

***Attitude of Mothers of Under-Five Children in Kaduna State towards Observation of Retinoblastoma***

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**Abstract**

*This study assessed attitude of four hundred (400) mothers of under-five children towards the observation of retinoblastoma in Kaduna State, Nigeria. The study employed a descriptive survey research design. The population of the study comprised of all mothers of under-five children in Kaduna State which are 477,400. One specific purpose, research question, and hypothesis were formulated to guide the study. A multi-stage sampling technique comprising of systematic, simple random, purposive and proportionate sampling techniques were used in selecting the required number of respondents for the study. Four hundred (400) copies of the researchers-developed questionnaire were distributed using a simple random sampling technique, of which 374 (93.5%) were retrieved and considered valid for the study. Frequency and percentage were used to describe the demographic characteristics of the respondents, while mean and standard deviation were used to answer the research question. Inferential statistics of one-sample t-test was used to test the formulated hypothesis at 0.05 level of significance. The finding of the study revealed that attitude towards the observation of retinoblastoma was significant ( $t=19.327$ ,  $p=0.001$ ). In conclusion,*

*mothers of under-five children have a positive attitude towards the observation of retinoblastoma.*

**Keywords:** Attitudes, Retinoblastoma, Eye, Under-five, children

### **Introduction**

The eye is one of the five major sense organs of the body; it makes vision possible. Problems associated with early development of the eye results into diverse eye problems including retinoblastoma. Retinoblastoma (eye cancer) is a cancer of the eye that starts in the retina, the very back part of the eye (Boyd & Maturi, 2016). The retina is the inner layer of cells in the back of the eye. It is made up of special nerve cells that are sensitive to light. During the early stages of development, the eyes have cells called retinoblasts that divide into new cells and fill the retina. At a certain point, these cells stop dividing and develop into mature retinal cells. Rarely, something goes wrong with this process. Instead of maturing into special cells that detect light, some retinoblasts continue to divide and grow out of control, forming a cancer known as retinoblastoma. Retinoblastoma is the most common type of eye cancer in children of ages 0-5 years and represents 3% of all childhood malignancies (American Academy of Ophthalmology (AAO), 2013). It is a cancer of the very young; two third of the cases are diagnosed before 2 years of age, and 95% before 5 years of age (AAO, 2013).

The American Cancer Society (ACS) (2015) reported that Retinoblastoma is a cancer of the very young and mostly found among under-five children. This cancer has another name that is “eye cancer”. They also emphasized that the disease can affect people of any age but commonly affects children aged less than 5 years. According to Broaddus, Topham and Singh (2009), the mean age-adjusted incidence of retinoblastoma in the United State of America was 11.8 per million children aged 0-4 years. However, the incidence of retinoblastoma is not distributed equally around the world with 8,000–9,000 new cases recorded annually (AAO, 2013). It appears to be higher in Africa, India, and among children of Native American descent in the North American continent (Ward, DeSantis, Robbins, Kohler & Jemal, 2014; Bunin & Orjuela, 2015). Whether these geographical variations are due to ethnic or socioeconomic factors is not well known. However, the fact that even in industrialized countries, an increased incidence of retinoblastoma is associated with poverty and low levels of maternal education (De Camargo, de Oliveira Ferreira, de Souza Reis, Ferman, de Oliveira Santos & Pombo-de-Oliveira, 2011; Fajardo-Gutierrez, Juarez-Ocana, Gonzalez-Miranda, 2007) proves a point that awareness is requisite to early detection of the disease.

Attitude, according to Wood (2000), is a state of moderately intense emotions that prepares or predisposes individuals to respond consistently in a favourable or unfavourable manner when confronted with a particular object. Eagly and Shallz

(1998) defined attitude as mental and neutral state of readiness organised through experience exerting a direction or dynamic influence upon the individual's responses to all objects and situations to which it is related. This has to do with the responses or feelings towards retinoblastoma disease, which mothers of under-five children have towards the disease, and ways to go about it when noticed on the child. Epee (2015), in his study on knowledge, attitudes and practices of general practitioners on blinding eye diseases of children in Cameroon, reported that in average, half of the general practitioners have a salvaging attitude especially in trauma and neonatal conjunctivitis. It was also noted that exposure in posting significantly improves the right attitude towards eye disease. Patenaude, Basili, Fairclough and Li (1996) conducted a study to assess attitudes toward testing for cancer susceptibility genes; they interviewed mothers of paediatric oncology patients and realised a significant attitude by mothers of paediatric oncology patients. The study reported that if genetic cancer predisposition tests were available, 51% of mothers would test themselves and 42% would test healthy children, even with no medical benefit. Wanyama, Marco and Kariuki (2016) reported that attitudes of paediatricians are positive towards eye diseases, 99.2% of them agreed that eye examination could help with early referral of retinoblastoma. In contrast, Geta and Bejiga (2011) reported that a large proportion of the adult population of Cheha district have a poor attitude regarding the causes and management of eye disease. 225 (53.6%) believed that there is no treatment for strabismus and 173 (41.2%) reported that they would not take any action since it cannot be treated. This can be attributed to the varying misconceptions the general populace have in regards to causes and management of eye diseases.

