

Table Of Content

Journal Cover	2
Author[s] Statement	3
Editorial Team	4
Article information	5
Check this article update (crossmark)	5
Check this article impact	5
Cite this article	5
Title page	6
Article Title	6
Author information	6
Abstract	6
Article content	8

Academia Open



By Universitas Muhammadiyah Sidoarjo

Originality Statement

The author[s] declare that this article is their own work and to the best of their knowledge it contains no materials previously published or written by another person, or substantial proportions of material which have been accepted for the published of any other published materials, except where due acknowledgement is made in the article. Any contribution made to the research by others, with whom author[s] have work, is explicitly acknowledged in the article.

Conflict of Interest Statement

The author[s] declare that this article was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Copyright Statement

Copyright © Author(s). This article is published under the Creative Commons Attribution (CC BY 4.0) licence. Anyone may reproduce, distribute, translate and create derivative works of this article (for both commercial and non-commercial purposes), subject to full attribution to the original publication and authors. The full terms of this licence may be seen at <http://creativecommons.org/licences/by/4.0/legalcode>

Academia Open

Vol 10 No 1 (2025): June (In Progress)

DOI: 10.21070/acopen.10.2025.11323 . Article type: (Medicine)

EDITORIAL TEAM

Editor in Chief

Mochammad Tanzil Multazam, Universitas Muhammadiyah Sidoarjo, Indonesia

Managing Editor

Bobur Sobirov, Samarkand Institute of Economics and Service, Uzbekistan

Editors

Fika Megawati, Universitas Muhammadiyah Sidoarjo, Indonesia

Mahardika Darmawan Kusuma Wardana, Universitas Muhammadiyah Sidoarjo, Indonesia

Wiwit Wahyu Wijayanti, Universitas Muhammadiyah Sidoarjo, Indonesia

Farkhod Abdurakhmonov, Silk Road International Tourism University, Uzbekistan

Dr. Hindarto, Universitas Muhammadiyah Sidoarjo, Indonesia

Evi Rinata, Universitas Muhammadiyah Sidoarjo, Indonesia

M Faisal Amir, Universitas Muhammadiyah Sidoarjo, Indonesia

Dr. Hana Catur Wahyuni, Universitas Muhammadiyah Sidoarjo, Indonesia

Complete list of editorial team ([link](#))

Complete list of indexing services for this journal ([link](#))

How to submit to this journal ([link](#))

Article information

Check this article update (crossmark)



Check this article impact (*)



Save this article to Mendeley



(*) Time for indexing process is various, depends on indexing database platform

Moderate Knowledge and Attitudes Toward Tonsillitis Among Nursing Students

Husham Hussain Abdul-Ra'aoof, husham197476@gmail.com, (0)

Community Health Nursing Department, College of Nursing, University of Basrah, Basrah, Iraq

Wedad Amer Mizher, Wedadamer76@gmail.com, (0)

Al-Kawther Primary Health Care Center, Basrah Health Directorate, Basrah, Iraq

Ali Malik Tiryag, ali.malik@uobasrah.edu.iq, (1)

Fundamentals of Nursing Department, College of Nursing, University of Basrah, Basrah, Iraq

Mohammed M.J. Al-khalissi, dr.muhammad.m@huc.edu.iq, (0)

AL-Hadi University College, Department of Radiology Techniques, Baghdad, Iraq

Tabarek Mohammed Neama, nr21042@avicenna.uobasrah.edu.iq, (0)

College of Nursing, University of Basrah, Basrah, Iraq

Nabaa Hassan Nayef, nabaa2001nbn@gmail.com, (0)

