

KNOWLEDGE ATTITUDE AND PRACTICES OF PREGNANT WOMEN ATTENDING COMPREHENSIVE HEALTH CENTRE, ISOLO, ONDO STATE TOWARDS HYGIENIC PRACTICE

ABSTRACT

The study assessed the knowledge, attitude and practices of pregnant women attending the Comprehensive Health Centre, Isolo, Ondo state Nigeria towards hygienic practice. A descriptive research design was utilized. The study was conducted at the antenatal clinic of the Comprehensive Health Centre, Isolo, Ondo state, Nigeria. A sample size of one hundred and twenty (120) at 4 percent error (5 more respondents) to accommodate for attrition rate was gotten by using Yermene's rule. Accidental, convenience sampling technique was adopted. One Hundred and twenty-five (125) questionnaires were distributed, 50 each for three consecutive weeks of antenatal appointments. The instrument for data collection adopted for this study was a self-designed questionnaire consisting of closed-ended questions. One hundred and twenty (120) questionnaires were retrieved. Data collected were analyzed using the statistical package for social sciences (SPSS 22), same were presented and summarized through the use of tables and charts. Pearson chi-square goodness of fit test was used to test the two null hypothesis, both of which were accepted. This suggested there was no significant statistical relationship between the variables tested. The implication was that parity and the knowledge of pregnant women had no significant impact or influence on their practice of hygiene. Although the result indicated a high level of knowledge but a little disparity in the attitude and practice, though considerably high too. It was deduced that that hygienic practices do not involve just one aspect of personal cleanliness but rather a collection of careful behaviours and practices to maintain safety and prevent the spread of disease especially in handling what stays on our body and what goes in. It was suggested that nurses, midwives and other health care providers must ensure that pregnant women are health educated on the several ways to keep themselves free from infection during pregnancy. This will be best achieved during ante-natal clinics, children clinics as well as when they visit the hospitals.

Keyword: knowledge; attitude; practice; pregnant women; hygiene practices

1 INTRODUCTION

There is a common tendency for people to overlook simple things that are important for the prevention of serious problems. Good hygienic behaviour and practices can improve a person's general state of health and prevent the occurrence of hygiene-related diseases, thus hygienic behaviour lowers the risk of infections¹.

Good hygienic practices, such as hand washing and the safe disposal of faeces, are essential for maximizing the health benefits of safe water and sanitation facilities². Evidence showed that when hygiene education accompanies the provision of water and sanitation, the number of deaths caused by diarrhea diseases is reduced by an average of 65 percent. Hygiene education and promotion encourages people to replace their unsafe practices with simple and safe alternatives. Maintaining oral health during pregnancy has been recognized as an important public health issue world-wide. Research continues to show an association between gum disease (gingivitis and periodontitis) and adverse pregnancy outcomes such as pre-natal loss, low birth weight and premature births³⁻⁴.

Pregnancy is often thought to be associated with increased susceptibility to infection. For example, during the 19th and early 20th century, pregnancy was thought to have a deleterious effect on the course of tuberculosis, so much that therapeutic abortion was recommended in pregnant women with tuberculosis⁵. This may be due to the various physiological, anatomical and biochemical changes that occur in the body of pregnant women during pregnancy especially the ones that has to do with elevation of the hormone level, suppression of the immune system and may also account for the exaggeration in the excretion of waste body products such as sweat, urine, mucus, saliva etc. during pregnancy. Pregnancy is a special state for a woman which is associated with concomitant physiological and emotional changes. For instance, a number of pathologies have been reported in the oral cavity among pregnant women⁶.

⁷ Poor hygienic practices are rampant amidst pregnant women, some of which include:

- Sharing of sanitary facilities by the pregnant women without care for the cleanliness

60 state of the facilities.

61 • Not changing the pant daily and when they have discharge.

62 • Wearing of wet pant due to whatever reason like no sunshine to dry the pants after washing
63 them, or to make them feel comfortable and

64 • Use of herbal concoction to wash their private part for easy baby delivery or as part of culture
65 depending on which family or tribe the women married from.

