable. Pilot study was conducted on 6th June 2015 among 10 antenatal mothers in antenatal OPD of K.S Hegde Medical College Hospital Mangaluru. Data collection was done on 11-20th June 2015. The data were analyzed by using both descriptive and inferential statistics. The findings of the study revealed that 65% of antenatal mothers were in the age group of 21-25 years, three fourth of them

belonged to muslim religion, half of the antenatal mothers had primary education, majority (66%) of antenatal mothers belonged to nuclear family and 87% were house wives. Most of the antenatal mothers (92%) were not having the previous information regarding the breast problems. Level of knowledge regarding breast problems among antenatal mothers. The findings of the present study disclosed that majority (76%) of antenatal mothers had inadequate knowledge, 23% had average knowledge and very few (1%) had adequate knowledge regarding breast problems. The mean knowledge score of the antenatal mothers was 12.77 ± 4.32 . Analysis of area wise knowledge score depicted that antenatal mothers had highest mean percentage score (44.8%) in the area of general information regarding breast problems. The mean knowledge score on general information on breast problems was 4.93 with the SD of ± 1.87 , minimum score was 1 and maximum score was 10. [5,7,8]

Objectives

General Objectives

To assess knowledge, attitude and practice of breast care among pregnant women who have ANC follow up at SPHMMC

Specific Objectives

- To determine the level of knowledge of breast care among women who come for ANC follow up at St Paul's hospital millennium medical college
- To observe the attitude of breast care during pregnancy.
- To determine the practice of breast care in pregnancy.

Methods and Materials

Study Design

A cross sectional institution based study design was used to execute the research.

Study Area

This study was carried out in St Paul's hospital millennium medical college OBGYN regular OPD department. St. Paul's Hospital Millennium Medical College is a referral hospital in Addis Ababa under the FMOH. It is one of the largest public hospital in the nation, built by the Emperor Haile Selassie in 1961 with the help of the German Evangelical Church. The hospital was established to serve the economically under privileged population, providing services free of charge to about 75% of its patients. It became a medical college in 2007 and its core services include the provision of medical care, teaching and research. Its new and integrated curriculum stands out in comparison to the country's other medical schools (6).

The department of obstetrics and gynecology in SPHMMC provides many services including ANC follow up including high risk mothers, deliver services, admission for high risk others, family planning counselling and providing both temporary and permanent methods, infertility treatment and safe abortion (6).

Study and Source Population

Source Population

The source population were all pregnant women who came to the St. Paul's Hospital Millennium Medical College.

Study Population

The study population were selected pregnant women who came to ANC clinic from March-August 2017 for ANC follow ups and fulfilled the inclusion criteria.

Inclusion and Exclusion Criteria

Inclusion criteria

- All pregnant women in SPHMMC who came for ANC visit

Exclusion criteria

- Women who were in labor
- Women who were in pain and not stable

Sample Size

The sample size is calculated using the formula for single population proportion. I could not find a similar study or a closer one documented in Ethiopia. Therefore, for this research proportion of 50%, 95% CI and 0.05 margin of error were used. The calculated sample size:

$$n = \frac{z^2 p(1 - p)}{d^2} = \frac{(1.96)^2(0.5)(1 - 0.5)}{(0.05)^2} = 384$$

Sampling Technique

Three hundred eighty four women were selected while attending ANC follow up at SPHMMC regular OBGYN OPD during March to August, by using non-probability purposive sampling technique. Data collection was done by using structured questionnaire. The content validity of the study tool was established with the help of experts from the related field. The researcher obtained permission and ethical clearance from the respective

authority of the hospital. Informed consent was obtained from the participants and data collection was done from March to August 2017. Data was analyzed using descriptive analysis.

Variables

Dependent Variables

- The level of knowledge towards breast care
- The level of practice towards breast care

Independent Variables

Sociodemographic factors: Age, marital status, religion, occupation, educational qualification, place of residency

Maternal factors: parity, number of ANC visits, gestational age at presentation

Data Collection Tools and Procedures

The data were collected from the study population using an interviewer-administered questionnaire adopted from similar research. It contains 20 questions and it is divided into four sections. It is developed in English language. Data was collected from pregnant women who come for ANC follow up to St. Paul's Hospital Millennium Medical Collage gynecology and obstetrics regular OPD during the study period. To identify patient information, a structured check list was used.