College of Nursing, University of Basrah, Basrah, Iraq

⁽¹⁾ Corresponding author

Abstract

General Background: Tonsillitis, a common pediatric illness, is typically self-limiting and primarily viral in origin, though bacterial forms—especially those caused by group A streptococcus—can result in serious complications. **Specific Background:** Nursing students, as future frontline healthcare providers, require foundational understanding and attitudes toward pediatric infections like tonsillitis to promote effective patient education and clinical decision-making. **Knowledge Gap:** Limited studies have assessed the adequacy of nursing students' knowledge and attitudes regarding tonsillitis in children, particularly in Middle Eastern academic contexts. **Aim:** This study aimed to evaluate the knowledge and attitudes of nursing students at the University of Basrah regarding pediatric tonsillitis. **Results:** Among 150 students surveyed, most demonstrated moderate knowledge and attitudes toward the condition, with significant gaps in understanding its infectious nature and complications. **Novelty:** This study highlights underexplored misconceptions among nursing students—such as low awareness of the infectious potential and complications of tonsillitis—despite relatively high awareness of its immunological and symptomatic aspects. **Implications:** Targeted educational interventions are necessary to address specific knowledge deficiencies and reinforce accurate clinical perspectives, thereby improving early detection, appropriate referral, and rational antibiotic use in pediatric tonsillitis care.

Highlight :

- Moderate Understanding: Most nursing students demonstrated moderate knowledge and attitudes regarding tonsillitis in children.
- Gender Distribution: A higher percentage of female students (66%) participated compared to males (34%).
- Misconceptions Noted: Only 17.3% correctly identified tonsillitis as infectious, highlighting a crucial gap in understanding.

Keywords: Knowledge, Attitude, Tonsillitis, Children, Nursing Students

Published date: 2025-06-09 00:00:00

Introduction

An infection of the tonsils is called tonsillitis. Although it may also strike adults and teens, it is a prevalent childhood ailment. The most frequent cause of it is a viral infection. Occasionally, a bacterial infection (group A streptococcus infection, which is also responsible for scarlet fever) may also be the reason. Close physical contact with another person or airborne droplets from coughing or sneezing can also spread the virus. Like with colds, flu, coughs, and other illnesses of a similar kind, you run the risk of spreading the bacterium or virus that has caused A prevalent illness, Tonsillitis accounts for around 1.3% of outpatient visits [1-5]. Tonsillitis is thought to account for 3.7% of all visits and is the sixth most frequent illness treated by general practitioners (GPs) for children ages 0 to 14 [6-10]. The majority of tonsillitis bouts are caused by viruses, resolve on their own, and don't need medication. [11-15]. When antibiotics are prescribed inappropriately for suspected or acute tonsillitis, it can lead to preventable adverse medication events and exacerbate the growing issue of antibiotic resistance [16-20]. However, if bacterial tonsillitis is not well-treated, it can lead to uncommon but dangerous side effects such as glomerulonephritis, rheumatic fever, and peritonsillar abscesses [21-24]. It is thus advised that those patients who are at high risk or who are vulnerable, such as individuals who are Indigenous, sick patients, or patients whose clinical characteristics are especially severe and indicative of a streptococcal infection, receive antibiotic therapy [25-30]. To treat tonsillitis and the more general problem of identifying and treating respiratory tract and pharyngeal infections, clinical practice guidelines, or CPGs, have been produced. [25, 31]. Additionally, many Australian initiatives have been created to support the promotion of prudent antibiotic usage. [32-34]. The majority (89%) of children under the age of five who have confirmed or suspected tonsillitis episodes are prescribed antibiotics, which is more than what is advised in the current Australian therapeutic guidelines, despite these initiatives and the active promotion of guidelines. Only a minority (14%) receive the suggested counseling and advice. [11].

Methods

A cross-sectional study has been carried out to assess the level of knowledge and attitudes of nursing students about tonsillitis in children in the period from the beginning of November 2023 to the beginning of April 2024. The sample was collected using a questionnaire by interviewing randomly at the College of Nursing, University of Basrah. The researcher adopted an assessment tool to assess the knowledge and attitudes of nursing college students. A questionnaire was conducted to study their knowledge and attitudes. After completing this, the questionnaire was distributed and presented to a panel of experts, and data was collected by interviewing nursing students on the subject of the study. Research study tool (questionnaire): The questionnaire consists of Part One: The first section is a social and demographic characteristics sheet consisting of (5) items: age, gender, educational stage, marital status, and type of study. In the second part, there were some questions to evaluate the knowledge of nursing students. It contained 10 questions, including questions related to the definition of the disease, the causes of the disease, common signs and symptoms, and 10 questions related to the attitudes of nursing students regarding the subject of the study. The project was carried out in Basrah city. The study, which started from December 2023 to the beginning of April 2024 carried out on nursing students. The study involved a sample of 51 males and 99 females, Nursing students. A non-probability (purposive) sampling method was used when selecting the sample to be used to collect data.