66 Practicing personal hygiene was ranked as the first set of behaviors in maintaining the safety of food
67 and reducing number of foodborne illnesses with washing hands before handling food receiving
68 the highest rank⁸. Large numbers of the women do not use to properly clean their hands and often
69 times contaminate them after washing. Whereas, personal hygiene as indicated in the activities of
70 daily living such as safe practice of washing hands before preparing food makes food poisoning less
71 likely to occur⁹. Hands should be washed with warm water and soap for at least 20 seconds¹⁰. As a
72 result of the anatomical design of the female urethral, they are more susceptible to urinary tract
73 infection than male. Isolates from urinary tract infection are mainly of faecal origin, suggesting poor
74 hygiene amongst pregnant women¹¹. Therefore, the need for personal hygiene should be stressed as
75 symptomatic and asymptomatic bacteriurea can lead to cystitis and pyelonephritis.

76 In a research survey it was discovered that there is an average oral health knowledge and positive
77 attitudes to oral health¹²⁻¹³. Interestingly, the good knowledge and attitudes displayed were not fully
78 reflected in the women's oral health practices¹³. While it was found that most women have a good
79 understanding of hygiene, practiced good personal hygiene, went for regular antenatal services,
80 took adequate food, fruits and vegetables, maintained one sexual partner as preventive measure
81 for infection during pregnancy¹⁴⁻¹⁵.

82 Evidently, the African literature has a dearth of studies that investigate the knowledge, attitude and
83 practices of pregnant women towards hygienic practice. To our knowledge, no previous study in
84 Nigeria addresses this important subject. This study was conducted to fill that gap and to add to our
85 knowledge on how very little practices that are often overlooked can wrought havoc to the mother and

unborn child during pregnancy. This is particularly important since water, sanitation and hygiene are linked to child and maternal health. Access to improved water, personal hygiene and sanitation which are all parameters of hygienic practice are key to Sustainable Developmental Goals (SDGs 3 & 6) targets of addressing child and maternal mortality in Nigeria. Hence we will investigate the knowledge attitude and practices of pregnant women attending the Comprehensive Health Centre, Isolo, Ondo State towards hygienic practice.

1.1 STATEMENT OF PROBLEM

In the 1950s, the transplant immunologist Peter Medawar proposed that during pregnancy there is a general maternal immune suppression in order to assure tolerance of this miallogeneic fetus¹⁶⁻¹⁷. Our understanding of the immune alterations that occur during pregnancy has evolved considerably since Medawar's time to include more complex theories of immune alteration. There is evidence that adaptive immune responses are weakened, potentially explaining reduced viral clearance¹⁸⁻¹⁹. This spells out the importance of carefulness in handling what pregnant women ingest as well as a good hygienic practice in respect to their body and the environment.

But unfortunately the pregnant state may also predispose to unhealthy habits. These habits may include: lethargy, lowered interest in self-care such as bathing, tooth brushing etc., likeness for particular types of food groups at the detriment of other essential food groups, frequent unhealthy snacking habits such as licking sweets to curb nausea, and pica (craving for unhealthy substances or food)¹³

Food-borne diseases have been increasing in recent years, with a greater impact on the health and economy of developing countries than developed countries²⁰. According to the World Health Organization, in 2005 alone, 1.8 million people died from diarrheal diseases, and most of these cases were attributed to the ingestion of contaminated food and drinking water. According to the Centers for Disease Control and Prevention, an estimated one in six Americans (or 48 million people) become sick, 128,000 are hospitalized, and 3000 die of foodborne diseases every year²¹. Of all the ten common disease that causes mortality in pregnancy as reviewed by Sappenfield and his team only few doesn't have its mode of transmission directly associated with poor hygienic practice, however, in all cases, hygienic practice has a vital role to play⁵. This research therefore intends to assess the

114 knowledge attitude and practices of pregnant women attending the comprehensive health centre,
115 isolo, ondo state towards hygienic practice.

116 **1.2 OPERATIONAL DEFINITION OF TERMS**

117 **Pregnant Women:** a female whose offspring presently develops inside her also called gravidity or
118 gestation.

119 **Hygiene:** Condition of practices conducive to maintaining health and preventing disease especially
120 through cleanliness.

