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## Socio-demographic determinants of health promotion practices among postpartum women attending primary health care centers in Abia state Nigeria

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### Abstract

The period following childbirth is a time of significant transition for postpartum women. It is a sensitive time and various practices are applied by these women to protect their health and newborn. Little is known about the engagement of health promotion practices of postpartum women in Abia State; and no empirical data was identified in Abia State hence the motivation to determine socio-demographic determinants of health promotion practices among postpartum women attending primary health care centers in Abia State. To achieve this purpose, 16 specific purposes, and 16 corresponding research questions and 16 hypotheses were raised. Descriptive survey design was adopted. Multi-stage sampling technique was used to draw 600 postpartum women attending primary health care centers at Abia State between September and October, 2021. Research instrument was a researcher- developed questionnaire tagged "Health Promotion Practices Questionnaire, (HPPQ)" which was divided into four clusters (adequate nutrition, rest and sleep, breastfeeding and personal hygiene). Three experts validated the instrument. The HPPQ was subjected to reliability test using Kuder-Richardson (K-R 20) and the reliability coefficients of 0.74, 0.73, 0.61 and 0.69 were obtained for adequate nutrition, rest and sleep, breastfeeding and personal hygiene respectively. Analysis was done using 462 adequately completed copies of the instrument. Frequencies and percentages were used to answer the research questions, while chi-square statistics was used to test the hypotheses at 0.05 alpha levels. The findings showed that greater proportion of women below 23 years of age engaged less in health promotion practices regarding adequate nutrition, rest and sleep. Based on the above findings, conclusions were drawn and recommendations among others were made: every postpartum woman should be adequately informed and sensitized on the importance of postpartum care and the essence of regular attendance to Primary Health care centers during postpartum period, particularly the younger ones, using appropriate channels and settings.

**Keywords:** socio-demographic determinants health promotion, postpartum women

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### Introduction

Postpartum period is a very special phase in the life of a woman and her newborn. According to World Health Organization {WHO} (2014) <sup>[2]</sup> postpartum period is described as the most critical and yet the most neglected phase in the lives of mothers and babies. This period is characterized with strong emotion, remarkable physical changes following the expulsion of the placenta; the physiological and psychological adjustment of the body and altered relationships as postpartum women assumed adjustment to new roles. It is a time of profound transition, making great demands on the woman's resilience and capacity to adapt. Arulkumaran and Tamizian (2004) <sup>[6]</sup> stated that it is a period in a woman's life that is characterized by the return of pelvic organs to non-gravid state, reversal of metabolic change of pregnancy and establishment of lactation. It is a period of exclusive breastfeeding, a period of emotional support by their friends and loved ones, a time of merriment for God's blessings; nonetheless, this period is also characterized with depression and altered self-image (Okeudo, Ezem, and Ojjiyi, 2012) <sup>[3]</sup>.

Some women at this period engage less on health promotion practices and they under –utilize a postpartum health care service that promotes their health. Non-compliance to health promotion practice results to fatigue, tiredness, bodily pain and other physical conditions that have negative impact on mothers' physical and social health. Thompson, Robert, Currie and Ellwood (2002) outlined such conditions to include hemorrhoids, constipation, urinary incontinence, disturbed sleep, sleeping disorders, lack of sexual desire, and painful intercourse. Health promotion practices raises the health status of women and communities, improving, advancing, supporting, encouraging and placing health higher above any other thing. Fahey and Shenassa (2013) <sup>[1]</sup> in their explanation stated that health promotion gives women competence by which they navigate stressful life events and experience.

