

## **Effects of Health Education Intervention Programme On Health Seeking Practices and Treatment Preferences for Mothers of Under-Five Children with Febrile Illness in Ogbomoso**

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**ABSTRACT:** *This study determined the effect of health-education intervention programme on health-seeking practices and treatment –preferences for mothers having under-five children with febrile-illness .Quasi Experimental research design was conducted among mothers of under-five children attended primary health care centres for immunization in selected Primary Health Care s in Ogbomoso Pre and Post intervention self-structured questionnaire were used to collect data from 191 mothers using purposive sampling technique. One third of respondent (28.0%) have heard about febrile illness during pre-intervention while most (98.4%) have heard about it in the post intervention. Majority (74.2%) during pre-intervention declined to take their child to health facility when sick while during post-intervention over half (51.1%) do it often. Health education intervention programme improved health seeking practices and treatment preferences for mothers of under-five.*

**KEY WORD;** febrile, mothers, health seeking, treatment preference

The ability of mothers or caregivers to recognize febrile illness and seek appropriate healthcare for any of the febrile illness is instrumental in reducing child deaths in low- and middle-income countries (Egwuaba et al, 2018). Adequate treatment of febrile illness among children depends upon mothers' prompt action, health seeking and preference for treatment. (Oyekale, 2015). Most women in developing countries, where Nigeria is categorized often show negative health seeking practice. This is due to strong influence of traditions. Therefore, most mothers of under-five resort first to herbal remedies and only seek health care when the conditions of their child become worse. Studies such as Fadare et al., (2021) have reported negative health seeking among caregivers of under-five children and attributed it to inability of caregiver to recognize signs of childhood illness;

preferences for herbal remedies and lack of appropriate knowledge to seek prompt care for febrile childhood illnesses. Egwuaba (2020) affirmed that, common childhood illnesses (such as febrile illness) are responsible for a disproportionate number of deaths in under-five years children across poor resource countries. Interestingly, failure of mothers to acknowledge that febrile illness could be serious may also impede proper health seeking or prompt action. Nonetheless, early detection and treatment are critical to preventing the progression of febrile illness to severe disease and, as a result, lowering mortality, particularly among children under the age of five (Mitiku & Assefa, 2017).

Globally, the burden of motherhood is huge and being a mother could be exhausting, especially when their children experience any form of illness such as febrile illness. This eventful episode of life is not so much burdensome for mothers in developed countries, unlike their counterpart in developing and underdeveloped countries (Dagneu, Tewabe & Murugan, 2018). This probably is due to proper access to health education, coupled with availability and easy access to quality healthcare service at an affordable cost. This possibly have been responsible for good health-seeking behavior among mothers in the developed countries. On a contrary note, mothers in developing countries, such as those in African and by extension Nigeria, suffers various form of limitations among which poor health services, lack of health education, unavailability or poor access to are notable (Fadare et al., 2021). Furthermore, mothers in this part of the world have a lot of barriers to contend with in other to ensure their children enjoy good health care services. Apuleni Jacobs & Musonda (2021) noted that, some of these factors include cultural and traditional influence among others. All these combined shapes their actions, health-seeking and preference of treatment of childhood illness like febrile illness.

Febrile illnesses in children are significant contributors to rate of hospital admission, which oftentimes result into child mortality, if appropriate action were not taken (Mitiku & Assefa, 2017). Febrile illnesses are mostly characterized by sudden onset of fever or elated body temperature to a level above normal and they include pneumonia, diarrhea, malaria, measles, malnutrition among others and often resulting in convulsion if left untreated which can be extremely frightening, emotionally traumatic and anxiety provoking when witnessed by parents (Egwuaba, 2020). Major physiological evidence of febrile illness includes fever or effect of fever and is associated with significant number of children's death worldwide. Febrile illness is a threat to achieving the objectives of integrated management of Childhood illnesses (IMCI) as well as ensuring the survival of children under-five. Although febrile illness could be symptoms to some more severe diseases, most mothers become too used to sourcing home remedies and this often result to complex complications or child mortality (WHO, 2016) some of which will include, delay diagnosis or treatment, prolong hospital stay, increase cost of treatment and complications.