Results

Age	18 - 20	55	36.6%
	21 - 23	61	40.6%
	24 and above	34	22.7%
Gender	Male	51	34%
	Female	99	66%
Stage	Stage 2	54	36%
	Stage 3	46	30.7%
	Stage 4	50	33.3%
Type of study	Morning study	72	48%
	Evening study	78	52%

Table 1. The demographic features of the students

The table shows the demographic features of the sample. The table showed that 36.6% of the sample were in the age interval from 18- 20 years, 40.6 % were from 21-23 years and 22.7% were 24 years and above. About the sex of the participants: 34 % were males and 66% were females. Regarding the stages, 36% were in the second stage, 30.7% were in the third stage, and 33.3% were in the fourth stage. Regarding the type of study: 48% were in the

morning study and 52% in the evening study.

No.	Questions	Yes		Not Sure		No		Mean
		F	%	F	%	F	%	
1.	Tonsils are part of the lymphatic system	129	86.0%	9	6.0%	12	8.0%	2.78
2.	Tonsils play an important role in the body's immunity	134	89.3%	12	8.0%	4	2.7%	2.87
3.	Tonsillitis only occurs in children	15	10.0%	7	4.7%	128	85.3%	2.75
4.	Tonsillitis is an infectious disease	26	17.3%	34	22.7%	90	60.0%	1.57
5.	Tonsillitis is an acute disease	104	69.3%	29	19.3%	17	11.3%	2.58
6.	The most common causes are bacterial	97	64.7%	43	28.7%	10	6.7%	1.42
7.	Diagnosis is usually made by clinical examination	95	63.3%	36	24.0%	19	12.7%	2.50
8.	Surgical tonsillectomy is the treatment of choice	87	58.0%	14	9.3%	49	32.7%	2.25
9.	Antibiotics are necessary to treat all infections	88	58.7%	25	16.7%	37	24.7%	1.66
10.	The most common signs of tonsillitis							
	Fever	121	80.7%	14	9.3%	15	10.0%	2.7
	Headache	107	71.3%	22	14.7%	21	14.0%	2.57
	Pharyngeal pain	138	92.0%	9	6.0%	3	2.0%	2.9
	Bad breath	121	80.6%	22	14.6%	7	4.6%	1.24
	Snoring during sleeping	91	60.7%	32	21.3%	27	18.0%	1.57
	Difficulty eating and drinking	134	89.3%	13	8.6%	3	2.0%	2.87

Table 2. Knowledge of nursing students about tonsillitis in children

The table shows the distribution of the answers to the questionnaire and the mean scores for each question (knowledge) students know significantly that Tonsils are part of the lymphatic system (86%). 89.3% of the students know that Tonsils play an important role in the body's immunity, and 85.3% know that tonsillitis can occur at any age and not merely for children. Only 17.3% knew that Tonsillitis is an infectious disease, which is incredible .96.3% considered Tonsillitis an acute disease, 64.7% agreed that the most common causes are bacterial, 63.3 % agreed that Diagnosis is usually made by clinical examination, 58% consider Surgical tonsillectomy is the treatment of choice. 58.7% agree that Antibiotics are necessary to treat all infections. Pharyngeal pain, Difficulty eating and drinking, Bad breath, and Fever high grade are signs of acute tonsillitis respectively. Total mean = 2.28 moderate.

