

**TO ASSESS THE EFFECTIVENESS OF PLANNED TEACHING ON KNOWLEDGE REGARDING PREVENTION OF CHRONIC SUPPURATIVE OTITIS MEDIA AMONG SCHOOL CHILDREN.**

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**Abstract:**

**Background** – Chronic suppurative otitis media (CSOM) is a well-known infection and a significant health issue in developed countries with serious local disruption and complications. Early and appropriate diagnosis focused on awareness of causative microorganisms and their susceptibility to antimicrobials guarantees rapid clinical improvement and thus future complications will be prevented . Chronic suppurative otitis media is the main triggers of developed countries' curable affecting hearing loss. Effective diagnosis and intervention complements progress achieved in many resilience systems, increases job ability and strengthens school children's learning experiences. We aimed to prevention of CSOM among school children aged in between 13 to 15 .

**Objective** –

1. To assess the existing knowledge regarding prevention of chronic suppurative otitis media among school children.
2. To evaluate the effectiveness of planned teaching on knowledge regarding prevention of chronic suppurative otitis media among school children.
3. To associate the knowledge scores with selected demographic variables.

**Methodology** – This research study was carried to assess effectiveness of planned teaching through a structured knowledge questionnaire. To perform the study, interventional research approach and pre-experimental one group pre-test posttest research design were adopted. Non-probability convenience sampling technique will use

and 100 children of both sexes of 13 to 15 year was included. The setting of the study was selected area of Wardha city. Ethical approval was obtained from IEC,DMIMS (DU)/IEC).

**Expected Results:-** This study is planned to assess the effectiveness of planned teaching on knowledge regarding prevention of chronic suppurative otitis media among school children. Hence, it is expected to spread wide awareness regarding prevention of chronic suppurative otitis media.

**Keywords** – Chronic suppurative otitis media; Knowledge; Effectiveness Planned Teaching

## INTRODUCTION:

Chronic suppurative otitis media (CSOM) is a widespread community health concern globally and a notable source of hearing impairment in developed countries among children. The disorder and its related complications represent a concealed physical impairment that places children at risk of low school performance, impaired cognitive and speech production and weak comprehension. Chronic suppurative otitis media is the continuous pus discharge for more than two weeks, across a perforated tympanic membrane, CSOM is usually showed in children particularly in the early childhood, which sometimes accompanies Acute otitis media (AOM), is a middle-ear infection. The disease and there squeal result in major economic and social expenses. The incidence of CSOM in a specific community of children greater than 1 percent indicates that the possibility of illness is preventable. The incidence of 4 percent or more suggests an immediate public health issue. The CSOM load differs. Estimates of global incidence vary from 1% to 46%; it is reported that 65–330 million peoples have discharged ears, 60 percent of which have severe hearing loss. Western Pacific nations have a large incidence (2.5 to 43 percent), accompanied by South East Asia (0.90 to 7.80 percent), Africa (0.40 to 4.20 percent), Central Asia and South, according to the World Health Organization (WHO) <sup>1</sup>.

The incidents of CSOM was noticed as a result of hearing impairment studies, the main cause of which is CSOM. An approximate two-thirds of the world's hearing impaired peoples is distributed among chronic suppurative otitis media (CSOM) is specifically a continuous, debilitating condition in developed world. if all the degrees (mild, severe, extreme , deep) and forms (bilateral, unilateral, fluctuating) are involved , hearing damage varies from 5% to 21% in children between 4 and 11 years of age, impacting undetected hearing impartiality and triggering severe changes in cognitive, speech, , educational and psychological growth. The World Health Organization (WHO) recommends that children in all developed countries will be screened at school entrance. Some of the research performed in Bangladesh and India dealt with CSOM linked to hearing impairment, of which it's the key source, and more numbers of children in rural undergo early CSOM treatment each year due to different problems. It was also observed that in the first two decades of existence, CSOM complication was the most severe. Many of these problems will possibly have been avoided by the pre-existing CSOM being detected and handled early <sup>2</sup>.

**Background:-** Chronic suppurative otitis media (CSOM) is a well known infection that causes significant local harm and poses complications and a big health issue in developed countries. Early and successful diagnosis focused on awareness of causative microorganisms and their susceptibility to antimicrobials guarantees rapid clinical rehabilitation and thus future complications will be prevented <sup>3</sup>.

