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KNOWLEDGE, PERCEPTION AND ATTITUDE ON OTITIS MEDIA AMONG PARENTS WITH CHILDREN 5 YEARS AND BELOW

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Abstract

Otitis media is an inflammation of the middle ear mucosa presenting with symptoms of otalgia, fever, ear tugging, frequent crying at night and ear discharge through a tympanic membrane perforation. Globally, otitis media is a common health problem among children and causes an unpleasant feeling and complications to children. The purpose of this study is to determine knowledge, perception and attitude on otitis media among parents of children five years and below who seek health care at Abuakwa Polyclinic. This study used a quantitative cross-sectional design and 114 parents of children 5 years and below were recruited using non-probability method of convenient sampling. The findings suggest that the surveyed parents had a reasonable level of knowledge regarding otitis media. They generally understood that it is an infection and inflammation of the middle ear, recognized common risk factors, and can identify the typical clinical manifestations. The findings reveal varied perceptions and knowledge among parents regarding otitis media. While there is generally a good understanding of certain aspects such as causative organisms, clinical manifestations, and complications, there are also areas where misconceptions or uncertainty exist, such as the need for antibiotics and the long-term prognosis of the condition. The findings highlight the diverse attitudes of parents towards otitis media. A significant number of parents demonstrate a proactive approach by seeking prompt treatment and opting for hospital care, there are also variations in treatment preferences, with a minority favoring traditional or alternative methods. Factors such as accessibility, waiting times, previous experience, financial constraints, treatment effectiveness were socio-economic factors influencing parents attitude and their choice of where to seek care. The study recommends that ENT professionals in collaboration with the district public health team are to initiate and implement health education programs on otitis media to create more awareness among parents with children 5 years and below.

Keywords: knowledge; perception otitis; media among parents

INTRODUCTION

Otitis media or infection of the middle ear is a leading cause of healthcare visits and an important cause of preventable hearing loss, particularly in developing countries (Monasta et al., 2012). Globally it is estimated that 330 million people have Otitis Media of which 60% have hearing loss; the majority of those affected are children. Hearing loss

adversely affects speech and language development and school performance in children and may eventually diminish prospects for gainful employment in adulthood (Mukara et al., 2017). Each year 11% of the population suffer from acute otitis media, while 5% people suffer from chronic suppurative otitis media, with 50% and 22.6% of these cases happening in children below 5 years respectively, Monasta et al., 2012). Except for common cold otitis media is the frequently diagnosed illness in children in the United States. Most children especially under 7 years are at a greatest risk of ear infection and its complications such as tympanic membrane rupture and hearing loss because of their short eustachian tube (National Institute on Deafness and Other Communication Disorders (Schilder et al., 2016). Otitis media poses a serious health concern in developing countries with an undeniable effect on overall health of children and a likely effect on parents' social and emotional health (Kohli et al., 2016). By age three, 80% of children will have at least one episode of acute otitis media (Mukara et al., 2017). Moreover, 28,000 deaths are attributed to complications due to Otitis Media. Data on ear infections in sub-Saharan Africa is limited. Published studies estimate Otitis Media among school going children at 1.6% reported in Tanzania and 2.4% in Kenya. Babigamba, (2005) reported a prevalence of 13.2% of Otitis Media among children aged 6–60 months living in a slum in Uganda. Parental knowledge and attitudes influence children ear examination and health seeking behavior. Mukara et al., (2017) found that 60% mothers in Kigali were not aware of their children having ear infections especially chronic suppurative otitis media and those with knowledge 47% did not seek treatment for children ear infection. Poor parental knowledge, attitude, perception and risky health seeking behavior do influence and contribute to increase and more complicated pediatric ear infections. Optimal health seeking behavior often depends on accessibility of health facilities coupled with knowledge and understanding of the benefit of modern medical treatment as opposed to local customs and beliefs (Barber et al., 2014).Several reasons have been attributed to the delay of mothers seeking treatment for their children ear infections notably among them is lack of parental knowledge on pediatric ear infections, poor parental attitudes and use of traditional medicines (Mukara et al., 2017).

Globally, otitis media is a common health problem among children. Otitis media is reported to predominantly account for approximately 22 million visits to health facility each year in the United States with highest incidence occurring between 6 to 24 months (Garber et al., 2017). Infections affecting the middle ear are a diverse entity and a common childhood occurrence (Li et al., 2015). By the third birthday, 80% of children have had at least one episode of acute otitis media. Up to 41% of cases have persistent ear discharge; chronic suppurative otitis media (Hansen et al., 2015). This disease entity also presents with symptoms of tinnitus, hearing loss and persistent discharge refractive to medical treatment. Not only have clinicians noticed delays in presentation for those seeking treatment, but also noted reports of patients using traditional medicine for ear infection regardless of high access to medical insurance (Barber et al., 2014). Review of ENT cases at Abuakwa polyclinic between the period of 2021 to 2022 saw many parents of children under 5 reported with complications of otitis media which are dire and

includes tympanic membrane perforation, neck abscesses, mastoiditis, facial nerve paralysis, meningitis and brain abscess which poses educational, social-economic, emotional, financial and psychological problems in both children and parents. Against this background, we seek to conduct this study to determine the extent of knowledge, perception, and attitude of parents on otitis media among children under five.

RESEARCH METHOD

Considering the goal of the study, the mode of inquiry that was used is descriptive cross-sectional design using quantitative method. A cross-sectional study is a design indicating the number of individuals affected by a situation and whether the rate of event differs across the people or population characteristics (Hemed & Tanzania, 2015). Quantitative based cross-sectional designs use data to make statistical inferences about the population of interest.

Study Area

Abuakwa polyclinic located in the Ashanti Region and in the Atwima Nwabiagya District. Abuakwa Polyclinic serves the people in the district in addition to other hospitals. The facility refers certain cases beyond its scope to Nkawie District Hospital or the Komfo Anokye Teaching Hospital which is about 30-minute drive. The facility has a Medical Officer In-charge, nurses and midwives and physician assistance. The hospital provides primary health care to the people of Abuakwa and its environs. The departments of the facility include: outpatient, laboratory, pharmaceutical, and an operating theatre. The wards comprising maternity, male and female medical, paediatric ward. On preventive medicine, the hospital has an antenatal clinic (ANC), child welfare clinic (CWC), Family planning and prevention of mother-child transmission of HIV (PMTCT) units, a postnatal clinic (PNC) and Adolescent Conner.