No.	Questions	Yes		Not Sure		No		Mean
		F	%	F	%	F	%	
1.	Do you think tonsillitis is a serious disease	46	30.6%	28	18.6%	76	50.6%	1.8
2.	Do you think the infection can occur more than three times a year	91	60.7%	44	29.3%	15	10.0%	2.50
3.	Do you think laboratory tests are necessary for all patient	95	63.3%	27	18.0%	28	18.6%	2.44
4.	Do you think drug treatment is more necessary than surgical intervention	85	56.6%	37	24.6%	28	18.7%	2.38
5.	Do think recovery is possible without any treatment	58	38.7%	32	21.3%	60	40.0%	1.98
6.	Do you think has a serious complication	79	52.6%	43	28.6%	28	18.6%	2.34
7.	Do you think tonsillectomy is beneficial for health	67	44.6%	32	21.3%	51	34.0%	2.10
8.	Do you think that enlarged tonsils indicate tonsillitis	108	72.0%	32	21.3%	10	6.6%	1.34
9.	Do you think mouthwash has a role in preventing	96	64.0%	33	22.0%	21	14.0%	2.50

	tonsillitis							
10.	Do you think that constantly eating ice cream can lead to tonsillitis	110	73.3%	21	14.0%	19	12.6%	2.60

Table 3. Attitudes of nursing students about tonsillitis in children

The table shows the responses of the students to the second part of the questionnaire: Only 30.6% think that tonsillitis is a serious disease, and 60.7 % think that the infection can occur more than three times a year. 63.3% think that a laboratory test is necessary for all patients. 56.6% Think that drug treatment is more necessary than surgical intervention. 38.7% think that recovery is possible without any treatment. 52.6%think that the disease has a serious complication. 44.6% think that tonsillectomy is beneficial for health. 72% think that enlarged tonsils indicate tonsillitis. 64% think that mouthwash has a role in preventing tonsillitis 73.3% think that constantly eating ice cream can lead to tonsillitis. Total mean =2.19 moderate.

Discussion

A study conducted at the College of Nursing, University of Basra, using a cross-sectional method, where the results in the first table showed that the largest number of polytheists are between the ages of 21 - 23, and the vast majority are women. The table shows the responses of the students to the questionnaire, by measuring the mean of scores, we found that the students had the significant right answer for all the questions except for, table (2) showed question 4 tonsillitis infection disease (17% answer) the viruses and bacteria that because tonsillitis can sometimes be spread to other people. To avoid spreading infection, it's important to: keep away from people while unwell. Wash your hands. According to the present study, most of the students are female (66%), and the results of this study agree with a study (10) which stated that most of the sample is female, with a percentage of 72.9%. Also, question 6, the most common causes are bacteria only (6% answer). A viral infection is the most common cause of tonsillitis. The most common types of viruses that infect the tonsils include adenovirus, which is a possible cause of the common cold and sore throat, rhinovirus, which is the most common cause of the common cold and influenza, or flu, and others. Table (3) shows that Q1 in the attitude only (30% answer). If tonsillitis is left untreated, a complication called a peritonsillar abscess. This is an area around the tonsils that is filled with bacteria, and it can cause these symptoms: Severe throat pain. And also showed that Q6 attitude, do you think tonsillitis has a serious complication only (18% answer). It's important to treat tonsillitis, especially if it is caused by the strep bacteria, because strep can lead to rare and life-threatening diseases like rheumatic fever.

Conclusion

The majority of participants were aged 21 to 23 years, with more female participants than males. Most of the participating students have moderate knowledge regarding tonsillitis in children, and most of the participating students have moderate attitudes regarding tonsillitis in children.

Recommendations

Providing educational programs for students to improve their knowledge about tonsillitis. Training courses must be provided to students to increase their knowledge of the complications of tonsillitis and common signs and causes of tonsillitis. Due to the importance of tonsils, we recommend increasing health awareness among all university students.