Globally, there has been a reduction in the rate of infant mortality; however, children mortality as a result of febrile illness has continued to rise in recent times. World Health Organization (2019) noted that, most febrile illnesses causing child mortality are preventable or treatable diseases.

Developing countries account for the majority of these deaths (98.7%), with Sub-Saharan Africa contributing the most (United Nations Children's Fund, 2019; United Nations, 2019). Globally, the total number of under-five deaths declined from 12.7 million in 1990 to 5.9 million in 2015 (United Nations, 2019; United Nations Children Fund, 2019; WHO, 2019; World Bank, 2019). Despite the above stride, the global under-five deaths, most deaths (98.7%) arise in developing countries like Nigeria and other African countries (UNCF, WHO, WB, & UNPD, 2019), and approximately about half (49.6%) occur in sub-Saharan Africa alone in 2015 (Egwuaba, 2020). Some of these febrile illnesses include but not limited to, acute respiratory infections, diarrhea diseases, and malaria which are all preventable and curable, accounted for large proportion of under-five deaths (Bustreo, Okwo-Bele & Kamara, 2015).

Most of these lives could have been saved through readily available treatments such as antibiotics for acute respiratory infections, oral rehydration for diarrhea diseases and antimalaria for malaria (Mishra, Mohapatra & Kumar, 2019) if illness behavior of mothers as well as their health seeking are positive. In developing countries however, many children's lives continue to be lost due to inappropriate treatment such as use of herbal or self-medication coupled with delays in health care seeking by mothers. This has continued to increase the rate of children mortality across Nigeria. Empirical evidence such as Gera et al., (2016) suggests that, disease burden and deaths from common childhood illnesses can be reduced considerably if appropriate health care is sought. Mothers' ability to recognize, which symbolized their prompt action, seeking appropriate health care and preference for right treatment is essential in preventing child mortality in Nigeria, where significant numbers of the children continue to die from childhood febrile illnesses. This study is therefore set to investigate the effect of health education intervention programme on health-seeking practices and treatment-preferences for mothers of under-five children with febrile-illness in Ogbomoso, Oyo State, Nigeria.

Objectives. This study aimed to:

1. To assess the pre and post knowledge of caregivers on febrile illness among under-five children.
2. To determine the pre and post perception of mothers towards treatment of under-five children with febrile-illness among under-five children.
3. To assess the pre and post health-seeking practices of mothers of under-five children having febrile-illness.
4. To examine the pre and post treatment-preferences of mothers with under-five children with febrile-illness.

## METHOD

**Research Design:** This study adopted quasi-experimental research design

**Research Setting:** This study was conducted among mothers of under-five children with febrile-illness in some selected PHC in Ogbomosho North Local Government Area, Oyo State

### **Sample size Determination and sampling technique:**

Sample size refers to the act, process, or technique of selecting an appropriate sample. The sample size is an important feature of this study in which the goal is to make inferences about a population from the sample. In practice, Cochran's formula for sample size determination study ( $N = \frac{z^2 pq}{d^2}$ ) was adopted in this study;

$$N = \frac{Z^2 Pq}{d^2}$$

where n= desired sample size

Prevalence of mothers of five years old children with febrile illness is 12.6% (Abdulkadir & Abdulkadir, 2017). This was adopted as P (proportion of the population that possessed the characteristics). Therefore

$$P = .13$$

$$1 - p = q$$

$$1 - 0.13 = 0.87$$

$$q = 0.87$$

Z= level of confidence at 1.96

d= level of possession = 0.05

these implies

$$\frac{(1.96)^2 (0.13)(0.87)}{(0.05)^2} = \frac{.4345}{.0025}$$

Approximately 174 (Approx.)

In other to take care of non-response rate 10% of the sample size would be added as thus:

$$10\% \text{ of } 174 = 17 \text{ (Approx.)}$$

$$\text{Sample size} = 174 + 17 = 191$$

Therefore the sample size=191.

### **Sampling Technique**

This study adopted multi-stage Sampling techniques as follows:

Stage One: the study adopted one Local Government, out of the two Local Governments in Ogbomoso using random purposive sampling techniques by balloting. The need to use random

sampling techniques was because the study would ensure avoiding bias in selection of Local Government.