Health promotion, to Tones and Tilford, (2001) <sup>[4]</sup>, is any planned measure and practices that promote health. It is defined as a process of enabling individuals and communities increase control over the determinants of health, thereby improving their health to live an active and productive life (Erikson and Lindstrom, 2008). Health

promotion will inform, influence and assist women to accept more responsibility and be more active in matters affecting all aspects of their health. These practices virtually promote health and prevent ill-health; increasingly enable postpartum women to gain control over actions affecting their health and well-being as well as developing positive attitude towards health. Some of these health promotion practices are taught and advocated for during antenatal and postnatal visits at Postpartum care units of every Primary Health Care Center for their optimal wellbeing. Postpartum care units at primary health centers, provide primary care services for women that gave birth and their newborns. Primary health care centers are the entry point to personal health services of postpartum women for the vast majority of health conditions to meet the health needs of women they are essentially established to provide accessible, affordable and available primary health care to people of all categories; women, youths, and child bearing women. These centers are state –owned rural health care facilities, essentially single-physician clinics with facilities for minor surgeries. Particularly, lack of appropriate health care during postpartum period which is exacerbated by low rate of provision of skilled health care personnel could result to significant ill- health or even death. Kassebaum, Lopez, Murray, and Lozano, (2014) <sup>[2]</sup> noted that lack of attention to maternal health needs is of particular concern given that more than one half of pregnancy – related deaths occur after birth of the infant. The rates of provision of skilled care are always lowered after childbirth when compared to rates before and during childbirth.

A number of variables may be associated with the health promotion practices of postpartum women and this may influence their health promotion practices. These variables are age, parity, educational status, gender, location and occupation amongst others. They are regarded as socio-demographic variables.

It is as a result of this that this study is designed to determine the socio- demographic determinants of health promotion practices among postpartum women attending Primary Health Care Centers in Abia State, with a view to promoting healthy living of women at postpartum period, encouraging them to continuously engage in health promotion practices necessary for their wellbeing.

### **Purpose of the Study**

The main purpose of this study was to determine the socio-demographic determinants of health promotion practices among postpartum women attending Primary Health Care Centers in Abia State.

Specifically, this study determined the percentages of postpartum women engaged in health promotion practices regarding:

1. adequate nutrition in relation to their ages
2. adequate nutrition in relation to parity
3. adequate nutrition in relation to their level of education
4. adequate nutrition in relation to their occupation
5. rest and sleep in relation to their age
6. rest and sleep in relation to parity.
7. rest and sleep in relation to their level of education
8. rest and sleep in relation to their occupation

### **Research Questions**

The following research questions guided the study

1. What percentage of postpartum women of different age ranges engaged in health promotion practices regarding adequate nutrition?
2. What percentage of postpartum women of different parity level engaged in the health promotion practices regarding adequate nutrition?
3. What percentage of postpartum women of different occupational level engaged in health promotion practices regarding adequate nutrition?
4. What percentage of postpartum women of different educational level engaged in health promotion practices regarding adequate nutrition?
5. What percentage of postpartum women of different age ranges engaged in health promotion practices regarding rest and sleep?
6. What percentage of postpartum women of different parity level engaged in the health promotion practices regarding rest and sleep?
7. What percentage of postpartum women of different occupational level engage in health promotion practices regarding rest and sleep?
8. What percentage of postpartum women of different educational level engaged in health promotion practices regarding rest and sleep?

### **Hypotheses**

Specifically, the following null hypotheses guided the study and were tested at 0.05 levels of significance

1. There will be no significant difference in the percentages of number of postpartum women of different age ranges that engage in health promotion practice of adequate nutrition
2. There will be no significant difference in the percentages of number of postpartum women of different parity that engage in health promotion practice of adequate nutrition

3. There will be no significant difference in the percentages of number of postpartum women of different level of education that engage in health promotion practice of adequate nutrition
4. There will be no significant difference in the percentages of number of postpartum women of different level of occupation that engage in health promotion practice of adequate nutrition
5. There will be no significant difference in the percentages of number of postpartum women of different age ranges that engage in health promotion practice of rest and sleep
6. There will be no significant difference in the percentages of number of postpartum women of different parity that engage in health promotion practice of rest and sleep
7. There will be no significant difference in the percentages of number of postpartum women of different level of education that engage in health promotion practice of rest and sleep
8. There will be no significant difference in the percentages of number of postpartum women of different level of education that engage in health promotion practice of rest and sleep

