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PERCEIVED IMPACT OF HEALTH EDUCATION ON MATERNAL AND PERINATAL OUTCOMES RELATED TO ANTEPARTUM HEMORRHAGE IN NIGERIA

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ABSTRACT

Antepartum hemorrhage (APH) is a major contributor to maternal mortality in Nigeria, necessitating a thorough evaluation of health education's impact on outcomes. A cross-sectional analysis was conducted involving 150 pregnant women at OAUTHC, utilizing a Likert-scale questionnaire to assess knowledge, compliance, and health outcomes. Data analysis was performed using descriptive statistics and t-tests in SPSS. The findings revealed high compliance levels (mean scores ranging from 2.28 to 3.57) correlated with significant improvements in self-care practices and a complete reduction in morbidity (100%), indicating a strong link between health education and positive maternal outcomes ($p<0.05$). it was concluded that ongoing enhancements in health education are crucial for effective APH prevention. Tailored educational interventions are necessary to empower pregnant women in managing their health effectively.

Keywords: Health education, APH, self-efficacy, maternal outcomes, Nigeria

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Introduction

Health education is crucial in improving maternal and perinatal outcomes, particularly in preventing antepartum hemorrhage (APH). World Health Organization (WHO, 2016; 2019), reported that globally, antepartum haemorrhage, is one of the leading causes of maternal mortality, accounting for approximately 27% of deaths worldwide. Vaginal bleeding is one of the observable signals reported by pregnant women (Attieh et al., 2016)and is considered an alarming sign that needs immediate intervention to avoid unpredicted complications such as mal-presentation, premature labour, postpartum haemorrhage (PPH), sepsis, shock and retained placenta (Lankoande, et al, 2017).

In Nigeria, APH is a major contributor to maternal and perinatal morbidity and mortality with several possible consequences or sequel (Akokuwebe & Okafor, 2015). Studies have shown that the main causes of antepartum haemorrhage include placenta previa, abruption placenta and unknown causes (Sageer et al., 2019). Implying that antepartum haemorrhage contributes significantly to maternal and neonatal morbidity and mortality in sub-Saharan Africa (Bhandiwad, 2016). Although antepartum haemorrhage could be prevented by early registration, regular antenatal care, early detection of high-risk cases, early referral to a higher centre, good facilities for caesarean section, availability of blood banks, and use of contraceptives, however, few or lesser number of pregnant women are educated about antepartum haemorrhage.

Wahabi (2019) states that healthcare during pregnancy, which includes prenatal and preconception care, is crucial for pregnant women to minimise the effects of different complications and issues during pregnancy. Care during the prenatal period is considered essential (Sageer et al., 2019). However, limited research has been conducted regarding health care and preventive behaviour throughout the period of pregnancy in the context of Nigeria (Opele & Adepoju, 2024). Moreover, health education is vital to increase self-knowledge and preventive behaviour among pregnant women regarding preconception-related complications (Elsinga, et al. 2018).

Health education has been defined as any activity that focuses on achieving better health and well-being and includes providing necessary health instruction and interventions to an individual to enable them to monitor and control their health and adopt a healthy lifestyle (Opele, et al,2022); (Opele et al., 2024). Health education also involves disease prevention as well as risk management, especially for pregnant women (WHO, 2016). One of the main purposes of health education for pregnant women is to promote self-care behaviour among them during the prenatal period, and this may lead to a decreased morbidity and mortality rate, improved quality of life for pregnant women and a reduction in healthcare costs (Mutlaq et al. 2019); (Adepoju & Opele, 2021). Furthermore, health education theories play a significant role in promoting health education, thus healthcare professionals can follow various theories and concepts when deciding upon

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prescriptions or intervention techniques. At present, self-efficacy theory is one of the major and most widely used theories for promoting health education (Chichirez & Purcărea, 2018); (Lanre-Ogungbile et al., 2020).

Self-efficacy theory, which was developed by Bandura, has been widely implemented in numerous areas of health promotion and health education, such as cessation of smoking, modifying lifestyles and eating habits, pain control, adherence to treatments and cardiac rehabilitation (Randall et al. 2021). According to this theory, self-efficacy determines an individual's confidence in his/her ability to perform a particular activity effectively (Derryberry et al. 2020). Self-efficacy in health education acts as a connecting bridge between the behaviour, attitude and knowledge of an individual about their ability to perform a certain task (Glanz et al. 2018). Zhianian et al. (2015) in their study evaluated the impact of self-efficacy theory on enhancing self-care behaviour among pregnant women. One of the most crucial parts of health education related to antenatal care is to enhance knowledge and understanding of the risks associated with pregnancy and improves self-efficacy to increase self-care attitudes and behaviours among pregnant women. Hence this study assesses the influence of health education on the reduction of maternal mortality and morbidity related to antepartum haemorrhage among selected pregnant women attending the clinic at Obafemi Awolowo University Teaching Hospital Complex in Ile-Ife, Osun State.

