

# Health Education Challenges Faced by Nurses Towards Child Immunization Compliance in Selected Hospitals of Kano State Nigeria

Gambo Isa Muhammad\*<sup>1</sup>, Muhammad Ali Garko<sup>1</sup>, Tijjani Raimi<sup>1</sup>, Mahfuz Haddad<sup>2</sup> Balarabe Ibrahim<sup>3</sup>

<sup>1</sup>Aminu Kano teaching hospital, Kano Nigeria

<sup>2</sup>Bayero university Kano Nigeria

<sup>3</sup>Technical Advice Connect, Abuja Nigeria

\*Corresponding Author

## Abstract

Health education is a process with intellectual, psychological & social dimensions relating to activities which increases the abilities of people to make informed decisions affecting their personal, family and community well-being. Many nursing professionals confine their public health education activity to strictly clinical agenda & those who engaged with the community on health education are regarded as going beyond their formal role. The study assessed health education challenges among nurses towards child immunization compliance in selected hospitals of Kano state. A descriptive cross-sectional design & inferential statistics using quantitative approach were employed for the study. Pilot study was conducted among 23 nurses with strong reliability of Cronbach's Alpha of 0.953. A total sample of one hundred & seventy-eight was used. A standardized data collection form using questionnaire was employed based on World Health Organization criteria & the obtained data were analyzed using SPSS Version 21; results were interpreted and presented using frequency tables and charts. The findings showed most (39.3%) of the respondents were between the ages of 31-40 years & majority (59.6%) of respondents have knowledge of health education on immunization; majority (28.1%) & most (22.5%) of the respondents attributed "lack of co-operation from parents & lack of confidence, knowledge deficit & workload" to be factor that hinders the practice of health education among nurses in Kano state. Also the result demonstrated a correlation significant between knowledge & practice of health education among respondents at (P<0.01) level 2 tailed Pearson correlation. The study concluded that lack of confidence, nurses' workload & shortage of manpower as factors that hinders health education practice & therefore recommended nurses should be encouraged in building self-confidence, through proper guidance, mentoring and advancement in education. Moreover, among the recommendation more staff nurses should be employed to ease the workload syndrome and help in the practice of health education.

**Key words:** Health education, challenges, Nurses

## Introduction

Education is the key to having compliant patients. It has been proven that health education system improves patients' satisfaction with care, health status, and reduction in request for medical services (Gokkoca, 2014). Substantial numbers of children worldwide do not complete immunization schedules because of perhaps inadequate knowledge and negative perception towards immunization, among some parents in developing world (Fitzpatrick & Hyde, 2015). Throughout the history of nursing, nurses have helped patients take responsibility for their own health (Carpenter & Bell, 2015). Florence Nightingale attested to teaching as a function of nursing in her treatises on nursing in 1859 (Deccache & Aujoulat, 2013). The quality of nursing care can be measured in part, by the quality of patient and family education provided (Fitzpatrick & Hyde, 2015). Evidence demonstrates that primary nursing health education, in a clinical setting, contributes

effectively to individual, community health and population needs (Achal, 2014) . Yet many nursing professionals confine their public health education activity to a strictly clinical agenda, and those who do engage with the community on wider public health education issues are regarded as going beyond their formal role (Avsar & Kasikci, 2015).

Health education is a new public health strategy to improve health, control health cost and reduce unnecessary sickness and death (Smeltzer et.al, 2014). The need for nurses to practice health education to reduce morbidity and mortality require proper understanding as regards the concept of health education and factors which may influence appropriate practice of health education (Smeltzer et.al, 2014). However, nurses' practice of health education has been inundated with reports of misinterpretation of the concept and inappropriate practice which is based on biomedical model of practice (Whitehead, 2013). Moreover, studies indicate that nurses indeed view it as an important part of their professional duties. Effective health education enhances patients' ability to assume responsibility for their health and promotes higher quality healthcare (Mckinley et.al., 2017). Many studies revealed that nurses regarded patient's education as significant part of everyday practice and as specific responsibility (Anderson and Florin 2010). It has been consistently associated with favorable patient outcomes, including satisfaction and willingness to adhere to treatment, perceived control, readiness for the future and reduced anxiety, self-awareness, disease-related self-efficacy, and health-related quality of life (Holmstrom, 2014).

