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ORIGINAL ARTICLE

Trends that influence pursuing emergency medicine as a career path among Saudi medical graduates in view of Vision 2030

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ABSTRACT

Background: The pursuit of emergency medicine (EM) as a career path among Saudi medical graduates is influenced by various factors and trends, especially considering of the Vision 2030 initiative. Students' attitudes and preferences toward medical specialties play a vital role in aligning medical education with workforce requirements and enhancing patient care. This study aims to explore these influences to better understand the motivations and preferences shaping medical students' decisions.

Methods: This cross-sectional study was conducted in Saudi Arabia between April and June 2023, targeting sixth year and internship medical students. A structured questionnaire captured demographic data, and perceptions of factors impacting EM career choice.

Results: Out of 764 participants, 44.4% expressed an interest in pursuing EM as a career. Exposure to EM courses, especially when presented by EM physicians, and participation in EM elective training positively influenced career choice. Having relatives specialized in EM, awareness of healthcare transformation programs, and alignment with Vision 2030 were also factors impacting decision-making. Participants valued acceptable working hours and flexibility as key influencers, highlighting the significance of work-life balance considerations.

Conclusion: The study illuminates the trends shaping Saudi medical graduates' pursuit of EM careers, emphasizing the pivotal roles of exposure to EM during medical school training, mentorship, flexibility in work, and alignment with national initiatives. By addressing these factors, healthcare systems can effectively cultivate a skilled workforce prepared to meet the dynamic demands of emergency care and contribute to achieving the goals of Vision 2030.

Keywords: Emergency medicine, medical graduates, future career, vision 2030, Saudi Arabia.

Introduction

Emergency medicine (EM) is a rapidly evolving field, recognized by residency programs in over 80 countries to meet the healthcare needs of populations globally [1]. Emergency conditions contribute significantly to global mortality (90%) and disability-adjusted life years (84%) [2]. With population growth, there is a growing demand for hospitals, particularly emergency departments [3].

In 2016 Saudi Arabian government, launched Vision 2030 which is a comprehensive and ambitious strategic plan that outlines the long-term goals and aspirations of Saudi Arabia to transform various sectors of the country by the year 2030 [4]. The vision aims to diversify the economy and enhance the overall quality of life for Saudi citizens. A significant part of vision 2030 is directed toward healthcare transformation. In alignment with Saudi vision 2030 and the Saudi national transformation program 2030, efforts are being made to enhance access

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to healthcare services and improve their quality and effectiveness. Strengthening the healthcare system involves ensuring an adequate number of healthcare professionals are involved with sufficient recruitment and training of new personnel to deliver valuable and high-quality services [4]. After the recognition of EM as a distinct specialty in Saudi Arabia in the early 2000s, the growth of EM training programs has shown a rapid expansion. Currently, the Saudi Board of EM regulates and accredits EM residency programs across more than 22 training centers in the kingdom [3].

Students' attitudes and preferences toward medical specialties play a vital role in aligning medical education with workforce requirements and enhancing patient care [5]. The process of selecting a medical specialty is complex [6]. Various factors influence specialty selection, including lifestyle associated with the specialty, exposure to role models, income associated with the specialty, duration of residency training, scope of practice, and patient population [7].

Numerous global studies have attempted to identify factors that influence medical students' specialty choices. A Canadian study highlighted lifestyle and the diverse scope of practice as significant factors in choosing EM. Limited research has focused on factors influencing specialty selection among Saudi Arabian medical students, particularly those interested in pursuing a career in EM. A study conducted at King Saud University in Riyadh found that only 7% of students chose EM as their first specialty choice, with hospital orientation and medical lifestyle being the most influential factors [8].

The objective of this study was to assess the prevalence of students interested in EM as their primary specialty choice and to identify the factors that influence medical students in Saudi Arabia in choosing EM as a future career in the context of Vision 2030.

Methods

This observational cross-sectional study was conducted in the Kingdom of Saudi Arabia between April and June 2023. The study included adult medical students in their sixth year and internship years from all regions of Saudi Arabia. Non-medical students and those in the first to fifth academic years were excluded from the analyses.

