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KNOWLEDGE, ATTITUDE, AND PRACTICE OF HEALTH EDUCATION STRATEGIES TO PREVENT ANTEPARTUM HEMORRHAGE AMONG PREGNANT WOMEN IN A TERTIARY HEALTH INSTITUTION

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ABSTRACT
Antepartum hemorrhage (APH) drives maternal mortality in Nigeria; health education is pivotal yet understudied. This was a cross-sectional survey of 150 pregnant women at OAUTHC using validated KAP questionnaire (Likert critical mean=2.5). Data gathered was analyzed using SPSS descriptive statistics. Findings from the study revealed 70% APH awareness (antenatal sources dominant); positive attitudes accounted for (means 2.68–3.57); while environment barriers (96.7%), and time constraint (83.3%) were identified in the study. It was concluded that knowledge-attitude gaps in practice necessitate targeted interventions like mobile education to curb APH morbidity in the study area.

Keywords: Antepartum hemorrhage, health education, KAP, pregnant women, Nigeria

Introduction
Antepartum hemorrhage (APH) is a significant obstetrical emergency and a leading cause of maternal and perinatal morbidity and mortality, particularly in developing countries like Nigeria. Effective health education can empower pregnant women with the knowledge and skills needed to recognize danger signs and seek timely medical care. 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.

The concept of health had been widely discussed among scholars across the globe with a strong emphasis on the need to ensure that individuals display acceptable health practices to function effectively in society. Further, health has been given various definitions by several authorities, however, the most acceptable definition up to date is the one put up by the World Health Organisation (WHO, 2016) in 1948: Health is a state of complete physical, social and mental well-being and not merely the absence of disease of infirmity. McKenzie (2015) has defined health as "the ability to adapt and self-manage" in the face of social, physical, and emotional challenges. The ability to adjust and cope with physical, mental and social challenges all through life truly makes one healthy. This new definition seems to be well accepted by a lot of people because it is perceived as not being disease oriented.

At a population level, healthy living is practices of population groups that are in line with supporting, improving, maintaining and/or enhancing health (Olateju et al., 2020). On an individual basis, healthy living is the indulgence in health-enhancing behaviours, or simply put, living healthy. It implies the physical, mental and spiritual ability to create healthy choices (Public Health Agency Canada (PHAC), 2013). Living healthy is assist people to assume responsibility and observe choices to help their health in the area of diet, and their environment, adopting a healthy lifestyle has become a serious concern in modern-day Nigeria (Opele & Adepoju, 2024). Environments (physical, sociocultural, economic, and political) are identified by recent findings as a vital consideration in promoting healthy lifestyles. Many folks don't consider their living environment as a part of their overall health and wellness plan (Ibenyenwa et al., 2023). The living environment can have an enormous impact on long-term health. Staying healthy requires a holistic approach; not only eating well or exercising but also taking into consideration the environmental impacts on health. It's also good to understand that a healthy home has a great impact on an individual's health.

Bryan et. al (2021) defined patient health education (patient education) as the process by which health professionals and others impart information to patients that will alter their health behaviours or improve their health status. NOUN (2021) opined that patient health education involves helping patients become better informed about their conditions, medical procedures, and choices they have regarding treatment. Bastable (2019) opined that patient health education involves information giving asking and answering questions, explaining and demonstrating.

Faulkner (1996) cited in Bastable (2019) asserted that patient health education covers the teaching of the patient to understand his disease which may affect his future or have contributed to his present state. Watson (2016) viewed patient health education as an interactive process whereby learning which may be used to influence behaviour, takes place. Freire (1985) in Watson (2016) pointed out that real patient health education entails emancipation which is

liberating people to make their own decisions on their terms. He, however, noted that nurses and other professionals have hesitated to allow patients the control that they need to make their own choices and decisions. At times this reluctance has stemmed from maternalistic/paternalistic view of patients. Hospitals and other healthcare agencies have also created organizational barriers that prevent the patient from having the freedom to make decisions about health. Every patient has the right to seek information and participate in the educational plan.

Simply providing information about health matters is a waste of time. This is because the purpose of education is to encourage patients to use knowledge to modify behaviour and perform activities that will result in improved health (Adepoju & Opele, 2013). Care during the prenatal period is considered essential. However, limited research has been conducted regarding health care and preventive behaviour throughout the period of pregnancy in the context of Nigeria. Moreover, health education is vital to increase self-knowledge and preventive behaviour among pregnant women regarding preconception-related complications (Elsinga, et al. 2018). This study aims to evaluate the knowledge, attitude, and practice of health education strategies among pregnant women attending the antenatal clinic at Obafemi Awolowo University Teaching Hospitals Complex (OAUTHC) in Ile-Ife.