Stage two: the study selected two primary healthcare facilities using purposive sampling techniques. The need to use purposive sampling techniques was based on the need to have sufficient sample size.

Stage three: Mothers from each Primary Health Care (PHC's), who met the inclusion criteria was divided into two using random sampling techniques by odd-even number interval. The two groups per PHCs were control and experimental group respectively.

Stage four: The respondents were selected using systematic sampling techniques. The need to adopt systematic sampling.

### **Instrumentation**

This study obtained data from the field using a structured questionnaire. The questionnaire was divided into five (5) sections; A-E.

**Section A** was designed to gather information relating to socio demographic details of the respondents that has twelve items.

Other sections addressed issues raised in each of the specific objective of the study as follows:

**Section B:** this was a two level option (Yes or No) section that has seven items which elicited information on Knowledge on febrile illness among mothers of under-five children. The overall knowledge was rated good and poor. Where good knowledge was scored 1 and otherwise was scored 0 respectively. Therefore, minimum and maximum score any respondents could get was 0 and 8 and respondent who scored 5- 8 was allocated adequate knowledge and those who score 4 or below was allocated inadequate knowledge.

**Section C:** this was a four level option (Agreed, Strongly Agreed, Disagreed, Strongly Disagreed) section with seven items that elicited information on perception towards febrile illness. The overall action was rated (Agreed, Strongly Agreed, Disagreed, Strongly Disagreed) Where Strongly Agreed was scored 4, Agreed was scored 3 and Disagreed scored 2 and strongly disagreed scored 1 respectively. Therefore, minimum and maximum score any respondent could get was 8 and 24 and respondent who scored 17- 24 was allocated good action, those who scored 9-16 was allocated moderate action and those who score 8 was allocated poor action.

**Section D:** this was a four level option (Agreed, Strongly Agreed, Disagreed, Strongly Disagreed) section with eleven items which elicited information on Health-seeking of mothers of under five children. The overall Health-seeking was rated positive and negative. Where Positive was scored 1 and Negative scored 0 respectively. Therefore, minimum and maximum score any respondents

could get was 0 and 8 and respondent who scored 5- 8 was allocated positive Health-seeking and those who score 4 or below was allocated negative Health-seeking.

**Section E:** this was a four level option (Often, Sometimes, Never, Rarely) section with seven items which elicited information on Preference for treatment among mothers of under five children. The overall Preference for treatment was rated adequate and inadequate. Where often scored 1 and rarely scored 0 respectively. Therefore, minimum and maximum score any respondents could get was 0 and 8 and respondent who scored 5- 8 was allocated adequate treatment and those who score 4 or below was allocated negative inadequate treatment.

### **The Intervention Programme**

**Pre-intervention visit session / Pre-test:** A pre-intervention questionnaire was administered to the respondents in order to assess their level of knowledge about health-seeking practices and treatment –preferences for under-five children with febrile-illness.

**Intervention session:** A self-structured comprehensive/ theoretical health education with the use of teaching aids for example diagram/images/pictures, charts / posters/ hand-out fliers was given to the respondents on definition, early recognition of signs and symptoms, causes, treatments, complications, preventive / control measures to be put in place and personal hygiene on febrile-illness among under-five children which lasted for thirty minutes and all questions raised by the respondents were answered appropriately.

**Post-intervention/ Evaluation session / Post-test:** A post-intervention assessment was administered / questionnaire to the respondents in the intervention group so as to assess the impact of the health education program/ educational protocol on their knowledge on HSP and treatment-preferences on under-five children. These respondents were subjected to the same instruments administered before the intervention session.

### **Data Collection Method**

The instrument was administered with the aid of two research assistants as well as other nurses on duty. The two groups include:

**Group 1:** Mothers of under-five children with febrile-illness that reported for treatment in the clinics are the experimental group that was given a theoretical based health education on what is febrile-illness? Various types, signs and symptoms, causes, management, complications, control and preventive measures to be observed / put in place by mothers.

