

# DELAY FACTORS IN THE TREATMENT OF MEASLES AMONG RESIDENTS OF OSOGBO, OSUN STATE, NIGERIA

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## ***Abstract***

*Measles accounts for one of the vaccine preventable deaths among children in the world. Nigeria is one of the countries with a very high burden of measles where cases can even be under-reported partly due to delay in seeking health care. Utilizing the health belief model, the paper examines the delay factors in seeking prompt and accurate care when children have measles. The study utilized both qualitative and quantitative methods of data collection, using 400 self-administered copies of questionnaire to elicit information on delay factors and reliance of parents on use of herbs in the treatment of measles. Also, four sessions of Focus Group discussions (FGDs) were conducted with parents. Data were analyzed and presented, using descriptive statistics such as percentages and chi-square. Findings revealed a significant relationship between socio-demographic factors and perceived treatment patterns of measles at  $X^2(9) = 12.162, P=.0204$ . Furthermore, a significant level of association existed between parents' perceived traditional cause of measles, beliefs in-home remedy and use of herbs at  $X^2(16) = 127.1, P=.000$ . Qualitative data revealed that most parents considered measles as a disease that can be managed at home, hence, they visit patent medicine stores to get drugs or use herbs and consequently visit hospitals when the child fails to recover. It concluded that parents' perceived causes and treatment practices in measles is far from adequate and hence, efforts should be geared towards sensitizing parents on how to reduce mortality and morbidity resulting from measles.*

**Keywords:** *Delay, Treatment, Measles, Factors, Communities*

## Background to the Study

The importance of childhood health and wellbeing cannot be overemphasized. This is particularly so for those under the ages of five which constitute the critical age of concerns on the efforts to reduce infant mortality. Measles has been one of the health challenges related to children's health and vitality. The World Health Organization (WHO, 2007) estimated that measles accounted for approximately 777,000 children's deaths worldwide, out of which about 60% occurred in Sub-Saharan Africa (Nigeria inclusive), accounting for a substantial part of the burden. In 2005, measles killed more than 500 children in Nigeria, 90% of the 23,575 cases reported were from Northern Nigeria where people are wary of vaccinations largely for religious reasons (WHO, 2007). Sadly, it was stated in the same report that about one in every 15 children with measles will develop some more serious complications which can include ear and chest infections, diarrhea, brain infections and eventually brain damage, if not properly treated. Measles is still a major cause of childhood morbidity and mortality in many developing countries, including Nigeria. However, this disease is by no means limited to developing countries. There were 1,750 measles cases reported in the Netherlands in 1999 despite the 96% immunization rate in children above 14 months of age (Sheldon, 2000). Furthermore, the disease accounts for the highest number of vaccine preventable deaths. Nigeria is one of the 47 countries in the world with a very high burden of this disease where cases of its prevalence, can even be under-reported. According to World Health Organization/United Nations International Children's Emergency Fund, vaccination

coverage of measles containing vaccine (MCV) in Nigeria was put at 62% with a very wide variation in a country that has once achieved 80% coverage with routine immunization (WHO, 2007).

Several factors have been identified to be responsible for lingering of this disease by scholars in Nigeria. Odebiyi and Ekong (1982) in a study interviewed 200 women in Ile-Ife, South-Western Nigeria and found a significant correlation between literacy of mothers and their belief in the efficacy of measles vaccine. They also found the mothers' perception of measles to be a function of their socio-economic characteristics, with the lower socio-economic group tending more to define measles within the supernatural context. In this study series, 27% of the respondents believed in the efficacy of the vaccine, while 56% did not believe in the vaccine as a preventive measure; the rest had no knowledge whatsoever about the vaccine. Majority of the respondents based their opinion on either their personal experiences with the vaccines or the opinion of friends and relatives. Such corroborated the views of the health belief model (Becker, Haefner and Maiman, 1974) which posits that peoples' health actions are influenced by their perceptions under premises such as perceived susceptibility, perceived seriousness, benefits of taking health actions, barriers to taking health actions, cues/triggers and self-efficacy. So that on perceived susceptibility, parents who perceive that they and their children are highly susceptible or vulnerable to experiencing measles, will do what it takes to prevent it or treat in when they suspect any symptom of it, whereas those on the low

extreme of perceived susceptibility will do very little or nothing to prevent measles in their children. Furthermore, perceived seriousness was posited as another determinant of taking health actions by parents to prevent or treat measles where parents who will perceive measles as very serious are expected to be at the forefront of seeking for solution to any symptom of measles or preventing its experience, while those who do not perceive measles as a serious ailment will treat it with levity.

