International Journal of Academic Research and Development
ISSN: 2455-4197; Impact Factor: RJIF 5.22
Received: 07-04-2019; Accepted: 10-05-2019
www.academicjournal.in
Volume 4; Issue 4; July 2019; Page No. 37-39

Assess the knowledge on use of antibiotics among mothers of underfive children at SMCH

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Abstract
Objectives: The present study aims to assess the level of knowledge of mothers about the use of antibiotics and to find the association between the knowledge of mothers regarding the use of antibiotics with the socio demographic variables.
Methods: A quantitative approach with descriptive cross sectional research design was conducted among 50 mothers of under five children. Convenience sampling technique was used. Semi – structured interview method was used to collect the demographic variables and the level of knowledge among the mothers of under five children was assessed by using the self – structured questionnaire.
Results: Out of 50 samples 56% have inadequate knowledge, 32% have moderate knowledge and 12% have adequate knowledge on antibiotics among mothers of under-five children. There was statistically non-significant association found between the source of information and the level of knowledge on antibiotics among mothers of under-five children $P > 0.005$. The association between demographic variables with the level of knowledge on antibiotics among mothers shows that there was an association between the demographic variable and knowledge of mother's in paediatric OPD.
Conclusion: The study finding suggests that educating the mothers about the use of antibiotics will promotes their knowledge. Health education regarding the antibiotics use also an effective method for promoting the knowledge of the mothers.

Keywords: assess, knowledge, antibiotics, mothers, under five children

Introduction

Children's are one of the best investments a country can make to boost economic growth, promote peaceful and sustainable societies and eliminate unhealthy issues. Children are vital to the nation's present and its future. Children are generally viewed as healthy when they are assessed by adult standards, and there has been a great deal of progress in reducing childhood death and diseases. To accomplish this, the nation must have an improved understanding of the factors that affect health and effective strategies for measuring and using information on children's health.

The term antibiotic which means "opposing life", based on Greek roots, anti: "against" and biotic: "life", is broadly used to refer to any substance used against microbes, but in the usual medical usage, antibiotics (such as penicillin) are those produced naturally (by one microorganism fighting another).However, both classes have the same goal of killing or preventing the growth of microorganisms, and both are included in antimicrobial chemotherapy.

The World Health Organization revealed that antibiotic resistance is a serious and growing global problem. Several studies reported the relationship between antibiotic use and the development of resistance. Countries consuming the highest amounts of antibiotics have the highest rates. Despite the fact that the majority of URTIs, antibiotic prescribing for URTIs is a common practice in paediatrics. It is probable that 20–50 % of all antimicrobial use is medically inappropriate. Inappropriate prescribing of antibiotics is the most important reason behind the development of antibiotic resistance.

Parental beliefs and expectations are important factors in determining whether an antibiotic is prescribed. When parents panic about acute illnesses, it leads to more frequent paediatric physician visits for URTIs and, subsequently, unnecessary antibiotic use. Therefore, numerous reports have evaluated the factors related to antibiotic overuse. These factors consist of knowledge, attitudes and beliefs regarding antibiotic use behaviours, patient treatment satisfaction, patient doctor communication, and patient experiences with antibiotics.

When the responsible pathogenic microorganism is already known or has been identified, definitive therapy can be started. This will usually involve the use of a narrow-spectrum antibiotic. The choice of antibiotic given will also be based on its cost. Identification is critically important as it can reduce the cost and toxicity of the antibiotic therapy and also reduce the possibility of the emergence of antimicrobial resistance.

According to the health plan the base line data in Antibiotic use in the 3- to <24-month age group. The downward trend in antibiotic dispensing slowed, stabilized, or reversed during this 10-year period. In the 3- to <24-month age group, we observed 5.0%, 9.3%, and 7.2% annual declines early in the decade in the 3 plans, respectively. These dropped to 2.4%, 2.1%, and 0.5% annual declines by the end of the decade. Similar attenuation of decline in antibiotic use and increases in use of broad-spectrum agents were seen in other age groups.