### **Objective of the study**

To assess the level of knowledge on health education among nurses working in Kano state metropolis hospitals.

To assess the level of practice on health education among nurses working in Kano state metropolis hospitals.

To identify health education challenges faced by nurses working in Kano state metropolis hospital.

To identify relationship between knowledge of health education & practice of health education among nurses working in Kano state metropolis hospitals.

### **Method**

A descriptive, cross-sectional survey study design, using quantitative research approach was used for the study.

### **Study area**

The study area was Kano Metropolis, Kano State North west Nigeria. Kano state is the commercial center of Northern Nigeria and is the second-largest city in Nigeria after Lagos.

### **Target population**

The target population were nurses in the wards as well as those in clinics from the three selected health facilities of Kano state metropolis (Khalifa Isyaka Rabi, Murtala Muhammed specialist hospital & Muhammad Abdullahi teaching) during the period of the study.

### **Sample size**

Sample size for this study will be calculated using the Cochran (1963) formula as:

$$n = z^2pq/d^2. \quad n = (1.96)^2 \times 0.7 \times (1 - 0.7) / (0.05)^2 = 322$$

n= the required sample size

z= standard normal deviate corresponding to 95% confidence level=1.96

p= 70% (0.7), proportion of education as factor influencing the practice of health education (ANA, 2012).

q= complimentary probability (1-p= 0.3)

d= sampling error (0.05) <sup>2</sup>

For population < 10,000

$$nf = \frac{n}{1 + \frac{n}{N}}$$

Where:

nf = the desired sample size when the population is less than 10,000

n = 322, i.e. the desired sample size

N = 400, i.e. the estimate of the population size (target population)

$$nf = \frac{322}{1 + \frac{322}{400}} = \frac{322}{1 + 0.644} = \frac{322}{1.644} = 178$$

### Sampling technique

Multistage probability sampling was implored to select three local governments from eight local government of Kano state metropolis (Nassarawa LGA, Kano Municipal LGA & Tarauni LGA), while simple random sampling was used to select one hospital from each of the selected local governments, to make it three hospitals for the study. The selected hospital was Murtala Muhammed specialist hospital (Kano Municipal), Abdullahi Wase specialist hospital (Nassarawa LGA) & Khalifa Isyaka Rabiou paediatric hospital (Tarauni LGA). Convenience non probability sampling technique was used to select nurses for the study.

### Research instrument

The study utilized a structured and self-administered questionnaire. The instrument contains four sections; section A consists of socio-demographic data, section B addressed the research questions on knowledge of health education, section C consist of question on practice of health education and section D addressed the research question on factors that influences as well as hindered the practice of health education

## **Validity and reliability of research instrument**

The instrument was developed after a thorough review of literature. The face and content validity were ensured by subjecting the instrument to critical review among my supervisors and experts in the field of study. Suggested corrections were effected. A pilot study was conducted which showed strong reliability with Cronbach's Alpha of 0.953 carried out among 23 nurses with similar characteristics to ensure internal reliability of the instrument.

## **Method of data collection**

Researcher administered questionnaires were distributed to the participants with the help of research assistant. Confidentiality was guaranteed by storing data in a place where only the researcher will have access to it. Participation of respondents was made voluntarily and details of the objectives of the study were explained to the respondents.

## **Data analysis**

The data gathered were entered into the computer using a statistical package for social sciences (SPSS) version 21.0 and was statistically analyzed using both descriptive and inferential statistics; which was presented in frequency tables and charts.

## **Ethical consideration**

Introductory letter & research proposal was submitted to the department of health research ethical committee, Kano state ministry of health. Ethical approval was collected from Kano State ministry of health, after critical review of the study proposal by the research ethical committee. Strict ethical standards and procedures were adhered to; consent and anonymity of the participants were ensured as well as making it clear to the participants that participation is voluntary.

