



ADDRESSING GLOBAL INEQUITIES IN BREAST CANCER GENETIC TESTING, COUNSELLING, AND MANAGEMENT AMONG BREAST CANCER PATIENTS IN NIGERIA

A HEALTHCARE PROVIDER EDUCATIONAL PROGRAM

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Background

- Breast cancer is a significant burden in Nigeria: earlier onset, late-stage diagnosis and more triple-negative tumors
- Genetic counselling and testing and services are extremely limited in Nigeria
- A recent survey of Nigerian healthcare providers (HCPs) identified lack of knowledge and access as two main barriers to genetic testing.

Aim

To develop and assess the effectiveness of a breast cancer genetics educational curriculum for Nigerian HCPs

Results

Demographics

- HCPs from all geopolitical zones in Nigeria attended the training
- Of the 25 participants, 19 completed both online and in-person sessions (65% physicians and 35% nurses).
- Baseline knowledge ranged from 20% to 60%
- Greatest gain in knowledge in Module 2, where the understanding of BRCA1/BRCA2 mutations, the risk of secondary breast cancer, and the implications of genetic testing increased by 7.65x, 16.20x, and 10.5x respectively
- After receiving the complete training there was a 43% increase in overall knowledge (p<0.0001)

Knowledge performance scores per Module

Question	Module	Pre (%)	Post (%)	Significance
Q1	Module 1	20	75	***
Q2	Module 2	50	85	**
Q3	Module 2	50	90	**
Q4	Module 2	50	95	*
Q5	Module 2	60	95	*
Q6	Module 3	45	80	
Q7	Module 3	60	80	
Q8	Module 3	25	90	**
Q9	Module 4	35	95	**
Q10	Module 4	30	85	***

Figure 1: Knowledge performance scores per Module
 Note: * P value less than 0.05, ** P value less than 0.01, *** P value less than 0.001
 All statistical analyses were performed using SAS 9.4 software (Cary, NC, USA).

Methods

- CURRICULUM DEVELOPMENT**
 - A multidisciplinary & international team convened virtually to develop a 4-module online and in-person breast cancer genetics curriculum
- HCP TRAINING**
 - Invites were circulated to HCPs at tertiary hospitals across Nigeria
 - 1 month to complete the curriculum online
 - 1 in-person training session in Nigeria
- KNOWLEDGE ASSESSMENT**
 - Scores assessed by comparing responses to 10 standardized questions before and after complete training (online + in person)

Conclusion

- Our study was effective in improving the knowledge of breast cancer genetics among Nigerian HCPs
- Further results will help identify knowledge gaps and strengthen understanding in delivering BRCA testing, counselling, and management for patients in Nigeria.
- This collaboration underlines the importance of accessible education for equitable breast cancer care globally.

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