121 **Hygienic Practice:** a set of practices performed for the preservation of health and to prevent disease.

122 **1.3 RESEARCH HYPOTHESIS**

124 ➤ There is no significant relationship between parity and practices of hygiene among pregnant
125 women.

126 ➤ There's no significant relationship between the knowledge and practices of hygiene among
127 pregnant women.

128 **2.0 METHODOLOGY**

129 A descriptive study design was adopted, since the focus is to assess the knowledge, attitude and
130 practice of pregnant women attending a comprehensive health centre towards hygiene practices. This
131 research was conducted in Isolo Comprehensive Health Centre located in Akure South of Ondo State.
132 The target population were pregnant women attending the antenatal clinics of the above named
133 health center. An estimate of three hundred (300) pregnant women registered with the antenatal clinic
134 for the past three (3) months was made. The sample size was one hundred and twenty (120) gotten
135 by using Yermane's rule. The instrument used for this study was a well-structured self-designed
136 questionnaire consisting of structured closed-ended questions (yes/no questions), based on published
137 facts, which comprise of sections to assess the knowledge of pregnant women, their attitudes and
138 their practices towards hygienic practices during pregnancy. The instrument used (questionnaire) was
139 subjected to scrutiny to make sure it was reliable for carrying out the research. The content of the

instrument was compared with the objectives of the study and the literature to ensure content validity. The instrument was pre-tested by carrying out a pilot study to check the reliability of this instrument. Ten percent of the sample size was used, twelve (12) questionnaires were distributed at Ugele comprehensive health center, Akure and analyzed using Cronbach alpha coefficient. Ambiguous questions and the ones which reduced the Cronbach alpha coefficient were removed. The research hypothesis was analyzed using Pearson chi-square goodness of fit test. One hundred and twenty-five (125) questionnaires were distributed to accommodate for attrition but one hundred and twenty (120) were properly filled and retrieved. Accidental convenience sampling technique was adopted; the questionnaires were distributed on three different occasions with an average of fifty questionnaires distributed each week of antenatal appointments.

2.1 DATA ANALYSIS

Data collected were analyzed using the statistical package for social sciences (SPSS 22). Analyzed data were summarized and presented in a simplified form using tables and charts.

This was followed by interpretation of the data presented in the tables.