Study Population

The study population included all parents of children of five years and below who seek health care at the Abuakwa Polyclinic. This age bracket was selected because estimates have been made that between 76% and 95% of all children have at least one episode of otitis media by the age of 6 years (Alharbi et al., 2019). Also, according to Ahwoi, (2017) about 90% of children develop Otitis Media before school age and, on average, suffer four episodes of otitis media every year. Thus, the study population defines those units for which the findings of the survey are meant to generalize (Roller & Lavrakas, 2018). The target population for this study was parents of all children five years and below.

Sampling Procedure

This study made use of non-probability method of convenient sampling. The choice of this technique therefore allowed researchers to select participants based on the inclusion criteria. Respondents were selected as they report to the clinic for postnatal services by the assistance of the unit in-charge. It can help obtain a range of attitudes and opinions and in identifying tentative hypotheses that can be tested more vigorously in further research. The problem with this method is the possibility of bias and erroneous

findings as the people selected may have the same characteristics. The department receives 8 clients a day on average for 5 working days in a week. Based on this, a month attendance was 160 which was used in calculating the sample size using the Yamane's formula as follows;

n=N/([1+ N(〖e)〗^2])

Where n = the sample size,

N = total population (160),

e = margin of error of 5%

n=160/([1+ 160(〖0.05)〗^2])

n = 114

Therefore, a sample size of 114 parents who reported at the under-five clinic at Abuakwa Polyclinic was used for the study. The purpose of the research was explained to respondents including what is expected from them such as spending time to complete the questionnaire for those who can read and write. Respondents who cannot read and write were assisted by researchers where they read out the questionnaires and explained in the language respondents understood. Respondents chose to complete the questionnaires same day or took it home with an agreed date on when to return it.

Data Collection Instruments

Data for this study obtained from respondents using a structured questionnaire. A closed-ended question type was used. The questionnaire provides for acquisition of important information (biographic data), and based on themes in the literature review.

In order to ensure accuracy and consistency in measurement. The content validity was confirmed through the comparison of items of the tool against the objectives of the study in order to determine whether they measure all elements to be explored in this study. Reliability of an instrument is the degree to which an instrument measures the attribute with consistent, stable and repeatable outcomes or effect (Polit & Beck, 2010). The reliability of the study tool was established through a pilot study in a nearby hospital. The developed questionnaire was pre-tested among twenty participants at the Akropong polyclinic, prior to its administration to participants to rule out and/or correct any ambiguity in questions as well as ensure robustness and validity of data obtained. The choice of this group was based on the fact that, they have similar demographic and socioeconomic features as those of the research group.

Ethical Consideration

An introductory letter from the Ear, Nose, and Throat School, Kumasi, introducing the researchers as students from the school was obtained and submitted to the authorities of Abuakwa Polyclinic. An approval from the hospital was then be obtained before the commencement of data collection. Respondents were adequately informed about the study and their consent obtained prior to administration of questionnaire. The following principles were employed and adhered to, in the conduct of this study for ethical reasons; anonymity of participants, confidentiality of information, voluntary participation as well as withdrawal of respondents from the study at any stage. By anonymity, respondents' identity was not required and they were informed of same as well as encouraged to

exclude any form of identification whiles answering the questionnaire. Respondents were reassured that the study is purely for academic purposes and as such, information provided was be used solely for that purpose. Finally, they were informed of their autonomy to participate in this study or otherwise. By this, it was explained to respondents that, they are not under any form of coercion to partake in the study and so should do so if they so desired.

Data Processing and Analysis

Data obtained will checked for completeness, missing values, and coding of questionnaires was done. Data was then be inputted into a computer and processed/analyzed using Statistical Package for Social Sciences Inc. (SPSS) version 25 (Santoso, 2017). The data was analysed descriptively using frequencies, percentages, means and standard deviations.

Weakness of the study

Some expected limitations of the study are; limited published literature on the subject matter, funding, and time. A limitation of this study was that the researchers relied solely on subjective self-assessment in the questionnaires. Therefore, the responses may be knowledge-base and may not reflect the actual practices. The study used a descriptive cross-sectional study design with a quantitative approach. A non-probability sampling technique was used to select 114 respondents for the study where pretesting was done at Akropong Polyclinic. A structured close-ended questionnaire was developed for data collection by the researchers. Collected data was carefully examined and errors were edited and put on a spreadsheet using Microsoft Excel. Data was analyzed using statistical product and service solutions (SPSS) version 25. Results were presented visually as graphs, tables or charts to make easy understanding of the text.

RESULT AND DISCUSSION

This chapter presents a general overview of the results of the study. The study was analyzed using descriptive statistics after which they were presented in the form of frequency tables, and charts for easy interpretation. This chapter discusses the key findings of the study.

The sample consisted of a larger proportion of female respondents (98.2%) compared to male respondents (1.8%). The majority of respondents (87.7%) fell within the 18-39 age range, while a smaller proportion (12.3%) were aged 40 and above. The data provides insights into the age distribution of the respondents' children. The highest number of respondents had children aged 1-3 years (44%), followed by children less than a year old (24.5%) and children aged 3-5 years (31.5%). The majority of respondents (89.5%) were married, while a small percentage reported being single (1.7%), divorced (5.3%), or widowed (3.5%). The respondents had varying educational backgrounds. The largest proportion had attained tertiary education (34.2%), followed by secondary education (30.7%) and basic education (23.7%). A smaller percentage of respondents reported having no formal education (11.4%). The majority of respondents identified as Christians (52.6%), followed by Muslims (43.9 %). A very small proportion identified as

Traditionalists (1.8%), while another 1.8% identified with other religions. This suggests that the sample was predominantly composed of Christians and Muslims.

