

Preparedness for Diphtheria Epidemic Among Healthcare Workers in Kano State, Nigeria

P3-L5

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SUMMARY:

The overall level of **knowledge**, the **infection prevention control** practices among health care workers and the **state of preparedness** of the **health facilities** was poor.

BACKGROUND

The global health security agenda aims to close gaps in outbreak preparedness and lead the world toward a future free from dangers of pandemic therefore, ensuring epidemic preparedness is a critical responsibility of every sovereign nation as the spread of communicable diseases, poses a potential threat to human existence and public health. Diphtheria, a vaccine-preventable disease and one of the epidemic-prone notifiable disease under Nigeria's integrated disease surveillance and response system (IDSR), has historically been a highly contagious disease especially among children. Health care workers (HCWs) are at the forefront of managing such outbreaks, but their knowledge and preparedness level vary, affecting their response effectiveness. This study assesses the knowledge and preparedness of healthcare workers in Kano state Nigeria regarding diphtheria, focusing on three key questions:

- ❖ What is the level of diphtheria knowledge among HCWs in health facilities in Kano State, Nigeria.
- ❖ What are infection prevention control practices of health workers in health facilities towards reducing the transmission of Diphtheria in kano state, Nigeria.
- ❖ How prepared are the health facilities in kano state for a potential diphtheria outbreak.

METHODS

- ❖ This study was a descriptive cross-sectional study design conducted among healthcare workers in kano state using mixed methods. Two-stage sampling technique was used to select 421 HCWs, and they responded to semi-structured interviewer-administered questionnaire
- ❖ KII was conducted with state epidemiologist, State and LGA DSNO, Officer-in-charge of CHEW for qualitative data.
- ❖ Descriptive statistics and logistic regression was used for analysis using IBM/SPSS version 21

RESULTS

- ❖ The study involved health workers with a mean age of 34years(±9.2) and predominantly females(54.7%).Islam was the primary religion (80.5%),and (47.7%) had a certificate or diploma, while 43.9% held a graduate or postgraduate degree.
- ❖ Slightly over half (51.1%) of the respondents had poor knowledge, while (48.7%) demonstrated good knowledge.
- ❖ The infection prevention control practices among respondents were generally poor with (53.4%) demonstrating poor practices while (46.6%) had good practices. About three quarter of the facilities were unprepared for diphtheria outbreak,20.8% had moderate preparedness and 8.3% had good preparedness