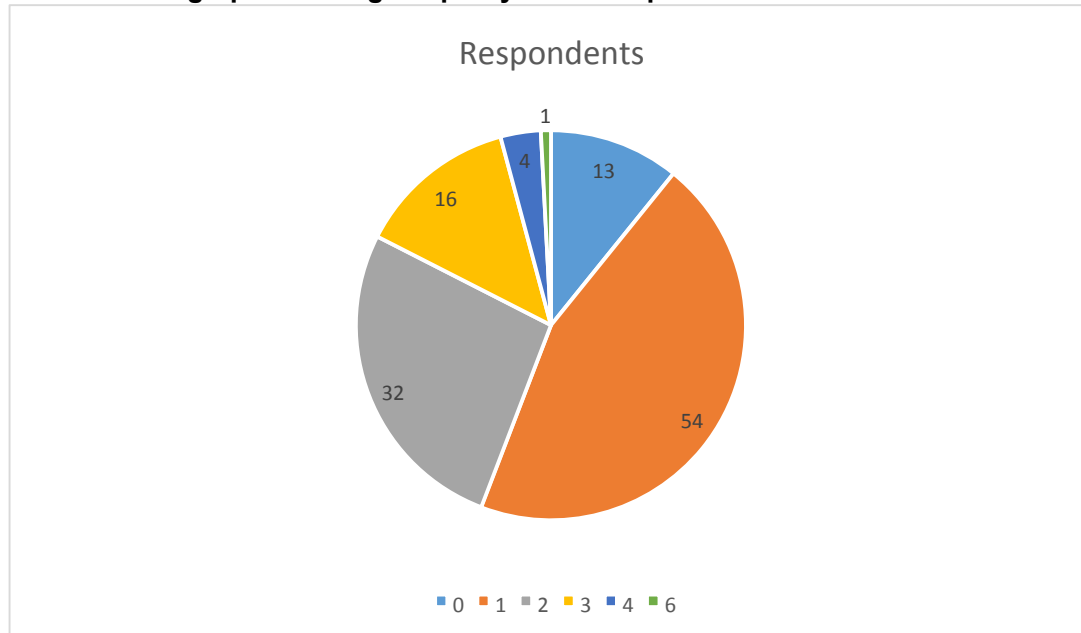
2.2 ETHICAL CONSIDERATION

Approval and ethical clearance were obtained from the primary health care (PHC) coordinator and the matron of the health center in order to collect data. Both written and oral permissions were obtained from each respondents that participated in the study after succinctly explaining to them the importance and objectives of the study. The researcher also explained to all respondents that they are free to participate or opt out of the study as their answers would be confidential and will only be used for scientific research purposes.

The written consent is attached to the appendix of this manuscript.

3. RESULT

Chart1: Demograph showing the parity of the respondents



10.8 % had 0 number of children, 45% had 1 child, 26.7% had 2 children, 13.3% had 3 children, 3.3% had 4 children while 0.8% had 6 children.

TABLE 1: KNOWLEDGE OF PREGNANT WOMEN ON HYGIENE PRACTICES

S/N			FREQUENCY N = 120	PERCENTAGE (%)
1.	Regular Antenatal Visit is essential during pregnancy	YES NO	118 2	98.3 1.7
2.	There is adequate and effective teaching on personal hygiene on every antenatal visit	YES NO	110 10	91.7 8.3
3.	Lack of oral hygiene such as regular brushing can result in infection during pregnancy	YES NO	88 32	73.3 26.7

4	Lack of adequate perineal care during pregnancy can negatively affect the mother and the unborn baby	YES NO	101 19	84.2 15.5
5	Ensuring a good and clean environment will promote healthy living during pregnancy	YES NO	106 14	88.3 11.7
6	Eating of balanced diet and properly handled foods/fruits promotes the development of the unborn baby	YES NO	111 9	92.5 7.5

Inference: 98.3% of the respondents knew that regular antenatal visit was essential during pregnancy. 91.7% of the respondent agreed that there is adequate and effective teaching on personal hygiene on every antenatal visit. 73.3% of the respondents agreed that lack of oral hygiene such as regular brushing can result in infection during pregnancy while 26.7 disagreed. 84.2% of the respondents had knowledge that lack of adequate perineal care during pregnancy can negatively affect the mother and the unborn baby while 15.5% has poor knowledge about the above. 88.3% respondents had good knowledge that ensuring a good and clean environment will promote healthy living during pregnancy while 11.7% had poor knowledge. 92.5% respondents had the knowledge that eating of balanced diet and properly handled foods/fruits promotes the development of the unborn baby.

TABLE 2: ATTITUDE OF PREGNANT WOMEN TOWARDS HYGIENE PRACTICES

			FREQUENCY N=120	PERCENTAGE (%)
1	Health education on hygiene practices is not important and needful during antenatal visits	AGREE STRONGLY AGREE DISAGREE STRONGLY DISAGREE	4 2 51 63	3.3 1.7 42.5 52.5
2	Brushing of teeth twice daily is stressful and unnecessary	AGREE STRONGLY AGREE DISAGREE STRONGLY DISAGREE	31 1 59 29	25.8 0.8 49.2 24.2
3	Changing of under wears soiled with urine and discharges once or twice daily is a waste of effort	AGREE STRONGLY AGREE DISAGREE STRONGLY DISAGREE	3 1 61 55	2.5 0.8 50.8 45.8
4	Regular hand washing after handling dirty substance, such as using the toilet is more of a waste of water, soap and time.	AGREE DISAGREE STRONGLY DISAGREE	3 56 61	2.5 46.7 50.8

5	Tight clothes does not affect the unborn baby	AGREE STRONGLY AGREE DISAGREE STRONGLY DISAGREE	1 1 51 67	0.8 0.8 42.5 55.8
6	It is not necessary to wash fruits before eating since they are natural and fresh foods	AGREE STRONGLY AGREE DISAGREE STRONGLY DISAGREE	3 2 66 49	2.5 1.7 55.0 40.8