Objectives

The main objective if this study was to investigates the impact of health education on reducing maternal morbidity and mortality associated with APH among pregnant women at OAUTHC in Ile-Ife, Nigeria. The specific objectives are to:

1. investigate the level of compliance to the implementation of health education acquired during ante-natal care
2. assess the perceived impact of health education on maternal outcomes related to APH.

Research Questions

The following corresponding research questions guided the study

1. What is the level of compliance to the implementation of health education acquired during ante-natal care?
2. What is the perceived impact of health education on perinatal outcomes in pregnancies complicated by APH?

Methodology

This study employed a cross-sectional descriptive design to evaluate the impact of health education on maternal and perinatal outcomes related to antepartum hemorrhage (APH) among pregnant women at Obafemi Awolowo University Teaching Hospitals Complex (OAUTHC) in Ile-Ife, Nigeria. A total of 160 questionnaires were distributed to pregnant women attending antenatal care, with 150 completed responses collected for analysis. The questionnaire utilized a Likert scale to assess the compliance levels and knowledge gained from health education sessions. Statistical analyses, including descriptive statistics and t-tests, were

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conducted using SPSS software to evaluate the correlation between health education and maternal outcomes.

Presentation Results

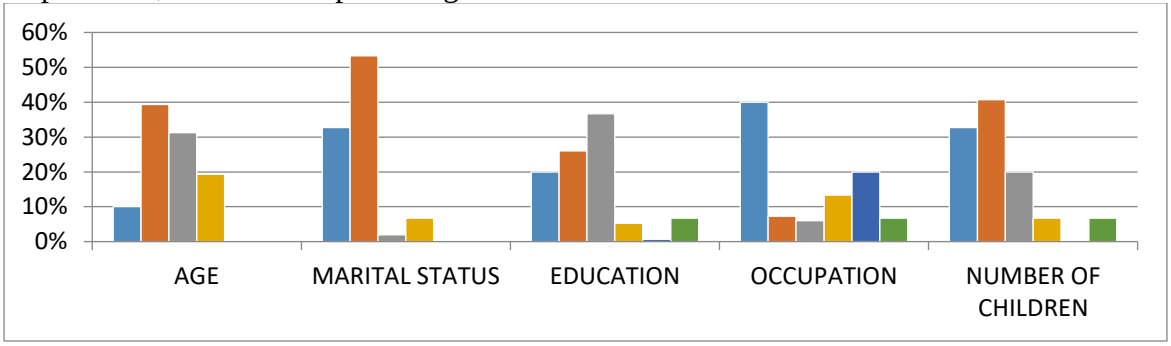
Table 1: Socio-Demographic Characteristics of the Respondents n=150

Item	Frequency	Percentage	P-value
Age			
18-25yrs	15	10%	
26-35yrs	59	39.3%	0.002
36-45yrs	47	31.3%	
46yrs and above	29	19.3%	
Marital Status			
Single	49	32.7%	
Married	80	53.3%	0.195
Widowed	3	2%	
Divorced	18	6.7%	
Religion			
Christianity	95	63.3%	
Islam	52	34.7%	0.523
Traditional Religion	3	2%	
Highest Educational Qualification			
WASSEC	30	20%	
Diploma	39	26%	
B.Sc/BA	55	36.7%	0.002
M.Sc/MA	15	5.3%	
PhD	1	0.7%	
None	10	6.7%	
Occupation			
Trader	60	40%	
Professional Staff	11	7.3%	
Academic Staff	9	6%	
Non-Academic Staff	20	13.3%	
Civil Servant	30	20%	
Others	10	6.7%	
How Many Children			
1-2	49	32.7%	
3-5	61	40.7%	
6-8	30	20%	
9 and Above	10	6.7%	
Have you been medically diagnosed of antepartum haemorrhage before?			
Yes	109	72.7%	0.656
No	41	27.3%	

Table 1 presents the socio-demographic characteristics of the respondents. The majority (39.3%) were aged between 26 and 35 years, with an overall mean age of 39.8 ± 8.3 years. Most participants were married (53.3%), and a majority identified

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as Christians (63.3%) or Muslims (34.7%). Educational qualifications showed that 36.7% held a Bachelor's degree, with 26% having Diplomas. In terms of occupation, 40% were traders, and among the respondents, 72.7% had a prior diagnosis of antepartum hemorrhage. These characteristics provide a detailed context for understanding the population affected by APH and highlight the importance of targeted health education initiatives.



The results in Table 1 show the demographic distribution of the patient in the hospital. Most (75%) of the respondents fell within the age range of 26-35 years. The mean age for all respondents was 39.8 ±8.3 years. A majority (53.3%) of the respondents were married. Almost all the respondents (63.3% and 34.7%) were Christians and Muslims respectively. A majority (36.7%) were B. Sc/B A holders, followed by 26% who have Diplomas,20% of them have only WASSEC, 5.3% are M. Sc/MA holders, while only 6.7% do not have any school certificate.