More so, applying the views of the health belief model, those who see the preventive actions taken or any form of healthcare as an ideal thing are likely to exhibit such behaviour because of the perceived benefit of such action, they are more likely to prevent and treat ailment than those who do not (Becker, Haefner and Maiman, 1974). Whereas, any health action that is seen as filled with several barriers such as waiting time in the hospital, cost, attitude of healthcare workers, distance and sometimes belief that the cause of measles is traditional, can discourage parents and patients of measles disease from seeking health care from western medical facilities that are flooded with these barriers. Hence, such patients may seek solution to their health challenges (i.e prevention or treatment of measles) from traditional practitioners. Thus, the potential negative aspects of a particular health action (which are also viewed as perceived barriers to taken health actions) may act as impediments to ensuring compliance with western medical treatment as well. The health belief model also emphasizes the role of other triggers and influencers (cues to actions) such as access to information, friends, spouses, family members, social media, religion etc in driving individuals to seek health care or

take necessary precautions to prevent measles attack such as immunization and medical checks against measles diseases. To crown it up, the role of self-efficacy which can be guided by one's level of enlightenment, conviction and perhaps education is also important in people's health actions in the prevention and treatment of measles even among children (Becker, Haefner and Maiman, 1974, Rosenstock, 1996).

A study conducted in rural community Sabongida-Ora in Edo state showed that there was a significant correlation between the mothers' knowledge of immunization and the rate of full immunization (Odusanya, 2008). Adeiga, Omilabu, Audu, Sanni, Lakehinde, Balogun and Olagbaju, (2007) reported that lack of motivation was one of the reasons advanced by mothers in Lagos, Nigeria for their failure either to vaccinate or complete the immunization of their children; with lack of motivation accounting for 12% of the reasons for failing to immunize. Children missed being vaccinated because mothers had not been educated about the importance of immunization during the antenatal period.

Specific cultural beliefs have been established to have possible influence on people's health seeking behaviour, aside inadequate availability of health care services in many areas in the less developed countries (Feyisetan, Asa and Ebigbola, 1997, Trivedi, Mundada and Chudasama, 2009). There is also an emphasis on the fact that health services may be under-utilized and several health and child care instructions may be ineffective or ignored in traditional and transitional societies where people's ideas and behavioural patterns conflict with the knowledge being passed to them (Feyisetan, Bamikale and Adeokun 1992). In

addition, Odebiyi and Ekong (1982) suggested that the gap between awareness of modern health measures and health seeking behaviour must be sought in the social and cultural determinants of behaviour in such matters as child care and disease management. Two diseases, measles and diarrhea, are particularly important in understanding the role of cultural beliefs in disease management among the Yorubas. In traditional Yoruba society, episodes of measles are usually attributed to a variety of causes which have no link with the regime of a virus. These causes sometimes embedded the factors that delay the decision to seek healthcare services.

### **Statement of the Problem**

Measles is still considered as one of the leading causes of childhood mortality in the world, particularly in developing countries (WHO, 2019). Before measles vaccine became available, individuals contacted measles with an estimated 130 million cases each year (WHO, 2019). Childhood mortality due to measles has been attributed to poor health service delivery associated with ignorance and cultural beliefs delay in seeking appropriate care and not seeking any care at all (Feyisetan, Bamikale and Adeokun, 1992, D'Suoza, 2003). It is further related to the mothers' ability to recognize the symptoms (Hill, 2003), the perceived signs and symptoms, the importance attached to the signs and symptoms and understanding of the cause as well as expected outcomes of childhood illness (WHO/TDR, 1995, D'Souza, 1999, Goldman and Heuveline, 2000). There have been consistent and persistent concerns to reduce infant mortality with WHO, UNICEF and other international agencies, working effortlessly to achieve the eradication of childhood measles and diarrhea. Yet, the