A structured self-administered questionnaire consisting of two sections was used for data collection. The first section captured information about participants' demographic characteristics, academic year, exposure to EM courses or training, presence of relatives with EM specialty, and knowledge and perception about the healthcare transformation program and Vision 2030. The second section comprised 20 Likert scale questions to assess participants' perception of factors and challenges influencing their choice of EM as a future career. Each question had five response options scored from 1 to 5, with 1 indicating no influence and 5 indicating major influence. The total perception score ranged from 20 to 100. Regarding the validity and reliability of our questionnaire, it was first validated using face (content) validity, hence, three experts in the fields of EM and epidemiology have assessed the content carefully in order to meet the aim and objectives of our study and to assess the logical sequence of the questions. After content correction, a pilot study was conducted to test the reliability of the questionnaire, it included a total of 40 participants from different medical schools in Saudi Arabia. Their feedback was taken carefully and then all the pilot responses were excluded from the final study results.

The collected data were analyzed using statistical package for social sciences software version 26. Descriptive statistics, including numbers and percentages, were used to present qualitative data and the relationship between variables were assessed using the chi-squared test (χ^2). Quantitative data were presented as mean, and standard deviation (Mean ± SD), and non-parametric variables were analyzed using the Mann-Whitney and Kruskal-Wallis tests. Correlation analysis was performed using Spearman's test, and a *p*-value of less than 0.05 was considered statistically significant.

The study received ethical approval from the Institutional Review Board (IRB) of King Fahad Armed Forces Hospital in Jeddah, Saudi Arabia. All participants provided informed consent and were informed about the purpose of the study.

Results

A total of 674 respondents were included in the analyses. Table 1 provides an overview of the demographic characteristics and academic year of the participants. The mean age of the participants was 24.21 ± 1.13 years, with a slight majority of females (52.5%). Among the participants, 25.7% were residents of the Western region of Saudi Arabia of, 71.9% were medical students in their last year (sixth year), and 28.1% were medical interns.

Figure 1 displays the percentage distribution of participants based on their interest in the EM specialty. Out of the 764 participants, 44.4% (339 individuals) expressed an interest in pursuing a career in EM.

Table 2 provides information on the participants' involvement in EM courses, training, and their perception of the healthcare transformation program and Vision 2030.

Table 1. *Distribution of studied participants according to their demographic characters and academic year (N:764).*

Variable	Frequency (%)
Age (years)	24.21 ± 1.13
Gender	
Female	401 (52.5)
Male	363 (47.5)
Region	
Central region (Riyadh, Al-Qassim)	144 (18.8)
Eastern region	81 (10.6)
Northern region (Hail, Al-Jouf, Tabuk, Northern borders)	162 (21.2)
Southern region (Jazan, Asir, Albaha)	181 (23.7)
Western region (Makkah, Jeddah, Al-adina)	196 (25.7)
Are you a medical student in the last year or a medical intern in Saudi Arabia?	
Yes, last year medical student (sixth year)	549 (71.9)
Yes, a medical intern	215 (28.1)

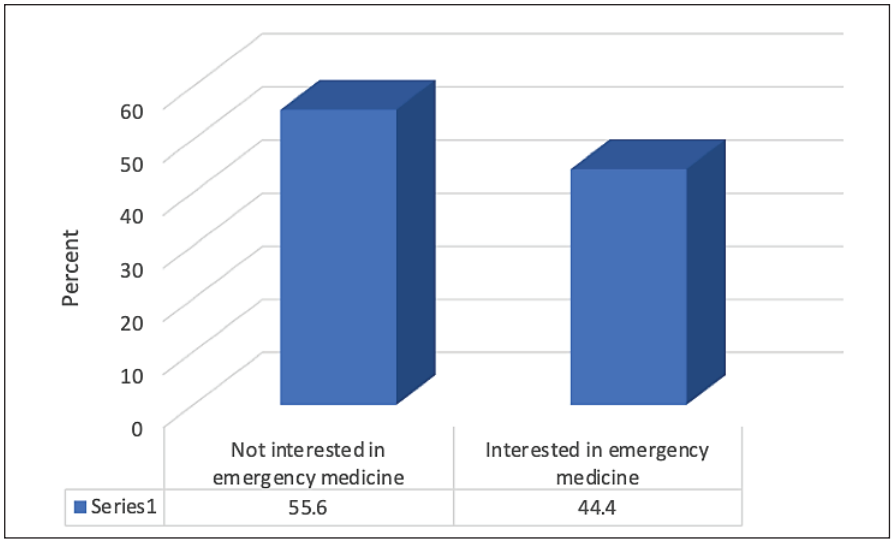

Figure 1. *Percentage distribution of studied participants according to their interest in EM specialty (N:764).*