### Research Method

A descriptive survey design was adopted for the study. The area of study for this research was Abia state. Abia state is one of the 36 states of the Federal Republic of Nigeria. The sample size comprised 600 postpartum women attending postpartum care units of primary health care centers at the period of data collection. The sample size for the study was determined using multistage sampling procedure. The instrument for this study tagged "Health Promotion Practices Questionnaire (HPPQ)" was constructed by the researcher. The questionnaire was developed through review of related literature, observation and researcher's personal experiences. The instrument was validated by four experts, two from the Department of Human Kinetics and Health Education and one from the Department of Educational Foundations, all in Nnamdi Azikiwe University, Awka. The data collected from postpartum women were used to determine the reliability of the instruments (Appendix F, page 172) The reliability indices of the four clusters of the study namely; adequate nutrition, rest and sleep, breast feeding and personal hygiene were determined using Kuder-Richardson (K-R 20) statistic to get the following values of 0.74, 0.73, 0.61 and 0.69 respectively. The reliability coefficients were all considered adequate and were accepted for the study. The data were collated and coded using statistical package for social sciences (SPSS) Version 25). Percentages were used to answer the research questions and Chi- Square was used to test the hypotheses at 0.05 level of significance.

### Results and Discussion

#### Research Question 1

What percentage of postpartum women of different age ranges engaged in health promotion practices regarding adequate nutrition?

#### Hypothesis 1

There will be no significant difference in the percentage number of postpartum women of different age ranges that engaged in health promotion practices regarding adequate nutrition

Data answering research question one and hypothesis one are contained in table 1

Percentage of Postpartum Women Engaging in Health Promotion Practices Regarding Adequate Nutrition by Age Ranges

Table 1

Health Promotion Practices Regarding Adequate Nutrition	18-22years f (%)	23-27years f (%)	28-32years f (%)	33-37years f (%)	38-42years f (%)	43-47years f (%)	Total f (%)
Engaged in practices	38 (8.2)	103 (22.3)	107 (23.2)	85(18.4)	47 (10.2)	13(2.8)	393 (85.1)
Do not Engaged in practices	12 (2.6)	9 (1.9)	13 (2.8)	10(2.2)	10 (2.2)	15(3.2)	69 (14.9)
Total	50 (10.8)	112 (24)	120 (26)	95(20.6)	57 (12.3)	28(6.0)	462 (100)

$X^2=43.68$ ,  $df= 5$ ,  $p$ -Value =.000, Significant

The results displayed in Table 1 on health promotion practices of postpartum women based on their age ranges showed that 23.2 percent of the postpartum women between the ages of 28 - 32 years engaged in health promotion practices regarding adequate nutrition.

The summary of the chi-square test presented in table 1 shows that percentage of postpartum women of different age ranges that engaged in health promotion practices regarding adequate nutrition differed significantly,  $X^2 = 43.68$ ,  $df, 5$ ,  $p$ -Value =.000. Since the  $p$ -Value was less than the stipulated 0.05 level of significance, the null hypothesis was rejected.

**Research Question 2**

What percentage of postpartum women of different parity levels engage in the health promotion practices regarding adequate nutrition?

**Hypothesis 2**

There will be no significant difference in the percentage number of postpartum women of different parity level that engaged in health promotion practices regarding adequate nutrition.

Data answering research question two and hypothesis two are contained in table 2

Percentages of Postpartum Women Engaging in Health Promotion Practices Regarding Adequate Nutrition based on Parity Levels

**Table 2**

<b>Health Promotion Practices Regarding Adequate Nutrition</b>	<b>1-3 Children f (%)</b>	<b>4-6 Children f (%)</b>	<b>7 &amp; Above f (%)</b>	<b>Total f (%)</b>
Engaged in practices	273 (59.0)	110 (23.8)	10 (2.2)	393 (85.1)
Do not Engaged in practices	37 (8.0)	25 (5.4)	7 (1.5)	69 (14.9)
Total	310 (67.0)	135 (29.2)	17 (3.8)	462 (100)

