



Preconception care: perception and practice among women attending antenatal clinic at Federal Medical Centre, FMC, Owerri, Imo state

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Abstract

This study assessed the of preconception care: perception and practice among mothers attending antenatal clinic at Federal Medical Centre Owerri Imo State. Three research questions guided the study. The population of the study consisted of all the mothers who attends antenatal clinic at FMC. The study design was descriptive using a simple random sampling in selecting 146 respondents. A questionnaire was used for data collection with Cronbach Alpha reliability coefficient of 0.89. 135 questionnaires was retrieved, data collected were analysed using mean and percentage to answer the research questions. The results revealed that majority 57% of the respondents possessed knowledge of preconception care. On the perception of preconception care it revealed that the mothers had low perception towards preconception care also on the practice of preconception care, on average, 41.6% (less than half) of the respondents practice preconception care. Recommendation was made that there should be forum to educate women on the practice of preconception care because preconception care is aimed at improving health status, reducing behavior, individual and environmental factors that contribute to poor maternal and child health outcomes, in both the short and long term.

Keywords: Preconception Care, Perception, Practice, women attending antenatal Clinic

Introduction

Preconception care defined as any intervention provided to woman and couples of child bearing age, regardless of pregnancy status or desire, before pregnancy, to improve health outcomes for women, newborns and children (Dean *et al.*, 2013). It is an integral part of antenatal care because this care program has potential to assist women by reducing risk, promoting healthy lifestyles and improving readiness for pregnancy.

There is growing evidence that preconception care may have an important role in preventing short and long term adverse health consequences for women and their offspring (Steel *et al.*, 2015). In Sao Paulo city, 18.3% had planned pregnancy, 19.0% had not planned it, and 62.7% were ambivalent. Where 84.9% of the adolescent had not adopted any measure in preparation for pregnancy and 22.0% did not even know any measure to mention in this regard (Nascimento, 2015).

The early years of child's life care are critical in shaping future health and wider outcomes and it is acknowledged that maternal health before and during pregnancy impacts on the health of the child long after infancy (Asheley *et al.*, 2017). There has been increasing burden of maternal, newborn and child mortality globally. Worldwide, 400/10000 women of child bearing age die every year due to complication of pregnancy and child birth and 7 million infants die each year between birth to 12 months (Dhakal, 2011). According statistics, every minute in the world, 380 women become pregnant and 190 faces unplanned or unwanted pregnancy; 110 experience a pregnancy related complications; 40 have an unsafe abortion, and one woman die from a pregnancy- related cause. Hardly 20% of mothers receive all the required components of preconception care. Antenatal care is essential for early detection and treatment of problems during pregnancy (Nepali & Sapkota, 2017).

Preconception health encompasses a wider range of areas including women's genetic risks, overall health status, reproductive history, exposure to environmental toxins, and lifestyle. Moreover, risk factors such as pre-existing health conditions, exposure to dangerous substances, and engagement in high risk behavior e.g. obese during pregnancy, substances use. Preconception care helps in addressing pre pregnancy health risks and health problem. It has potential to further reduce global maternal and mortality and morbidity especially in low income countries (Nepali & Sapkota, 2017).

Poor maternal lifestyle and health prior to and during pregnancy increases risk of a range of poor pregnancy and birth outcome (Nepali & Sapkota, 2017).

National policy and legislation supports a shift to prevention and early intervention, which include reviewing the way in which maternity and health visiting services are delivered (Ashley *et al.*, 2017).

In February 2012, a world health organization (WHO) meeting brought together researches, practitioners and programme managers with

experience in preconception care as well as United nation Agencies and partners organizations to achieve a global consensus on the place of preconception care as part of an overall strategy to prevent maternal and childhood mortality and morbidity (WHO 2103).

Therefore, the main aim of this study is to describe the perception and the level of practices regarding preconception care which will help in estimating the preconception care needs of reproductive age group women.

Objectives of Study

- To ascertain knowledge of women on preconception care.
- To determine the perception of preconception care among women.
- To determine the level of practice of preconception care among women.

Materials and Methods

Setting/Area of Study

The setting was Federal Medical Centre Owerri.

Target Population

All pregnant women, who attends antenatal clinic at FCM, with a target population of 230 pregnant women who attends antenatal clinic from Monday to Thursday.