Table 2. *Distribution of studied participants according to receiving EM courses and training, having relatives with EM specialty, and knowledge and perception about healthcare transformation program and vision 2030 (N:764).*

Variable	Frequency (%)
Do you have an EM course/rotation in your curriculum? No Yes	 129 (16.9) 635 (83.1)
Are the lectures in this course presented by an EM physician? (*N*:635) I don't know No Yes	 38 (5.9) 178 (28) 419 (60.2)
Did this EM course/rotation reflect positively on your choice of EM as a future career? (*N*:635) No Yes	 305 (48) 330 (52)
Did you have an EM elective (summer training)? No Yes	 497 (65.1) 267 (34.9)
Did this elective/training reflect positively on your choice of EM as a future career? (*N*:267) No Yes	 56 (20.9) 211 (79.1)
Do you have first-degree relatives/close family friends who are physicians? No Yes	 457 (59.8) 307 (40.2)
Regarding the previous question, what is their specialty? (N:307) EM Another specialty	 42 (13.6) 265 (86.4)
Are you aware of the healthcare transformation program and Vision 2030? No Yes	 258 (33.8) 506 (66.2)
Can Vision 2030 affect your decision-making when choosing a medical specialty? No Yes	 165 (21.6) 599 (78.4)

The majority of participants (83.1%) reported having EM courses or rotations in their curriculum. Among those, 60.2% stated that the courses were presented by an EM physician, and 52% believed that these courses had a positive impact on their decision to pursue EM as a future career. Additionally, 34% of participants had undergone an EM elective (summer training), with 79.1% of them reporting that this training had a positive influence on their choice of EM as a future career. Furthermore, 40.2% of the participants had first-degree relatives or close family friends who were physicians, with 13.6% of them specializing in EM. The majority of participants (66.2%) were aware of the healthcare transformation program and Vision 2030, and 78.4% believed that Vision 2030 could influence their decision-making when choosing a medical specialty.

Table 3 presents the participants' responses regarding their perception of factors and challenges influencing their choice of EM as a future career. The table shows the mean perception score for each statement, ranging from "No influence" to "Major influence." The statement with the highest mean perception score and the greatest influence was "My chosen career will have acceptable hours of practice." This was followed by the statement, " My chosen career will provide me flexibility in what I wish to do in medicine." On the other hand, the statement with the lowest mean perception score and the least influence was "I met (a) physician(s) before coming to medical school whom I wish to emulate, and as such, I have chosen to follow them in their career(s)."

Table 4 explores the relationship between participants' interest in the EM specialty and their demographic characteristics and academic year. The analysis revealed a non-significant relationship between participants' interest in the EM specialty and their age, gender, region, or medical status.

The subsequent analysis in Table 5 investigates the relationship between participants' interest in the EM specialty and their involvement in EM courses, and training, the presence of relatives with the EM specialty, and their knowledge and perception of the healthcare transformation program and Vision 2030. The results indicate that participants interested in the EM specialty

Table 3. *Participants' perception of factors and challenges influencing medical students to choose EM as a future career (N:764).*

