Enhancing undergraduate oncology training in the ear, nose, and throat specialty: a qualitative study

Mohammed Alqarny

ABSTRACT

Objective: This qualitative study aimed to explore medical students’ perceptions and curriculum needs concerning oncology within the ear, nose, and throat (ENT) specialty, to develop an undergraduate training program tailored to their specific needs.

Methods: The study used a qualitative methodology to collect detailed information from medical students. Participants were recruited from the University of Bisha and included medical students who had completed or were undertaking their ENT clerkship. The information was collected by talking to people in a structured way and recording them on the phone. Thematic analysis was conducted to identify patterns, themes, and categories within the data.

Results: Around 35 medical students from the University of Bisha participated in semi-structured interviews, providing valuable insights into their experiences and perspectives. Many medical students expressed limited exposure to oncology within the ENT specialty during their undergraduate education. Medical students expressed the need for a well-integrated curriculum that combines didactic teaching with clinical experiences.

Conclusion: This qualitative study contributed to developing an undergraduate oncology training program within the ENT specialty by exploring medical students’ perceptions and curriculum needs. The findings would inform curriculum developers and educators about medical students’ specific challenges and requirements in understanding and managing oncological conditions within the ENT specialty.

Keywords: Undergraduate education, oncology training, ENT, perceptions, curriculum needs.

Introduction

The field of oncology within the ear, nose, and throat (ENT) specialty presents unique challenges and requires specialized knowledge and skills [1]. Oncological conditions in the ENT domain encompass a wide range of malignancies affecting the head and neck structures, including the throat, larynx, nasal cavity, sinuses, and ears [2]. These conditions often have significant implications for patients’ overall health and quality of life, emphasizing the importance of comprehensive education and training in this area for medical students [1,2].

Medical education plays a pivotal role in shaping the competencies and skills of future healthcare providers [3]. As the healthcare landscape evolves, assessing medical students’ perceptions and curriculum needs in specific specialties becomes essential to ensure their preparedness for managing complex conditions [4]. However, few studies have been done to determine what medical students think about oncology in the ENT specialty at the University of Bisha and what they need [5].

Understanding these perceptions and needs is crucial for developing effective curricula that address the challenges and demands of this specialized field [5]. However, studies have highlighted the importance of specialized education and training in oncology for medical students...
in various specialties. A study found that medical students considered oncology education to be highly relevant and indicated a need for more comprehensive teaching and clinical exposure to oncological cases [6]. Similarly, another study emphasized the significance of including oncology topics in medical curricula to improve medical students’ knowledge and skills in managing cancer patients [7].

Moreover, various research studies have explored the perceptions and curriculum needs of medical students in specific specialties. Studies have also examined the perceptions and curriculum needs of medical students in dermatology, highlighting the importance of practical clinical exposure and interactive learning methods [8]. Another study investigated the curriculum needs of medical students in emergency medicine, emphasizing the integration of simulation-based training and clinical experiences [9].

The University of Bisha, located in Saudi Arabia, is committed to providing high-quality medical education to its students. However, a comprehensive understanding of medical students’ perceptions and curriculum needs regarding oncology within the ENT specialty is essential to tailor the educational programs according to their requirements. By conducting this research at the University of Bisha, it was aimed to contribute toward the advancement of ENT oncology education and improve the preparedness of medical students to manage oncological conditions within the specialty.

The objective was to examine the perceptions and curriculum needs of the University of Bisha medical students about oncology within the ENT specialty. By exploring their perspectives, experiences, challenges, and recommendations, this study aimed to highlight the areas requiring curriculum attention and improvement. The findings would enhance educational programs and better equip future healthcare providers to manage oncological conditions within the ENT domain. The results would also be shared with key stakeholders, such as curriculum developers and educators, to inform the development and improvement of undergraduate oncology training programs within the ENT specialty.