Data Processing and Analysis

Data entry and analysis was done using SPSS 20. Data was checked for completeness and incomplete questionnaire was completed. After complete entry of data into the SPSS cleaning was made to avoid inconsistencies before analysis. Descriptive statistics was employed to describe the study participants. Chi-square test was used to test association between variables. Statistical significance was declared at p-value of less than 0.05.

Operational Definitions

Breast care during pregnancy- cleaning the nipples, wearing maternity bra (not too tight or not too loose), frequent emptying of milk to prevent engorgement after delivery, pulling of the nipples to shape it

Characters to assess knowledge include

- Ever heard about complications of lack of breast care
- Ever been taught about breast care during ANC visits
- Potential risk factors for breast problems in pregnancy
- Breast problem warning signs
- Methods of breast care in pregnancy

In this study, each positive answer is given a value of one.

- Inadequate knowledge- score less than or equal to 3.
- Average knowledge- score between 3 and 6.
- Adequate knowledge- score greater than 6.

Variables to assess attitude include,

- Is breast care in pregnancy important?
- Is breast problem preventable by breast care?
- Measures taken after nipple discharge or itching
- How fast to take measures?

In this study, each positive answer is given a value of one.

- Positive attitude- attitude score greater than 2
- Negative attitude- attitude score less than or equal to 2.

Variables to assess practice include,

- Do you practice breast care in pregnancy?
- When did you start?
- How often do you practice breast care in pregnancy?
- Reasons for not practicing breast care in pregnancy

In this study,

Good practice- breast cleaning and care done starting from second trimester at least once a week.

Poor practice- breast care not done at all or practiced less than once a week.

Ethical Considerations

Ethical clearance was obtained from the public health department of SPHMMC. After getting the ethical clearance, approval from the department of gynecology and obstetrics was taken. Information from patient's document will not be used for other purposes.

Dissemination of Findings

The data obtained in this research was compiled and the result was written in to a research paper which will be presented to the department and thoroughly discussed and defended. And other opportunity or media available will certainly be used as a means to propagate the findings.

Results

Socio-demographic Characteristics of Antenatal Mothers

The study found that the mean (SD) age of antenatal mothers was 28 (6) years. The minimum and maximum ages in years found were 17 and 43 years respectively. 125 (32.9%) of the respondents were in the age group of 25-29 years. 233 (60.8%) of the antenatal mothers have attended primary school. 362 (94.4%) of the study respondents were married. In regards to the place of residency, 284 (74.1%) of them lives in Addis Ababa. 268 (69.7%) of the participants were multigravidas. In regards to the number of ANC visits, 288 (75.1%) of the antenatal women had two or more antenatal visits.

Table 1: Socio-demographic characteristics of pregnant women who come for ANC follow up at SPHMMC OBGYN regular OPD from March to August 2017 who fulfilled the inclusion criteria

Characteristics	Frequency	Percentage(%)
Five year age groups		
15-19 years	26	6.7
20- 24 years	68	17.6
25-29 years	125	32.9
30-34 years	88	22.8
35-39 years	49	12.7
40-44 years	28	7.3
Educational level		
Read and write	119	31.0
Primary school	233	60.8
Above primary school	32	8.2
Marital status		
Single	14	3.6
Married	362	94.4
Divorced	8	2.0
Place of residency		
Addis Ababa	284	74.1
Oromia	89	23.1
Other	11	2.8

Gravidity		
Primigravida	116	30.3
Multigravida	268	69.7
Number of ANC visits		
One visit	96	24.9
Two or more visits	288	75.1

Knowledge About Breast Care in Pregnancy

308 (80.3%) of the antenatal mothers have never heard about the complications of lack of breast care in pregnancy. Of those who have ever heard about the complications of lack of breast care in pregnancy only 16 (4.1%) of them were taught during their ANC visits. 202(72.3%) of the antenatal women believe that both parity and lack of ANC are potential risk factors for breast problems in pregnancy. In regards to signs of breast problem, 130 (33.8 %) of the women consider nipple discharge as a warning sign for underlying breast problems. 346 (97.7%) of the respondent consider breast examination during ANC visits as method of breast care during pregnancy. The mean knowledge score of respondents were found to be 3 and 301 (78.5%) of them have inadequate knowledge on breast care during pregnancy.

