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TEACHING THE SCIENCE OF ANATOMY TO THE STUDENTS OF THE FACULTY OF STOMATOLOGY

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Abstract

Teaching the science of anatomy to students in the Faculty of Stomatology involves conveying complex anatomical knowledge in a structured and engaging manner. Stomatology, or oral medicine, is a specialized field within medicine that focuses on the diagnosis, prevention, and treatment of diseases and disorders of the mouth and related structures. Understanding the intricate anatomy of the oral cavity, head, and neck is fundamental for stomatology students to excel in their field. An effective approach to teaching anatomy to stomatology students begins with establishing a strong foundation of basic anatomical concepts. This includes the study of bones, muscles, nerves, blood vessels, and organs relevant to the head and neck region. Emphasizing the clinical relevance of anatomical structures is crucial, as students need to understand how these structures relate to dental procedures, oral diseases, and patient care. Interactive teaching methods can enhance students' understanding and retention of anatomical knowledge. Utilizing multimedia resources such as anatomical models, diagrams, videos, and virtual dissections can provide students with visual aids to complement their learning. Hands-on activities such as cadaveric dissections, dental anatomy labs, and interactive quizzes can further reinforce learning and promote critical thinking skills.

Keywords: anatomy, dentistry, oral surgery, learning, promote critical thinking skills.

Introduction

Human anatomy is a key core subject that students must learn when entering medicine (Korf et al., 2008), and dental students also recognize the importance of studying anatomy (Hassan et al., 2018). It is important to develop robust and up-to-date teaching methods in undergraduate dental programs to facilitate effective anatomy learning experiences (McHanwell, 2015; Field et al., 2017).

Materials and methods

In the process writing this article used scientific research methods such as comparative analysis, analysis of existing scientific literature, forecasting, statistical analysis, mathematical analyzes and others.

Results and Discussion

"Human anatomy", which occupies the most important place among the subjects taught at the medical university, has multifaceted tasks, the solution of which is carried out in two

main forms of educational work in connection with the university: lectures and practical training lessons. And this requires equipping with various necessary weapons. University forms of work on human anatomy have their own characteristics, each of them performs its own tasks.[1] It defines the specific functions of educational tools and their focus on the development of clinical skills of future doctors. Methodological functions of textbooks, which are components of the system, are primarily related to the specific characteristics of teaching human anatomy at a medical university, as well as the real conditions in which the educational process is carried out. [2]

Anatomy has traditionally been considered a labor-intensive subject, with an emphasis on memorization. However, the teaching of anatomy is undergoing an evolutionary change with the adoption of modern approaches and effective teaching and learning strategies. The methodology of teaching anatomy, like other medical courses, has a great impact on the student's mastery of the educational material. New teaching methods in the basic sciences, especially those with clear clinical relevance, increase students' enthusiasm for learning. The study of human anatomy is a necessity for medical students to differentiate between physiological and pathological conditions in humans. At the same time, anatomist teachers face problems such as the gradual limitation of time allocated to human anatomy lessons and the lack of anatomical training. Studying anatomy is based on high imagination and strong memory because there is a lot of information to remember. Low motivation of students, inability to remember and understand the learned material, and inability to apply the learned subjects in practice.

There is much debate about the appropriate ways to represent anatomical knowledge. Competent clinicians, especially surgeons, require a thorough understanding of anatomy to perform operations and other therapeutic or diagnostic procedures. However, because students have very limited time to study anatomy during clinical training, it is not unreasonable for medical students to be poorly prepared when entering the workforce. Thus, the development of effective anatomy teaching methods is of great importance for safe medical practice.

Teaching based on the breakdown of the human body has survived as a primary teaching tool for hundreds of years, but there are differing opinions as to whether it is suitable for training modern students. Curriculum time constraints have led many medical schools to abandon expensive and time-consuming dissection-based classes in favor of alternative teaching methods, including "living anatomy" and multimedia resources. To date, not a single textbook has been found that meets the curriculum requirements. The best way to teach modern anatomy is to combine multiple learning resources. Students learn more effectively when multimodal and systematic approaches are combined.[3] [4]