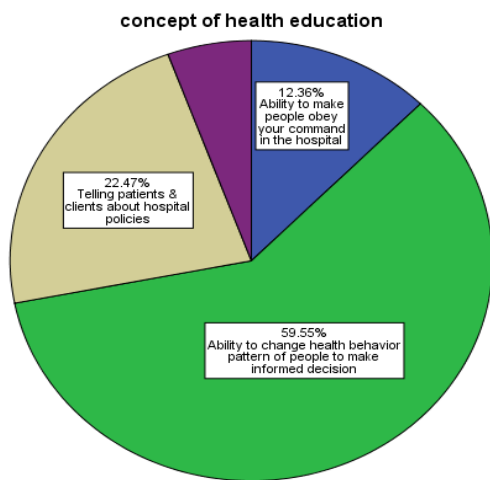
## **Results & Findings**

### **Socio-demography**

Socio-demography of the respondents showed majority (83.1%) were female, 16.9% were male, this is in accordance with the fact that female has larger population in nursing profession compared to male globally, the table also revealed that most of respondents (39.3%) were within the age of 31-40 years, with the least (11.2%) were within the age of 21-30 years. Meanwhile on the demography Tribe of respondents the result revealed most of respondents (52.8%) were Hausas, this is a true reflection of Kano state which is 98.5% being Hausa by tribe, followed by Yoruba (25.8%), Igbo (15.7%) and other tribes (5.6%). The table further showed in the demography that most of the respondents (39.3%) were in out-patient clinics, with (33.7%) in the obstetrics & gynecology unit, while the least (4.5%) were in medicine department. The demography table also revealed that most (41.1%) of respondents have RN/RM as their highest educational qualification, followed by Bachelor's degree (33.3%), with the least (5.6%) of respondents having Masters' degree as their highest educational qualification. This gave a good picture of nursing educational qualification in Kano state north western Nigeria. Moreover, the demographic table on respondents Cadre revealed that majority (28.1%) of respondents were PNO cadre by rank, 22.5% were ACNO cadre by rank, 16.9% were SNO cadre by rank while the least (1.1%) were DDN by rank, the result reflect on the highest number of work force ranks (cadre) in nursing more especially in Kano state Nigeria. Finally, the demographic table showed that majority (46.1%) of respondents were within 16-20 years of experience, 28.1% were within 11-15 years of experience; 19.7% were within 21-30 years of experience and the least (0.6%) were within 1-5 years of

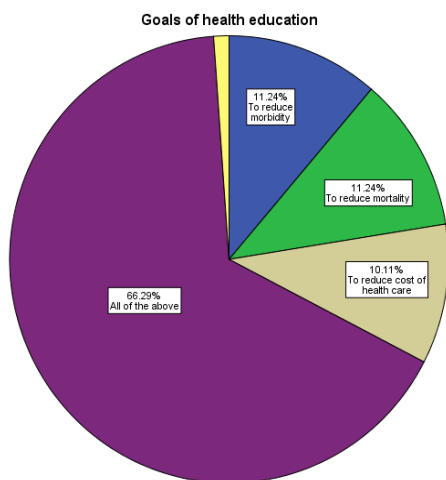
working experience.

### Respondents' knowledge of health education on immunization



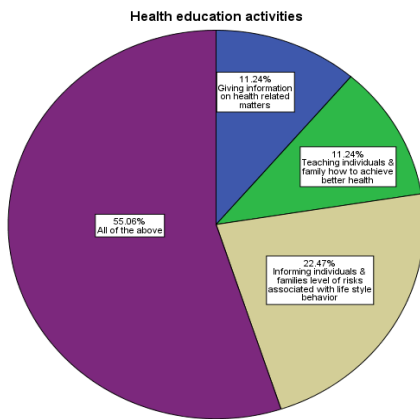
**Fig1**

Above Fig1 on knowledge of health education in relation to concept of health education revealed that majority (59.6%) of respondents believed that the ability to change health behavior pattern of individual to make informed decision, as part of concept of health education; while 22.5% believed in telling patients /clients about hospital policies as part of concept on knowledge of health education, this was in support of a study conducted in Istanbul by Cetin & Mesut (2012), that reported 50% of nurses knew how to enable patients to change their health behavior through health education.