incidence of measles among children, especially, those under the ages of five still persist. Many factors have been identified as reasons that militate against the efforts to eradicate measles in children, despite the fact that it is a vaccine-preventable disease. Therefore, this study examined the delay factors in the treatment of measles and why the disease still affects a whole lot of children in Nigeria despite the fact that it is a vaccine preventable disease. It specifically identified the possible factors that delayed parents from seeking prompt and appropriate care when their children experience measles, and the implication of parents' perception of measles on their pathways to health care services. The study raised the following research questions:

1. How does the socio-demographic status of parents whose children have measles affect their health seeking behaviour?
2. What are the possible factors that delay parents from seeking prompt and appropriate care when their children experience measles?

### **Hypotheses:**

H0: There is no significant association between the socio-demographic characteristics (such as education) and the perceived treatment pattern of measles.

H1: There is a significant association between the socio-demographic characteristics (such as education) and the perceived treatment pattern of measles.

H0: There is no significant association between parents' perceived traditional root cause of measles and the belief that measles can be treated at home (home remedy) and use of herbs.

H1: There is no significant association between parents' perceived traditional root cause of measles and the belief that measles

can be treated at home (home remedy) and use of herbs.

**Methods**

The study was carried out in Oshogbo community, Osun State, Nigeria. Osun State is an inland state located in the South-Western part of Nigeria and the capital is Oshogbo. Osun state has an estimated population of 4 million people. It has a

$$n = \frac{Z^2 pq}{d^2}$$

Z α is the standard normal deviate at 95% confidence interval=1.96

P (prevalence) = 0.5

Q = 1-P = (1-0.5) = 0.5

d = Degree of Precision= 0.05

Substituting,

$$n = \frac{(1.96)^2 (0.5)(0.5)}{0.05^2}$$

n= 384.2

Allowing 10% attrition rates

F= 10% Attrition rate

$$= 426.8$$

Hence, the expected sample size is 426.8. However, due to cost implication, willingness of respondents to participate in the study and distance, 400 questionnaires were distributed but 386 were returned properly filled. The questionnaire titled “Perception and treatment practices of measles among parents in Oshogbo” was utilized to elicit information on parents’ perception of the etiology of measles, delayed factors of health seeking and perceived treatment patterns for childhood measles. Qualitative data was collected through 4 FGDs (Focus Group Discussion) with mothers and fathers whose children recently experienced measles and had experienced the disease. Participants of each

population of 74,435 as at 2006 census. The sample selection of respondents for the study was based on the inclusion criteria of only parents (biological/foster) who have children, who have treated childhood measles and were within the ages of 18 years and 50 years. The sample size for this study was determined using (Leslie Kish 1965) formula below:

$$\frac{1}{1-f} \times n$$

n= sample size

$$\frac{1}{1-f} \times n = \frac{n}{1-f}$$

$$= \frac{\text{Sample size}}{1-f}$$

$$= \frac{384.2}{1-0.01}$$

$$= \frac{384.2}{0.9}$$

session were an average of 6 consisting of a total number of not less than 24 participants altogether. The discussions were recorded with the participants’ consent, transcribed and thematically analyzed. Analysis from the FGD session was manually organized under major thematic areas using thematic analysis and open coding. The results were presented with descriptive statistics. The analysis involved univariate and bivariate levels of analysis using, percentages and the chi-square which were used to test for associations between categorical variables at 5% level of significance. They were briefed on the content, nature of interview, their rights to voluntary participation and withdrawal and assured of confidentiality,

thus, ethics of data collection were adhered to.

## Results

The results and findings of the study are presented in Tables 1 and 2 below along with the Focus Group Discussion.