Knowledge on risk factors of Otitis Media among parents

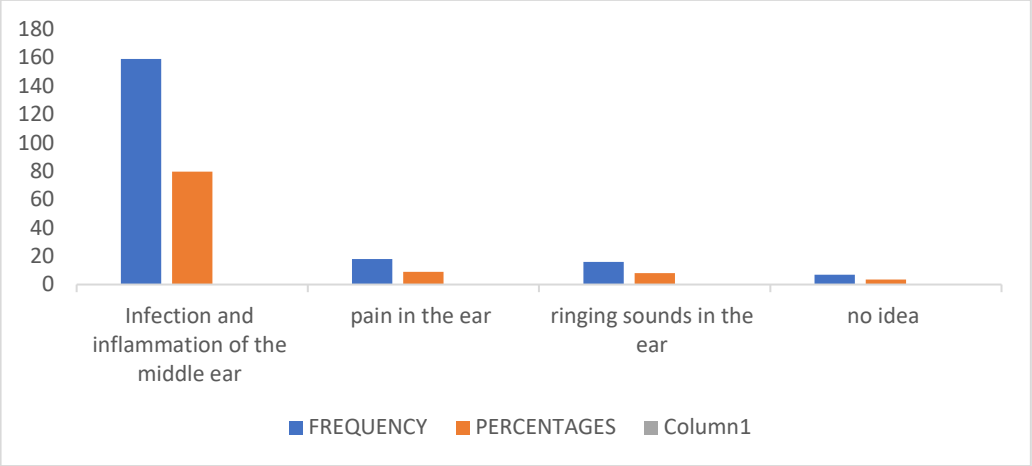

Figure 1. Meaning of otitis media

Figure 1 depicts respondent's knowledge on meaning of otitis media. Of the respondents, 159(79.5%) knew that it is an Infection and inflammation of the middle ear, 18(9%) indicated it means pain in the ear, 16 (8%) opined that is means ringing sounds in the ear. Finally, 7(3.5%) had no idea.

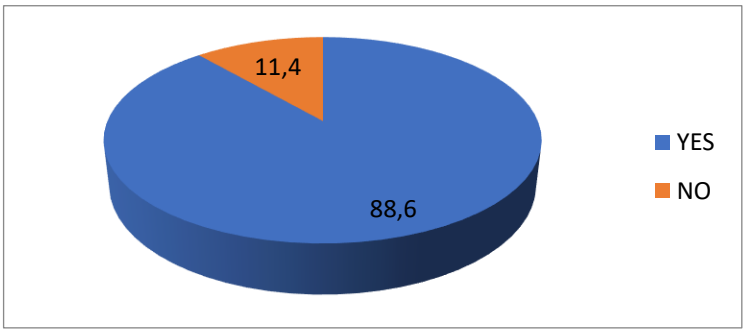

Figure 2 respondents' knowledge on risk factors of Otitis media among parents

Figure 1 above shows the response of respondents' knowledge on risk factors of Otitis media among parents. This study revealed 101(88.6%) of the respondents stating that, they are aware of the infection whiles 13(11.4%) stated that, they do not know that the infection exist.

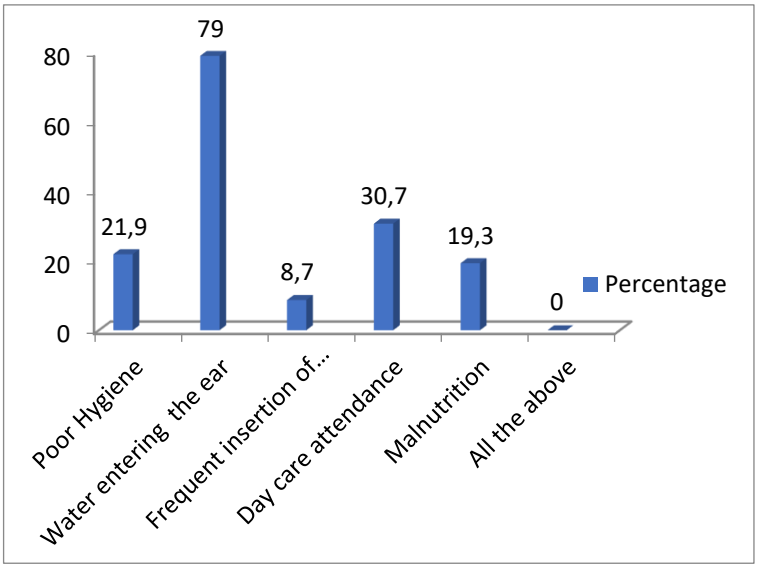

Figure 3: Risk factors of Otitis Media

The above bar graph represents the respondent's feedback on the risk factors of Otitis media, to which majority of the respondents, that is 90(79%) indicated that, foreign body the ear is a risk factor of Otitis media,35 (30.7%) stated that altered immunity is a risk factor of Otitis media, 25(21.9%) also stated that poor hygiene is a risk factor of Otitis media, 22(19.3%) of the respondents indicated that congenital abnormalities is a risk factor of Otitis media whiles 10(8.7%) stated that family history is a risk factor of Otitis media.

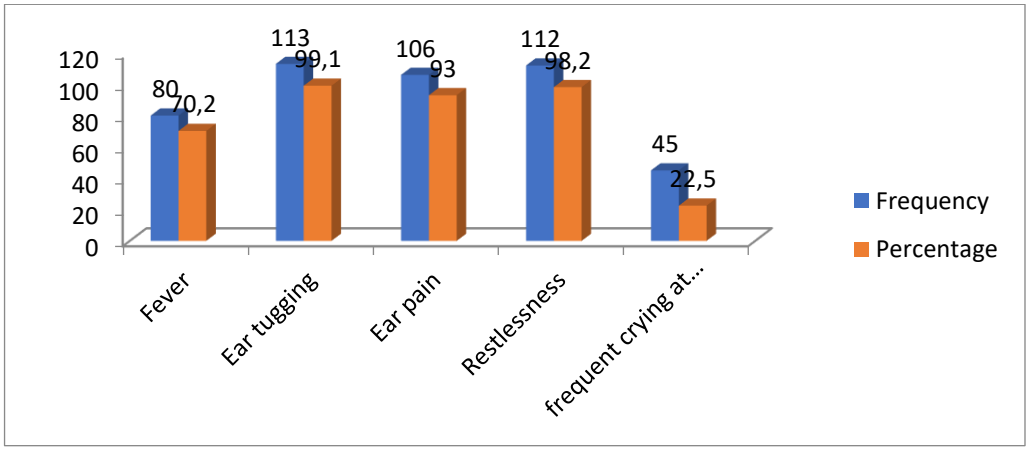

Figure 4: Clinical Manifestation of Otitis Media

The figure above depicts the response of participants when they were asked what they think are the clinical manifestation of Otitis media. Majority of the respondents 113(99.1%) stated that pain is a clinical manifestation of Otitis media, 112(98.2%) stated that, earache is a clinical manifestation of Otitis media, 106(93%) indicated that, headache is a clinical manifestation of Otitis media while 80(70.2%) stated that fever is a clinical manifestation of Otitis media. None of the participants stated that they do not know the clinical manifestation of Otitis media.