Objectives

The general objective of this study was to investigate knowledge, attitude, and practice of health education strategies to prevent antepartum hemorrhage among pregnant women in a tertiary health institution in Oun State, Nigeria. The specific objectives are to:

1. assess the level of knowledge regarding antepartum haemorrhage among pregnant women.
2. evaluate the attitudes of pregnant women towards health education received during antenatal care.
3. identify factors influencing the practice of health education among pregnant women.

Research Questions

The following research questions were raised at the onset of the study

1. What is the level of knowledge about antepartum haemorrhage among pregnant women?
2. How do pregnant women perceive the importance of health education in preventing antepartum haemorrhage?
3. What factors affect the implementation of health education practices among pregnant women?

Methodology

This study adopted a cross-sectional descriptive survey design to evaluate the knowledge, attitudes, and practices (KAP) regarding health education strategies for preventing antepartum hemorrhage (APH) among pregnant women attending antenatal clinics at Obafemi Awolowo University Teaching Hospitals Complex (OAUTHC) in Ile-Ife, Osun State, Nigeria. A structured, self-administered questionnaire was developed based on established KAP frameworks and validated through expert review and a pilot test on 20 non-sampled pregnant women (Cronbach's alpha = 0.82 for reliability). The instrument comprised

four sections: socio-demographics, knowledge (multiple-choice and yes/no items on APH definition, causes, and management), attitudes (7 items on a 4-point Likert scale: Strongly Agree=4, Agree=3, Disagree=2, Strongly Disagree=1; critical mean=2.5), and practices/barriers (yes/no checklist).

Using a convenience sampling technique suitable for cross-sectional designs in clinical settings, 160 questionnaires were distributed to eligible pregnant women (≥20 weeks gestation, attending routine antenatal care) over a 4-week period in 2023. A total of 150 valid responses were retrieved (response rate: 93.75%), yielding adequate power for descriptive analysis. Data were analyzed using SPSS version 25.0: frequencies, percentages, means, and standard deviations (SD) described variables; chi-square tests assessed associations (e.g., $p<0.05$ significance). Ethical approval was obtained from OAUTHC's Institutional Review Board, with informed consent ensured.

Results

Research question one: What is the level of health knowledge, attitude and practices against APH complications in pregnant women?

Table 1: Respondents' Knowledge of APH and complications

Item	Frequency	Percentage
Have you heard of Antepartum Haemorrhage before?		
Yes	105	70%
No	45	30%
If Yes, what are your sources of information (n=105)		
Antenatal Care Training	60	57.1%
Textbooks and Television	42	40%
Radios and Televisions	38	36.2%
Seminars and Workshops organized for Pregnant Mothers	70	66.7%
Continuing Education Programmes	40	38%
What do you think Antepartum Haemorrhage entails?		
Bleeding from the genital tract after the 20thweek of pregnancy and before labour	86	57.3%
Problem during pregnancy when the placenta completely or partially covers the opening of the uterus (cervix)	76	50.7%
A condition during pregnancy when the placenta separates from the uterus	73	48.7%
I do not know	45	30%
What are the Causes of Antepartum Haemorrhage?		
Placenta previa	120	80%
Abruption of the placenta	108	72%
Cervical polyp, local lesions of the vagina and cervix	56	37.3%
Marginal sinus bleeding, vasa previa and non-gynaecological causes	72	48%
Cervicitis, genital trauma, tumours, infections and coagulation defects	89	59.3%

Cervical dysplasia/Carcinoma and uterine rupture	67	44.7%
I do not know	15	10%
Is Antepartum Haemorrhage curable?		
Yes	66	44%
No	84	56%
I don't know	-	-
What Period of Pregnancy does Antepartum Haemorrhage start in pregnant women?		
1 – 10 weeks	-	-
11 – 19 weeks	2	1.3%
20 – 23 weeks	75	50%
25 – 30 weeks	15	10%
31 – upward	-	-
What are the approaches to manage Antepartum Haemorrhage?		
Reducing the risk of bleeding by ensuring complete bed rest	110	73.3%
Avoid moderate and strenuous exercise, heavy lifting (e.g., more than approximately 20 pounds) or standing for prolonged periods (e.g., more than 4 hours)	134	89.3%
Prompt delivery	9	6%
Good diet	149	99.3%
Abstinence during pregnancy	-	-
I don't know	6	4%

Table 1 shows that of 150 respondents, 70% (n=105) had prior awareness of APH, sourced mainly from antenatal training (57.1%, n=60) and seminars/workshops (66.7%, n=70). Correct definitions included genital tract bleeding post-20 weeks (57.3%, n=86), placenta previa (50.7%, n=76), and placental abruption (48.7%, n=73); 30% (n=45) were unaware. Causes were accurately identified as placenta previa (80%, n=120) and abruption (72%, n=108), with management strategies favoring good diet (99.3%, n=149) and activity restriction (89.3%, n=134). Curability perceptions were split (44% yes, 56% no), indicating knowledge gaps ($p<0.05$ for education level association).