The professions of the respondents showed that a little more than one-quarter of the respondents (40.0%) were traders, 20% were civil servant, followed by 13.3% who were non-academic staff, 7.3% and 6% were professional and academic staff respectively, while6.7% were not working. As regards number of children owned by the respondents, most (40.7%) of the respondent's have3-5 children; 32.7% have1-2children, and20%have6-8 children. Only 6.7% of the respondents' have9 and above children

Research Question 1: What is the level of compliance to the implementation of health education acquired during ante-natal care?

Table 2: Level of Compliance by Respondents

S/n	Items	4 SA	3 A	2 D	1 SD
1	I comply to all the preventive measures against APH	138	7	5	-
2	I don't have to do everything I was taught during antenatal	98	22	13	17
3	I try to get more information that suits my taste	34	56	44	56

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4	I help to educate other pregnant mothers on the preventive measures	-	45	90	15
5	I do the instructions I deem fit and boycott the rest	113	3	34	-
6	I don't feel some instructions are right	-	4	43	107
7	There is a need for more advanced teaching	23	11	77	39

Table 2 evaluates the compliance of pregnant women regarding the implementation of health education strategies against APH. The mean scores for compliance ranged from 2.28 (SD = 0.75) to 3.57 (SD = 0.72), indicating overall positive compliance. Notable items include the statement, "I comply with all the preventive measures against APH," which received a high compliance score. Conversely, the item "I don't have to do everything I was taught during antenatal care" showed some resistance, highlighting a gap in adherence to prescribed health education. Overall, each of the seven items assessed surpassed the critical mean of 2.3, indicating strong engagement with health education protocols related to APH.

Research Question 2: What is the perceived impact of the health education obtain against APH among pregnant women?

Table 3: Impact of Health Education on Pregnant Women

Item	Frequency	Percentage
Have the patient health education gained during antenatal had impact on you?		
Yes	150	100%
No	-	-
Does the patient health education provide adequate knowledge and training in your self-care skills; helping you to make informed decisions about health during pregnancy?		
Yes	148	98.7%
No	2	1.3%
Does it help to prevent complications, carry out prescribed therapy and solve problems when confronted with new situations?		
Yes	138	92%
No	12	8%
Does it help in preventing crises and reducing the potential for re-hospitalization resulting from APH complications?		
Yes	150	100%
No	-	-
Does it help pregnant women to achieve their maximum health potential?		
Yes	135	90%
No	15	10%
Does it help in reducing health care costs by preventing illness, avoiding expensive medical treatments, decreasing probability of APH complications?		
Yes	140	93.3%
No	10	6.7%

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Does it serve as a tool for increasing pregnant women's satisfaction and for developing a positive image of OAUTHC?		
Yes	145	96.7%
No	5	3.3%
Does it improve the hospital's service satisfaction because they know they impacted someone's life quality?		
Yes	125	83.3%
No	25	16.7%
Does it create a sense of safety and security for pregnant women?		
Yes	112	74.7%
No	38	25.3%
Have it played the role of curbing mortality and morbidity of APH over the course of time?		
Yes	150	100%
No	-	-

Table 3 illustrates the perceived impact of health education among the respondents. Remarkably, 100% of the participants affirmed that the health education received had an influence on their care. Furthermore, 98.7% felt that it helped them make informed decisions regarding their health during pregnancy. A significant 92% believed it assisted in preventing complications and 100% agreed it reduced the potential for re-hospitalization due to APH complications. Additionally, 90% stated that health education helped them achieve their maximum health potential. These results underscore the critical role that health education plays in enhancing maternal care and improving health outcomes for pregnant women.

Discussion

The findings indicate that effective health education significantly enhances maternal knowledge and self-care practices related to antepartum haemorrhage and this agrees with the study of (Adu et al., 2018). In addition, the study revealed a high rate of compliance among respondents, with all measures scoring above the critical mean. This tallies with the recommendations of (Sageer et al., 2019). A correlation was established between health education and improved perinatal outcomes, including reduced rates of neonatal complications and mortality. Similar findings has earlier been reported by (Lassi et al., 2020). Challenges identified included financial constraints and limited access to information, underscore the need for innovative strategies in delivering health education. Similar findings have been documented(Sowunmi et al., 2013). The impact of self-efficacy theory is evident, as informed mothers demonstrated higher levels of adherence to health guidelines. The results align with existing literature that emphasizes the necessity for educational initiatives to reduce maternal mortality associated with APH, yet limitations such as single-site data collection must be acknowledged for broader applicability (Lanre-Ogungbile et al., 2020).

Conclusion

In conclusion, this study demonstrates that health education significantly improves compliance with maternal health guidelines and enhances outcomes related to

antepartum hemorrhage at OAUTHC. Despite positive findings, addressing barriers to effective health education remains imperative for further success. Recommendations include the integration of health education into routine antenatal care, the development of digital resources to enhance outreach, and policy reforms aimed at standardizing antenatal education across Nigeria. By strengthening health education initiatives, it is possible to mitigate the burden of antepartum hemorrhage and improve maternal health equity.

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