

Peer Review Report

Review Report on Determinants of utilization of antenatal care services among women of childbearing age in Jigawa State, Nigeria

Original Article, Int J Public Health

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EVALUATION

Q 1 Please summarize the main findings of the study.

This study found that determinants associated with ANC utilization included age, educational attainment, occupation, maternal awareness of pregnancy danger signs, and support from husbands for ANC. The study also revealed that a majority of participants possessed correct knowledge and exhibited a favorable attitude towards ANC services. However, slightly more than half of the participants availed themselves of full ANC services.

Q 2 Please highlight the limitations and strengths.

In my opinion, the sample size of this study is small relative to the number of parameters estimated, which leads to a wider confidence interval as indicated in Table 6. This is one of the study's significant drawbacks.

Notes:

Based on the number of variables and categories, in this study it was found that $2 \times 4 \times 4 \times 4 \times 2 \times 2 = 512$ cells were formed. If each cell contains 5 observations, there will be 2560 observations. Meanwhile, the number of samples in this study was 400 people. Refer to the procedure for calculating the odds ratio in "An Introduction to Categorical Data Analysis" by Alan Agresti.

The research's strength is in its use of a particular/specific sample, notably poor people in one of the poorest states in Nigeria, which allows the factors that emerge from the sample to be more focused on the sample being used.

Q 3 Please provide your detailed review report to the authors. The editors prefer to receive your review structured in major and minor comments. Please consider in your review the methods (statistical methods valid and correctly applied (e.g. sample size, choice of test), is the study replicable based on the method description?), results, data interpretation and references. If there are any objective errors, or if the conclusions are not supported, you should detail your concerns.

Major

The following details need to be included by the authors in the methodology section.

1. Please clarify the response variable in this study, whether the number of ANC visits (<4 visits vs. ≥ 4) or ANC visits (yes vs. no). This is done in order to ease readers' understanding of Tables 5 and 6.
2. In lines 148 to 151 the authors stated that "The adequacy of the final model was assessed through examinations of variable interactions, Hosmer and Lemeshow tests, classification accuracy, and the area under the receiver operating characteristic curve (AUC)." However, these measurements aren't included in the results section. Please add model evaluation measures to justify the model obtained in this study.
3. Please give your respond regarding the relatively wide confidence interval for the odds ratios as shown in Table 6.

Minor

1. The in-text citations for Organization (2011) and Organization (2018) on lines 65 and 68 need to be corrected.

2. Give an indent for each category of a variable in Table 1-3, similar to Table 5-6, for distinction between variable and its categories.

PLEASE COMMENT

Q 4 Is the title appropriate, concise, attractive?

Yes

Q 5 Are the keywords appropriate?

Yes

Q 6 Is the English language of sufficient quality?

Yes

Q 7 Is the quality of the figures and tables satisfactory?

Yes.

Q 8 Does the reference list cover the relevant literature adequately and in an unbiased manner?)

Yes

QUALITY ASSESSMENT

Q 9 Originality



Q 10 Rigor



Q 11 Significance to the field



Q 12 Interest to a general audience



Q 13 Quality of the writing



Q 14 Overall scientific quality of the study



REVISION LEVEL

Q 15 Please make a recommendation based on your comments:

Minor revisions.