### Respondents' Socio-demographic Profile

**Table 1: Distribution of Respondents' Demographic Information (N=386)**

<b>Demographic</b>	<b>Categories</b>	<b>Percentage %</b>
<b>Sex</b>	Male	35.0
	Female	65.0
<b>Age</b>	20-30	17.6
	31-40	55.0
	41-50	19.2
	51-60	5.2
	Above 60	3.0
<b>Occupation</b>	Government employee	36.5
	Private employee	19.6
	Trading/Business/Artisanship	31.0
	Retired/unemployed	12.9
<b>Number of children</b>	None	5.0
	1-2	40.9
	3-4	47.1
	Above 4	7.2
<b>Marital status</b>	Single	11.0
	Married	70.5
	Divorced	8.0
	Separated	2.0
	No response	8.5
<b>Marital status</b>	Single	11.0
	Married	70.5
	Divorced	8.0
	Separated	2.0
	No response	8.5
<b>Religion</b>	Christianity	57.5
	Muslim	36.5
	Traditional	2.5
<b>Ethnicity</b>	Hausa	3.0
	Igbo	2.5
	Yoruba	88
	Others	3.0
<b>Education</b>	No formal education	1.5
	Primary	3.0
	Secondary	21.5
	Tertiary	69.0

Table 1 shows the socio-demographic characteristics of respondents. The distribution of respondents according to sex in this study showed that 35.0% were males and 65.0% were females. The participation of more females than males in this study could be attributed to the fact that females dominate more when it comes to making decisions on choice of treatment of childhood measles, particularly because they are caregivers. Respondents were asked to indicate their actual ages in years; findings revealed that the respondents were between the age range of 20 to over 60 years of age. The individuals who were into business, trading and artisanship constituted precisely 31% of the respondents. Those who were unemployed/retired were about 13.0%, those employed in the private sectors were about 20.0%, while 36.5% were employed by the government. The table also indicated the number of children the respondents had with 47.1% of the respondents having 3-4 which, of course, falls into the ideal number of children parents should have considering the fact that for workers who are under government employment, the national health

insurance scheme covers only four children. Those who had 1-2 children are about 41.0% of the respondents. Only 5.0% reported not having children, while 7.0% had more than 4 children. Similarly, 70.5% of the respondents were married, 11.0% were single, 8.0% were divorced, 2.0% were widowed, and 4.5% were separated. Furthermore, over half (57.5%) of the respondents were Christians while those who practiced Islamic and traditional religion were 36.5% and 2.5% respectively. 88.0% were Yorubas, and respondents that belonged to other ethnic groups were 12.0% altogether. This indicates that majority of the participants were Yoruba largely because the study area is a South-western state which is dominated by Yorubas. The educational attainment of the respondents in the study area showed that nearly 69.0% of the respondents had tertiary education, 21.5% had secondary education, 3.0% had primary education, and 1.5% had no formal education. This finding implied that majority of the respondents in the study area were literates.

**Table 2: Respondents' views on delay factors in seeking treatment/care when children experience measles (N=386)**

<b>Variables</b>	<b>Category</b>	<b>Percentage</b>
<b>Types of treatment preferred and considered most effective for measles</b>	Hospital	18.1
	Traditional	24.5
	Spiritual	1.0
	Home remedy	4.5
	No response	50.7
<b>Seeking prompt care for measles could be predicted or delayed by financial capabilities of parents</b>	Strongly agree	39.5
	Agree	32.5
	Indifferent	3.5
	Disagree	12.5
	Strongly disagree	11.0

	No response	
<b>Management of measles could be determined by parents' ideology and superstitious beliefs</b>	Strongly agree Agree Indifferent Disagree	34.0 50.0 1.0 1.5
<b>Getting accurate care for measles could be accelerated or delayed by socio-economic status of parents</b>	Strongly agree Agree Indifferent Disagree Strongly disagree No response	32.0 44.0 4.5 6.0 1.0 12.5
<b>Early treatment depends on how parents perceive the cause of measles</b>	Strongly agree Agree Indifferent Disagree	55.5 31.5 1.5 1
<b>Little or no Health care education on measles could be a delay factor in treatment</b>	Strongly agree Agree Indifferent Disagree	64 23.5 1 0.5
<b>Prompt recognition of signs and symptoms can determine how early parents treat measles</b>	Strongly agree Agree Indifferent Disagree	50.5 36.5 1 2