Sample Size Determination

A target population of 230 pregnant women and a sample size of 146 was used for this study. The sample of this research was calculated by using Taro Yamane (Chinweuba *et al.*, 2014)

The calculation formula of Tara Yamane

$$n = \frac{N}{1 + N(d)^2}$$

Where n = sample size,
d= the level of precision (assumed to be 0.05 at 95% confidence level)
N = number of people in the population

Substitute numbers into formula

$$n = \frac{230}{1 + 230 (0.05)^2} = \frac{230}{1 + 230 (0.0025)}$$

$$= \frac{230}{1 + 0.575} = \frac{230}{1.575} = 146.031 = 146$$

Therefore using the Taro Yamane formula sample size of 146 was gotten

A simple random probability sampling technique was used, in which a table of random numbers was used to distribute questionnaires randomly.

Sampling Technique

The procedure involve in the process of selecting good representation is referred to as the sampling technique (Chinweuba *et al.*, 2014)

A simple random probability sampling technique was used which a type of probability sampling which gives every member of the population equal chances of being selected for the study. Table of random numbers was used to distribute questionnaires randomly.

Instrument for Data Collection

The instrument for data collection is a questionnaire which is constructed in closed ended questions and rating scale questions (likert – type scale of strongly agreed, agreed, neutral, disagreed, strongly disagreed). The questionnaire has four sections focusing on the following

Section A: Gathered data on demographic characteristics

Section B: Gathered data on Knowledge of respondent on preconception care.

Section C: Gathered data on Perception of preconception care.

Section D: Gathered data on Practice of preconception care.

Questionnaires were administered to pregnant women attending antenatal at IMSUTH. The questions were interpreted to their local dialect to those who could not read.

Validity of Instrument

The questionnaire was examined by the researcher's supervisor for content and construct validity, some correction and modifications were made before the final copy was drafted.

Reliability of Instrument

Reliability is defined as the consistency of an instrument in collecting the same data. That means appropriateness for use over time (Chinweuba *et al.*, 2014)

To ensure the reliability of the instrument, 20 copies of the perception questionnaire was administered on the subjects using single administration approach. Crosnbach's Alpha SPSS statistical analysis was used to calculate the reliability, yielding a co efficient of 0.89. This showed that the instrument were reliable and suitable for the study.

Method of Data collection

The questionnaire was administered to pregnant women attending ANC at FMC, Owerri, from Monday to Friday. A total of 146 sample size was drawn from averagely 230 numbers of pregnant women that attends ANC in a week.

A table of random numbers was used in distributing the questionnaire. When a number is picked from the table of random numbers, it is reflected on the same number in the ANC register. The name of the pregnant woman on that chosen number is given a questionnaire to fill.

Method of Data Analysis

The collected questionnaires were sorted out to know if it is complete and clarify in responses to the questions asked. The data were analyzed using mean and percentage and the results were presented in frequency distribution table, percentage tables

Ethical Consideration

There were no provision for name in the questionnaire to avoid identifying them on the information given; good interpersonal relationship and good rapport existed between the researcher and the subjects. The rights of subjects were respected and these include right to privacy, confidentiality and equal treatment.

An introductory letter was gotten from the Head of Department, Nursing Science Department, and Imo State University and was given to the CMD of FMC. A letter of approval to distribute the questionnaire was given to the researcher by the CMD of FMC to proceed with distribution of questionnaire.

Results

Table 1: Percentage distribution of the socio-economic profile of respondents

Variables	Frequency	Percent (%)
Age (year)		
15-24	19	12.9
25-34	61	41.5
35-44	41	27.9
45 and above	25	17.7
Family setting		
Polygamy	27	18.4
Monogamy	82	55.8
Single parenting	37	25.8
Educational Level		
Primary	22	14.9
Secondary	70	47.6
Tertiary	54	37.5
Occupation		
Trading/business	65	44.2
Civil/public servant	29	19.7
House wife	30	20.4
Schooling	20	13.6
Not specific	2	2.1
Religion		
Christianity	134	91.1
Islam	10	6.8
Traditionalist	2	2.1
Parity		
None	21	14.3
1-2	65	50.3
3-4	52	35.4

Table 1 shows the profile of the respondents. It indicates that most respondents were in the 25-34 year's age group, had monogamy family setting,

attained secondary education, mostly Christians and traders and had up to 3-4 children.