**Subjects and Methods**

This qualitative study used a phenomenological research design to explore the perceptions and curriculum needs of medical students concerning oncology within the ENT specialty. By employing a qualitative research design and conducting in-depth interviews, this study aimed to provide valuable insights into medical students’ perceptions and curriculum needs about oncology within the ENT specialty. The findings would contribute to developing an effective and tailored undergraduate oncology training program that meets the specific needs of medical students in this specialized field. This study was conducted in the period from September 2022 to May 2023.

The study recruited 35 medical students from the University of Bisha who had completed or were undertaking their ENT rotation. Participants were selected using purposive sampling to ensure representation across different academic levels and experiences. The sample size was determined based on data saturation, which is the point at which no new information or themes emerged from the interviews.

Semi-structured interviews were conducted with the participants to gather rich and in-depth data. The interview guide was developed based on the research objectives. It explored topics such as students’ perceptions of oncology within the ENT specialty, their understanding of common oncological conditions, diagnostic challenges, treatment modalities, and patient care aspects. The interviews were audio-recorded with participants’ consent and transcribed verbatim for analysis. Field notes were taken during and after each interview to capture contextual information and observations.

Thematic analysis was used to analyze the interview data and identify patterns, themes, and categories. The analysis process involved multiple stages, including familiarization with the data, generating initial codes, searching for themes, reviewing and refining themes, and producing a final analysis. Data analysis was conducted manually to ensure a detailed data exploration and to maintain flexibility in identifying emerging themes.

**Results**

The findings of this qualitative investigation sought to probe the attitudes and educational requirements of medical students regarding oncology within the ENT field. A total of 35 medical students from the University of Bisha participated in semi-structured interviews, providing valuable insights into their experiences and perspectives. Thematic analysis was conducted to identify patterns, themes, and categories within the data (Table 1).

Many medical students expressed limited exposure to oncology within the ENT specialty during their undergraduate education. They highlighted a lack of dedicated oncology rotations or clinical experiences specific to ENT oncology, resulting in a decreased understanding of the specialty (Table 2).

Participants emphasized the importance of understanding the clinical context of ENT oncology, including the unique anatomical structures, diagnostic challenges, treatment modalities, and patient care aspects. They felt that a comprehensive understanding of these factors is crucial for effectively managing oncological conditions in the head and neck region.

Medical students expressed the need for a well-integrated curriculum that combines didactic teaching with clinical experiences. They highlighted the importance of case-based discussions, exposure to real-life clinical scenarios, and opportunities for hands-on learning in the ENT oncology setting.
Participants emphasized the significance of an interdisciplinary approach to ENT oncology training. They suggested the inclusion of collaborative sessions with other specialties involved in managing ENT malignancies, such as radiation oncology, pathology, and radiology.

Medical students identified the need for easily accessible and up-to-date learning resources for ENT oncology. They emphasized the importance of accessing textbooks, journals, online databases, and educational websites focusing on ENT oncology to enhance their knowledge and understanding of the specialty.

Participants expressed the desire for mentorship and guidance from experienced faculty members or practicing physicians in the field of ENT oncology. They believed having mentors who could provide guidance, share their expertise, and offer career advice would significantly enhance their learning experience.

These findings highlighted medical students’ specific challenges in understanding and managing oncological conditions within the ENT specialty. The results underscore the importance of developing a comprehensive undergraduate oncology training program that addresses these perceptions and curriculum needs. By integrating the suggested strategies, such as increasing clinical exposure, incorporating multidisciplinary approaches, and providing access to relevant learning resources, educational institutions could enhance the preparedness of medical students to manage ENT oncology.