Table 2 shows that 17.5% of the respondents preferred and considered hospital as the most preferred and effective place to treat measles, 24.5% considered traditional treatment as the most preferred and effective treatment for measles, only 1.0% considered spiritual treatment as an option while 4.5% considered home remedy. Interestingly, over half (52.5%) of the respondents were non-responsive on the type of treatment preferred and considered most effective for measles either because they do not know or because they cannot vouch for any particularly because several remedies are usually suggested when children come down with the ailment and parents usually try all these

measures to get solution. This is reflected and influenced by other issues such as the perceived cause and possible solutions to measles which the qualitative data shed more light on.

The low numbers of respondents agreeing that hospital is the best place of treatment could be due to the socialization process they had received where their own parents never took them to the hospital to get treated, but relied on the use of herbal medicines. Many respondents felt reluctant to express their views perhaps because they felt ashamed to express their reliance on herbal medicine which is not as highly recognized as western medicine, hence no response rate on the

preferred treatment. A respondent reiterated her view on their reliance on the use of herbs in the treatment of measles while growing up, which then influenced her choice of treatment of measles for her children thus:

*“while growing up, I have always seen my parents treat measles cases with the use of herbs, so when I started having my own children, it influenced my choice of treatment, I always use herbs to treat my children especially when it is measles and they always recover well”*(FGD/Female/business/Osogbo /2017)

Another participant who was a middle aged man expressed his experience in the vacillation of pathways to treatments in the combination of treatments he used for the treatment of measles with confidence, but expressed more confidence on the use of herbs and de-emphasized the need to visit a hospital by saying:

*“measles is not really a big deal when you know how to fight it and you do it fast, all you need is antibiotics (ampliclox,ampicillin, Fleming), it should cure it but if it is proving stubborn, just look for this eleweomo(herbs seller) and make use of the herbs as prescribed, there is no need to visit the hospital. (FGD/ Female/Police officer/Osogbo /2017)*

On the causes of measles which in turn influences the solution that respondents will seek in the treatment of measles, interesting responses were gathered which mostly emphasized that measles was caused by spiritual forces and could be cured through the use of herbs. This view was summarized in the narration of a participant thus:

*“in my hometown, there is a notion that measles is caused by a spirit called igbonna/sanponna and it usually breaks out when the weather is hot or extremely hot and the solution is to get herbs from local women selling herbs and the child will be cured”*(FGD/Female/Trader/Osogbo/2017)

With all these comments from parents, it is clear that most of them agreed that their experiences and perceptions have influenced the health actions they take in order to prevent and/or treat the disease. The influence of finances in seeking for health care is reiterated when over 70% of the respondents agreed that seeking prompt care for measles could be accelerated or delayed by the financial capacity of parents. Thus, lack of financial capacity can serve as barrier for taking health actions on the prevention or treatment of measles. During the FGD session, questions were asked on perception of the relationship between socio-economic status of parents and seeking prompt care for their children. Majority of the participants supported the view that the socio-economic status of parents can encourage or debar them from seeking prompt care. Factors such as religion, level of education of parents, occupational status, even marital status and place of residence can make parents to or not to seek prompt care, depending on the level they are on the socio-economic status. This was confirmed by the test of hypothesis which was accepted due to the Chi-square result  $X^2(9) = 12.162$ ,  $p=.0204$ , which revealed that a significant relationship existed between socio-demographic/economic factors such as education and the perceived treatment pattern to measles.

The others, however, argued that it could simply be because of negligence or beliefs/ perception about measles and not necessarily the presence of other restrictions posed by such factors. For instance, Jones (2003) suggested that mothers from lower socio-economic status tend to be younger, less educated and less confident and as such may be less proactive in seeking for healthcare when ill, except in periods of emergencies. A very large majority (84.0%) of the respondents believed that management of measles could be determined by parents' ideology and superstitious beliefs, and this has influence for their treatment pattern. The findings were confirmed by the results of the hypothesis which established a significant level of association between parents' perceived traditional root cause of measles, beliefs that measles can be treated at home (home remedy) and use of herbs by the Chi-square result ( $X^2(16) = 127.1, P = .000$ ) stated below on the segment on test of hypothesis. The result is similar on the view that early treatment depends on how parents perceived the cause of measles, which was strongly emphasized by over 85.0% of the respondents.