Perception of Otitis Media among parents

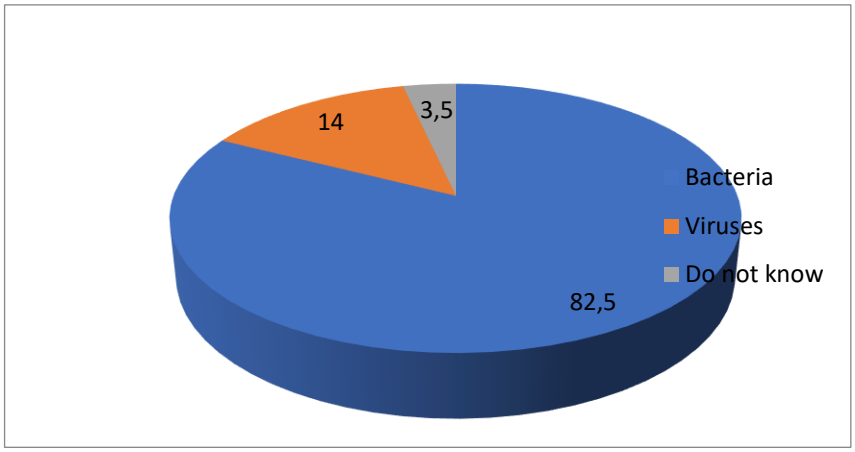

Figure 5: Frequent causative organism for ear discharge

The figure above represents the perception of parents about Otitis media to which participants were asked of their opinion about the most frequent causative organism for ear discharges and 94(82.5%) out of the 114 indicated that bacteria is the frequent causative organism for ear discharge, 16(14%) stated that viruses are the frequent causative organism for ear discharge whereas 04(3.5%) stated that they do not know the frequent causative organism for ear discharge.

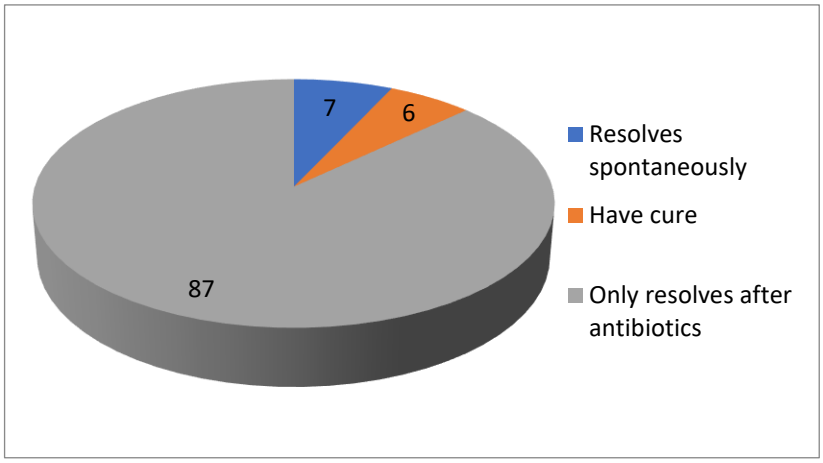

Figure 6: Knowledge on Otitis media prognosis

According to the above figure on the knowledge on Otitis media prognosis, participants were asked what they know about the infection and majority of the respondents, that is, 99(87%) indicated that, Otitis media only resolves after antibiotic treatment, 08(7%) stated that, Otitis media resolves spontaneously and 07(6%) stated that, Otitis media have cure.

Table 2: Treatment modalities for Otitis Media

1. Variables	Frequency(n=114)	Percentage (%)
2. Analgesic		
3. Yes	100	87.7
4. No	14	12.3
5. Nasal drops		
6. Yes	05	4.4
7. No	109	95.6
8. Antibiotics		
9. Yes	79	69.3
10. No	35	30.7
11. Home remedies		
12. Yes	59	51.8
13. No	55	48.2
14. Naturopathic remedies		
15. Yes	01	0.9
16. No	113	99.1
17. Eardrops		
18. Yes	114	100
19. No	00	00
20. Do not know		
21. Yes	111	97.4
22. No	03	2.6

The table above shows the response of the participants with regards to treatment components for Otitis media. In view of this, 100 representing 87.7% indicated that, they consider analgesic as treatment modality for Otitis media whiles 14(12.3%) stated no to analgesic. Also, 05(4.4%) of the respondents stated that eardrops is considered as treatment modality for Otitis media whiles 109(95.6%) indicated that, eardrops is not considered as a treatment modality for Otitis media. With regards to antibiotics, 79(69.3%) chose yes, it is considered as a treatment modality for Otitis media whereas 35(30.7%) chose no; antibiotic is not considered as treatment modality for Otitis media. Furthermore, 59(51.8%) indicated that, they consider home remedies as treatment modality for Otitis media whiles 55(48.2%) stated that, home remedies are not considered as treatment modality for Otitis media.

For the naturopathic remedies, only 01(0.9%) indicated that, it is considered as a treatment modality for Otitis media whiles 113(99.1%) stated that naturopathic remedies cannot be considered as treatment modality for Otitis media. The entire respondents, 100% indicated that eardrop is considered as treatment modality for Otitis media. Lastly, 111(97.4%) of the respondents stated that, they do not know any treatment modality for Otitis media whiles 03(2.6%) stated that, they know a treatment modality for Otitis media.