**Group 2:** Mothers of under-five children with febrile-illness that are on short visit in the clinics are the control groups that are not aware of the control measures / were not given health education. Generally, respondents were approached on clinic days and purpose of the study was made explicit to them. Also, respondents were asked to complete the questionnaires according to how each of

the items applies to them without bias or prejudice. The total data collection time frame was six weeks.

### **Ethical Consideration**

Ethical approval was obtained from State Ministry of health ethical committee. Permission to collect data was gotten from Primary health-care centers/ clinics. Also researcher and research assistants assured respondents of confidentiality and those who gave consent were handed a questionnaire each to be completed. Instrument was administered under free will and not compulsion.

### **Method of Data Analysis**

The data was checked, edited, coded and processed using version 25 Statistical Package for Social Sciences (SPSS). Frequency and percentage aspect of descriptive statistics was used to analyze the data collected. Chi-square was used to test the null hypotheses at 0.05 level of significant.

## **RESULTS**

### **Socio demographic variables**

Table 1 presents demographic characteristics of respondents. Results revealed that, half (50.6%) of the respondents were 31 years and above, below a third (31.9%) were 26 – 30 years, 14.8% were 21-25 years and 2.7% were 15 – 20 years. Also majority (92.3%) were married and 7.7% were single. More so, majority belong to a monogamous (65.9%) house, while others (34.1%). More results show majority (75.8%) were Yoruba, 14.3% were Igbo and 9.9% were Hausas. Also Islam (80.2%) dominated the respondents, while Christian were 19.8%. also, 2.86% were Illiterate or unable to read, 38.5% had Primary education, 26.4% also had secondary education and 6.6% had tertiary education. More results also show most of the respondent get their water source from well (56.0%) or Pipe (42.9%). On occupation, 17.0% had No job or were full time house wife, majority (61.5%) were petty trader, 15.4% were Artisans, 6.1% were Civil servants. On Child Age in months, 28.6% were < 11months, 37.9% were 24-35months, 19.2% were 36-47 months and 14.3% were 48-59 months

### **Knowledge of caregivers on febrile illness**

Table 2 presents knowledge of caregivers on febrile illness for pre and post. Results revealed that, below a third (28.0%) have heard about febrile illness during pre-intervention, while most (98.4%) have heard about it in the post. Also, below a quarter (23.1%) are aware of different types of febrile illness, while majority (79.1%) were aware in the post. Majority knew example of febrile-illness during pre (84.1%) and post (96.2%) intervention. More so, only 23.1% during pre-intervention knew febrile illness is associated with fever, while 85.7% knew during post. Results also revealed that, majority said yes to febrile-illness are common childhood-illness, during pre (78.0%) and post (96.7%) respectively. Also, majority said yes to bathing children is sufficient treatment for

febrile-illness, during pre (97.3%) and post (99.5%) respectively. However, while during pre, 29.3% agreed that, aid child with febrile-illness need fresh air, majority (72.4%) agreed during post. Also, 22.5% during pre said yes to children with febrile-illness should be allow to play around, majority (68.1%) said yes during post. More so, majority (81.3%) during pre-affirmed that, mothers should force feed children with febrile-illness, while majority (73.1%) declined during post.

### **Respondents showing perception towards treatment of Febrile-Illness**

Table 3 presents perception towards treatment of Febrile-Illness for pre and post. Results revealed that, although majority (65.9%) during pre-intervention strongly agreed or agreed that, febrile-illness are normal childhood illness and nothing to worry about, yet during post, majority (80.2%) disagreed or strongly. Also higher percent (51.6%) during pre-intervention strongly agreed or agreed that, some children are always healthy and may never experience Febrile-illness, yet during post, majority (94.0%) disagreed or strongly. Also, majority (63.7%) during pre-intervention strongly disagreed or disagreed that, children with Febrile-illness are burden to mothers' fever frequently, also during post, majority (90.1%) disagreed or strongly disagrees. majority (54.9%) during pre-intervention strongly agreed or agreed that, Febrile-illness is costly to treat, yet during post, majority (92.3%) agreed or strongly agreed. majority (64.8%) during pre-intervention strongly disagreed or disagreed that, treating febrile-illness is time consuming, yet during post, majority (96.7%) agreed or strongly agreed. majority (62.6%) during pre-intervention strongly agreed or agreed that, Mothers don't need to get to the hospital to treat a child with febrile-illness, yet during post, majority (84.6%) disagreed or strongly disagree