This is further buttressed by the response of a participant, a civil servant in her late forties who emphasized the existence of measles long before he was born and how traditional means were utilized in its treatment: He further emphasized the role of superstitious and cultural beliefs in the prevention and treatment of measles thus:

*“measles has been there since the days of our fathers, long before I was born and it has been treated without problem, once you give the child palm wine and palm oil or you mix palm oil with kerosene and then you pour a*

*little quantity at the entrance of the house, by so doing, you have fed and appeased “igbona/sanponna” so he will leave that child's body, I don't believe measles can lead to blindness and other severe illnesses mentioned by others maybe the child had the illness before or the child was going blind before measles attacked her”.*  
(FGD/Female/Civil Servant/  
Osogbo /2017)

The above response reveals that some parents do not dread the effect of measles despite the fact that it can lead to death of children because they had been used to its existence and coped with it. Hence there is low perception about the severity or seriousness of measles consequent upon which, the proposed cure is the use of home remedies such as palm oil with kerosene. This again corroborates the views of the HBM that those on the low extreme on the perceived level of severity of measles will take less serious health actions to prevent or treat it. It is against this background, that 87.5% of the respondents agreed that health education on measles should be intensified. Besides, majority of the respondents (76.0%) agreed that getting accurate care for measles could be accelerated or delayed by parents' socio-economic status, while 87.0% of the respondents agreed that prompt recognition of signs and symptoms can determine how early parents treat measles. These findings thus corroborate the views of the health belief model of Becker, Haefner and Maiman, (1974) on the role of perception on health seeking behaviour in the treatment of diseases such as measles.

**Test of Hypothesis:**

In order to corroborate the findings and draw some inferences, some test of hypothesis were carried out to ascertain whether there is a significant association between socio-demographic factors or variables such as education and the perceived treatment patterns of measles. The hypothesis was stated thus:

H0: There is no significant association between socio-demographic factors (such as education) and perceived treatment pattern of measles.

H1: There is a significant association between socio-demographic factors (such as education) and perceived treatment pattern of measles.

**Table 3: Pearson Chi-square Test result on the association between education and perceived treatment patterns of measles**

	Value	Degree of Freedom (df)	N	P-Value
<b>Pearson Chi-Square</b>	12.162	9	386	0.0204

The chi square test on table 3 above, indicated a significant association between socio demographic factors (such as education) and perceived treatment pattern to measles at  $X^2(9) = 12.162$ ,  $p=.0204$ . We, therefore, reject H1 and accept the hypothesis that there is a significant association between education and perceived treatment pattern of measles.

The above findings, therefore, revealed that the education status of respondents (parents), has an association or connection with the respondents' perception as to what treatment pattern is ideal for the treatment of measles in their children. We conducted another test of hypothesis to ascertain if there is also a significant relationship of association

between parents' perceived traditional root cause of measles, and the belief that measles can be treated at home (i.e home remedy) and use of herb. The hypothesis was stated thus:

H0: There is no significant association between parents' perceived traditional root cause of measles and the belief that measles can be treated at home (home remedy) and use of herbs

H1: There is a significant association between parents' perceived traditional root cause of measles and the belief that measles can be treated at home (home remedy) and use of herbs.

**Table 4: Pearson Chi-square Test result on the association between parents' perceived traditional root cause of measles and the belief that measles can be treated with home remedy and use of herbs**

	Value	Degree of Freedom (df)	N	P-Value
<b>Pearson Chi-Square</b>	127.1	16	386	0.000

The Pearson Chi-square result in Table 4 above, revealed a significant level of association between parents' perceived traditional root cause of measles and the belief that measles can be treated at home (home remedy) and use of herbs at  $X^2(16) = 127.1, P = .000$ . We, therefore, reject  $H_0$  and accept  $H_1$ . Thus, we can infer from the result that parents, who believe that measles is caused through a traditional root, believe that it can be cured at home using herbs.