One of the main causes of preventable crippling hearing loss in developed countries is persistent suppurative otitis media (CSOM). Early identification and intervention complements progress achieved in many resilience systems, increases job ability and strengthens school children's learning opportunities. This study aimed to prevention of CSOM among school children aged in between 13 to 15.

Chronic suppurative otitis media is a long-standing infection of mucoperiosteum middle ear cleft. It is correlated with sporadic, persistent, mucopurulent or purulent discharge of ears, hearing loss, and perforation of tympanic membranes. CSOM the Task Force of the Fourth International Otitis Media in Symposium bal harbor held in June 1987 , Florida was described as the disorder "refer to a persistent middle ear discharge by tympanic membrane perforation." This normally contributes to physiological shifts which are permanent. By fact it's sluggish, and subtle. When diagnostic and surgical procedures are late, it is capable of inducing permanent sequel and catastrophic intracranial complications. It is the common source of disability of hearing. It is also overlooked (zelhius et al.1940). Fluid activity attenuates sound propagation that may result in hearing impairment (paparella 1986). The recurrent form of suppurative otitis is a regional problem. This is one of our country's biggest health issues. This may cause severe problems. This is used in various environmental and

socio-economic contexts in every continent of the world. It has a larger prevalence in developed countries. Poverty, analphabetism, crowding, malnutrition are the root causes in the production of persistent suppurative otitis media, and that is suffering from a wide community in society. The morbidity and mortality linked with otitis coverage is still a health care system problem. Surprisingly, very few research have been conducted in India to learn the effect of disease on population<sup>4</sup>.

### **Need of the Study –**

Ear is one of the human body's sense organs which plays a vital role in an individual's overall growth. Auditory awareness is of special significance because it helps one to interact with the outside world. The ear diseases may cause pain or hearing loss that interferes with an individual's communication skills and productivity. Such a concern in children may result in impaired growth of speech, vocabulary, education, communication skills and other psychosocial concerns that may affect an individual's overall progress. Kids and adults with hearing impairments frequently get stigmatized and socially isolated. Ear disorders and hearing loss are important problems of community health among school children, especially in developing countries. Approximately 50 percent of ear disorders arise in the paediatric age group below 15 years and risks in this age range are severe. WHO also noted that ear disorders will be regarded as problems of public safety because the incidence of CSOM in the paediatric age group is higher than 4 percent and advised that school children require effective screening services for early diagnosis of ear disorders and hearing loss to avoid psycho-social effects.

A large percentage of instances of hearing loss are attributed to recurrent suppurative otitis media and may reduce the stress of hearing damage if detected early and handled accordingly. The following are the specific ear disorders contributing to hearing loss according to WHO and government of India cooperation system (2006-2007). Conditions involve ear wax, acute suppurative otitis media, persistent otitis, otomycosis, recurrent suppurative otitis media and effusion otitis media. This research also discusses the above ear problems. More than 70 percent of all kids have at least one middle ear infection at the age of 6 years. 70 per cent of the Indian community still lives in rural areas until today. Many rural sites also have restricted exposure to specialty care. WHO reports that developed countries record at least 80 percent of ear complaints. Likewise, the prevalence of hearing loss in developed nations is also high which causes severe public health problems. In the adolescent age range, at least 50 per cent of ear complaints arise. WHO has indicated that the prevalence rate of chronic suppurative otitis media (CSOM) in a given population of children exceeds 4 per cent is an indicator of a significant community health issue that needs urgent and relevant attention. Severe effects such as hearing loss, otitis media issues and psychosocial difficulties that place heavy burdens on people, households, societies and the world. A large percentage may be managed by early detection and proper treatment. By primary prevention 50% of all ear diseases are preventable. School children are easily accessible and can undergo easy and continuous monitoring and follow-up of ear diseases picked up among them. School survey is a very valuable measure for screening additional children within a specified age group. Very few scientific studies are visible in India despite extensive research literature.

School children are not paying attention on pain as well as their parents also ignore some these kind of pain. School children always playing with little things like, pain, pencil, small toys, while playing they insert small things in the ear so that school childrens need to take protection of ear from foreign body and take attention and prevention of chronic suppurative otitis media.

**Methodology:** This study was carried to assess effectiveness of planned teaching through a structured knowledge questionnaire. To conduct the study, interventional research approach and pre-experimental one-group pre-test post-test research design were adopted. Non-probability convenience sampling technique will use and 100 children of both sexes of 13 to 15 year was included. The setting of the study was selected area of Wardha city. Ethical approval was obtained from IEC, DMIMS (DU)/IEC.

