



# Parent information needs and experience regarding acute otitis media in children: A systematic review

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# Background

- Acute otitis media (AOM) —inflammation of the middle ear
- Affecting up to 75% of children at some time before age 5 years.
- AOM in children presents diverse challenges to parents.
- AOM had a notable burden on the affected child and the family, resulting in a substantial use of medical services and loss of workdays [1,2].
- Lack of parental knowledge have been associated with poor health outcomes.

# Research Purpose and Questions

- To identify and synthesize current research about parents' information needs and experiences having a child with AOM.

Our review was guided by the following questions:

- What are parents' information needs about pediatric AOM?
- What are parents' experiences, attitudes and beliefs of having a child with AOM?

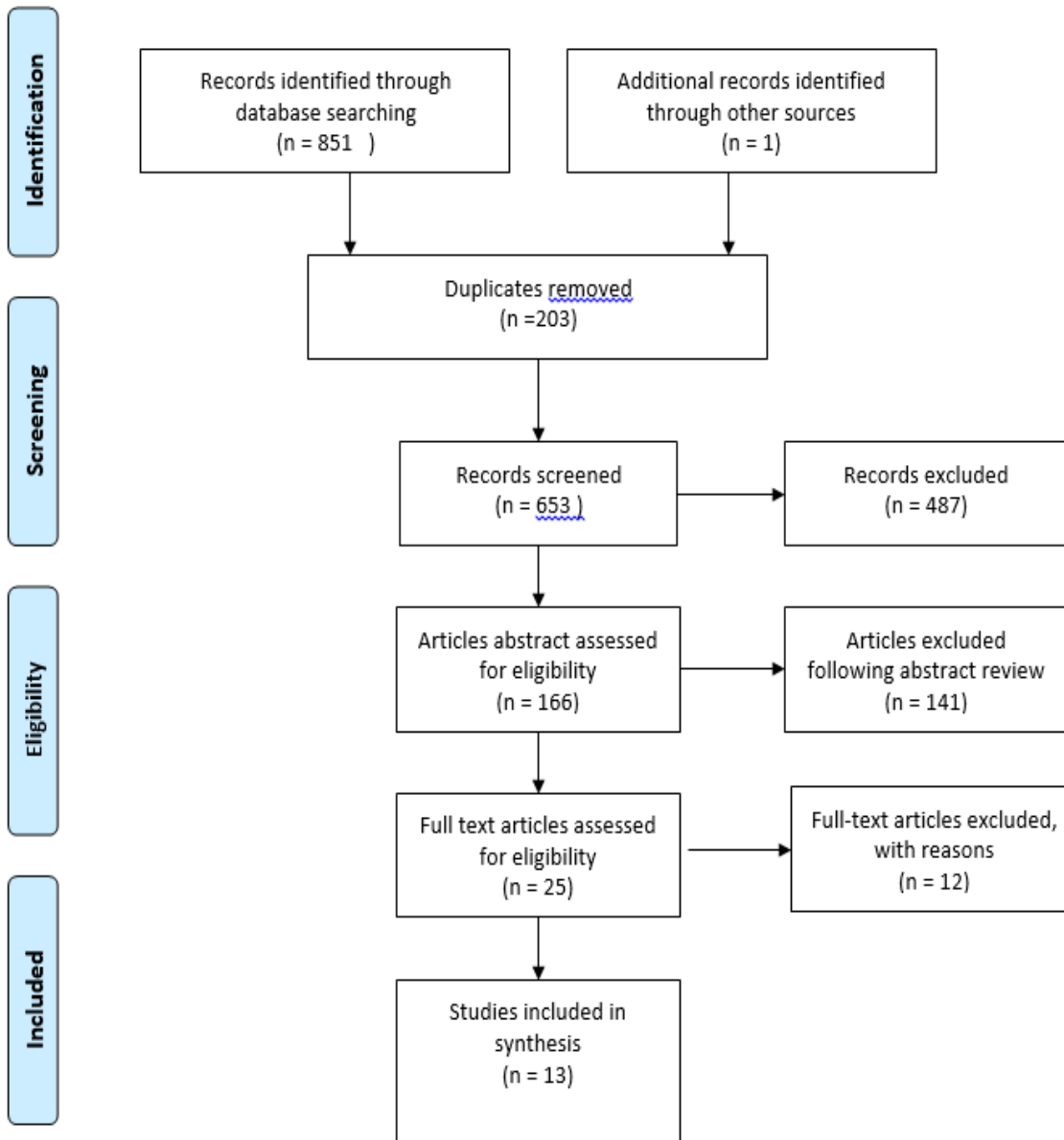
# Search and Study Selection

- Healthcare librarian designed and conducted search strategy in 4 databases (Ovid Medline, Cochrane Library, CINAHL and PubMed).
- 2 independent reviewers conducted primary & secondary screening using standard forms.
- Articles were **NOT** excluded based on design or methodological quality.

