



Addressing Gender Imbalance and Fostering Interest in Urology: Integrating Simulations and AI in a Saudi Arabian Medical School

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Urology focuses on diagnosing and treating conditions related to the urinary system and male reproductive organs. In the past, urology has been seen as male-oriented, resulting in female medical students choosing other careers. To address this issue and foster early interest in urology during training, it is crucial to integrate state-of-the-art technologies such as simulations and artificial intelligence into rotations at Saudi Arabian medical schools. Incorporating simulations and AI in education can enhance the learning experience, making it more inclusive and engaging for all students. These tools provide immersive experiences and hands-on learning methods, breaking down barriers and encouraging participation. AI algorithms also facilitate real-time feedback, boosting confidence and competence among students. By embracing these advancements, medical students may become more involved in urology, contributing diverse perspectives and talents to the field [1,2].

Choosing a specialty can be a process for female students, especially in male-dominated fields such as urology. To address this gender imbalance, Alfaisal University in Saudi Arabia has implemented strategies. These include introducing urology in the curriculum and incorporating relevant topics during clinical years. The university also utilizes simulation technology and AI to create patient scenarios for students to diagnose and treat urological conditions. They have established a simulation center equipped with cutting-edge technologies and AI-driven platforms for

hands-on experience. Mandatory rotations in urology during the clerkship phase provide opportunities for student observation and engagement in procedures and patient care. These initiatives aim to dispel misconceptions and attract a range of students, including females [3]. To further support student interest in urology, an Urology Interest Group has been established at the university. This group organizes events and workshops for students, including sessions where experts present cases and discuss research advancements. They also host a monthly journal club focused on enhancing appraisal skills and research abilities among members. The interest group acts as a connection point for collaboration opportunities with international hospitals' urology departments. This enables partnerships between schools and local urology departments, offering medical students simulation-aided training and access to mentorship from professionals [1].

Attracting more women doctors to the field of urology in Saudi Arabia can be challenging. Strategies to consider include raising awareness about the advantages of a career in urology for women and emphasizing their role in the field through targeted marketing campaigns and outreach efforts to students and residents. Furthermore, providing mentorship and support for women doctors can contribute to their retention and encourage others to join the field. Establishing mentorship programs and organizing networking events can be vital, along with offering development opportunities and creating a supportive work environment.

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Addressing gender bias and discrimination is another crucial strategy [3]. Implementing policies and procedures, providing training on gender equity and inclusivity, and offering flexible work options that support family needs can help attract and retain doctors in urology. The overall approach should acknowledge and address the unique challenges that women may face. By implementing these strategies, an inclusive workforce can be created in urology that benefits patients and the healthcare system.

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