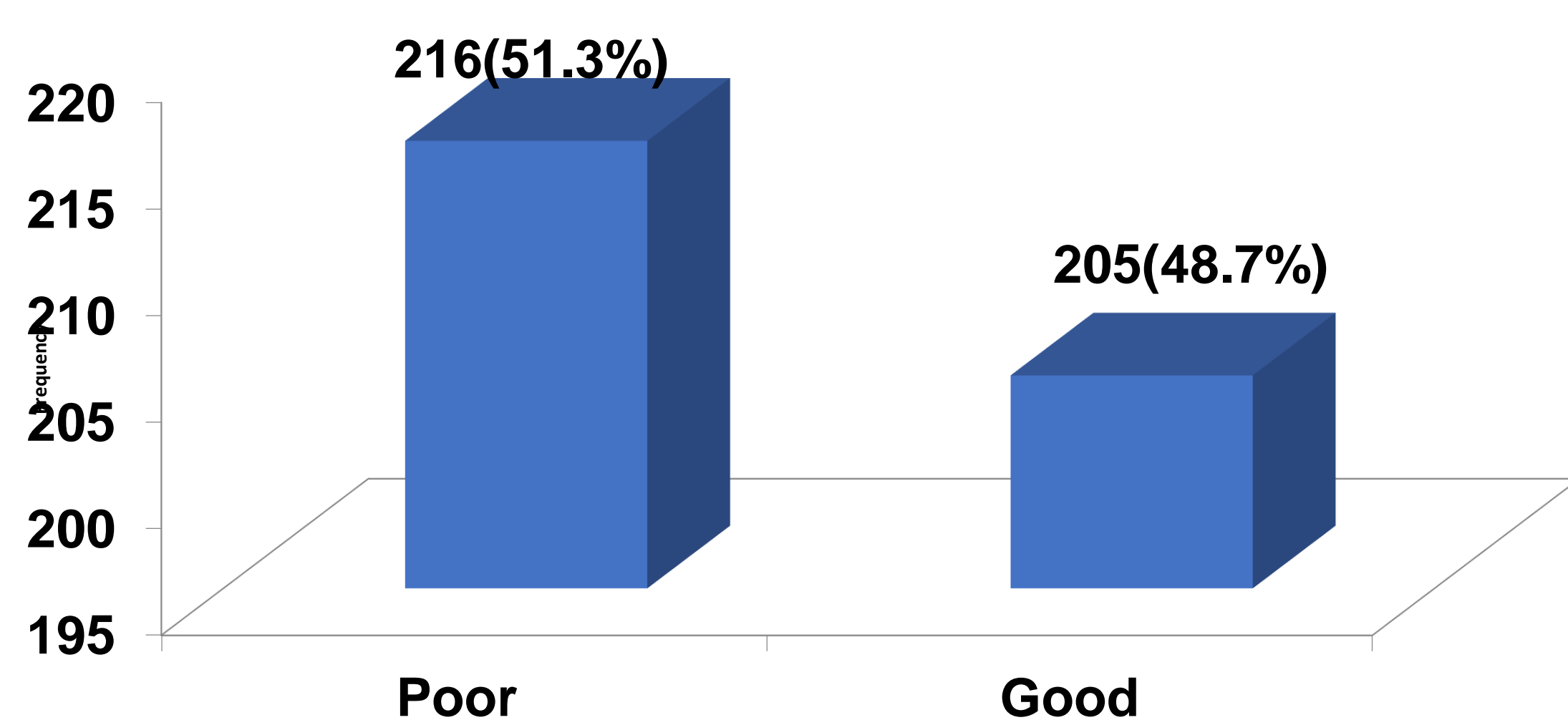


Figure 1: Level of knowledge of respondents

RESULTS CONTINUED

Table 1: Socio-demographic predictors of Knowledge and Practice of diphtheria among study participants

	β	Odd ratio	95 % C I	p-value
Age group (years)				
≤ 25	-0.561	0.570	0.280 – 1.161	0.121
26 – 30	0.334	1.397	0.757 – 2.579	0.285
31 – 35	-0.143	0.867	0.457 – 1.645	0.662
36 – 40	0.278	1.320	0.669 – 2.606	0.424
> 40	RC			
Highest level of education				
Certificate/diploma	0.445	1.561	0.715 – 3.408	0.264
Undergraduate	0.673	1.960	0.887 – 4.332	0.096
Graduate/Postgraduate	RC			
Ethnicity				
Fulani	-0.052	0.949	0.408 – 2.206	0.903
Hausa	-0.280	0.756	0.357 – 1.602	0.465
Igbo	0.493	1.637	0.668 – 4.010	0.281
Yoruba	1.030	2.802	0.474 – 16.548	0.256
Others	RC			
Marital status				
Never married	0.055	1.057	0.650 – 1.719	0.823
Married	RC			
Highest level of education				
Certificate/diploma	0.894	2.445	0.982 – 6.090	0.055
Undergraduate	0.762	2.142	0.905 – 5.072	0.083
Graduate/Postgraduate	RC			
Cadre				
Community Health Worker	-0.276	0.759	0.452 – 1.274	0.297
Nurse	RC			
Facility level				
Primary	-2.333	0.097	0.041 – 0.232	0.001
Secondary	-0.902	0.406	0.176 – 0.936	0.034
Tertiary	RC			
Senatorial District				
Kano South	-0.689	0.502	0.234 – 1.076	
Kano North	-0.419	0.658	0.318 – 1.362	0.260
Kano Central	RC			

RC= Reference category

CONCLUSIONS

- ❖ Epidemic preparedness is important in responding to an outbreak and from this study it was revealed that the healthcare workers had poor knowledge of diphtheria as well as poor infection prevention control practices. Majority of facilities were not prepared. These variables play key roles in curbing the spread of the outbreak of diphtheria. Predictors identified in the study were age groups between 26-40 years, certificate/diploma and undergraduate education levels, as well as the ethnic groups (Fulani, Hausa, Igbo, Yoruba), marital status, cadre, facility level and senatorial districts. Some other factors mentioned were, political instability, logistic factors and training and re-training.

ADDITIONAL KEY INFORMATION

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