Variable	No influence *N* (%)	Little influence *N* (%)	Moderate influence *N* (%)	Considerable influence *N* (%)	Major influence *N* (%)	Mean ± SD
A wide variety of patient problems encompassing a wide range of age groups is interesting to me.	91 (11.9)	63 (8.2)	238 (31.2)	149 (19.5)	223 (29.2)	3.46 ± 1.3
Supervisors/tutors/lecturers have told me my career choice matches my skill set/ intelligence.	126 (16.5)	100 (13.1)	248 (32.5)	144 (18.8)	146 (19.1)	3.11 ± 1.31
My career choice will allow me to work with a patient population that is interesting/ stimulating.	50 (6.5)	63 (8.2)	217 (28.4)	203 (26.6)	231 (30.2)	3.66 ± 1.17
My chosen career will allow me to focus on in-hospital care.	56 (7.3)	53 (6.9)	239 (31.3)	214 (28)	202 (26.4)	3.59 ± 1.16
My chosen career will allow me to focus on urgent care.	100 (13.1)	87 (11.4)	206 (27)	158 (20.7)	213 (27.9)	3.39 ± 1.34
I prefer to see the immediate results of my therapeutic interventions, and my chosen career will allow me to experience this.	79 (10.3)	85 (11.1)	205 (26.8)	157 (20.5)	238 (31.2)	3.51 ± 1.31
I would sooner deal with medical problems than social or psychological problems, and my chosen career will allow me to do this.	93 (12.2)	78 (10.2)	216 (28.3)	170 (22.3)	207 (27.1)	3.42 ± 1.31
I met (a) physician(s) prior to coming to medical school whom I wish to emulate, and as such, I have chosen to follow them in their career(s).	237 (31)	74 (9.7)	200 (26.2)	134 (17.5)	119 (15.6)	2.77 ± 1.44
I have a research interest, and I will be able to do research as part of my chosen career.	122 (16)	91 (11.9)	220 (28.8)	153 (20)	178 (23.3)	3.23 ± 1.35
Supervisors/tutors/lecturers have told me my career choice will have a more stable/ secure future than other career choices.	118 (15.4)	88 (11.5)	257 (33.6)	155 (20.3)	146 (19.1)	3.16 ± 1.29
I am interested in promoting health, and my chosen career will allow me to do this.	66 (8.6)	77 (10.1)	217 (28.4)	179 (23.4)	225 (29.5)	3.55 ± 1.24
My chosen career will have acceptable hours of practice.	41 (5.4)	55 (7.2)	218 (28.5)	174 (22.8)	276 (36.1)	3.77 ± 1.16
My chosen career will provide me flexibility in what I wish to do in medicine	45 (5.9)	60 (7.9)	199 (26)	199 (26)	261 (34.2)	3.75 ± 1.17
My chosen career will provide me flexibility in my ability to do other non-medical things.	47 (6.2)	71 (9.31)	207 (27.1)	182 (23.8)	257 (33.6)	3.7 ± 1.2
My chosen career will allow me to keep my options open.	45 (5.9)	52 (6.8)	223 (29.2)	208 (27.2)	236 (30.9)	3.7 ± 1.14
Meaningful experiences with a physician in the past (positive and/or negative) lead me to my current career choice.	112 (14.7)	80 (10.5)	204 (26.7)	192 (25.1)	176 (23	3.31 ± 1.32
An expected short postgraduate training period led me to my current career choice.	132 (17.3)	81 (10.6)	204 (26.7)	162 (21.2)	185 (24.2)	3.24 ± 1.38
An expected less intense residency (not necessarily shorter) led me to my current career choice.	30 (17)	71 (9.3)	237 (31)	148 (19.4)	178 (23.3)	3.23 ± 1.36
Experiences or interactions with role models or mentors before medical school led me to my current career choice.	154 (20.2)	81 (10.6)	215 (28.1)	158 (20.7)	156 (20.4)	3.11 ± 1.38
When in practice, I want to spend appropriate time with my family, which has led me to my current career choice.	55 (7.2)	66 (8.6)	212 (27.7)	162 (21.2)	269 (35.2)	3.69 ± 1.23

had a significantly higher percentage of those who had EM courses or rotations in their curriculum and reported that these courses positively influenced their choice of EM as a future career. Similarly, participants interested in the EM specialty had a significantly higher percentage of those who had undergone EM elective (summer training) and believed that this training positively affected their decision to pursue EM as a future career. Furthermore, participants interested in the EM specialty had a higher percentage of those who had first-degree relatives or close family friends working as EM physicians and a higher percentage of those who thought that the healthcare transformation program and Vision 2030 influenced their decision-making when choosing a medical specialty.

Figure 2 presents the results of the correlation analysis between the total perception score and participants' age. The analysis revealed a significant positive correlation

Table 4. *Relationship between participants' interest in EM specialty and their demographic characters and academic year (N:764).*

Variable	Interested in EM specialty		χ^2	*p*-value
	No *N* (%)	Yes *N* (%)		
Age (Mean ± SD)	24.24 ± 1.13	24.17 ± 1.14	0.61*	0.54
Gender Female Male	 224 (52.7) 201 (47.3)	 177 (52.2) 162 (47.8)	0.01	0.892
Region Central Region Eastern Region Northern region Southern region Western Region	 70 (16.5) 42 (9.9) 91 (21.4) 113 (26.6) 109 (25.6)	 74 (21.8) 39 (11.5) 71 (20.9) 68 (20.1) 87 (25.7)	6.75	0.15
Are you a medical student in the last year OR a medical intern in Saudi Arabia? Yes, last year medical student (sixth year) Yes, a medical intern	 300 (70.6) 125 (29.4)	 249 (73.5) 90 (26.5)	0.76	0.382

*Mann Whitney test.