184

185 **Inference:** Table 2 shows that 42.5% disagreed while 52.5% strongly disagreed to the statement
186 “health education on hygiene practices is not important and needful during antenatal visits” 25.8% of
187 the respondents agreed that brushing of teeth twice daily is stressful and unnecessary, 1.7% strongly
188 agreed 0.8% strongly agreed, 49.2% disagreed while 24.2% strongly disagreed. 2.5% of the
189 respondents agreed that changing of under wears soiled with urine and discharges once or twice daily
190 is a waste of effort, 0.8% strongly agreed, 50.8% disagreed while 45.8% strongly disagreed. 2.5% of
191 the respondents agreed that regular hand washing after handling dirty substance like using the toilet
192 is more of a waste of water, soap and time, 46.7% disagreed while 50.8% strongly disagreed. 0.8%
193 respondents agreed that tight clothes do not affect the unborn baby, 0.8% strongly agreed, 42.5%
194 disagreed while 55.8% strongly disagreed. 2.5% respondents agreed that it is not necessary to wash
195 fruits before eating since they are natural and fresh foods, 1.7% strongly agreed, 55.0% disagreed
196 while 40.8% strongly disagreed.

197

198 **TABLE 3: PRACTICES OF HYGIENE BY PREGNANT WOMEN**

S/N			FREQUENCY N = 120	PERCENTAGE (%)
1	Do you attend your antenatal clinics?	OFTEN SOMETIMES RARELY	116 1 3	96.7 0.8 2.5
2	Do you brush your teeth at least twice daily?	OFTEN SOMETIMES NEVER	49 44 27	40.8 36.7 22.5
3	Do you wash your hand before and after using the toilet?	OFTEN SOMETIMES RARELY	99 19 2	82.5 15.8 1.7
4	Do you discard stagnant water around your house?	OFTEN SOMETIMES RARELY NEVER	95 19 1 5	79.2 15.8 0.8 4.2
5	Do you sleep at least 8/9 hours daily?	OFTEN SOMETIMES NEVER	73 38 9	60.8 31.7 7.5
6	Do you change soiled under wears at least twice daily?	OFTEN SOMETIMES NEVER	103 12 5	85.8 10.0 4.2

199

Inference: Table 3 shows the practices of hygiene by pregnant women. 96.7% of the respondents often attend their antenatal clinics, 0.8% attend sometimes. 40.8% respondents often brush their teeth twice daily, 36.7% sometimes brush twice daily while 22.5% never brush the teeth twice daily. 82.5% of the respondent practice washing of hand after using the toilet often, 15.8% practice this sometimes while 1.7% respondents never practiced it. 79.2% of the respondents often discard stagnant water around their houses, 15.8% practice it sometimes, 0.8% rarely practice while 4.2% never discard stagnant water around their houses. 60.8% respondents often sleep for at least 8/9 hours daily, 31.7% do sometimes while 7.5% never sleep 8/9 hours daily. 85.8% of the respondents often change soiled under wears at least twice daily, 10.0% change soiled under wears at least twice daily sometimes while 4.2% never change soiled under wears at twice daily.

3.1 HYPOTHESIS TESTING

Hypothesis 1: There is no significant relationship between parity and practices of hygiene among pregnant women

TABLE 4

	Do you change soiled under wears at least twice daily?			Total
	often	sometimes	never	
PARITY .00	11	1	1	13
1.00	45	7	2	54
2.00	27	4	1	32
3.00	15	0	1	16
4.00	4	0	0	4
6.00	1	0	0	1
Total	103	12	5	120

Chi-Square Tests

	Value	df	Asymp. Sig. (2sided)
Pearson Chi-Square	4.000 ^a	10	.947
Likelihood Ratio	6.159	10	.802
Linear-by-Linear Association	.705	1	.401
N of Valid Cases	120		

a. $X^2 = 4.0$, $df = 10$, $p = 0.947$

Inference: The data analysed using chi-square goodness of fit test. The null hypothesis was accepted at $X^2 (10) = 4.0$, $p = 0.05$. Hence, there is no significant relationship between the parity and practices of hygiene among pregnant women.