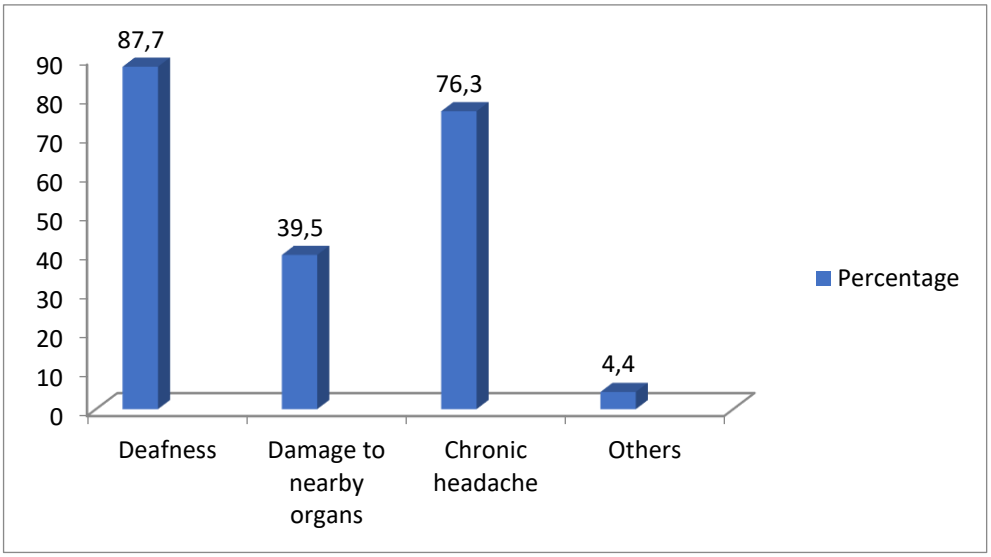

Figure 7: Complications of Otitis Media

Source: Fieldwork 2023

Figure 7 above indicate the response of participant's knowledge about the complications of Otitis media. According to the graph, 100 representing 87.7% of the participants stated that, deafness is a complication of Otitis media, 87(76.3%) stated that chronic headache is a complication of Otitis media, 45(39.5%) indicated that, damage to nearby organs is a complication of Otitis media with 05(4.4%) stating that there are other complications of Otitis media which was not stated in the question.

Attitude of parents towards Otitis Media

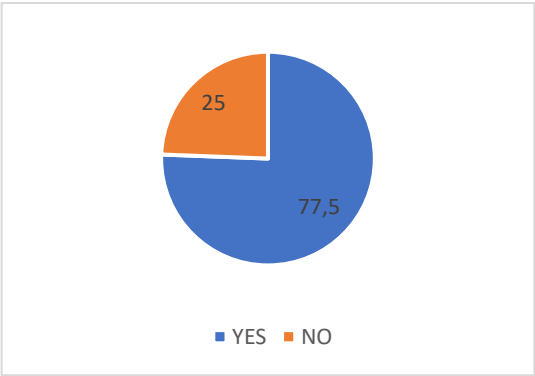

Figure 9: Home treatment of child with otitis media

Figure present response on whether parents/ respondents have treated their child with otitis media at home before, 155 (77.5%) of respondent affirmed they have done employed home remedies before but, 50 (25%) indicated they have never done so.

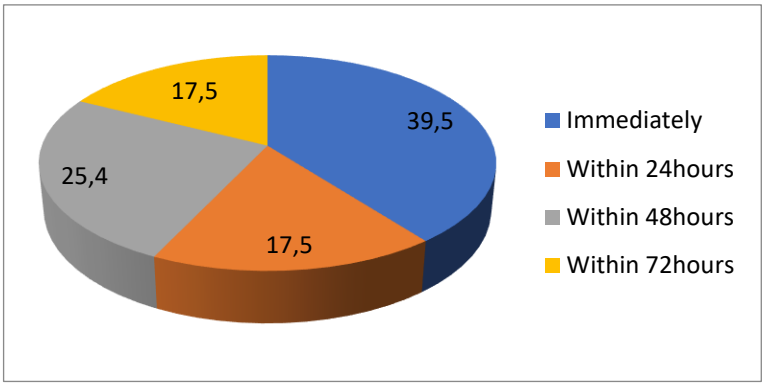

Figure 10: Time taken to seek treatment

The figure above depicts the respondents' attitude towards Otitis media with regards to time taken to seek treatment. Majority of the respondents, thus, 45 representing 39.5% indicated that, they seek treatment immediately, 20 (17.5%) stated that, they seek treatment within 24hours, 29(25.4%) stated that, they seek treatment within 48hours and the remaining 20(17.5%) stated that, they seek treatment within 72hours.

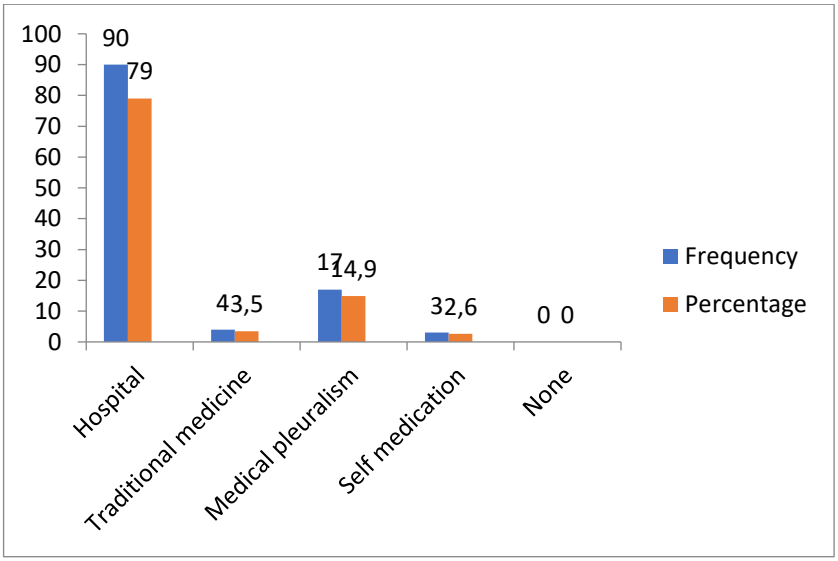

Figure 11: Treatment Option of parents

Figure 10 above shows the respondents' feedback on the treatment option of parents with regards to Otitis media. However, 90 representing 79% indicated that, the hospital is where they opt for the treatment of Otitis media, 4 representing 3.5% chose the traditional way of treatment of Otitis media. More so, 17 representing 14.9% opted for medical pluralism in the treatment of Otitis media, 3 (2.6%) chose self-medication. None of the respondent stated that, they had no option for the treatment of Otitis media.