Table 2: Knowledge about breast during pregnancy among pregnant women who come for ANC follow up at SPHMMC OBGYN regular OPD from March to August 2017 who fulfilled the inclusion criteria

Characteristics	Frequency	Percentage(%)
Ever heard about complications of lack of breast care		
Yes	76	19.7
No	308	80.3
Ever taught about breast care during ANC visits (n=77)		
Yes	16	4.1
No	60	15.6

Potential risk factors for breast problems in pregnancy

Parity	279	72.7
Lack of ANC	105	27.3

Breast problem warning signs

Nipple discharge	130	33.8
Soariness	85	22.1
Nipple inversion	90	23.4
Itching	79	20.5

Methods of breast care in pregnancy

Self-breast examination	76	21.5
Nipple cleaning	76	21.5
Examination at ANC visits	346	97.7

Knowledge score

Inadequate knowledge	301	78.5
Average knowledge	79	20.5
Adequate knowledge	4	1.0

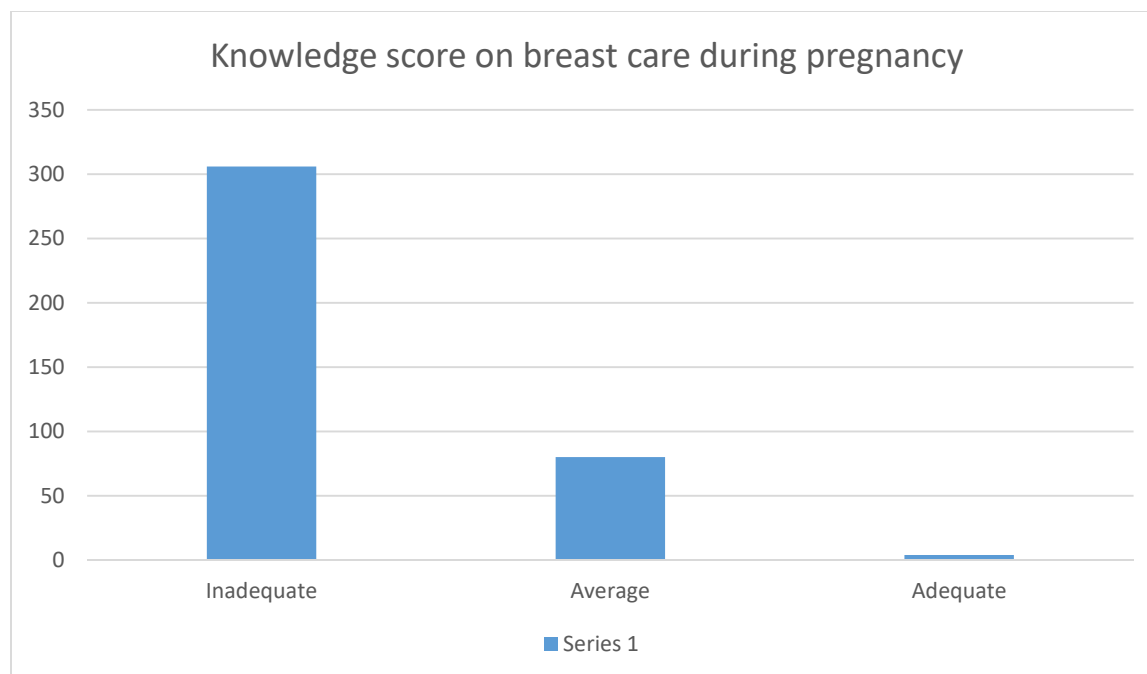


Figure I: knowledge score on breast care in pregnancy among pregnant women who come for ANC follow up at SPHMMC OBGYN regular OPD from March to August 2017 who fulfilled the inclusion criteria

Attitude Towards Breast Care During Pregnancy

205 (53.3%) of the antenatal women believe breast care during pregnancy important. 344 (89.5%) of them believe that breast problems in perinatal period can be prevented by breast care in pregnancy. 323 (84.1%) of the women will consult physician as a measure if they notice a pussy nipple discharge or have breast itching. Of these who will take measures, 323 (84.1%) will take the measure within a month time. The mean attitude score of the respondents were found to be 2. 346 (90.0%) of the respondents have a positive attitude score.