Sevgul Donmezetal

2018 conducted a study on knowledge and practice of self-medication with antibiotics it was completed with 570 students as descriptive study. The data was collected between February and march 2016.the questionnaire was included socio demographic characteristics, antibiotics

knowledge, attitude, practice associated with antibiotics usage. It was identified that 31%of students started using antibiotics by their infection. The decision to start using antibiotics was influenced by being satisfied from previous antibiotics on their own was high. It was identified that 66.5% have previous heard of antibiotics resistance. Only 28% could correctly define antibiotic resistance.

Ibrahimasecketal

2018 conducted a study on Assessment of General Public's Knowledge and Opinions towards Antibiotic Use and Bacterial Resistance. We performed a cross sectional study. A questionnaire was administered to 400 persons during face-to-face interviews. Most respondents thought that antibiotics are effective against colds/flu (69.8%), cough (72.3%) and sore throat (64.4%). At the same time, 42.8% stated that antibiotic therapy can be stopped as soon as the symptoms disappear. Only 8.8% and 41.8%ofpeopleknew that hand washing and vaccination prevented bacterial resistance. Globally, 7% of people had a good knowledge. Socio-demographic variables were not associated with the level of knowledge. The main sources of information were entourage and pharmacy staff. Regarding the opinions, 78.3% of surveyed participants the people thought that that people overuse antibiotics. Additionally, 28% said that they have no role to play against bacterial resistance.

Methods

A quantitative approach with descriptive cross sectional research design was used to conduct the study in Child Health Department both in the outpatient and inpatient departments of Saveetha Medical College and Hospital, Thandalam, Chennai. The data was collected by using the convenience sampling technique from 50 mothers of under five children. The inclusion criteria for the samples are those who are willing to participate in the study, those who are available at the time of data collection and the individuals who can read Tamil or English. The exclusion criteria for the samples are those who are not cooperative and those who are not available during the study. The data was collected after obtaining ethical clearance from the Institutional Ethical Committee of Saveetha Institute of Medical Science and Technology. The purpose of the study was explained to the samples and written informed consent was obtained from them. The demographic data were collected using a structured interview and the level of knowledge was assessed by using the self-structured questionnaire. The data were analyzed using the descriptive and inferential statistics. The sample characteristics were described using the frequency and percentage. The level of knowledge was assessed by using the inferential statistics and Chi – square test was used to associate between the demographic variable and the level of knowledge.

Results

Section A: Sample characteristics

Among the 50 samples, the children with the age group of 1- 2 years are 12 (24%), 2- 3 years are 22(44%) and 3-5 years are 16(32%), 30 (60%) were males and 20 (40%) were females, 11 (22%) are from primary school, 26 (52%) are from secondary and 13(26%) are graduated, on the basis of occupation 15 (30%) are cooley, 18 (36%) are from government job, 17 (34%) are from private job, on the basis of residency 26 (52%) are from urban, 21 (42%) are from rural and 3(6%) are from other residence, on the basis of health information 29 (58%) gained knowledge from health professionals, 16(32%) gained information from family and friends and 5 (10%) gained knowledge from mass media,

Section B: Level of knowledge.

Table 1: Frequency and percentage distribution of level of knowledge of mothers about use of antibiotics.

Level of knowledge	Frequency	Percentage
Inadequate knowledge	28	56%
Moderate adequate knowledge	16	32%
Adequate knowledge	6	12%
Total	50	100%

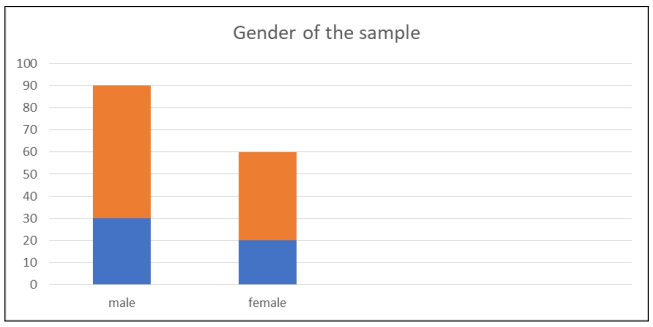

Fig 1: Gender of the Sample

Figure I showed that about 40% are female and 60% are male. The majority of the samples were males (60%).