$X^2 = 12.77$ ,  $df = 2$ ,  $p$ -Value = .002, Significant

Table 2 shows that 59.0 percent of postpartum women with the parity level of 1-3 children engaged most in health promotion practices regarding adequate nutrition, followed by 23.8 percent and 2.2 percent of the women with parity levels of 4-6 and 7 and above children respectively who engaged in health promoting practices regarding adequate nutrition respectively. A total of 393 (85.1%) of the women of different parity levels engaged in health promotion practices regarding adequate nutrition. The summary of the chi-square test presented in table 2 shows that percentage of postpartum women of different parity levels that engaged in health promotion practices regarding adequate nutrition differed significantly,  $X^2 = 12.77$ ,  $df = 2$ ,  $p$ -Value = .002. Since the  $p$ -Value was less than the stipulated 0.05 level of significance, the null hypothesis was rejected.

**Research Question 3**

What percentage of postpartum women of different occupational levels engaged in health promotion practices regarding adequate nutrition?

**Hypothesis 3**

There will be no significant difference in the percentage number of postpartum women of different occupational status that engaged in health promotion practice regarding adequate nutrition

Data answering research question three and hypothesis three are contained in table 3

Percentages of Postpartum Women Engaging in Health Promotion Practices Regarding Adequate Nutrition based on Occupational Status

**Table 3**

<b>Health Promotion Practices Regarding Adequate Nutrition</b>	<b>Civil Servant f (%)</b>	<b>Housewife f (%)</b>	<b>Businesswoman f (%)</b>	<b>Farming f (%)</b>	<b>Total f (%)</b>
Engaged in practices	144 (31.1)	78 (16.9)	143 (30.9)	28 (6.0)	393 (85.1)
Do not Engaged in practices	21 (4.5)	12 (2.6)	27 (5.8)	9 (1.9)	69 (14.9)
Total	165 (35.7)	90 (19.5)	170 (36.8)	37 (8.0)	462 (100)

$X^2 = 3.50$ ,  $df = 3$ ,  $p$ -Value = .320, Not Significant

As shown in table 3, 31.1 percent of the postpartum women who were civil servants engaged most in health promotion practices regarding adequate nutrition, followed by 30.9 percent, 16.9 percent and 6.0 percent of the women identified as businesswomen, housewives and farmers respectively who engaged in health promotion practices regarding adequate nutrition. The table also indicated a total number of 69 (14.9%) postpartum women of different occupational level who did not engaged in health promotion practices regarding adequate nutrition. The summary of the chi-square test presented in table 3 showed the percentage of postpartum women of different occupational levels that engaged in health promotion practices regarding adequate nutrition did not differ significantly,  $X^2 = 3.50$ ,  $df = 3$   $p$ -value = .320. The null hypothesis was accepted since the  $p$ -value was greater than the stipulated 0.05 level of significance.

**Research Question 4**

What percentage of postpartum women of different educational level engages in health promotion practices regarding adequate nutrition?

**Hypothesis 4**

There will be no significant difference in the percentage of postpartum women of different level of education that engaged in health promotion practices regarding adequate nutrition.

Data answering research question four and hypothesis four are contained in table 4  
Percentage of Postpartum Women Engaging in Health Promotion Practices  
Regarding Adequate Nutrition by Educational Level

**Table 4**

Health Promotion Practices Regarding Adequate Nutrition	No formal Education f (%)	Primary Education f (%)	Secondary Education f (%)	Post-Secondary Education f (%)	Total f (%)
Engaged in practices	11 (2.4)	19 (4.1)	169 (36.6)	194 (42.0)	393 (85.1)
Do not Engaged in practices	5 (1.1)	9 (1.9)	34 (7.4)	21 (4.5)	69 (14.9)
Total	16 (3.5)	28 (6.1)	203 (43.9)	215 (46.5)	462 (100)

$X^2 = 14.92$ ,  $df = 3$ ,  $p\text{-Value} = .002$ , Significant

As shown in table 4.4, 42.0 percent of the postpartum women of post-secondary education engaged most in health promotion practices regarding adequate nutrition followed by 36.6 percent of the women with secondary education, 4.1 percent of primary education, and 2.4 percent with no formal education that engaged in health promotion practices regarding adequate nutrition.