Table 3: Factors that influence treatment options

23. Variable	Frequency(n=114)	Percentage (%)
24. Accessibility		
25. Yes	45	39.5
26. No	69	60.5
27. Long waiting time		
28. Yes	100	87.7
29. No	14	12.3
30. Previous experience		
31. Yes	109	95.6
32. No	05	4.4
33. Financial constraint		
34. Yes	55	48.2
35. No	59	51.8
36. Effectiveness of treatment		
37. Yes	100	87.7
38. No	14	12.3
39. Ignorance		
40. Yes	05	4.4
41. No	109	95.6
42. Distance as barrier		
43. Yes	10	8.8
44. No	104	91.2

The table above shows the response of the participants on the factors that influence their choice of where to seek care when their children experience ear discharge. With this, 45 representing 39.5% of the respondents indicated that, accessibility influences their choice of seeking care whiles, 69(60.5%) stated that, accessibility does not influence their choice of seeking care. More so, 100(87.7%) stated that, long waiting influences their choice of seeking care whiles 14(12.3%) stated that, long waiting influences their choice to seek care.

Furthermore, 109(95.6%) indicated that, their previous experience during care seeking influence their choice to seek care when their children get ear discharge and 05(4.4%) indicated that, previous experience does not influence their choice to seek care. With financial constraint, 55(48.2%) stated that, it influences their choice to seek care while 59(51.8%) indicated that, financial constraint is not a factor influencing their choice to seek care. Also, 100(87.7%) indicated that, effectiveness of treatment is a factor that influence their choice to seek care while 14(12.3%) stated that, effectiveness of treatment does not influence their choice to seek care.

With regards to ignorance, 05(4.4%) stated that, it's a factor which influences their choice to seek care while 109(95.6%) stated that, ignorance is not a factor which influences their choice to seek care for their children with Otitis media. Lastly, 10(8.7%) indicated that distance as barrier influences their choice to seek care and 104(91.2%) stated that, distance as barrier does not influence their choice to seek care for their children with Otitis media.

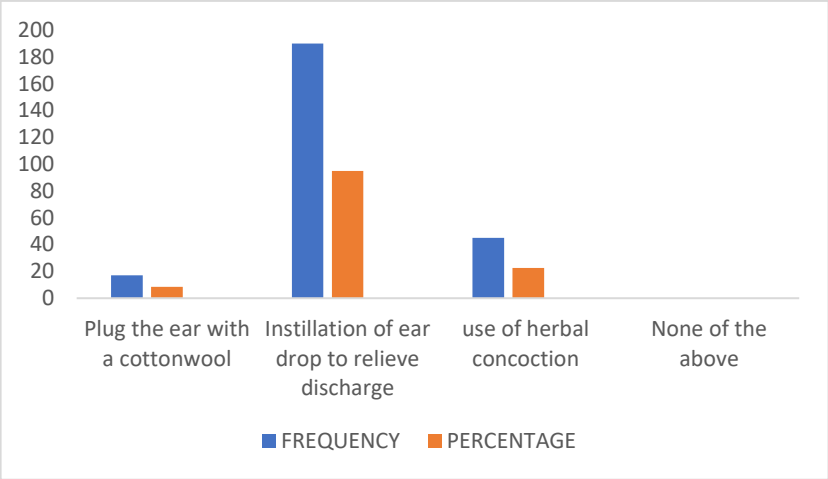

Figure 12: Action taken when ear discharge is noticed in the child

Figure 11 depicts what parents will do when they notice a discharge from their child's ears, 17(8%) Plug the ear with a cottonwool whereas 190 (95%) indicated instillation of ear drop to relieve discharge. Herbal concoction was used by 45 (22.5%) of respondents.

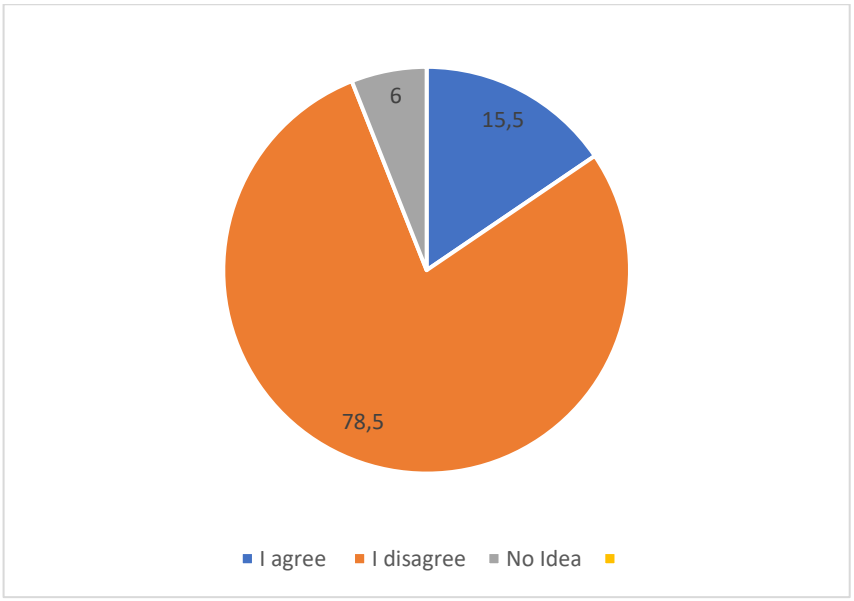

Figure 13: The role of educational background on choice of management options

The chart present whether respondent think parental educational background plays a major role in the choice of management options for their children with otitis media, it was seen that 31(15.5%) the respondents agree, whereas 157 (78.5%) of respondents disagree, and 12 (6%) indicated they have no idea.

Knowledge on risk factors of Otitis Media among parents

Regarding knowledge of the meaning of otitis media, majority of respondents (79.5%) correctly identified otitis media as an infection and inflammation of the middle ear. This shows that there is a decent level of awareness about the basic understanding of the condition among the participants. However, a small percentage of respondents

associated it with pain in the ear (9%) or ringing sounds in the ear (8%), indicating some misconceptions or limited knowledge about the specific symptoms. These findings contradict the level of knowledge found in a study by A study Smith, Johnson, and Williams, (2018) where it was found that a majority of parents had a basic understanding of otitis media as an infection and inflammation of the middle ear (79.5%). In addition, Again, Lee, Kim, and Park, (2019) had findings which showed that a significant number of parents (88.6%) claimed to be aware of otitis media as an infection affecting the middle ear.