Table 3: attitude towards breast care during pregnancy among pregnant women who come for ANC follow up at SPHMMC OBGYN regular OPD from March to August 2017 who fulfilled the inclusion criteria

Variable	Frequency	Percentage(%)
Is breast care in pregnancy important		
Yes	205	53.3
No	179	46.6
Is breast problem preventable by breast care		
Yes	344	89.5
No	40	10.5
Measures after nipple discharge or breast itch		
Consult physician	323	84.1
Traditional medicine	14	3.6
Prayer	23	5.9
Do nothing	24	6.2
How fast do you take measures		
Within a week	40	10.4
Within a month	323	84.1
After one month	10	2.6
Do nothing	11	2.8
Attitude score		
Positive attitude	346	90.0
Negative attitude	38	10.0

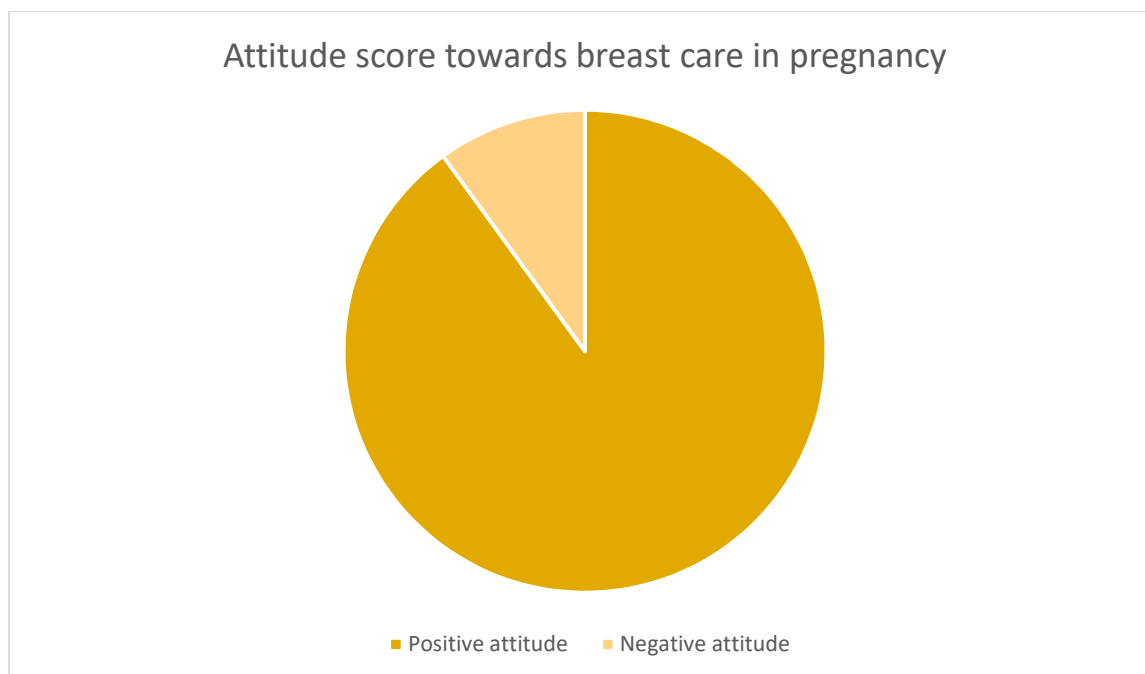


Figure II: Attitude towards breast care during pregnancy among pregnant women who come for ANC follow up at SPHMMC OBGYN regular OPD from March to August 2017 who fulfilled the inclusion criteria

Breast Care Practice During Pregnancy

Only 40 (10.5%) of the antenatal women practice breast care in pregnancy. Of those who practice breast care in pregnancy, 20 (50.0%) started in the second trimester and the remaining 20 (50.0%) started in the third trimester. 32 (80.0%) of the women who practice breast care do it 2-3 times monthly. Of those antenatal mothers who do not practice breast care, 324 (94.1%) claim that they do not know about breast care. All of the antenatal women who practice breast care in pregnancy have poor practice score.