Table 5. *Relationship between participants' interest in EM specialty and receiving EM courses and training, having relatives with EM specialty and knowledge and perception about healthcare transformation program and vision 2030 (N:764).*

Variable	Interested in EM specialty		χ^2	*p*-value
	No *N* (%)	Yes *N* (%)		
Do you have an EM course/rotation in your curriculum? No Yes	 75 (17.6) 350 (82.4)	 54 (15.9) 285 (84.1)	0.39	0.529
Are the lectures in this course presented by an EM physician? (*N*:635) I don't know No Yes	 24 (5.6) 115 (27.1) 210 (49.4)	 14 (4.1) 63 (18.6) 209 (61.7)	12.4	**0.006**
Did this EM course/rotation reflect positively on your choice of EM as a future career? (*N*:635) No Yes	 234 (55.1) 115 (27.1)	 71 (0.9) 215 (63.4)	13.27	**<0.001**
Did you have an EM elective (summer training)? No Yes	 351 (82.6) 74 (17.4)	 146 (43.1) 193 (56.9)	19.2	**<0.001**
Did this elective/training reflect positively on your choice of EM as a future career? (*N*: 267) No Yes	 44 (10.4) 30 (7.1)	 12 (3.5) 181 (53.4)	23.4	**<0.001**
Do you have first-degree relatives/close family friends who are physicians? No Yes	 262 (61.6) 163 (38.4)	 195 (57.5) 144 (42.5)	1.33	0.248
Regarding the previous question, what is their specialty? (*N*: 307) EM Another specialty	 14 (3.3) 149 (35.1)	 28 (8.3) 116 (34.2)	9.03	**0.011**
Are you aware of the healthcare transformation program and Vision 2030? No Yes	 142 (33.4) 283 (66.6)	 116 (34.2) 223 (65.8)	0.05	0.815
Can Vision 2030 affect your decision-making when choosing a medical specialty? No Yes	 101 (23.8) 324 (76.2)	 64 (18.9) 275 (81.1)	2.65	**0.103**

*Significant *p* values < 0.05 have been written in bold.

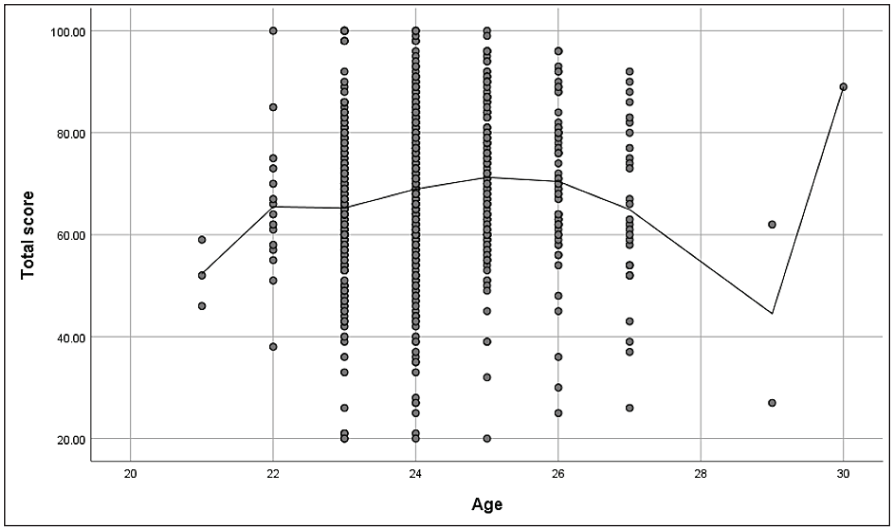

Figure 2. *Spearman's correlation analysis between the total perception score and participants' age (r = 0.128, p-value = <0.001).*

Table 6. *Relationship between the total perception score about EM specialty and participants' demographics, academic year (N:764).*

Variable	Mean ± SD	Test	*p*-value
Gender Female Male	68.48 ± 15.16 68.17 ± 15.07	0.2*	0.84
Region Central Region Eastern Region Northern region Southern region Western Region	67.94 ± 14.21 66.97 ± 17.62 71.54 ± 15.67 69.86 ± 15.32 65.13 ± 13.29	4**	**0.001**
Are you a medical student in the last year OR a medical intern in Saudi Arabia? Yes, last year medical student (sixth year) Yes, a medical intern	66.7 ± 14.98 72.58 ± 14.6	5.08*	**<0.001**

*Mann Whitney test.