**Discussion**

This qualitative study, conducted among medical students at the University of Bisha, examines their perceptions and curriculum needs in oncology within the ENT specialty. The findings would improve the curriculum and educational interventions in ENT oncology, enabling better preparation of medical students for managing oncological conditions. Ultimately, this study would help enhance patient care and outcomes in ENT oncology through improved education and training of future healthcare providers. The study provided valuable insights into the importance of developing an undergraduate training program focused on oncology within the ENT specialty. In the following discussion, the implications of the study’s findings, the significance of undergraduate oncology training, and recommendations for curriculum development were explored.
The findings of this qualitative study align with previous research highlighting the need for comprehensive oncology training in undergraduate medical education. It was evident that medical students in the ENT specialty expressed limited exposure to oncology during their undergraduate education, specifically in ENT oncology [10-12]. This lack of disclosure might result in a gap in knowledge and understanding of the unique challenges of managing oncological conditions in the head and neck region.

Incorporating dedicated oncology training modules or rotations specific to the ENT specialty in the undergraduate curriculum can help bridge this gap. This aligns with previous research emphasizing the importance of integrating specialized training experiences to equip medical students with the necessary skills and knowledge to provide quality care in oncology [13-15]. By providing opportunities for students to directly engage with patients and learn from experienced ENT oncology professionals, they can develop a comprehensive understanding of the specialty and gain practical skills in managing oncological conditions.

The study also highlighted the significance of a multidisciplinary approach in undergraduate oncology training. Collaboration with other specialties involved in ENT malignancies, such as radiation oncology and pathology, is crucial for a holistic understanding of patient management [16-18]. Incorporating joint sessions and interdisciplinary case discussions can enhance students’ understanding of the collaborative nature of ENT oncology care and promote effective teamwork.

Access to relevant learning resources specific to ENT oncology emerged as another key finding. Medical students expressed the need for easily accessible and up-to-date resources such as textbooks, journals, and online databases. This aligns with previous research emphasizing the importance of providing students with comprehensive and evidence-based resources to support their learning in oncology [19,20]. Access to such resources can enhance students’ knowledge base, keep them updated with advancements in the field, and promote lifelong learning.

Students found it helpful to have experienced ENT oncology professionals mentors who guide them in their career development. Establishing mentorship programs where students can connect with experts in the field can provide guidance, support, and opportunities for career growth [21-23]. Mentors can offer insights into the specialty, advice on research opportunities, and serve as role models for aspiring ENT oncologists.

To implement effective undergraduate oncology training in the ENT specialty, curriculum developers should consider integrating dedicated modules incorporating didactic and clinical learning experiences. This includes case-based discussions, hands-on training, and exposure to real-life clinical scenarios [24,25]. Also, teaching should consist of working with people in similar fields, accessing valuable resources, and having mentors.

It is essential to acknowledge the limitations of this study. The findings are based on the perceptions and experiences of medical students from a specific institution, and therefore, generalizability to other medical schools might be limited. Future research should aim to include participants from diverse educational contexts to obtain a more comprehensive understanding of the perceptions and curriculum needs of medical students in oncology within the ENT specialty.

These results are specific to the context of the University of Bisha and might not be generalized to other medical schools or settings. Further research is needed to explore medical students’ perceptions and curriculum needs in ENT oncology in different educational contexts.

The implications of these findings can guide curriculum developers, educators, and policymakers in designing and implementing effective undergraduate oncology training programs within the ENT specialty. By addressing the identified needs and incorporating medical students’ perspectives, educational institutions can ensure that future physicians are well-prepared to provide comprehensive care to patients with ENT malignancies.

Conclusion

The study highlighted the importance of developing an undergraduate oncology training program within the ENT specialty. By addressing the identified gaps and incorporating the recommendations for curriculum development, medical schools can ensure that their students receive comprehensive education and training in managing oncological conditions in the head and neck region. This would ultimately contribute to improving patient care and outcomes in ENT oncology.

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List of Abbreviations

ENT Ear, nose, and throat.

Conflict of interest

The authors declare that there is no conflict of interest regarding the publication of this article.

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Consent to participate
Written informed consent was obtained from all the participants.

Ethical approval
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Author details
Mohammed Alqarny
Otolaryngology Head and Neck Surgery, Department of Surgery, College of Medicine, University of Bisha, Bisha, Saudi Arabia

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