Table 2: Respondents knowledge on preconception care

S/N	Items	Freq	%
7	Have you heard of preconception care before?	139	95
8	Where did you get the information from?		
a	Antenatal clinic	72	49.3
b	Health centres	56	38.4
c	Church	8	5.5
d	Social medias	10	6.8
9	A woman should visit the hospital in preparation for pregnancy	120	82
10	Have you ever heard or read about taking folic acid as part of preconception care?	127	87
11	Women need to add multivitamins with folic acid to their diet in order to prevent neural tube defects	97	66
12	Are you aware women should start taking folic acid before pregnancy?	117	80
	Grand Total	746	
	Average	83	57

Result from the data of Table 2 indicates that 95% of the respondents have heard of preconception care before and they got the information from antenatal clinic (49.3%), health centres (38.4%), church (5.5%) and social media (6.8%). 82% of the respondents possessed the knowledge that a woman should visit the hospital in preparation for pregnancy, take folic acid as part of

preconception care (87%), add multivitamins with folic acid to their diet in order to prevent neural tube defects (66%) and are aware that women should start taking folic acid before pregnancy (80%). Therefore, on average, 57% (more than half) of the respondents possessed knowledge of preconception care.

Table 3: Mean perception of the women towards preconception care

S/N	Items	SA	A	N	D	SD	Mean	Remark
13	It is important to make sure you are healthy before becoming pregnant.	11	22	10	40	63	2.16	Disagreed
14	Getting pregnant is not an accidental event.	21	34	17	19	47	2.58	Agreed
15	Fetal anomalies are not out of control and could be prevented.	12	20	53	25	36	2.64	Agreed
16	Optimizing pregnancy is difficult	10	8	4	56	68	1.88	Disagreed
17	Women hesitant about seeking preconception care.	50	24	10	16	6	2.84	Agreed
	Grand Mean						2.42	Disagreed

Result from the data of Table 3 shows the mean perception of the women towards preconception care. This indicates that women disagreed on the importance of being healthy before becoming pregnant and optimizing pregnancy is difficult with mean rating of 2.16 and 1.88 respectively. While they agreed that getting pregnant is not an accidental event with mean rating of 2.58, fetal

anomalies is not out of control and could be prevented (2.64), and women hesitant about seeking preconception care (2.84). However, the grand mean value of 2.42 falls within the range of disagreement. Therefore, the women in the study area had low perception towards preconception care.

Table 4: Percentage responses on the practice of preconception care among the women

S/N	Items	Freq	%
18	Do you want to have children in near future?	146	100
19	If so, are you practicing any preconception care?	44	30.1
20	Do you plan for your pregnancy?	55	37.7
21	Do you visit the health care provider for preconception care counselling?	54	37
22	Do you smoke or take alcohol before pregnancy?	16	11
23	Do you practice healthy diet before pregnancy?	61	41.8
24	Do you take folic acid before pregnancy?	49	33.6
	Grand Total	425	
	Average	61	41.6

Result present in Table 4 shows that 100% of the respondents agreed that they will have children in near future, practicing any preconception care (30.1%), have plan for your pregnancy (37.7%), visit the health care provider for preconception care counseling (37%), smoke or take alcohol before pregnancy (11%), practice healthy diet before pregnancy (41.8%), and take folic acid before pregnancy (33.6%). Therefore, on average, 41.6% (less than half) of the respondents practice preconception care.

Discussion

From the result shown in Table 2, 95% of the respondents have heard of preconception care before and they got the information from antenatal clinic (49.3%), health centers (38.4%), church (5.5%) and social media (6.8%). 82% of the respondents possessed the knowledge that a woman should visit the hospital in preparation for pregnancy, take folic acid as part of preconception care (87%), add multivitamins with folic acid to their diet in order to prevent neural tube defects (66%) and are aware that women should start taking folic acid before pregnancy (80%). Therefore, on average, 57% (more than

half) of the respondents possessed knowledge of preconception care.

Result from the data of Table 3 indicates that women disagreed on the importance of being healthy before becoming pregnant and optimizing pregnancy is difficult. While they agreed that getting pregnant is not an accidental event, fetal anomalies are not out of control and could be prevented and women hesitant about seeking preconception care. However, the grand mean value falls within the range of disagreement. Therefore, the women in the study area had low perception towards preconception care.