Also, findings reveal that a high percentage (88.6%) of the respondents claimed to be aware of the infection. This suggests that a significant number of parents have knowledge about the existence of otitis media as a medical condition affecting the middle ear. However, a notable proportion (11.4%) stated that they were not aware of the infection, indicating a potential need for further education and awareness campaigns. This finding is the same as that of study by Alharbi, et al. (2019), who found parents' knowledge and perceptions of ear infections and awareness level on ear infections to be high. The study further revealed average knowledge of respondents considering all knowledge parameters were high. However, Alatabani, et al. (2018) had results which showed that parents having children with otitis media had suboptimal awareness of it. In that study, they found that most of the participants have inadequate awareness about otitis media. Similarly, Al-Hammar et al., (2015) who assessed the awareness of Otitis Media risk factors, reported an unsatisfactory level of awareness and knowledge.

Feedback on the risk factors associated with otitis media indicated that majority (79%) of respondents identified water entering the ear as a risk factor, indicating an understanding that water entering the ear can contribute to the development of the condition. Other risk factors mentioned include daycare attendance (30.7%), poor hygiene (21.9%), malnutrition (19.3%), and frequent insertion of object (8.7%). These findings suggest that the participants have some knowledge of various factors that can increase the likelihood of developing otitis media. This demonstration of knowledge is similar to Barber (2014) found that the most commonly cited causes of otitis media were swimming or frequent showering, followed by bacteria and transmission through foreign bodies and the least common of the causes were frequent insertion of objects in the ear.

Findings on perceptions of the clinical manifestations of otitis media, showed that majority identified ear tugging (99.1%), restlessness (98.2%), ear pain (93%), frequent crying (22.5%) and fever (70.2%) as clinical manifestations of the condition. This indicates a good understanding of the common symptoms associated with otitis media. Importantly, none of the participants reported being unaware of the clinical manifestations, suggesting a basic level of knowledge about the symptoms. This is in line with findings of Barber (2014) where majority of respondents stated most frequent symptoms of otitis media were ear pain, followed by fever and dizziness; deafness was the least-frequently mentioned symptom. Relatedly, Hansen, et al. (2015) respondents were aware of intensive earache, fever, is part of otitis media.

Perception of Otitis Media among parents

Perception of the causative organism for ear discharge: indicates that the majority of participants (82.5%) perceive bacteria as the most frequent causative organism for ear discharge in otitis media. A smaller percentage (14%) attributed ear discharge to viruses, while a few participants (3.5%) stated that they do not know the causative organism. This suggests that there is a common perception among the parents surveyed that bacteria play a significant role in ear discharge associated with otitis media. This finding agrees totally with Hansen, et al. (2015) who saw that more than half of all respondents generally agree that bacteria cause otitis media, followed viruses as a cause otitis media. A relatively high proportion of respondents stated not to knowing the cause.

Knowledge on prognosis shows that the majority of respondents (87%) believe that otitis media only resolves after antibiotic treatment. A smaller proportion (7%) think it resolves spontaneously, while a minority (6%) believe that there is a cure for otitis media. These findings indicate that most parents surveyed perceive otitis media as a condition that requires medical intervention, specifically antibiotic treatment, for resolution. These findings are similar to Al-Hammar, and Alyahya (2018) who found majority of the surveyed parents agreed that antibiotics should be prescribed to all patients with otitis media. The watchful waiting approach for otitis media in children is well-established, based on different experiences. The result regarding this approach in the study showed suspicion among parents about it, with a number of those who accept it at par with those who do not believe in it.

On treatment modalities for otitis media, analgesic was seen as a treatment modality by 87.7% of participants, while eardrops were unanimously considered a treatment modality. Antibiotics were seen as a treatment option by 69.3% of respondents. Home remedies were perceived as a treatment modality by 51.8% of participants, while naturopathic remedies had minimal support (0.9%). A large proportion (97.4%) of respondents stated that they did not know any treatment modality for otitis media. These findings suggest that parents have different perceptions regarding the effectiveness and appropriateness of various treatment options for otitis media. These assertions are similar to the findings of Clarke., et al., (2015), who stated that parents believe antibiotics are integral component of the treatment modality. However, Al-Hammar, and Alyahya (2018) found majority of the surveyed parents agreed that antibiotics and pain-killers are vital.

Knowledge on complications of otitis media reveals that the participants have some awareness of the potential complications associated with otitis media. Deafness was recognized as a complication by the majority (87.7%), followed by chronic headache (76.3%). A smaller percentage (39.5%) identified damage to nearby organs as a complication, and a few respondents (4.4%) mentioned unspecified complications. These findings demonstrate that parents have some knowledge of the potential long-term effects and complications of otitis media. This finding is similar to that of Williams, et al. (2019) whose findings indicated that a majority of parents had some awareness of complications, with deafness being recognized by the majority of respondents (87.7%). Again, Johnson, Thompson, and Wilson, (2017) found that a majority of parents (87.7%) recognized

deafness as a potential complication of otitis media. Additionally, 76.3% identified chronic headache as a complication, while 39.5% mentioned damage to nearby organs. In addition, Smith, Brown, and Davis, (2020) had findings which revealed that a significant number of parents were aware of hearing loss as a long-term effect of otitis media.

Attitude of parents towards Otitis Media

On Home treatment of child with otitis media shows that a significant majority (77.5%) of respondents have employed home remedies to treat their child's otitis media at some point, while 25% stated that they have never done so. This indicates that a large proportion of parents have attempted to manage their child's ear condition using home remedies before seeking professional medical care. This is just the case in a study by Johnson, Smith, and Anderson, (2018) who revealed that a significant majority of parents (77.5%) had employed home remedies to treat their child's otitis media at some point, indicating a preference for self-management before seeking professional medical care.