### **Discussion of Findings**

The study has established that the experience of childhood measles is still a huge concern that requires urgent attention to eradicate the disease. Perception of the etiology of the disease and the perceived treatment pathways are still major determinants in the prevention and treatment of childhood measles as confirmed by the health belief model. These are also largely influenced by the socio-economic status of parents, especially the mothers. For instance, a large majority (76.0 percent) of the respondents agreed that getting accurate care for measles could be accelerated or delayed by the socio-economic status of the parents. These findings support those of Odebisi and Ekong (1982) in a study conducted in Ile-Ife where literacy of the mothers and belief in the efficacy of measles affected their responses to measles vaccination for their children. The essence of socio-economic status in the search for prompt treatment of childhood measles is also reflected in the role of the financial capabilities of parents. Hence, over 70 percent of the respondents agreed that seeking for prompt care for measles could be predicted or delayed by the financial capabilities of parents. Interestingly, only 1.0 percent strongly disagreed to this view. This supports the views of the HBM which posits that those on the high extreme

on the perception of childhood measles will seek prompt health care if they perceive the disease as serious and it is beneficial to treat it early. Also, finance can be a perceived barrier to seeking medical attention at the western health care facility, and therefore contribute to delay in searching for treatment. This may, therefore, account for reasons for the preference for traditional medicine which is usually affordable considering the fact that only 36.5 percent of the respondents were employed by the government. Furthermore, the national health insurance scheme which takes care of 90% of the cost of treatment for a few government employees and 4 children (Owumi, Adeoti and Taiwo, 2013), may have accounted for the proportion of respondents who have 3-4 children (47.1%).

Findings from the study, also, emphasized the role of health education which can improve the knowledge of parents on the necessary actions to treat childhood measles. 87.5 percent of the respondents agreed that little or no health education on measles could be a delay factor in the treatment of measles in children. It also confirmed the views of Odusanya, (2008) that mothers' knowledge also plays a significant role in the response to measles treatment in children. Increase in knowledge through health education can also help in the reduction of measles if the symptoms are detected early. A huge majority of the respondents (87.5 percent) agreed that prompt recognition of signs and symptoms can determine how early parents treat measles. The finding also corroborates those of Hill, (2003), who opined that delay in seeking health care is attributed to recognition of symptoms by mothers. Findings from the study are generally consistent on the role of perceptions, especially, with reference to the causes of

measles and how these can influence treatment pattern hence, over 80 percent of the respondents agreed that the management of measles could be determined by parents' ideology and superstitious beliefs. These may also account for the reasons why over a quarter of the respondents considered traditional medicine as the most preferred and effective treatment for childhood measles, despite the fact that over 70 of the respondents had tertiary education. This goes further to re-emphasize the fact that traditional medicine is widely used and acceptable in Nigeria (Owumi, and Taiwo, 2012).

### **Conclusion**

It is clear from the investigation that parents' socio-economic status and their perception of the etiology of measles can influence their health and those of their children. Also, parents' perception has implications for their choice and preference for treatment particularly in their patronage of modern health care facilities or treatment of childhood measles. Furthermore, parents' choice of treatment practices varies based on their perceptions which are largely influenced by the socialization process.

### **References**

- Adeiga, A., Omilabu, S. A., Audu, R. A., Sanni, F.; Lakehinde, G. P., Balogun, O. and Olagbaju, O. (2007). "Infant immunization coverage in difficult-to-reach area of Lagos metropolis. Lagos" Nigeria: *African Journal of Clinical and Experimental Microbiology* Vol 6. Pp 227-231. Doi:10.4314/ajcemv613.7428
- Bamikale, J., Feyisetan, B.J., Asa S., and Ebigbola, J., (1997). "Mothers'

### **Recommendation**

There is, therefore, need for sensitization and health education of parents on measles disease itself, what the cure is and what to do when one's child is down with it. There is need to revisit the measles immunization and vaccination programme in Nigeria to introduce a two-dose schedule to halt its transmission which will hopefully result in the successful eradication of measles in Nigeria. There is also the need for integration of traditional medicine in the prevention and treatment of measles, especially, for the benefit people of low socio-economic status who are not under the health insurance coverage. Government and Non-governmental organizations (NGOs) should organize orientation programmes that will educate communities on measles, the risks, and complications and how it can be properly treated so as to reduce its implications and effect on children's health. Women, particularly mothers of under-five should be equipped with the necessary health information and financial capabilities to ensure prompt and necessary search for health care in the treatment of childhood measles.