Result present in Table 4 shows that the respondents agreed that they will have children in near future, practicing any preconception care, have plan for your pregnancy, visit the health care provider for preconception care counseling, smoke or take alcohol before pregnancy, practice healthy diet before pregnancy, and take folic acid before pregnancy. Therefore, on average, less than half of the respondents practice preconception care.

From the result shown in Table 2, 95% of the respondents have heard of preconception care before and they got the information from antenatal clinic (49.3%), health centers (38.4%), church (5.5%) and social media (6.8%). 82% of the respondents possessed the knowledge that a woman should visit the hospital in preparation for pregnancy, take folic acid as part of preconception care (87%), add multivitamins with folic acid to their diet in order to prevent neural tube defects (66%) and are aware that women should start taking folic acid before pregnancy (80%). Therefore, on average, 57% (more than half) of the respondents possessed knowledge of preconception care. This could be as result of the fact that preconception care that begins early on and continues between pregnancies will help to ensure that women have a reproductive life plan and are able to decide when to have children, how many children they desire and methods used to prevent unintended pregnancy. Preconception care simultaneously promotes reproductive planning and intervention to reduce risk allowing women to enter pregnancy in the best possible health and to have the best possible chance of giving birth to a healthy newborn. Outreach and awareness must begin in adolescent if it is to truly improve the health of women and newborns and reduce the rates of prematurity and low birth weight.

A study conducted by Nepali and Sapkota (2017) on the knowledge and practice regarding preconception care among antenatal mothers. The level of knowledge on preconception care where more than half (51%) of the respondents had inadequate level of knowledge as followed by those having moderate (42%) level of knowledge and 7% had inadequate level of knowledge, 40% said preconception care should be started before getting pregnant. Olowokere *et al.* (2015) reported that most of the respondents were aware of preconception care and the main source of awareness was the antenatal clinic. Even though most of the respondents were knowledgeable about preconception care, the result showed that majority of the respondents have not sought the care before pregnancy. Akour *et al.* (2015) also reported that more than 58% of both women and men knew that a woman's health before conception can have serious consequences on the

health of the baby, while 39.5% of women and 32.7% of men were aware that men's health can have serious consequences in the health of the baby.

Result from the data of Table 3 indicates that women disagreed on the importance of being healthy before becoming pregnant and optimizing pregnancy is difficult. While they agreed that getting pregnant is not an accidental event, fetal anomalies are not out of control and could be prevented and women hesitant about seeking preconception care. However, the grand mean value falls within the range of disagreement. Therefore, the women in the study area had low perception towards preconception care. This is not surprising because women in need of preconception care are the least likely to receive counseling, fragmented health care services delivery system, lack of treatment service for high risk behaviour, inadequate physician reimbursement providing counseling services, lack of efficiency of counseling provided to unmotivated patients and their partner, limited number of conditions with evidence-based preconception intervention and lack of emphasis on risk assessment/health promotion in training programs

Result present in Table 4 shows that the respondents agreed that they will have children in near future, practicing any preconception care, have plan for your pregnancy, visit the health care provider for preconception care counseling, smoke or take alcohol before pregnancy, practice healthy diet before pregnancy, and take folic acid before pregnancy. Therefore, on average, less than half of the respondents practice preconception care. This is in line with Nepali and Sapkota (2017) who reported the level of practice regarding preconception care and found that about half (49%) of the respondents had poor practice whereas only about 26% of the respondent had good practice and fair (25%) level of practice. The study of the women on the uptake of preconception care showed that majority (65.9%) of the respondents have not sought the care before pregnancy while only 34% have asked about it in the hospital. There were low practice of perception care (Olowokere *et al.*, 2015). Ekem *et al.* (2018) studied the utilization of preconception care services and determined of

poor uptake among a cohort of women in Abakaliki southeast Nigeria. A total of 450 participant responded 42.2% were aware, 31.7% had good knowledge, while only 10.3% received perception care. This goes to show that preconception should be encouraged because preconception is aimed at improving health status, reducing behaviour and individual and environmental factors that contribute to poor maternal and child health outcomes, in both the short and long term.

Conclusion

Based on the findings of the study, it was concluded that less than half of the respondents possessed knowledge of preconception care. The women in the study area had low perception towards preconception care. Less than half of the respondents practice preconception care. This means that there should be forum to educate women on the practice of preconception care. This is because of the fact that preconception is aimed at improving health status, reducing behaviour and individual and environmental factors that contribute to poor maternal and child health outcomes, in both the short and long term.

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