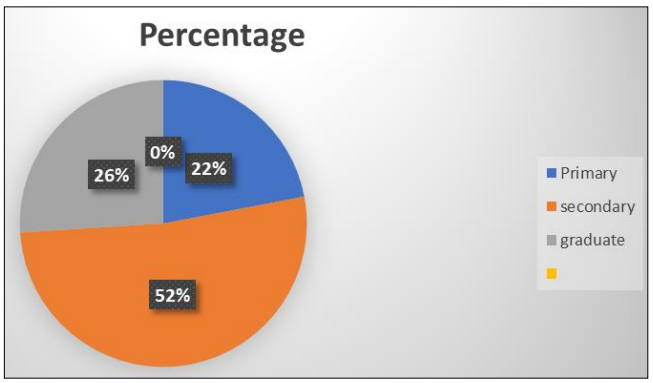

Fig 2: Education of Sample

Figure II: Showed that 52% majority of the sample was secondary education. 26% samples were graduate. 22% of the sample was primary.

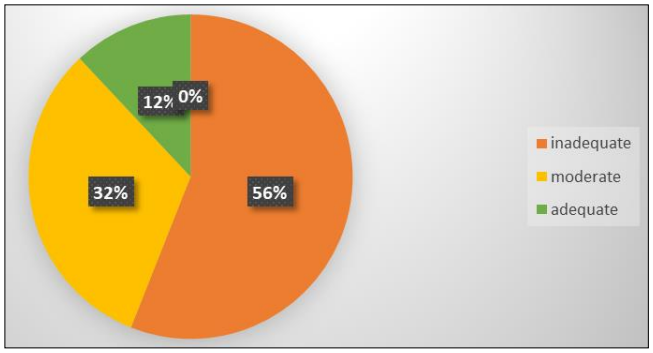

Fig 3: Knowledge of Mothers

Figure III Showed that 56% of mothers were inadequate in

knowledge. 32% of mothers were moderate adequate knowledge. 12% of mothers were adequate in knowledge.

Discussion

1. To assess the level of knowledge on use of antibiotics among mothers.

Frequency and percentage distribution of the level of knowledge showed that most of the people had inadequate knowledge56% and moderate adequate knowledge 32%. Adequate knowledge 12% on antibiotics among mothers of under-five children in paediatric OPD at Saveetha Medical College Hospital.

This was accordance with the studies was supported by Hossain Feisal *et al*. (2016) was conducted a study to evaluate about two third 69% of the parents had poor knowledge level. Only 25.2% and 21.6% of parents could correctly identify antibiotics as treatment of URTI. However, about two third 67.5% of the parents are aware of antibiotic resistance caused by overuse of antibiotics. A significant association was noted between fathers and mother's education level and family income with knowledge level.

2. To determine the association between knowledge on use of antibiotics among mothers with demographic variables.

The association between demographic variables with the level of knowledge on antibiotics among mothers showed that there was an association between the demographic variable and knowledge on mother's in paediatric OPD. There was statistically non-significant found between the source of information and the level of knowledge on antibiotics among mothers of under-five children in OPD.

Conclusion

The study finding suggests that educating the mothers about the antibiotics and promotes their knowledge.

Acknowledgement

We would like to extend our gratitude to the authorities of Saveetha College of Nursing and Saveetha Medical College Hospital for this study.

Authors Contribution

All the authors actively participated in the work of study. All the authors read and approved the final manuscript.

Conflict of Interest

The authors declare no conflict of interest.

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