### **Health-seeking practices of mothers having Febrile-Illness**

Table 4 presents Health-seeking practices of mothers having febrile-Illness for pre and post. Results revealed that, although majority (74.2%) during pre-intervention declined taking their child to health facility when sick, while during post over half (51.1%) do it always of often. Although majority (88.5%) during pre-intervention declined taking their child to health facility when sick with febrile illness, while during post majority (89.0%) do it always of often. Although majority (64.8%) during pre-intervention affirmed use of over the counter medicine when sick with febrile illness, while during post majority (64.3%) don't. Also majority (78.0%) during pre-intervention declined uses natural means of treating febrile illness, while during post majority (75.3%) also declined. Although majority (80.2%) during pre-intervention affirmed they used local herbs for treating febrile illness, while during post majority (74.2%) declined. Majority (96.7%) during pre-intervention declined consulting herbalist for treatment sick with febrile illness, while during post over half (99.5%) declined

### **Treatment-preferences of febrile-Illness**

Table 4. presents treatment-preferences of febrile-Illness for pre and post. Results revealed that, although majority (80.8%) during pre-intervention strongly disagreed or disagreed that, mother



prefer to allow their children to go near fire for warmth when they have fever, also during post, majority (87.9%) disagreed or strongly. Also higher percent (89.6%) during pre-intervention strongly agreed or agreed that, mothers prefer use of herbal medicine for children with fever, yet during post, a significant declined in the percent (51.6%) agreed or strongly agree. Also, majority (67.0%) during pre-intervention strongly agreed or agreed that, mothers prefer use of balm for children with fever, also during post, majority (81.3%) agreed or strongly agrees. Majority (76.4%) during pre-intervention strongly agreed or agreed that, mothers get medicine from counter for my children who surfers fever, yet during post, majority (61.0%) disagreed or strongly disagreed. Majority (78.6%) during pre-intervention strongly agreed or agreed that, mothers get medicine from counter for my children who surfers fever, yet during post, majority (65.9%) disagreed or strongly disagreed. Majority (69.2%) during pre-intervention strongly agreed or agreed that, mothers prefer to give my children holy basil (Tulsi) to prevent infection, also during post, majority (73.1%) agreed or strongly agreed. Majority (69.2%) during pre-intervention strongly agreed or agreed that, mothers prefer to give citrus fruits lemon water to children who surfers fever, yet during post, majority (52.2%) disagreed or strongly disagreed. Majority (80.8%) during pre-intervention strongly agreed or agreed that, mother need to take their children for treatment in government facilities, also during post, majority (88.5%) disagreed or strongly disagreed. Majority (83.0%) during pre-intervention strongly disagreed or disagreed that, mother need to take their children for treatment in private facilities, also during post, majority (59.3%) disagreed or strongly disagreed. Majority (83.5%) during pre-intervention strongly agreed or agreed that, mother need to take their children for treatment in traditional facilities/ herbal/ home remedies, yet during post, majority (65.4%) disagreed or strongly disagree.

## **DISCUSSION OF FINDINGS**

### **Demographic characteristics of respondents**

Findings revealed that, the vast majority of respondents were 26 years and above. This implies the vast majority of respondents are matured and would be able to provide information needed. This is corroborating the fact that most are married which also would contribute towards their experiences as child bearing age. Findings also revealed majority were from monogamous home, although a significant also came from polygamy home (34.1%). This is supported by Lewis, Ndiaye, Manzi and Kruk (2022) who found that, associations persisted after adjustment for socioeconomic and demographic characteristics. More finding shows that, majority (75.8%) were Yoruba. The reason for this could be that, the study was conducted in a Yoruba territory. More so, both Christianity and Islam religion were well represented. However, Islamic were major among the respondents. Also a significant part of the respondents were learned. This reduces the level of language barriers experienced during data collection. From the finding major water source were well and borehole. Also the vast majority of respondents were petty traders. This is an indication most of the respondents may not be able afford exorbitant health bills. Also most of the children are AB blood group and AA genotype. Also, most child are < 11 months and above.