It is estimated that in almost half of the 1.4 million children who are blind today (World Health Organization, 2017), the underlying cause could have been prevented, or the eye condition treated to preserve vision or restore sight (Gilbert & Foster, 2001); thus emphasizing the critical role of early diagnosis and appropriate treatment in preventing childhood blindness. More so, childhood blindness poses educational, occupational and social challenges with affected children being at higher risk of behavioural, psychological, emotional difficulties, impaired self-esteem and poorer social integration (Jan, 2005). It is in this regard that the researchers were moved to carry out this study to assess the attitudes towards observation of retinoblastoma disease among mothers of under-five children in Kaduna state.

### **Research Question**

1. Do mothers of under-five children in Kaduna State have positive attitude towards observation of retinoblastoma?

## Hypotheses

1. **Ho1:** Mother of under-five children will not have significantly positive attitude towards observation of retinoblastoma in Kaduna State.

## Methodology

A descriptive survey research design was adopted for the purpose of the study. Population of the study comprised of 477,040 mothers of under-five children in Kaduna state, Nigeria. Six (6) Local Government Areas (LGAs) were randomly selected for the study. The sample size for this study was 400 respondents drawn from the population of the study. A multi-staged sampling procedure comprising of stratified, simple random, purposive and proportionate sampling techniques were used.

First, the researchers stratified Kaduna State into the three (3) already existing senatorial zones, namely: Kaduna North, Kaduna South, and Kaduna Central. From each of the senatorial zones, two local government areas (LGA) were randomly selected using the dip-hand method; three containers were used, one container representing each senatorial zone of the state. The name of each LGAs from each senatorial zone was written on pieces of paper, folded and dropped into the corresponding container, after which one of the researchers shook each container well before asking one of the research assistants to dip his hand and pick one folded piece of paper at a time. The name of the LGA picked was written down. This procedure continued until two LGAs were selected from each senatorial district.

After selection of the representative LGAs from the senatorial districts, the researchers then randomly selected one healthcare facility from each LGA using the dip hand method, where names of the healthcare facilities in the LGA were written on pieces of paper and dropped in a container. A researcher shook the container vigorously and asked one of the research assistants to dip his hand and pick a piece of paper at a time. The name of the health facility picked was then written down, this procedure continued until the total number of health facilities needed for the research was gotten. The six (6) health facilities selected were then used to get the respondents for the research.

To determine the proportion of respondents per LGA, proportionate sampling procedure was used by the researchers. The researchers divided the population of the women in each LGA by the total population from all the LGAs and multiplied it by the sample size (400). To get the respondents for the research, a purposive sampling procedure was employed by the researchers; the researchers and their assistants purposively selected the mothers of under-five children present at the health facility to serve as respondents for the research.

A researcher developed questionnaire titled “questionnaire on assessment of awareness, attitude and practice towards observation of retinoblastoma among mothers of under-five children in Kaduna state, Nigeria,” which is made up of four (4) sections, was used for data collection in the field. Section A consisted of six (6) items on demographic characteristics of the respondents, section B consisted of thirteen (13) items on awareness of the respondents about the observation of retinoblastoma, section C consisted of thirteen (13) items on the attitude of the respondents towards the observation of retinoblastoma, which section D contained thirteen (13) items on practices towards observation of retinoblastoma by the respondents.

The responses of the respondents were scored using a modified four-point Likert scale rating as follows: Strongly agree (SA) = 4 points, Agree (A) = 3 points, Disagree (D) = 2 points and Strongly Disagree (SD) = 1 point. 400 copies of the questionnaire were distributed during data collection after which 374 copies of the questionnaire were retrieved and analysed. Descriptive statistics of mean score and standard deviation was used to answer the research questions, while one-sample t-test was used to test the formulated hypothesis. Statistical significance for this study was based on  $p < 0.05$  level of significance.

### **Presentation of results**

**Research Question:** Do mothers of under-five children in Kaduna state have positive attitude towards observation of retinoblastoma?