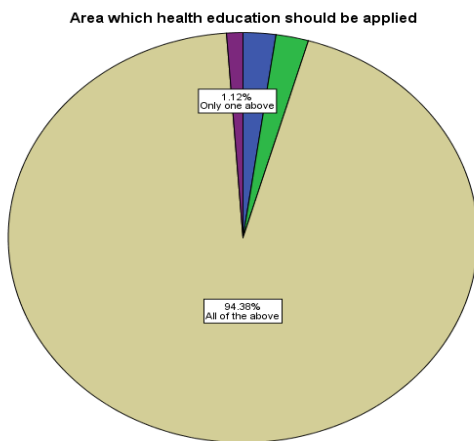
**Fig2**

Fig2 on goals of health education as indicator of knowledge on health education, the result revealed majority (65.6%) of respondents knew all the goals of health education, indicating good knowledge of health education, while 11.1% of respondents revealed reducing morbidity as well as mortality to be the main goals of health education. This was in support by a study conducted by Modupe & Atinuke, (2015) that reported 68% of nurses had good knowledge of health education on how to prevent the impact of the disease on everyday life.



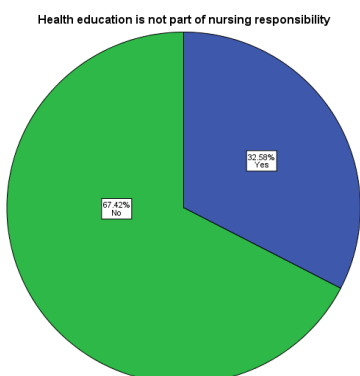
**Fig3**

Fig3 of Knowledge of health education through health education activities, showed most (54.4%) of respondents knew all the health education activities that promote health education. This was in contrast with Peltzer (2013) study conducted in rural South Africa that reported 66.6% of nurses had an inadequate knowledge score on health education which he termed as a serious health concern.



**Fig4**

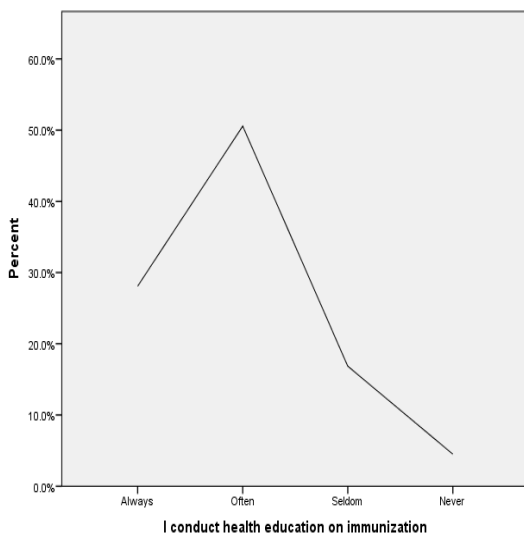
Fig4 on area which health education should be applied as indicator for knowledge of health education showed majority (94.4%) of respondents revealed all of the above that is both hospital and community settings should be appropriate for health education application. This was in support of Bird & Wallis (2014), assertion that health educational environments can include homes, hospitals, community health centers, places of business, service organizations, shelters & consumer action or support groups.