### **Knowledge of caregivers on febrile illness for pre and post intervention**

**More finding revealed** that, the vast majority of respondents have poor knowledge on febrile illness during pre-intervention. Egwuaba and Olisa (2020) who found that 43.4% of care-givers were aware of the aetiology of febrile illnesses among under-five children in However during post intervention more respondents gain more knowledge. This is evidence in the result where majority declined fever is associated with febrile illness during pre but at post-intervention, majority understood. This is an indication that, intervention was effective to the end that, it affected positively the knowledge of respondents.

### **Perception towards treatment of febrile-Illness for pre and post intervention**

More finding revealed that, the vast majority of respondents had negative perception towards treatment of Febrile-Illness during pre-intervention. However, during post intervention more respondents develop positive perception towards treatment of Febrile-Illness. Abdulkadir and Abdulkadir (2017) found that, Factors associated with appropriate care-seeking were perception, tertiary education and belonging to the Muslim faith. This was evidence in the result where majority declined febrile-illness are normal childhood illness and nothing to worry about, but at post-intervention, majority disagreed. This was an indication that intervention was effective to the end and affected positively the perception of respondents.

### **Health-seeking practices of mothers having Febrile-Illness for pre and post intervention**

More finding revealed that, the vast majority of respondents had negative Health-seeking practices towards treatment of Febrile-Illness during pre-intervention. Bognin et al., (2022) also found that, Care-seeking for children with fever was lowest in 2008 (51%; 95% CI (46.4–55.5)). However, they found that, Care-seeking improved in 2013, 2016 and 2019 was at least 1.4 time higher than in 2008 ( $p < 0.001$ ) after adjusting for mother's education level. This was also observed during post intervention as more respondents develop positive Health-seeking practices towards treatment of Febrile-Illness. This was evidence in the result where majority affirmed taken their child to health facility when sick, but at post-intervention, majority agreed. Also majority disaffirmed that, they take their child to health facility when sick with febrile illness during pre but for post majority agreed. This was an indication that intervention was effective to the end and affected positively the health seeking of respondents.

### **Treatment-preferences of Febrile-Illness for pre and post intervention**

Finding also revealed that, the vast majority of respondents had poor Treatment-preferences of febrile-Illness during pre-intervention. However, during post intervention more respondents developed good Treatment-preferences of febrile-Illness. This was evidence in the result where majority affirmed Mother prefer to allow their children to go near fire for warmth when they have fever, but at post-intervention, majority disagreed. Also majority affirmed that, Mother need to take their children for treatment in traditional facilities/ herbal/ home remedies during pre but for

post majority disagreed. This was supported by Apuleni et al. (2021) who found that, mothers who took their sick children to the health facilities for the purpose of seeking health care for their child for either of the illnesses accounted for 75.2%, [95% CI: 0.62–0.96], while 24.8% did not seek health care for their sick child. This is an indication that, intervention was effective to the end that, it affected positively the treatment-preferences of respondents.

### **Implication to Midwifery Practice/ Academics**

Nutritional and immunization status are key contributory factors towards reducing any childhood illness such as febrile illness. There ensuring adequacy and compliance would go a long way towards improving child health in Nigeria. Therefore, midwives should ensure adequate information is disseminated to mothers to help reduce rate of febrile illness during each visit to the health care facility antenatal / post-natal. This calls for the government and donor agencies to ensure their availability if childhood mortality will be curbed.

More so, directly or indirectly under-utilization of Integrated Management of Childhood Illness (IMCI) pose a big threat to child survival as persistent high morbidity and mortality rates among children under five of age. There is still more to be done by means of information and education as there is need for effective use of IMCI especially among nurses and midwives. This implies governmental and non-governmental agencies in charge need to enforce the operations to be utilized effectively. From this systematic review, it is imperative to educate women to become aware through sensitization and mobilization programme on the effects and disastrous nature of non-compliance to basic hygiene. Moreover, emphasis should be placed on educating women and in cooperating with associations, organizations, social clubs, traditional leaders, occupational leaders among others.