# Study Inclusion Criteria

Characteristic	Inclusion Criteria
Study design	Primary research studies (no restriction to study design)
Publication date	January 2000 to present
Language	Articles published in English
Topic	The study focuses on <u>one</u> of the following: (1) Parents' information needs about AOM treatment and management and how to transmit that information. (2) Parents' views on or experiences with AOM and how it is treated in children. (3) Parents' beliefs and knowledge about the management of AOM
Outcomes	Articles describing information needs and parents experience with their child's AOM. Parents attitudes, beliefs, burden of illness and effect on Quality of life of parents and children.

# PRISMA



# Data Extraction and Analysis

We extracted relevant data from each study, including:

- Publication year,
  - Country, study design,
  - Sample characteristics,
  - Outcomes measured,
  - Main findings
- \*Evidence table constructed

# Methodological Quality Assessment

- **Quantitative studies**

Quality Assessment Tool for Quantitative Studies

- **Qualitative studies**

Critical Appraisal Skills Programme (CASP)  
Qualitative Research checklist



# Study Quality

## **Quantitative Studies (n = 9)**

- Weak (n= 4) to medium (n= 5).
- In no studies the sample clearly representative of parents and potential for selection bias.
- Outcomes in all studies were self-reported, and the response rate was either less than 80% or not reported.

## **Qualitative Studies (n = 4)**

- All studies were ranked medium
- Qualitative methodology was appropriate and used an appropriate research design.
- Data analysis was sufficiently rigorous in nearly all studies.
- All studies included a clear statement of the findings, and all were ranked 'very valuable

# Study Characteristics

- Nine (69.2%) studies were quantitative.
- Four (30.8%) were qualitative.
- Outcomes were measured using a variety of means, including:
  - »on-line/telephone surveys (n=4; 31%),
  - »self-reported questionnaires (n=3; 23%),
  - »case control design (n = 1; 7.69; %),
  - »parental Quality of Life (QoL) questionnaire (n=1; 7.69%),
  - »interviews (n=2; 15%),
  - »focus groups (n=1; 7.69%),
  - »an ethnographic study (n=1; 7.69%).

# Findings

Findings were organized based upon the four themes that emerged from the review outcomes:

1. Parents' beliefs and knowledge about AOM
2. Parents' attitudes and knowledge about AOM treatments;
3. Information-seeking behaviour of parents
4. Burden of AOM on quality of life for both families and children.

# Findings

## 1. Parents beliefs and knowledge about AOM

- Parents' basic knowledge of AOM was relatively limited [4-8].
- One study reported that families had good basic knowledge but that was deficient in some areas [9].
- Parents believed that children who suffer from frequent or persistent ear infections could have trouble hearing, talking, and learning.

# Findings

## 2. Parents' attitudes and knowledge about AOM treatment

- Parents consider antibiotics the best treatment for AOM [1, 3, 4, 5, 9, 10, 11, 12].
- Fears about serious complications (e.g., hearing problem, meningitis, brain abscess) and social factors (e.g., financial and work related burden) influence parent's treatment-seeking behaviors [1, 3, 4, 5, 7, 8, 9, 10, 11, 12].
- Parents in the included studies did not want their doctors to prescribe antibiotics more frequently [7, 8].
- Most common factors associated with parental concerns related to antibiotic prescriptions are antibiotic resistance and adverse effects [3, 7, 8, 10, 11, 12].

# Findings

## 3. Information-seeking behavior

- Parents most frequently reported learning about AOM from doctors and nurses [4, 7, 8, 9].
- Studies reported that parents were very poorly informed about AOM and given very little information and left confused.
- Other information-seeking sources include internet; close family and social contacts; and pharmacists [4, 7, 9].

# Findings

## 4. Burden of AOM on quality of life for family and children

- AOM has a detrimental effect on parental QoL [1, 2, 3, 13].
- Prolonged AOM recovery period , leads to some behavioral problems in children (e.g. social isolation, lack of confidence due to impaired hearing, speaking, and learning).
- Parents also reported interrupted sleep, worry, an altered daily schedule, and less time for leisure activities [1, 2, 3, 13].

# Limitations

- We identified only 13 studies that specifically addressed parents experiences and information needs for AOM.
- The findings are too few and too diverse to be generalized.
- The quantitative studies are inadequately methodologically rigorous to inform KT strategies.
- The qualitative analysis was prone to subjectivity and interpretive bias.



# Conclusions

- Parents of children with AOM have pervasive unmet information needs and information deficits negatively impacts AOM management, child and family well-being.
- The findings of this SR served as a basis for developing evidence-based KT tools for parents to support parental health literacy.
- The next step is to develop and evaluate innovative KT strategies (i.e. digital KT tools).

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*Thank you to!*



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