References

1. J. J. Kocher and T. D. Selby, "Antibiotics for Sore Throat," American Family Physician, vol. 90, pp. 23-24, 2014.
2. A. M. Tiryag and H. H. Atiyah, "Nurses' Knowledge Toward Obesity in Al-Basra City," Annals of the Romanian Society for Cell Biology, vol. 25, pp. 4667-4673, 2021.
3. I. Zainel, H. Abdul-Ra'aoof, and A. Tiryag, "Mothers' Knowledge and Attitudes Towards Her Children With Neonatal Jaundice: A Cross-Sectional Study," Health Education and Health Promotion, vol. 10, pp. 565-570, 2022.
4. A. M. Tiryag and H. H. Atiyah, "Nurses' Knowledge Toward Bariatric Surgery at Surgical Wards at Teaching Hospitals in Al-Basra City," Indian Journal of Forensic Medicine & Toxicology, vol. 15, pp. 5152-5159, 2021.

5. E. H. Rahi, Z. M. H. Al-Hejaj, and A. M. Tiryag, "Nurses' Knowledge of Nonalcoholic Fatty Liver Disease: A Cross-Sectional Study," *Academia Open*, vol. 9, 2024, doi: 10.21070/acopen.9.2024.10306.
6. F. Al-Yaman, M. Bryant, and H. Sargeant, *Australia's Children: Their Health and Wellbeing 2002*, Australian Institute of Health and Welfare, 2002.
7. A. Tiryag, "Revitalizing Hearts: The Transformative Impact of Pacemaker Therapy on Cardiac Conduction Disorders," *Academia Open*, vol. 9, 2024, doi: 10.21070/acopen.9.2024.XXXX.
8. M. A. Mohammad, H. H. Abdul-Ra'aoof, K. A. Razzaq Manahi, and A. M. Tiryag, "Parents' Knowledge and Attitudes Toward Testicular Torsion," *Bahrain Medical Bulletin*, vol. 46, 2024.
9. M. A. Akber, A. M. Tiryag, and A. Alobaidi, "Nurses' Knowledge Concerning Developmental Dysplasia of the Hip: A Cross-Sectional Study," *American Journal of Pediatric Medicine and Health Sciences*, vol. 2, pp. 155-160, 2024.
10. M. Akber, A. Tiryag, and A. Alobaidi, "Nurses' Knowledge Regarding Cast Complications of Limb Fractures: A Cross-Sectional Study," *Central Asian Journal of Medical and Natural Science*, vol. 5, pp. 195-200, 2024.
11. R. Biezen et al., "Respiratory Tract Infections Among Children Younger Than 5 Years: Current Management in Australian General Practice," *Medical Journal of Australia*, vol. 202, pp. 262-265, 2015.
12. M. A. Mohammad, A. Y. Al-Timary, and A. M. Tiryag, "Safety of Tubeless Double Access Percutaneous Nephrolithotomy Compared to Single Access Approach," *Bahrain Medical Bulletin*, vol. 45, 2023.
13. M. Mohammad, F. Jassim, and A. Tiryag, "Retrograde Intrarenal Lithotripsy Using Disposable Flexible Ureteroscope," *Georgian Medical News*, vol. 348, pp. 44-46, 2024.
14. M. A. Mohammad, F. A. Jassim, and A. M. Tiryag, "Single-Use Flexible Ureteroscope for the Treatment of Renal Stone," *Revista Latinoamericana de Hipertension*, vol. 18, 2023.
15. M. Jabbar, M. Mohammad, and A. Tiryag, "Changes in Male Reproductive Hormones in Patients With COVID-19," *Georgian Medical News*, vol. 342, pp. 42-46, 2023.
16. L. Sargent, A. McCullough, C. Del Mar, and J. Lowe, "Is Australia Ready to Implement Delayed Prescribing in Primary Care?: A Review of the Evidence," *Australian Family Physician*, vol. 45, pp. 688-690, 2016.
17. M. F. Hasan et al., "Nurses' Knowledge Toward Lower Back Pain: A Cross-Sectional Study," *Academia Open*, vol. 9, 2024, doi: 10.21070/acopen.9.2024.10363.
18. F. A. Jassim, A. M. Tiryag, and S. S. Issa, "Effect of Bad Habits on the Growth of School Students: A Cross-Sectional Study," *Indonesian Journal on Health Science and Medicine*, vol. 1, 2024.