The government at all levels should review the curriculum in education and include professional social and psychological knowledge that will help health workers to effectively deliver modern services and practices to the clients such proper evaluation of practices to enhance future reform. In the community context, health-seeking education and health-living education need to be focused on so as to improve the individual and community health status.

### **CONCLUSION**

This study concluded that, majority of the respondent's experienced increased knowledge between pre and post intervention. The study also concluded that, the vast majority of respondents experienced more positive perception between pre and post intervention. More so, the study concluded that, majority of the respondent's experienced good health-seeking practice between pre and post intervention

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**Appendices****Table 1 Demographic characteristics of respondents**

Question	Frequency	Percentage
Age		
15 – 20 years	5	2.7
21 – 25 years	27	14.8
26 – 30 years	58	31.9
31 years and above	92	50.6
Total	<b>182</b>	<b>100.0</b>
Marital status		
Single	14	7.7
Married	168	92.3
Divorced	0	0.0
Widow	0	0.0
Total	<b>182</b>	<b>100.0</b>
Family Type		
Monogamy	120	65.9
Polygamy	62	34.1
Total	<b>182</b>	<b>100.0</b>
Ethnic group		
Yoruba	138	75.8
Igbo	26	14.3
Hausa	18	9.9
Total	<b>182</b>	<b>100.0</b>
Religion		
Christianity	36	19.8
Islam	146	80.2
Traditional	0	0.0
Total	<b>182</b>	<b>100.0</b>
Educational Level		
Illiterate/ unable to read	52	28.6
Primary	70	38.5
Secondary	48	26.4
Tertiary Education	12	6.6
Total	<b>182</b>	<b>100.0</b>
Source of water		
River	2	1.1
Well	102	56.0
Rain	0	
Pipe	78	42.9
Total	<b>182</b>	<b>100.0</b>
Occupation		
No job/ full time house wife	31	17.0
Petty trader	112	61.5

Artisan	28	15.4
Civil servants	11	6.1
Total	<b>182</b>	<b>100.0</b>
Child Age in months		
< 11 months	52	28.6
24-35 months	69	37.9
36-47 months	35	19.2
48-59 months	26	14.3
Total	<b>182</b>	<b>100.0</b>

Table 2 Knowledge of caregivers on febrile illness

Question	Pre-intervention		Post-intervention(Post)	
	Frequency	Percentage	Frequency	Percentage
Have you ever heard about Febrile illness in children?				
Yes	51	28.0	179	98.4
No	131	72.0	3	1.6
Total	<b>182</b>	<b>100.0</b>	<b>182</b>	<b>100.0</b>
Are you aware of different types of febrile illness?				
Yes	42	23.1	144	79.1
No	140	76.9	38	20.9
Total	<b>182</b>	<b>100.0</b>	<b>182</b>	<b>100.0</b>
Example of febrile-illness include?				
Malaria	153	84.1	175	96.2
Tetanus	13	7.1	4	2.2
Polio	16	8.8	3	1.6
Total	<b>182</b>	<b>100.0</b>	<b>182</b>	<b>100.0</b>
Febrile illness is associated with?				
Vomiting	91	50.0	21	11.5
Fever	42	23.1	156	85.7
Headache	49	26.9	5	2.7
Total	<b>182</b>	<b>100.0</b>	<b>182</b>	<b>100.0</b>

Items		Pre		Post		Total
		Yes	No	Yes	No	
Febrile-illness are common childhood-illness	<b>F</b>	142	40	176	6	182
	<b>%</b>	78.0	22.0	96.7	3.3	100.0
	<b>F</b>	177	5	181	1	182

Bathing children is sufficient treatment for febrile-illness	%	97.3	2.7	99.5	.5	100.0
Child with febrile-illness need fresh air	F	54	128	132	50	182
	%	29.7	70.3	72.5	27.4	100.0
Children with febrile-illness should be allow to play around	F	41	141	124	58	182
	%	22.5	77.5	68.1	31.9	100.0
Mothers should force feed children with febrile-illness	F	148	34	49	133	182
	%	81.3	18.7	26.9	73.1	100.0