**Fig5**

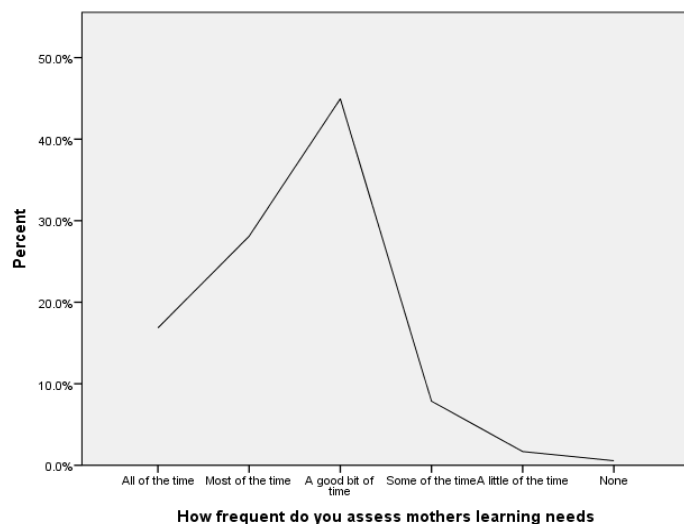
Fig5 on knowledge of health education as not part of nursing responsibility, most of the (67.4%) respondents revealed “No” that disagreed that health education is not part of nursing responsibility, while 32.6% revealed “Yes” that were agreed that health education is not part of nursing responsibility. This is in support of a study conducted by Deccache & Aujoulat (2013), who reported that Florence Nightingale attested to teaching as a function of nursing in her treaties on nursing in 1859. In a related study by Carpenter & Bell (2015), revealed that throughout the history of nursing, nurses have helped patients take responsibilities of their own health.

**Practice of health education on immunization**



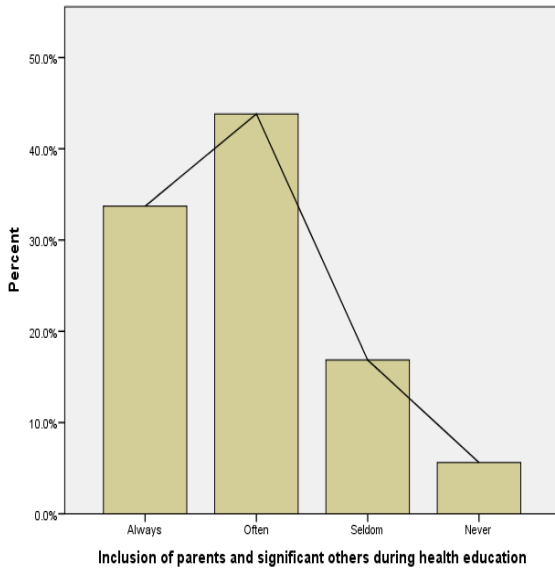
**Fig6**

Fig6 on respondents practice of health education on immunization, the result revealed most (50.6%) of respondents conduct health education on immunization “often”, 28.1% conduct health education “always”, 16.9% conduct health education on immunization “seldom”; while 4.5% conduct health education on immunization “seldom”. This is in support of a study by Akpabio, Asuquo, & Edet, (2014), in a study conducted on health education practice among nurses in Calabar, Cross-River state of Nigeria, reported “that 50 (36.8%) of the respondents provided nutritional education for women very often while 61 (44%) did it often.



**Fig7**

Fig7 on practice of health education on immunization showed majority (44.9%) of respondents “a good bit of time” assess mothers’ learning needs, 28.1% of respondents “most of the time assess mothers’ learning needs; 16.9% of respondents “all of the time” assess mothers, learning needs.



**Fig8**

Fig8 on respondents’ practice of health education on immunization, majority of (43.8%) respondents “often” include parents & significant others during health education, 33.7% of respondents “always” involve parents & significant others during health education; while 16.9% of respondents “seldom” include parents & significant others during health education and least of (5.6%) of respondents “never” involve parents and significant others during health education.

**Health education challenges faced by nurses**

**Table1 challenges faced by nurses**

Variables		Frequency	Percent
Valid	lack of confidence	40	22.5
	work load	40	22.5
	shortage of manpower	5	2.8
	lack of decision making	3	1.7
	Knowledge deficit	40	22.5
	lack of cooperation from parents	50	28.1
	Total	178	100.0

**Table1** above showed majority of respondents (28.1%), faced with lack of cooperation from parents as main challenges during health education on immunization, while lack of confidence, workload and knowledge deficit (22.5% each) were also seen as a major setback towards effective health education

**Relationship between knowledge of health education & practice of health education**



**Table 2 on respondents knowledge & practice Correlations**

Variables		KNOWLEDGE	PRACTICE
KNOWLEDGE	Pearson Correlation	1	.740**
	Sig. (2-tailed)		.000
	N	23	23
PRACTICE	Pearson Correlation	.740**	1
	Sig. (2-tailed)	.000	
	N	23	23
**. Correlation is significant at the 0.01 level (2-tailed).			