- Management of Childhood Diseases in Yoruba: The Influence of Cultural Beliefs" *Health Transition Review*. Vol.7. No. 2 pp 221-234
- Becker, M. H., Haefner, D. P., and Maiman, L. A. (1974). "The health belief model in the prediction of dietary compliance: A field experiment, *Journal of Health and Social Behavior*, 18, 348-366

- Souza, D. (1999). "Care-Seeking Behaviour" In *Clinically Infectious Diseases* 28:234
- Feyisetan, B.J.; Bamikale, J. and Adeokun. L. (1992). Impact of child care and disease treatment on infant mortality. Pp. 145-159 in *Mortality and Society in Sub-Saharan Africa*, ed. E. Van de Walle, G. Pison and MpembeleSala-Diakanda. Oxford: Clarendon Press.
- Goldman, L., and Heuveline. A. (2000). Health seeking behavior for child illness in Guatemala. *Tropical Med. Int. Health*,5(2)1.145-155
- Hill, V. (2003). "Patterns of behavior to childhood disease among Women in Philadelphia." [www.americanjournal.org](http://www.americanjournal.org)
- Kish, L. (1965) "Survey Sampling" New York. John Wiley and Sons Inc."
- Odebiyi, A.I. and Ekong, S.C. (1982) Mother's concept of measles and attitudes towards the measles vaccine in Ile-Ife, Nigeria. *Journal of Epidemiology and Community Health* 36, 3:209-213.
- Odusanya, O., Alufohai, E., Meurice, F. Ahonkhai V. (2008) "Determinants of Vaccination Coverage in Rural Nigeria" *Biomedical Central Public Health*. Doi:10.1186/1471-2458-38
- Owumi, B. E and Taiwo, P.A. (2012) "Traditional Healing Practices and Health Reforms in Nigeria" In Jegede A.S, Olutayo O.O, Omololu, O.O.and Owumi B.E (eds) *Peoples and Cultures of Nigeria*. Department of Sociology. Pp241-254. ISBN: 978-978-929-644-6
- Owumi, B.E. Adeoti, A.B and Taiwo, P.A.(2013) "National Health Insurance Scheme Dispensing Outreach and Maintenance of Health Status in Oyo State" In *International Journal of Humanities and Social Science Invention* Vol 2 Issue 4 pp 36-46
- Sheldon T., 2000 "Measles Outbreaks—Netherlands. January (2000) In CDC MMWR Weekly Report. Cdc.gov/mmwr/preview/mmwrhtml/mm491492.
- Rosenstock, I. M., (1996). Why people use health services. *Milbank memorial fund quarterly*, 44(3), 94-127.Doi:10.2307/3348967 <http://www.jstor.org/stable/3348967>
- Trivedi , S. S. ; Mundada , C. R. and Chudasama, R. K. (2009). Evaluation and impact of various factors affecting universal immunization programme (UIP) coverage in Surat. *The Internet Journal of Epidemiology*, 6(2).
- World Health Organization (1999). *Guidelines for Epidemic Preparedness and Response to Measles Outbreaks* Geneva, Switzerland
- World Health Organization (2007). *Measles WHO Fact Sheet N'286 Revised January 2007*
- WHO (2019) "Measles: Fighting a Global Resurgence" *World Health*

*Organization* December 5, 2019  
<https://www.who.int/news-room/fact-sheets/detail/measles>

Communicable Diseases Surveillance  
Responses

WHO/TDR 1999 “WHO Guidelines for  
Epidemic Preparedness and Response  
to Measles Outbreaks” WHO