**Table 3 Perception towards treatment of febrile-Illness**

s/n	Items		Pre		Post		Total
			SA/A	D/SD	SA/A	D/SD	
1	Febrile-illness are normal childhood illness and nothing to worry about.	F	120	62	36	146	182
		%	65.9	34.1	19.8	80.2	100.0
2	Some children are always healthy and may never experience Febrile-illness	F	94	88	11	171	182
		%	51.6	48.4	6.0	94.0	100.0
3	Children with Febrile-illness are burden to mothers fever frequently	F	66	116	18	164	182
		%	36.3	63.7	9.9	90.1	100.0
4	Febrile-illness is costly to treat	F	100	82	168	14	182
		%	54.9	45.1	92.3	7.7	100.0
5	Treating febrile-illness is time consuming	F	64	138	176	6	182
		%	35.2	64.8	96.7	3.3	100.0
6	Mothers don't need to get to the hospital to treat a child with febrile-illness	F	114	68	28	154	182
		%	62.6	37.4	15.4	84.6	100.0

**Table 4 Health-seeking practices of mothers having febrile-Illness**

Items		Pre		Post		Total
		A/OF	R/N	A/OF	R/N	
I take my child to health facility when sick	<b>F</b>	47	135	93	89	182
	<b>%</b>	25.8	74.2	51.1	48.9	100.0
I take my child to health facility when sick with febrile illness	<b>F</b>	21	161	162	20	182
	<b>%</b>	11.5	88.5	89.0	11.0	100.0
I use over the counter medicine when sick with febrile illness	<b>F</b>	118	64	65	117	182
	<b>%</b>	64.8	35.2	35.7	64.3	100.0
I uses natural means of treating febrile illness	<b>F</b>	38	142	45	137	182
	<b>%</b>	20.9	78.0	24.7	75.3	100.0
I uses local herbs for treating febrile illness	<b>F</b>	146	36	47	135	182
	<b>%</b>	80.2	19.8	25.8	74.2	100.0
I consult herbalist for treatment sick with febrile illness	<b>F</b>	6	176	1	181	182
	<b>%</b>	3.3	96.7	,5	99.5	100.0

**Table 5 Treatment-preferences of febrile-Illness**

s/n	Items		Pre		Post		Total
			SA/A	D/SD	SA/A	D/SD	
<b>1</b>	Mother prefer to allow their children to go near fire for warmth when they have fever	<b>F</b>	35	147	22	160	182
		<b>%</b>	19.2	80.8	12.1	87.9	100.0
<b>2</b>	Mothers prefer use of herbal medicine for children with fever	<b>F</b>	163	19	94	88	182
		<b>%</b>	89.6	10.4	51.6	48.4	100.0



<b>3</b>	Mothers prefer use of balm for children with fever	<b>F</b>	122	60	148	34	182
		<b>%</b>	67.0	33.0	81.3	18.7	100.0
<b>4</b>	Mothers get medicine from counter for my children who surfers fever	<b>F</b>	139	43	71	111	182
		<b>%</b>	76.4	23.6	39.0	61.0	100.0
<b>5</b>	Mothers get medicine from counter for my children who surfers fever	<b>F</b>	143	39	62	120	182
		<b>%</b>	78.6	21.4	34.1	65.9	100.0
<b>6</b>	Mothers prefer to give my children holy basil (Tulsi) to prevent infection	<b>F</b>	126	56	133	49	182
		<b>%</b>	69.2	30.8	73.1	26.9	100.0
<b>7</b>	Mothers prefer to give citrus fruits lemon water to children who surfers fever	<b>F</b>	126	56	87	95	182
		<b>%</b>	69.2	30.8	47.8	52.2	100.0
<b>8</b>	Mother need to take their children for treatment in government facilities	<b>F</b>	147	35	161	21	182
		<b>%</b>	80.8	19.2	88.5	11.5	100.0
<b>9</b>	Mother need to take their children for treatment in private facilities	<b>F</b>	31	151	74	108	182
		<b>%</b>	17.0	83.0	40.7	59.3	100.0
<b>10</b>	Mother need to take their children for treatment in traditional facilities/ herbal/ home remedies	<b>F</b>	152	30	63	119	182
		<b>%</b>	83.5	16.5	34.6	65.4	100.0