Table 4: Practice of breast care during pregnancy among pregnant women who come for ANC follow up at SPHMMC OBGYN regular OPD from March to August 2017 who fulfilled the inclusion criteria

Variable	Frequency	Percentage(%)
Do you practice breast care in pregnancy		
Yes	40	10.5
No	344	89.5

When do you start breast care in pregnancy (n=40)

Second trimester	20	50.0
Third trimester	20	50.0

How often do you practice breast care in pregnancy (n=40)

2-3 times in a month	32	80.0
1-2 times in few months	8	20.0

Reasons for not practicing breast care in pregnancy (n=40)

I do not think it is important	20	5.8
I do not know about it	324	94.1

Breast care practice score (n=40)

Poor practice	40	100.0
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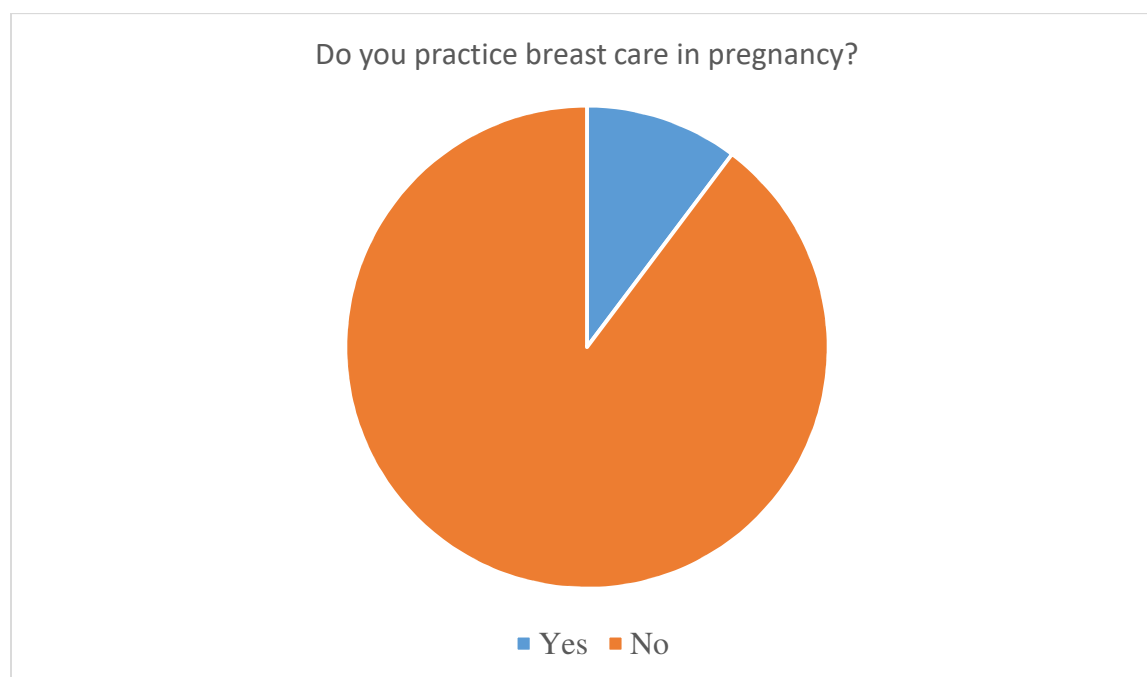


Figure III: Breast care practice during pregnancy among pregnant women who come for ANC follow up at SPHMMC OBGYN regular OPD from March to August 2017 who fulfilled the inclusion criteria

Discussion

The findings of the present study disclosed that the majority of antenatal mothers had inadequate knowledge and very few had adequate knowledge on breast care during pregnancy which is comparable with the result of similar study done at the high institute of public health in Egypt, Alexandria university, published in 2015. But this is contradictory to the result of similar study conducted by Nayak B K which showed that the majority of the antenatal mothers have adequate knowledge regarding breast problems (9).

Significant number of women had positive attitude towards breast care during pregnancy but very few of them practiced breast care. These results are parallel with the results obtained in the similar study done in Egypt mentioned above (4).

Finally, the strengths of this study are, similar published research is not available in Ethiopia so this can be used as a means to seek the problem and work on it. It was conducted in SPHMMC which is a large referral hospital with different specialties so this helped the research to include many women from other regions of the country apart from Addis Ababa. This is also helpful to include pregnant women with different cultural and social background. It was conducted at the OBGYN regular OPD of SPHMMC so it made it easier to collect data. And the limitations are it was difficult to find similar research done in Ethiopia which made it difficult to compare the results of this research with others. As many of the pregnant women could not read English fluently, intern colleagues had to help fill the questionnaires by translating.