19. S. K. Jassim, Z. Abbass, and A. M. Tiryag, "A Study of Diabetes Correlated Emotional Distress Among Patients With Type 2 Diabetes Mellitus: A Cross-Sectional Study," *Academia Open*, vol. 9, 2024, doi: 10.21070/acopen.9.2024.10292.
20. Z. Abbass et al., "Determination of Self-Efficacy Level: The Capacity of Patients With Hypertension to Manage Their Chronic Disease," *Indonesian Journal on Health Science and Medicine*, vol. 1, 2024, doi: 10.21070/ijhsm.v1i2.15.
21. N. Dunn et al., "Use of Antibiotics for Sore Throat and Incidence of Quinsy," *British Journal of General Practice*, vol. 57, pp. 45-49, 2007.
22. C. C. Georgalas, N. S. Tolley, and A. Narula, "Tonsillitis," *BMJ Clinical Evidence*, vol. 2009, 2009.
23. A. M. Tiryag, "Nurses' Knowledge and Attitudes Toward Pacemaker: A Cross-Sectional Study," *Academia Open*, vol. 9, 2024, doi: 10.21070/acopen.9.2024.8845.
24. S. S. Hamid et al., "A Study Regarding the Basic Anatomy and Physiology of the Eye Among Nursing Students: A Cross-Sectional Study," *Indonesian Journal on Health Science and Medicine*, vol. 2, 2025.
25. P. Hibbert et al., "Assessing the Quality of the Management of Tonsillitis Among Australian Children: A Population-Based Sample Survey," *Otolaryngology-Head and Neck Surgery*, vol. 160, pp. 137-144, 2019.
26. H. H. Abdul-Ra'aoof, A. M. Tiryag, and M. A. Atiyah, "Knowledge, Attitudes, and Practice of Nursing Students About Insulin Therapy: A Cross-Sectional Study," *Academia Open*, vol. 9, 2024, doi: 10.21070/acopen.9.2024.8795.
27. A. A. Hussein, H. H. Abdul-Ra'aoof, and A. A. Al-Mussawi, "The Impact of the Educational Program on High School Students' Knowledge Regarding Drug Addiction: A Quasi-Experimental Study," *Journal for ReAttach Therapy and Developmental Diversities*, vol. 5, pp. 63-69, 2022.
28. S. Issa et al., "A Study About Obesity Among Preschool Children at Al-Zubair District," *HIV Nursing*, vol. 22, pp. 3403-3407, 2022.
29. G. A. Razooqi, H. H. A. Ra'aoof, and S. S. Issa, "Radiology Safety in Iraq Exposes Critical Gaps in Training and Knowledge," *Academia Open*, vol. 9, 2024, doi: 10.21070/acopen.9.2024.9154.
30. H. H. A. Ra'aoof, "Evaluating Nursing Students' Understanding of Hydatid Disease in Iraq," *Academia Open*, vol. 9, 2024, doi: 10.21070/acopen.9.2024.9093.
31. T. M. McGuire, J. Smith, and C. Del Mar, "The Match Between Common Antibiotics Packaging and Guidelines for Their Use in Australia," *Australian and New Zealand Journal of Public Health*, vol. 39, pp. 569-572, 2015.
32. A. D. Spigelman et al., "Antimicrobial Stewardship: Australia," *International Journal of Health Governance*, vol. 21, pp. 139-149, 2016.
33. J. M. Salman et al., "Comparison of Intramuscular Versus Intravenous Ketamine for Sedation in Children Undergoing Magnetic Resonance Imaging Examination," *Indexed in PubMed/Medline, Scopus, Embase, EBSCO, Index Copernicus, Polish Medical Bibliography*, vol. 76, pp. 198-204, 2023.
34. A. Bhagawati et al., "Diagnostic Accuracy of Contrast-Enhanced FLAIR Magnetic Resonance Imaging in Detecting Meningeal Abnormalities in Suspected Cases of Infectious Meningitis," *International Journal of Scientific Research in Dental and Medical Sciences*, vol. 6, pp. 157-162, 2024.