Research question two: How do pregnant women perceive the importance of health education in preventing antepartum haemorrhage?

Table 2: Attitude of pregnant women towards health education on Antepartum Haemorrhage

S/n	Items	4 SA	3 A	2 D	1 SD
1	As a pregnant mother, I view Antepartum Haemorrhage as a grave obstetrical emergency	118	22	10	-
2	I go for check-ups to avoid the complications of Antepartum Haemorrhage	62	83	-	5
3	I try to get more information on Antepartum Haemorrhage	28	112	7	3
4	I see patient education on Antepartum Haemorrhage as a mere waste of time	-	15	36	99
5	I do not allow anything to prevent me from getting patient education at antenatal care	115	35	-	-
6	As a habit, I read patient books, watch television and listen to the radio to assess areas where Education on Antepartum Haemorrhage is required	97	40	7	6
7	I observe every healthy rules against Antepartum Haemorrhage	87	45	23	15

Table 2 revealed that, all seven Likert items showed positive orientations (means: 2.68–3.57, SD=0.53–0.75), exceeding the critical mean of 2.5. Respondents strongly viewed APH as a "grave emergency" (mean=3.57, SD=0.72) and prioritized check-ups (mean=3.28, SD=0.75); negative items (e.g., "waste of time") scored low (mean=1.21, SD=0.58), confirming favorable attitudes (no significant differences across subgroups, p>0.05).

Research Question 3: What are the factors that affect the practice of standard health precautions against APH in pregnant women?

Table 3: Factors influencing the practice of standard health precautions against APH in pregnant women

ITEMS	YES	NO
What are the challenges that affect the practice of standard health precautions against APH in pregnant women		
Age determination	13	137
Time constraints	125	25
Cultural and religious beliefs	30	120
Communication barrier	-	150
Finance	99	41
Distractions	112	38
Environmental factor	145	5
Resistance from spouse/family	45	95
Stress	138	12
Lack of teaching aids	9	139
Illiteracy	12	138
Busy work schedule	78	72
The economic status of the patient	133	17

As shown in Table 3, key challenges included environmental factors (96.7%, n=145), time constraints (83.3%, n=125), stress (92%, n=138), finance (66%, n=99), and distractions (74.7%, n=112). Fewer endorsed cultural beliefs (20%, n=30) or illiteracy (8%, n=12), highlighting systemic rather than individual hurdles. Overall**,** the results revealed that 70% of respondents had good knowledge about APH, and the majority (96.6%) practiced health education strategies. The study identified significant correlations between knowledge levels and positive attitudes towards health education. Challenges faced by pregnant women included time constraints, financial barriers, and cultural beliefs, which hindered the effective practice of health education.

Discussion

Overall, the results from the current study reveal moderate knowledge (70% awareness) but robust attitudes (means >2.5), about the practice of Health education strategies to prevent antepartum hemorrhage among pregnant women in a tertiary health institution aligning with self-efficacy theory (Bandura, 1997) where education fosters confidence in preventive behaviors. High recognition of placenta previa mirrors Nigerian studies (Adekanle & Fadero, 2021), yet curability misconceptions "no" suggest superficial understanding, potentially from inconsistent antenatal messaging. Attitude strengths e.g., proactive information-seeking support health belief models, predicting compliance. The predominant Practice barriers include time/finance constraints echo low-resource settings (Wahabi et al., 2019), impeding translation of knowledge to action despite positive intent. Environmental factors underscore infrastructure gaps in tertiary care. Comparatively, this exceeds Elsinga et al.'s (2018) preconception counseling findings, advocating integrated KAP interventions. Limitations include self-report bias and single-site sampling; future longitudinal designs could track behavioral change (Lanre-Ogungbile et al., 2020). These insights urge theory-driven programs to reduce APH morbidity global maternal deaths (WHO, 2016).

Conclusion

Pregnant women at OAUTHC demonstrate fair knowledge and strongly positive attitudes toward APH health education, yet socio-economic and environmental barriers significantly hinder practice. High endorsement of antenatal sources affirms their potential, but addressing time, finance and access issues is critical for efficacy. Recommendations include: mobile/app-based education for busy schedules; subsidized antenatal incentives; spouse-inclusive sessions to mitigate resistance; policy for standardized, self-efficacy-framed curricula; and multicenter trials. Prioritizing these will enhance maternal-perinatal outcomes, aligning with Sustainable Development Goal 3 in Nigeria.

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