Conclusion

The findings of the study illustrated that nominal number of antenatal women have adequate knowledge on breast care during pregnancy. With significant amount of the women having inadequate knowledge on breast care but majority of them have positive attitude about breast care during pregnancy. Very few of them practice breast care. Thus, health education programs are required to enhance the knowledge regarding breast problems and breast care to create awareness among antenatal mothers which further helps to reduce breast problems in postnatal period.

The best place to impart the education is the rural community, midwives, medical interns and OBGYN residents. Peer groups and health personnel can be mobilized to conduct these educational programs during every ANC visit. Governmental and non-governmental organizations should also take initiations to create awareness in public through its various health institutions and health personal. In addition to this, further researches should be conducted to cover other community areas and different part of the country in terms of knowledge, attitudes and practice of breast care during pregnancy and measure the breast problems.

Recommendation

Most of the pregnant women in the research did not have adequate knowledge. So we should work more on the knowledge by including breast care education and signs of breast problems in the danger signs of pregnancy, advice healthcare providers to teach about breast care in pregnancy too, work on helping pregnant women differentiate traditional malpractices in pregnancy from medically advised practices and do breast examination on routine ANC follow up visit.

To increase the positive attitude and practice in pregnant women, appreciate women who practice breast care.

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ANNEX

Annex I: information sheet and consent form

Dear respondents, my name is Dr. Lulit Fekadu. I am conducting a study to determine the level of knowledge, attitude and practice of breast care among pregnant women. You are selected as study participant to give us your baseline information and practice of breast care.

The information obtained from you was used to determine factors associated with breast care and improve the breast care practice.

An interviewer administer a short questionnaire to you and you will tell the data collector your answers. The information obtained from you was used for the purpose of the study only. You was exposed to no risk by enrolling into the research. All the information obtained from you during the study will remain confidential and only accessed by the investigator. Your name will not be recorded in the research questionnaire.

Your participation in the study is completely voluntary. Feel to ask any questions before, during and after the interview. You are also free to withdraw from the study at any time and you will not be exposed to any risk if you decided to do so.

I have read the above consent form and I have understood it. I hereby agree to participate in the study.

Respondent's signature

Annex II: Research questionnaire

I. RESPONDENT IDENTIFICATIONS

1. Age in years
2. Educational level
 - A. Can read and write
 - B. Primary school
 - C. Above primary school
3. Marital status
 - A. Single
 - B. Married
 - C. Divorced
4. Gravidity
 - A. Primigravida
 - B. Multigravida
5. place of residency
 - A. Addis Ababa
 - B. Oromia
 - C. others
6. Do you have ANC follow ups
 - A. yes
 - B. No
7. If yes to No. 6, how many visits
 - A. Once
 - B. More than once

II. KNOWLEDGE

1. Have you ever heard about complications of lack of breast care in pregnancy
 - A. Yes
 - B. No
2. Have you been taught about breast care at ANC follow up?
 - A. Yes
 - B. No
3. Please identify you think as a potential risk factors for breast problems in pregnancy
 - A. Parity
 - B. Lack of ANC follow ups
 - C. Lack of hygiene
4. Please identify warning signs of breast problems in pregnancy
 - A. Nipple change
 - B. Soreness
 - C. Nipple inversion
 - D. Itching
5. Please identify methods of breast care in pregnancy
 - A. Self-breast examination
 - B. Cleaning nipples
 - C. Clinical examination at ANC

III. ATTITUDE

1. Do you think breast care in pregnancy is important?
A. Yes B. No
2. Are breast problems in pregnancy preventable by breast care in pregnancy
A. Yes B. No
3. If you develop a pussy nipple discharge or itching during pregnancy, what would you do?
A. Consult physician B. Traditional medicine C. Prayer
D. Do nothing E. Other
4. Based on Q. No. 3, how fast do you take the measure
A. Within a week B. Within a month C. After a month
D. Do nothing

IV. PRACTICE

1. Do you practice breast care in pregnancy
 - A. Yes
 - B. No
2. If yes to Q. No 1, when did you start
 - A. First trimester
 - B. Second trimester
 - C. Third trimester
3. If yes to Q. No. 1, how often do you practice
 - A. More than once in a week
 - B. Once or twice in few months
4. If no to Q. No. 1, what is your reason
 - A. I do not think it is important
 - B. Uncomfortable
 - C. I do not know about it
 - D. Other