### **Inclusion Criteria:**

- School children in selected area who are willing to participate in the study.
- School children who are available at the time of data collection.
- School children who can understand, read and write English.

### **Exclusion criteria:-**

- School children who have already attended similar type of study.

**Sample size :** The sample size selected for this study is 100.

**Intervention :-** School children will be taught about prevention of chronic suppurative otitis media with the help of planned teaching and based on that post test will be conducted.

**Outcome measures-**

The outcome of the study is based on assessing the knowledge regarding prevention of chronic suppurative otitis media, and the effectiveness of planned teaching on knowledge regarding prevention of chronic suppurative otitis media. And also to associate the findings with demographic variables.

Clinical outcome:- school children will be much aware about prevention of chronic suppurative otitis media and will be able to use appropriate measures.

**Data management and monitoring -**

Section 1- Structure response sheet for Demographic data, which gives baseline information such as Age, Gender, standard, religion, residence.

Section 2- Structured knowledge questionnaires on prevention of chronic suppurative otitis media.

On the basis of this tools the data monitoring will be done as per pre-test and post test and the knowledge will be assessed.

**Statistical analysis –** Statistical analysis will be performed using SPSS software version. ANOVA test (analysis of variance), independent t-test will be applied to analyse the data.

**Ethics and dissemination-** This research is approved by DMIMS '(DMIMS (DU / IEC/) Institutional Ethics Committee) All participants will be required to read and sign the informed consent.

**Expected Outcomes/Results:-** This study is planned to assess the effectiveness of planned teaching on knowledge regarding prevention of chronic suppurative otitis media among school children. Hence, it is expected to spread wide awareness regarding prevention of chronic suppurative otitis media.

**Discussion:-** The study finding is supported through the studies conducted in International Journal of Otolaryngology Volume 2015, to assess the impact of educational program on the management of children with CSOM. In which it applied the design of an experimental study. In this research involved 100 school children of both sexes aged two years and under with CSOM. Those were split into three groups: group I: including 50 children with CSOM who provided the educational program designed; control group: includes 50 children who have had traditional treatment and who have not responded; Group II: Educational programs were offered to these children in the control group and followed up in the same manner as group I and called group II; This research was completed over a 9-month period starting in September 2013 through May 2014. The educational program was initiated after a week, 1month, 3month, and 6 months in the form of 5 regular sessions For mothers of CSOM children at diagnosis. Analysis showed this were significant differences in the reaction to therapy after one and 3 months between children who provided the educational program and control group. Total cure percentages gradually increased by 32 percent, 60 percent, and 84 percent after 1 month, 3month, and 6 months in Group I, although they were 24 percent, 44 percent, and 64 percent , respectively, in Group II. Cure (dry perforation) was 64 percentage , 36 percent , and 12 percent in Group I children after 1, 3, and 6 months, whereas it was 64 percent , 44 percent , and 24 percent , respectively, in Group II. The percent's in education program enforcement increased over time in both groups: 44 percent, 64 percent, and 80 percent in group I, and 32 percent, 48 percent, and 56 percent in group II, respectively, after 1, 3, and 6 months. The percent of cure for children with maximum similar to the education programme is statistically significantly higher in both groups compared with those with partial compliance (P = 0.000 for both). They should conclude from this analysis that a risk factor or more for illness incidence were present in most children with CSOM; Educational programs are good for treating the CSOM ; The more the response rate for mothers compliant with the system; daily follow-up and clarification of the value of the initiative played an significant roles to compliance the programme <sup>5</sup>. Few of the related studies on ear disorders were reviewed. These include- a study on osteoma of external auditory canal associated with external auditory canal cholesteatoma and exuberant granulation tissue in mastoid air cell system by Mahalle et al <sup>6</sup>, Anatomical study of the facial recess with implications in round window visibility for cochlear implantation by Jain et al<sup>7</sup>, Role of eustachian dysfunction and primary sclerotic mastoid pneumatisation pattern in aetiology of squamous chronic otitis media by Jain et al <sup>8</sup>, Supra-threshold hearing sensitivity disorders and mild permanent hearing loss by Kalambe et al <sup>9</sup>, management of small central perforation by tissue myringoplasty and conventional myringoplasty by Karam et al<sup>10</sup>.

**Conclusion:** : Conclusion on statistical analysis would be taken.

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