

# **Assessment of Mothers care Hindering Successful Tympanostomy Tube for Children with Otitis Media with Effusion**

Thesis

Submitted for Partial Fulfillment of  
Master Degree in Pediatric Nursing

**By**

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كما لايفوتني ان اشكر كل من تعاونوا معي في البحث

وعائلتي وزملائي وأفراد العينة.



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## *List of Abbreviations*

AAFP .....	American Academy of Family Physicians
AAP.....	American Academy of Pediatrics
ABR .....	Auditory Brainstem Responses
AOM .....	Acute Otitis Media
AR.....	Allergic Rhinitis
CHOP .....	Children's Hospital of Pennsylvania
dB .....	Decibel
ENT .....	Ear, Nose, and Throat
ET .....	Eustachian Tube
FDA .....	Food and Drug Administration
IHC .....	Inner Hair Cell
MCQ .....	Multiple Choice Question
OHC.....	Outer Hair Cell
OM .....	Otitis Media
OME .....	Otitis Media with Effusion
PC .....	Personal Computer
PCVs.....	Pneumococcal Conjugate Vaccines
RFs.....	Risk Factors
SES .....	Socioeconomic Status
SOM.....	Secretory Otitis Media
SOM.....	Secretory Otitis Media
TM .....	Tympanic Membrane
TT .....	Tympanostomy Tube
URI .....	Upper Respiratory Infection



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# ABSTRACT

**Background:** Tympanostomy Tube is the best modality of management of otitis media with effusion which needs mothers care for helping on maintenance the functions of tympanostomy tube and prevent recurrence of otitis media with effusion. **Aim:** this study aimed to assess maternal care hindering successful tympanostomy tube for children with otitis media with effusion. **Design:** Descriptive design was used to conduct this study **Settings:** This study was conducted at Out-Patient Otolaryngology-Head and Neck Surgery clinic affiliated to Tanta university hospitals and Ain shams university hospitals. **Sampling:** A purposive sample consisted of 100 mothers and their accompanied children with otitis media with effusion and tympanostomy tube. **Tools of data collection:** Two tools were used which included: An interviewing questionnaire sheet and Attitudinal rating scale. **Results:** nearly two third of the studied mothers had poor knowledge about otitis media with effusion with tympanostomy tube. While, less than quarter of them had fair knowledge and less than quarter of them had good knowledge. **Conclusion:** The current study concluded that more than half of the studied mothers had incorrect knowledge about the best way to clean the child's ear while keeping the Tympanostomy tube and the best position for a baby while breastfeeding or eating to keep the tube, respectively. **Recommendations:** Conducting educational programs for preschoolers and their mothers about early detections and aspects of care related to OME to minimize the negative consequence of OME.

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**Key words:** Otitis media with effusion, tympanostomy tube, knowledge.

# INTRODUCTION

Tympanostomy Tube (TT) is small tube that are surgically placed into child eardrum by an Ear, Nose, and Throat (ENT) surgeon. The tubes may be made of plastic, metal, or Teflon. The tubes are placed to help drain the fluid out of the middle ear to reduce the risk of ear infections. During an ear infection, fluid gathers in the middle ear, which can affect child hearing. Sometimes, even after the infection is gone, some fluid may remain in the ear. The tubes help drain this fluid, and prevent it from building up. The most common ages for tube placement are from 1 to 3 years old. By the age of 5 years, most children have wider and longer eustachian tubes (a canal that links the middle ear with the back of the nose), thus, allowing better drainage of fluids from the ear (*Steele et al., 2017*).

Otitis Media with Effusion (OME) is a collection of non-infected fluid in the middle ear space. It is also called serous or Secretory Otitis Media (SOM). This fluid may accumulate in the middle ear as a result of a cold, sore throat or upper respiratory infection. However, OME is usually self-limited, which means, the fluid usually resolves on its own within 4 to 6 weeks. However, in some instances the fluid may persist for a longer period of time and cause a temporary decrease in

hearing or the fluid may become infected (acute otitis media) (*Robb and Williamson, 2016*).

Tympanostomy tube is a very important device which is a common surgical procedure for treating children around the world. Tympanostomy tubes are most commonly used to help improve hearing for children who have otitis media with effusion in both ears, and for preventing ear infections in children who have frequent middle ear infections. Grommets are temporary and often fall out after 12–14 months as the ear heals (*Venekamp et al., 2016*).

Risk of tympanostomy tube is ear discharge (otorrhoea) which is a common in 25-75% of children after tympanostomy tubes are inserted, the risk of having persistent tympanic membrane perforation following the procedure may be low, and has been estimated at (2%). Other adverse effects are estimated at: blockage of the tympanostomy tube (7%), formation of granulation tissue (4%), grommet falls out too early (4%), and the tympanostomy tube may move towards the middle ear (0.5%). There is also a risk related to general anesthesia (*Rosenfeld et al., 2013*).

Mothers of children with recurrent OME have a very important role in preventing recurrence of OME through avoid exposing children to any tobacco products or second hand