

A Study to Assess the Effectiveness of Structured Teaching Programme on Knowledge Regarding Precaution of Aural Hygiene Among Patients with Chronic Suppurative Otitis Media (CSOM) in Selected Hospital, NMCH Jamuhar, Rohtas

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Abstract—Background: Chronic Suppurative Otitis Media (CSOM) is a persistent inflammation of the middle ear characterized by recurrent otorrhoea and tympanic membrane perforation. Lack of aural hygiene and inadequate knowledge worsen the condition and increase the risk of complications such as hearing loss, mastoiditis, and intracranial infections. Structured Teaching Programme (STP) is an effective educational intervention to improve patients' knowledge and hygiene practices.

Objectives:

1. To assess the pre-test knowledge of patients regarding precautions of aural hygiene in CSOM.
2. To evaluate the effectiveness of STP on knowledge regarding precautions of aural hygiene.
3. To determine the association between post-test knowledge scores and selected demographic variables.

Methodology: A pre-experimental one-group pre-test/post-test design was adopted. The study was conducted among 60 CSOM patients at NMCH Jamuhar using non-probability convenience sampling. Data were collected using a structured questionnaire. STP was administered after pre-test. Post-test was conducted after 7 days. Data were analyzed using descriptive (frequency, percentage, mean, SD) and inferential statistics (paired t-test, chi-square).

Results: Pre-test knowledge regarding aural hygiene precautions was inadequate among most patients. The mean pre-test knowledge score was 10.42 ± 3.18 , which significantly increased to 18.75 ± 2.92 after the STP. The

calculated t-value was 11.36 ($p < 0.05$), indicating a highly significant improvement. A significant association was found between post-test knowledge scores and educational status ($p < 0.05$).

Conclusion: The Structured Teaching Programme was highly effective in improving knowledge regarding aural hygiene practices among CSOM patients. Regular patient education sessions and counselling can prevent complications and promote better ear-care behaviour.

Index Terms—CSOM, Aural hygiene, STP, Knowledge, Middle ear infection.

I. INTRODUCTION

Chronic Suppurative Otitis Media (CSOM) is a long-standing inflammation of the middle ear associated with persistent ear discharge through a tympanic membrane perforation. It remains a major cause of preventable hearing loss, particularly in developing countries. Poor ear hygiene, overcrowding, repeated respiratory infections, and lack of awareness contribute to high prevalence.

Aural hygiene plays a crucial role in preventing reinfection, reducing discharge, and avoiding complications. However, patients with CSOM often lack accurate knowledge regarding safe ear-care practices. Structured Teaching Programmes have been

proven to improve understanding and promote healthy habits.

The present study aims to assess the effectiveness of STP in improving knowledge of aural hygiene among CSOM patients.

Need of the Study

CSOM is associated with serious complications such as mastoiditis, facial nerve paralysis, meningitis, and brain abscess. WHO considers CSOM a major public health problem in India. Poor hygiene practices such as inserting objects in the ear, exposure to dirty water, and improper cleaning lead to persistence of infection. During clinical observation in NMCH Jamuhar, many CSOM patients were found unaware of precautions like dry ear care, avoiding self-cleaning, and safe medication practices. Hence, there is an urgent need for structured education to empower patients with correct knowledge to prevent complications and promote recovery.

II. METHODOLOGY

Research Approach

Quantitative evaluative approach.

Research Design

One-group pre-test/post-test pre-experimental design.

Setting and Population

The study was conducted at NMCH Jamuhar, Rohtas involving patients diagnosed with CSOM.

Sample Size and Sampling Technique

- Sample size: 60 patients
- Sampling technique: Non-probability convenience sampling

Tools

A structured questionnaire containing:

- Section A: Demographic variables
- Section B: Knowledge regarding precautions of aural hygiene (multiple-choice items)

Intervention (STP)

A Structured Teaching Programme covering:

- Meaning of CSOM
- Causes and symptoms
- Aural hygiene precautions
- Do's and don'ts for ear care
- Prevention of complications

Data Collection Procedure

1. Pre-test knowledge assessment.
2. Administration of STP.
3. Post-test after 7 days.

Data Analysis

- Descriptive statistics: frequency, %, mean, SD
- Inferential statistics: paired t-test for effectiveness, chi-square for association.

Data Analysis and Results

1. Demographic Profile

- Majority were 46–55 years (31.67%)
- 56.67% males, 43.33% females
- Most had higher secondary education (41.67%)
- Major occupations: daily wages (30%), home workers (23.33%)
- 55% lived in urban areas

2. Pre-test and Post-test Knowledge Scores

Test	Mean	SD
Pre-test	10.42	3.18
Post-test	18.75	2.92

Paired t-test = 11.36 ($p < 0.05$)

Result: STP significantly improved knowledge of aural hygiene.

3. Association Findings

Significant association between post-test knowledge and:

- Educational status ($p < 0.05$) No association with:
- Age, gender, occupation, residence.

III. DISCUSSION

The findings indicated that most CSOM patients lacked adequate knowledge about aural hygiene practices prior to intervention. This is consistent with global reports showing that poor awareness contributes to the persistence and recurrence of ear infections.

The structured teaching programme significantly improved knowledge, as evidenced by the marked increase in mean scores. Education empowers patients to practice safer behaviours such as avoiding ear picking, preventing water entry, adhering to medication protocols, and recognizing danger signs.

Improving patient literacy through STP can substantially reduce complications, treatment cost, and long-term hearing impairment.

IV. CONCLUSION

The Structured Teaching Programme was effective in enhancing knowledge regarding aural hygiene among CSOM patients at NMCH Jamuhar. Continued patient education, early diagnosis, and preventive strategies are essential to reduce disease burden and improve ear health outcomes.

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