**Table 1:** Mean score of responses on attitudes of mothers of under-five children towards observation of retinoblastoma

S/N	Items	Mean	Std. Deviation	Remarks
1	I feel a child with a whitish pupil has retinoblastoma.	2.95	.92	Positive
2	I feel eyes that appear to be looking at different directions (squint) can develop retinoblastoma later in life.	2.87	.79	Positive
3	I feel retinoblastoma can occur in one or both eyes.	3.07	.88	Positive
4	I feel retinoblastoma can be inherited.	2.78	.96	Positive
5	I feel early detection of retinoblastoma can save the vision and life of the child.	3.20	.80	Positive
6	I feel blurred vision is an indication of retinoblastoma.	3.03	.87	Positive
7	I feel retinoblastoma is a curable disease if it is detected in its early stage.	3.17	.77	Positive
8	I feel retinoblastoma can lead to permanent impairment in children.	3.11	.84	Positive
9	I feel eating foods rich in vitamin A helps in preventing retinoblastoma.	3.21	.79	Positive
10	I feel immunization helps in preventing retinoblastoma.	3.33	.79	Positive
11	I feel eye hygiene can help in preventing retinoblastoma.	3.21	.83	Positive
12	I feel visiting an eye specialist periodically helps in early diagnosis of eye problems in children.	3.02	.94	Positive
13	I prefer local remedies as they are best for eye problems in children.	2.32	1.02	Negative
<b>Aggregate Mean Score</b>		<b>3.02</b>	<b>.52</b>	

Table 1 shows an aggregate mean score of 3.02 which reveals that there is a positive attitude towards the observation of retinoblastoma among the respondents. The table showed a mean score of 3.33 (SD: .52) on the respondents' attitude towards immunization, followed by attitude (3.21: .83) towards eye hygiene. The attitude (2.32: 1.02) towards a preference of local remedies was not positive. The attitude towards a preference of local remedies indicates that local remedies are not generally preferred among mothers of under-five children in Kaduna state. The positive attitudes of mothers of under-five children towards observation of retinoblastoma in Kaduna state can be attributed to the significant level of awareness among the respondents.

**Ho1:** Mother of under-five children will not have significantly positive attitude towards observation of retinoblastoma in Kaduna State.

**Table 2:** One-sample t-test analysis on the attitude of mothers of under-five children towards observation of retinoblastoma

	Mean	Std. Deviation	t-value	Df	P-value
Aggregate mean	3.0205	.52	19.327	373	.001
Constant mean	2.5	0.00			

t(373)=1.972, p<0.05

Concerning the attitude of mothers of under-five children towards observation of retinoblastoma, table 2 shows that mothers' attitude was significant at a p-value of 0.001 with t-value of 19.33 at df of 373. Thus, mothers of under-five have a significantly positive attitude towards observation of retinoblastoma in Kaduna state. Thus, the formulated hypothesis which stated that the attitude of mothers of under-five children towards observation of retinoblastoma is not significantly positive was not accepted. This means that mothers of under-five children in Kaduna State have positive attitude towards observation of retinoblastoma.

### Discussion of the findings

Retinoblastoma (cancer of the eye) is a disease mostly found among children who are below five years of age. This study was conducted to assess the attitude towards retinoblastoma among mothers of under-five children in Kaduna state, with the possibility to proffer solutions to this health problem. With regards to the attitude of observation of retinoblastoma by mothers of under-five children, the finding of this study revealed that mothers have a significantly positive attitude towards observation of retinoblastoma. These findings therefore support Wanyama, Marco and Kariuki (2016) who revealed that attitudes of paediatricians are positive, 99.2% of them agreed that eye examination could help with early referral of retinoblastoma. This study also

supports a study conducted by Patenaude et al. (1996), which assessed attitude towards testing for cancer susceptibility gene among mothers of paediatric oncology patients. The study revealed a significant attitude (51%) towards testing themselves and their unaffected children. This study is in disagreement with a study conducted by Geta and Bejiga (2011), which reported that a large proportion of the adult population of Cheha district were found to have a poor attitude regarding the causes and management of strabismus. 225 (53.6%) believed that there is no treatment for strabismus and 173 (41.2%) reported that they would not take any action since it cannot be treated. This can be attributed to the varying misconceptions the general populace have in regards to causes and management of eye diseases.

### **Conclusion**

Based on the findings from this study, it is concluded that mothers of under-five children in Kaduna state have positive attitude towards observation of retinoblastoma. More so, the preference of local remedies is not generally acceptable among mothers of under-five children in Kaduna state. The positive attitudes of mothers of under-five children towards observation of retinoblastoma in Kaduna state can be attributed to the significant level of awareness among the respondents.

### **Recommendation**

On the basis of the conclusion above, the following recommendation was made:

6. The State and Federal Ministry of Health should carry out a nation-wide campaign on awareness of retinoblastoma so as to create more awareness and help sustain the positive attitude towards observation of retinoblastoma among mothers of under-five children.

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