Hypothesis 2:

There is no significant difference between the knowledge and practices of hygiene among pregnant women.

TABLE 6

	Do you brush your teeth at least twice daily?			Total
	often	sometimes	never	
Lack of oral hygiene such Yes as regular brushing can	36	29	23	88
No result in infection	13	15	4	32
during pregnancy	49	44	27	120
Total				

Chi-Square Tests

	Value	df	Asymp. Sig. (2sided)
Pearson Chi-Square	3.180 ^a	2	.204
Likelihood Ratio	3.367	2	.186
Linear-by-Linear Association	1.297	1	.255
N of Valid Cases	120		

$\chi^2 = 3.180$, $df = 2$, $p = 0.204$

Inference: The data was analysed using a Chi-square goodness of fit test. The null hypothesis was rejected at $\chi^2(2) = 3.180$, $p \geq 0.05$. Hence, there is no significant difference between the knowledge and practices of hygiene among pregnant women.

4. DISCUSSION

This study showed that majority of the pregnant women had a high level of knowledge about hygiene practices irrespective of their educational background. This is in consonance with the findings that most women have a good understanding of hygiene¹⁴⁻¹⁵ Overall, the respondents in the present survey displayed average oral health knowledge and positive attitudes to oral health as observed in similar studies¹²⁻¹³. Some respondents however, incorrectly agreed that lack of oral hygiene do not lead to infection or cause any harm during pregnancy. This misconception needs to be addressed particularly because a good number of the respondents believe that the mouth should be cleaned twice daily to prevent dental diseases yet less than a third of the respondents actually clean their mouths twice daily. This may be due to certain hidden socioeconomic factors.

Also, more than 50% of the respondents maintained good personal hygiene, went for regular antenatal services, took adequate food, fruits and vegetables, changed soiled underwear, brushed their teeth at least twice daily, do not keep stagnant water as a preventive measure for infection during pregnancy in consonance with other studies¹⁴⁻¹⁵. The result on the attitude of pregnant women towards hygienic practices showed a satisfactory attitude towards the practice of hygiene during pregnancy and this could be the reason for enhanced practice of these hygiene techniques. However, this contrast the study that discovered that good knowledge and attitudes displayed were not fully reflected in the women's oral health practices¹³.

4.1 Hypothesis I

The null hypothesis was accepted at $X^2(10) = 4.0$, $p \geq 0.05$. Hence, there is no significant relationship between the parity and practices of hygiene among pregnant women. The implication is that according to the findings of this study, we can state that parity of pregnant women had no significant statistical relationship with their practice of hygiene. This then means there could be other factors that influence their practice other than parity.

4.2 Hypothesis II

The null hypothesis was rejected at $X^2(2) = 3.180$, $p \geq 0.05$. Hence, there is no significant difference between the knowledge and practices of hygiene among pregnant women. This suggested that the knowledge of pregnant women about hygienic practices had no significant statistical relationship with their practice of personal hygiene. This is evidenced by the disparity certain levels of knowledge and their practice as it revealed a lobe sided knowledge and practice as also seen in other studies¹²⁻¹³.

4.3 CONCLUSION

The result of this study showed that hygienic practices do not involve just one aspect of personal cleanliness but rather a collection of careful behaviours and practices to maintain safety and prevent the spread of disease especially in handling what stays on our body and what goes in. Personal hygiene is not achieved in being careful in just one aspect of personal cleanliness as seen in our result of findings but in all because if a pregnant woman washes her tooth twice daily but does not

change her soiled under-wears as at when due, though pathogens may not invade the body through the oral route but they could do so through the genito-urinal and anal route. This may be part of the reason for the present maternal mortality ratio in Nigeria at 578 death of women per 100, 000. It is therefore important that nurses, midwives and other health care providers ensure that pregnant women are health educated on the several ways to keep themselves free from infection during pregnancy. This will be best achieved during ante-natal clinics, children clinics as well as when they visit the hospitals.

CONSENT

A written informed consent was obtained from the pregnant women and other approved parties in the process of data collection.

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