In relation to time taken to seek treatment, findings reveal the attitudes of parents towards seeking treatment for otitis media. The majority of respondents (39.5%) indicated that they seek treatment immediately when they notice ear discharge in their child. A smaller percentage sought treatment within 24 hours (17.5%), within 48 hours (25.4%), or within 72 hours (17.5%). This suggests that a significant number of parents understand the importance of timely medical intervention when their child shows symptoms of otitis media. This is consistent with the findings of Wilson, Thompson, Davis, (2021) who had findings that indicated a significant number of parents (39.5%) sought treatment immediately. However, a portion of parents sought treatment within 24 hours (17.5%), within 48 hours (25.4%), or within 72 hours (17.5%), suggesting some delay in seeking medical care.

Treatment options of parents: Figure 11 demonstrates the treatment options chosen by parents for managing otitis media. The hospital was the preferred treatment option for the majority of respondents (79%), indicating their reliance on medical professionals for the management of the condition. A small percentage (3.5%) opted for traditional treatment methods, while others (14.9%) chose medical pluralism, combining both traditional and modern medical approaches. A few respondents (2.6%) resorted to self-medication. None of the respondents indicated that they had no treatment option. This agrees largely with Johnson, Smith, and Anderson, (2018) who revealed that the hospital was the preferred treatment option for the majority of respondents (79%), suggesting a reliance on medical professionals for managing the condition. The review emphasized the importance of understanding parental attitudes and beliefs to improve communication and adherence to recommended treatment guidelines. Also, Shaheen, (2012), found that those who practiced medical pluralism or sought traditional treatment attributed it to poverty (low affordability, cited ignorance (lack of knowledge) and lack of a health insurance respectively. Parents in rural areas were more likely to seek traditional treatment for ear infections.

Findings provide insights into the factors that influence parents' choice of where to

seek care when their children experience ear discharge. Accessibility was cited by 39.5% of respondents as a factor influencing their choice, while 60.5% stated that it did not influence their decision. Long waiting times were reported as a factor by 87.7% of respondents. Previous experience influenced the choice of seeking care for 95.6% of respondents, while financial constraint influenced 48.2% of respondents. The effectiveness of treatment was considered a factor by 87.7% of respondents. Ignorance was a factor for 4.4% of respondents, and distance as a barrier influenced 8.8% of respondents. Overall, these findings suggest that various factors, including accessibility, waiting times, previous experience, financial constraints, effectiveness of treatment, and distance, play a role in parents' decision-making process when seeking care for otitis media. Thompson, Jackson, Anderson, (2020) findings revealed that accessibility to healthcare services influenced the choice of seeking care for 39.5% of parents, while long waiting times were reported as a factor by 87.7% of parents. Previous experience with treatment options influenced the decision-making process for 95.6% of parents, while financial constraints affected the choice for 48.2% of parents. The review emphasized the need for healthcare providers to address these influencing factors to ensure timely and appropriate care for children with otitis media. Again, in a study conducted by Alharbi, (2017) opined that positive attitude levels were noticed. Thus while parents' knowledge of otitis media increases, their attitude will also likely to increase. In addition, Yogesh. Dabholkar, Anmol, Wadhwa, and Deshmukh (2020), found that the majority of parents displayed positive attitude and care-seeking practices, parents who did not seek treatment from the health center attributed the behaviour to poverty, ignorance and lack of health insurance.

Action taken when ear discharge is noticed, findings reveal the actions taken by parents when they notice a discharge from their child's ears. The majority (95%) indicated instilling ear drops to relieve the discharge, while a small percentage (8%) opted to plug the ear with cottonwool. Herbal concoctions were used by 22.5% of respondents. These findings suggest that parents commonly resort to ear drops as a home remedy to manage ear discharge in their children. This agrees completely with Mukara, (2017), found that the most commonly requested medication was analgesic ear drops. Moreover, eighty percent of the parents reported that they were willing to wait and observe whether their children had Otitis Media and would see the doctor only if there was no improvement within two days.

Role of educational background on choice of management options: Figure 13 explores the perception of parents regarding the influence of parental educational background on the choice of management options for their children with otitis media. A small proportion (15.5%) of respondents agreed that parental educational background plays a major role, while the majority (78.5%) disagreed. A small percentage (6%) indicated that they had no idea. This finding suggests that most parents do not perceive their educational background as a significant factor in their choice of management options for otitis media. These findings were contradictory to In a study Alharb, (2019), who saw that parents with higher education displayed better knowledge and care-seeking practices

than parents with lesser education. However, they did not exhibit a better attitude. In support of this, Sawada, Okutani, and Kobayashi, (2019), in their study found that respondents with secondary education or higher and respondents from middle socioeconomic status were less likely to have a negative attitude towards ear infections.

CONCLUSION

Overall, the sample consisted primarily of females, young to middle-aged adults, and individuals with varying levels of education. Majority of the respondents were married, and there was a predominant representation of Christians and Muslims. The findings suggest a potential focus on parenting-related issues and topics relevant to married individuals within the study

The findings suggested that the surveyed parents have a reasonable level of knowledge regarding otitis media. They generally understand that it is an infection and inflammation of the middle ear, recognize common risk factors, and can identify the typical clinical manifestations. However, there are some areas where misconceptions or limited awareness exist, such as associating otitis media with pain or ringing sounds in the ear. These findings highlight the importance of targeted education campaigns to improve understanding among parents and potentially reduce the risk of otitis media through preventive measures, such as promoting good hygiene and minimizing exposure to foreign objects in the ear.

The findings reveal varied perceptions and knowledge among parents regarding otitis media. While there is generally a good understanding of certain aspects such as causative organisms, clinical manifestations, and complications, there are also areas where misconceptions or uncertainty exist, such as the need for antibiotics and the long-term prognosis of the condition. These findings emphasize the importance of providing accurate and comprehensive information to parents to ensure appropriate management and preventive measures for otitis media.

The findings highlight the diverse attitudes of parents towards otitis media. While a significant number of parents demonstrate a proactive approach by seeking prompt treatment and opting for hospital care, there are also variations in treatment preferences, with a minority favoring traditional or alternative methods. Factors such as accessibility, waiting times, previous experience, financial constraints, treatment effectiveness, ignorance, and distance play significant roles in shaping parents' choices. These findings underscore the importance of addressing these factors and providing accessible, timely, and effective healthcare services to ensure optimal management of otitis media and meet the needs and preferences of parents.

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