Table 5 on respondents’ knowledge & practice correlations showed significant correlation ( $P < 0.01$ ) between knowledge and practice using Pearson correlation

### Discussion on Findings

The findings showed most (39.3%) of the respondents were between the ages of 31-40 years & majority (59.6%) of respondents have knowledge of health education on immunization; majority (28.1%) & most (22.5%) of the respondents attributed “lack of co-operation from parents & lack of confidence, knowledge deficit & workload” to be factor that hinders the practice of health education among nurses in Kano state. Also the result demonstrated a correlation significant between knowledge & practice of health education among respondents at ( $P < 0.01$ ) level 2 tailed Pearson correlation.

### Conclusion & Recommendation

The study concluded that lack of confidence, nurses’ workload & shortage of manpower as factors that hinders health education practice & therefore recommended nurses should be encouraged in building self-confidence, through proper guidance, mentoring and advancement in education. Moreover, among the recommendation more staff nurses should be employed to ease the workload syndrome and help in the practice of health education

### References

1. Achalu, E. (2014). Health education concepts methods and planning. *African journal of Nursing*, 91-93.
2. Akpabio, I. (2016). Perceived barriers to nurses practice of health promotion for women. *West African Journal of Nursing*, 125-132.
3. Avsar, G., & Kasikci, M. (2015). Evaluation of patient education provided by clinical nurses in Turkey. *International Journal of Nursing Practice*, 67-71.
4. Bird, A., & Wallis, M. (2014). Nursing Knowledge and Assessment Skills in the Management of Patients receiving Analgesic via Epidural Infusion. *Journal of Advanced Nursing*, 522-531.
5. Carpenter, J. A., & Bell, S. K. (2015). What do Nurses know about teaching patients? *Journal of Nursing Development*, 157-161.
6. Cetin, M. (2015). Healthy living and disease prevention, family education program. Istanbul.
7. Deccache, A., & Aujoulat, I. (2013). A European perspective: Common Developments, differences and challenges in patient education. *Patient education and counseling*, 7-14.
8. Fitzpatrick, A., & Hyde, A. (2015). What characterizes the usual preoperative education in clinical contexts? *Nursing and Health Sciences*, 251-258.
9. Gokkoca, Z. U. (2014). The basic principles in terms of health education. *Journal of continuing*

*Medical Education*, 371-374.

10. Hewaida, M. E., Nora, A. K., Reda, A. I., & Shaimaa, A. A. (2017). Knowledge & Practice of health care providers as regards routine children vaccination in primary health care facilities of Quewisna Distric, Menoufia Governote. *Menoufia Medical Journal*, 1110-2098.
11. Mckinley, S., Moser, D., Dracup, K., & Lee\_Chung, M. (2017). Gender differences in reasons patients delay seeking treatment for acute myocardial infarction symptoms. *Patient Education & Counseling*, 45-54.
12. Modupe, O. O., & Atinuke, J. A. (2015). Factors influencing practice of patient education at the university college hospital, Ibadan, Nigeria. *Open journal of Nursing*, 23-33.
13. Peltzer, K. (2013). Nurses' knowledge and practice of patients' health education in South Africa. *Science Direct*.
14. Smeltzer, S. C., Bare, B. G., Hinkle, J. L., & Cheever, K. H. (2016). Patients' health education in Nursing. In *Brunner & Suddarth's text book of medical-surgical nursing* (pp. 48-50). Philadelphia: Lippincott Williams & Wilkins.
15. Whitehead, D. (2014). Health promotion in the practice setting: Findings from a review of clinical issues. *Worldviews Evid.Based Nurs*, 165-184.