The role of anatomy in dentistry

Dentistry is a surgical discipline, and prospective practitioners require a foundation in the relevant anatomical disciplines. Dental gross anatomy courses inevitably focus on head and neck anatomy, but some thoracic and abdominal anatomy is also necessary. A foundation in histology provides the necessary access to specialized dental tissues. Likewise, an introductory embryology course provides a foundation for a detailed study of head and neck development. Neuroanatomy is required to understand pain and jaw movements, other somatic sensations, central connections of the cranial nerves, and the brain's relationship to the exterior of the skull. Anatomical subjects are traditionally introduced early in dental curricula; clear linkages with other clinical courses require much stronger vertical integration

and the need to revise basic anatomy of clinical relevance. When anatomy is first taught, clinical examples emphasize the importance of these subjects and make learning relevant.[5]

Knowledge of human anatomy is an important scientific basis for every dentist, and the adequacy of the provision by anatomy faculties is constantly adapted. Students' motivation to acquire knowledge is essential and has been shown to increase if the relevance of the topic is clear. [6, 13, 14]

Courses taught in anatomy face a unique challenge because they are always the foundation course for medical/dentistry and health science-related fields. Increasing class sizes and declining student interest in classroom learning have made teaching and learning more challenging. In recent years, many reports have shown the low level of anatomy knowledge among medical/dental graduates. Such a deficiency undoubtedly affects safe medical practice, as medicolegal claims for surgical malpractice continue to rise. The analysis of the pupil is an important step in the determination. The latter includes gender differences, background information, and prior anatomy knowledge. This research provides guidance on creating learning objectives and selecting appropriate strategies to achieve those objectives. The results of this study provide useful information for selecting effective anatomy teaching methods and creating educational strategies.[7]

From the sixteenth century onwards, formal lectures and dissection became a central part of any anatomy course. However, despite being criticized and described as an outdated form of teaching, other studies have shown that students still prefer traditional methods such as debriefing, prosection and lecture over online resources.

In order to ensure the effectiveness of teaching anatomy, the teacher must not only adapt to the changes taking place in higher education, such as the transition from the traditional role of the teacher, learning styles and innovative learning models. should have been aware of the changes. It is important to consider student perceptions and learning expectations before and during the course because, unfortunately, student ideas are often collected and described at the end of the academic year.

The literature shows a paucity of studies on anatomy programs using alternative teaching methods. In addition, debate continues over the most effective way to teach anatomy.[8]

Anatomy and dentistry

Anatomy is the foundation of pre-clinical dental education and is therefore a core competency for any dentist. A thorough understanding of anatomy, particularly head and neck anatomy, is an important foundation for dental students to perform surgical and anesthetic procedures and examine patients (Guttmann et al., 2003). Despite the existence of German specialist dental titles such as "oral surgeon" or "orthodontist", dentists in Germany are trained and state-registered to practice all aspects of dental, oral and maxillofacial surgery. have the right to diagnose and treat their diseases (ZHG, 2020) [9, 10, 11]. This fact means not only the right to cover the entire spectrum of dentistry without additional specialization, but also the obligation to use emergency procedures and responsibility for missed diagnoses. The undeniable connections between dentistry and general medicine make the need for a comprehensive review of human anatomy unquestionable (Alpert, 2017, Hartnett, 2015, Sanz and Kornman, 2013) and the problems of their discipline to specialists. requires dentists who can deliver. Therefore, anatomical faculties are responsible for creating a solid foundation for clinical sciences to train competent dentists. According to the data, the question of whether or not dental students are able to differentiate what is relevant to clinical practice remains

unanswered. Research examines dental students' perceptions of the relevance of the anatomy curriculum, specifically to clinical practice, anatomical regions, and dissection courses, along with the perceptions of surgical dentists.[6]

Oral surgeons

A reference group of oral surgeons (OJ) is better placed than general dentists to assess the relevance of anatomical training, as they perform more invasive procedures in their daily practice. The field of "Oral Surgery" includes all oral surgical medical sciences of the teeth, mouth and jaws in the context of oral medicine and general medicine. In order to obtain the legal title of "oral surgeon" in Germany, a dentist must first have one year of experience as a general dentist, followed by three years of training in officially recognized specialized practices or clinics, of which at least one year must be spent in the field. should be transferred. To complete the specialization with a final oral exam, one must demonstrate professional competence by submitting a catalog of self-performed procedures and a list of theoretical training courses attended (Bundeszahnärztekammer, 2016). [6]

Conclusion

The best way to teach modern anatomy to dental students is to combine many resources, some complementing others. Systematic approach promotes long-term retention of acquired knowledge, reduces the need for constant repetition and determines the connection with real clinical situations, which increases the motivation of students. It should be noted that motivation plays a huge role: it has been proven that motivated people remember the necessary information better. This allows students to more easily retain factual information and relate anatomical knowledge directly to clinical practice.[4]

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