The summary of the chi-square test presented in table 4.4 shows that percentage of postpartum women of different educational level that engage in health promotion practices regarding adequate nutrition differed significantly,  $X^2 = 14.92$ ,  $df = 3$ ,  $p\text{-Value} = .002$ . Since the  $p\text{-value}$  was less than the stipulated 0.05 level of significance, the null hypothesis was rejected.

**Research Question 5**

What percentage of postpartum women of different age ranges engaged in health promotion practices regarding rest and sleep?

**Hypothesis 5**

There will be no significant difference in the percentage number of postpartum women of different age ranges that engaged in health promotion practice regarding rest and sleep.

Data answering research question five and hypothesis five are contained in table 5  
Percentages of Postpartum Women Engaging in Health Promotion Practices  
Regarding Rest and Sleep by Age Range

**Table 5**

Health Promotion Practices Regarding Rest and Sleep	18-22years F (%)	23-27years f (%)	28-32years f (%)	33-37years f (%)	38-42years f (%)	43-47years f (%)	Total f (%)
Engaged in practices	27 (5.8)	38 (8.2)	78 (16.9)	20 (4.3)	33 (7.1)	9 (1.9)	205 (44.4)
Do not Engaged in practices	23 (9.3)	74 (16.0)	42 (9.0)	75 (16.2)	24 (5.2)	19 (4.1)	257 (55.6)
Total	50 (10.8)	112 (24)	120 (26)	95 (20.6)	57 (12.3)	28 (6.0)	462 (100)

$X^2 = 54.36$ ,  $df = 5$ ,  $p\text{-Value} = .000$ . Significant

Table 5 presents the percentage of postpartum women engaged in health promotion practices regarding sleep and rest based on their age ranges. The table shows that the postpartum women (21.1percent) between the ages of 43-47 years had the lowest percentage of those that engaged in health promotion practices regarding rest and sleep. On the other hand, the women of ages 28-32 years, 16.9 percent engaged in health promotion practices regarding rest and sleep.

The summary of the chi-square test presented in table 5 shows that the percentage of postpartum women of different age ranges that engaged in health promotion practices regarding rest and sleep differed significantly,  $X^2 = 54.36$ ,  $df = 5$ ,  $p\text{-Value} = .000$ . The null hypothesis was rejected since the  $p\text{-Value}$  was less than the stipulated 0.05 level of significance.

**Research Question 6**

What percentage of postpartum women of different parity level engage in the health promotion practices regarding rest and sleep?

**Hypothesis 6**

There will be no significant difference in the percentage number of postpartum women of different parity level that engaged in health promotion practice regarding rest and sleep.

Data answering research question six and hypothesis six are contained in table 6  
Percentage of Postpartum Women Engaging in Health Promotion Practices  
Regarding Rest and Sleep by Parity Level.

**Table 6**

<b>Health Promotion Practices Regarding Rest and Sleep</b>	<b>1-3 Children f (%)</b>	<b>4-6 Children f (%)</b>	<b>7 &amp; Above f (%)</b>	<b>Total f (%)</b>
Engaged in practices	114 (24.5)	81 (17.5)	10 (2.5)	205 (44.4)
Do not Engaged in practices	196 (42.4)	54 (11.7)	7 (1.51)	257 (55.6)
Total	310 (66.9))	135 (29.2)	17 (3.8)	462 (100)

$X^2 = 22.05$ ,  $df = 2$ ,  $p$ -Value = .000. Significant

Table 6 shows that greatest percentage (24.5 percent) postpartum women with the parity level 1-3 children engaged in health promotion practices regarding rest and sleep. This was followed by 17.5 percent and 2.5 percent of the women in their descending order of magnitude and that a total of 205 (55.6) of the postpartum women of different parity levels engaged in health promotion practices regarding rest and sleep.

The summary of the chi-square test presented in table 6 shows that the percentage of the postpartum women of different parity level that engaged in health promotion practices regarding rest and sleep differed significantly,  $X^2 = 22.05$ ,  $df = 2$ ,  $p$ -Value = .000. The null hypothesis was rejected since the  $p$ -Value was less than the stipulated 0.05 level of significance.

**Research Question 7**

What percentage of postpartum women of different occupational level engage in health promotion practices regarding rest and sleep?

**Hypothesis 7**

There will be no significant difference in the percentage number of postpartum women of different occupational Status that engaged in health promotion practice regarding adequate nutrition.

Data answering research question four and hypothesis four are contained in table 7  
Percentage of Postpartum Women Engaging in Health Promotion Practices  
Regarding Rest and Sleep by Occupation

**Table 7**

<b>Health Promotion Practices Regarding Rest and Sleep</b>	<b>Civil Servant f (%)</b>	<b>Housewife f (%)</b>	<b>Businesswoman f (%)</b>	<b>Farming f (%)</b>	<b>Total f (%)</b>
Engaged in practices	57 (12.3)	24 (5.2)	102 (22.1)	22(4.8)	205 (44.4)
Do not Engaged in practices	108 (23.4)	66 (14.3)	68 (14.7)	15(3.2)	257 (55.6)
Total	165 (35.7)	90 (19.5)	170 (36.8)	37(8.0)	462 (100)

$X^2 = 38.12$ ,  $df = 3$ ,  $p$ -Value = .000, Significant

As shown in table 7, the highest percentage (22.1percent) of postpartum women that engaged in health promotion practices regarding rest and sleep was those categorized as businesswomen. This was followed by civil servants, house wives and those women in farming category as shown by the percentage scores of 12.3, 5.2 and 4.8 respectively. The summary of the chi-square test presented in table 7 shows that the percentage of the postpartum women of different occupational status that engaged in health promotion practices regarding rest and sleep differed significantly,  $X^2 = 38.12$ ,  $df = 3$ ,  $p$ -Value = .000. The null hypothesis was rejected since the  $p$ -Value was less than the stipulated 0.05 level of significance.

**Research Question 8**

What percentage of postpartum women of different educational level engage in health promotion practices regarding rest and sleep?

**Hypothesis 8**

There will be no significant difference in the percentage number of postpartum women of different level of education that engaged in health promotion practice regarding rest and sleep.

Data answering research question four and hypothesis four are contained in table 8  
 Percentage of Postpartum Women Engaging in Health Promotion Practices  
 Regarding Rest and Sleep by Educational Level

**Table 8**

<b>Health Promotion Practices Regarding Rest and Sleep</b>	<b>No formal Education f (%)</b>	<b>Primary Education f (%)</b>	<b>Secondary Education f (%)</b>	<b>Post-Secondary Education f (%)</b>	<b>Total f (%)</b>
Engaged in practices	7 (1.51)	15 (3.2)	79 (17.1)	104 (22.5)	205 (44.4)
Do not Engaged in practices	9 (1.92)	13 (2.8)	124 (26.8)	111 (24.0)	257 (55.6)
Total	16 (3.5)	28 (6.9)	203 (44)	215 (46.5)	462 (100)

$X^2 = 4.80$ ,  $df = 3$   $p$ -Value = .187, Not significant

As shown in table 8, the highest percentage (22.5percent) of postpartum women that engaged in health promotion practices regarding rest and sleep based on their educational level was those with post-secondary education; followed by 17.1 percent, 3.2 percent and 1.51 percent of the women of different educational levels of secondary education, primary education and no formal education respectively that engaged in health promotion practices regarding rest and sleep. From the table, a total number of 205 (44.4percent) postpartum women engaged in health promotion practices regarding rest and sleep.

The summary of the chi-square test presented in table 8 shows that there was no significant difference in the percentage of postpartum women of different educational levels that engaged in health promotion practices of rest and sleep,  $X^2 = 4.80$ ,  $df = 3$ ,  $p$ -Value = .187. Since the  $p$ -value of .187 was greater than the stipulated 0.05 significance level, the null hypothesis was accepted.

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