**Kruskal–Wallis test.

($r = 0.128$, p-value < 0.001) between the total perception score and participants' age, indicating that as age increased, the perception of factors and challenges influencing the choice of EM as a future career also increased.

Table 6 examines the relationship between the total perception score regarding factors and challenges influencing the choice of EM as a future career and participants' demographics and academic year. The analysis found that the total perception score was significantly higher among participants from the Northern region of Saudi Arabia and medical interns compared to other regions and medical students.

Lastly, table 7 explores the relationship between the total perception score and participants' involvement in EM courses, training, presence of relatives with EM specialty, and their knowledge and perception of the healthcare transformation program and Vision 2030. The analysis revealed that participants who had EM courses or rotations not presented by an EM physician reported a positive impact of these courses on their choice of EM as a specialty, had EM elective (summer training), and reported its positive effect on their choice of EM as a future career, had first-degree relatives or close family friends who were physicians, especially in the field of EM, were aware of the healthcare transformation program and Vision 2030, and reported the influence of this vision on their decision-making when choosing a medical specialty, had a significantly higher total perception score regarding factors and challenges influencing the choice of EM as a future career.

Overall, these findings provide valuable insights into the factors and challenges influencing medical students' interest in pursuing EM as a future career, as well as the influence of various educational and contextual factors on their perceptions and decisions.

Discussion

This study aimed to examine the trends that influence Saudi medical graduates' pursuit of EM as a career path in the context of Vision 2030. The findings shed light on the factors that impact medical students' interest in EM, providing valuable insights for medical educators, policymakers, and healthcare organizations.

The process of medical students selecting or rejecting a career in EM is a dynamic interaction of their personal expectations, priorities, and the influences they encounter [9]. As the field of medicine evolves, and EM continues to develop, understanding and addressing these factors becomes crucial in ensuring a well-rounded and informed workforce that aligns with the demands and challenges of EM.

The results of this study revealed that 44.4% of the participants expressed an interest in pursuing a career in EM. This percentage indicates a significant proportion of Saudi medical graduates who see EM as a viable and appealing specialty. This finding aligns with the previous literature and global recognition of the importance of

Table 7. *Relationship between the total perception score about EM specialty and receiving EM courses and training, having relatives with EM specialty and knowledge and perception about healthcare transformation program and vision 2030 (N:764).*

Variable	Mean ± SD	Mann Whitney test	*p*-value
Do you have an EM course/rotation in your curriculum? No Yes	 66.65 ± 17.15 68.68 ± 14.65	0.79	0.429
Are the lectures in this course presented by an EM physician? (No.:635) I don't know No Yes	 64.13 ± 11.59 70.83 ± 13.81 68.16 ± 15.12	9.02*	**0.011**
Did this EM course/rotation reflect positively on your choice of EM as a future career? (No.: 635) No Yes	 66.76 ± 14.68 70.43 ± 14.42	6.96	**0.003**
Did you have an EM elective (summer training)? No Yes	 67.31 ± 14.67 70.23 ± 15.74	2.49	**0.012**
Did this elective/training reflect positively on your choice of EM as a future career? (No.: 267) No Yes	 64.82 ± 16.27 71.67 ± 15.31	3.04	**0.002**
Do you have first-degree relatives/close family friends who are physicians? No Yes	 67.39 ± 14.66 69.74 ± 15.68	1.98	**0.048**
Regarding the previous question, what is their specialty? (No.: 307) EM Another specialty	 76.85 ± 16.22 68.62 ± 15.32	3.08	**0.002**
Are you aware of the healthcare transformation program and Vision 2030? No Yes	 65.99 ± 15.3 69.53 ± 14.88	3.37	**0.001**
Do you think that Vision 2030 can affect your decision-making when you choose the medical specialty? No Yes	 64.41 ± 16.12 69.41 ± 14.65	3.76	**<0.001**

*Significant *p* values < 0.05 have been written in bold.

EM specialty in addressing the healthcare needs of populations worldwide [1,2]. A study in the United States (US) found that EM has been increasingly appealing to medical students. The proportion of students choosing EM as their specialty grew from 3.1% for women and 4.3% for men in 1990 to 6.4% for women and 8.3% for men in 2003 [10]. In Saudi Arabia, during the 2016/2017 academic year, 7% of undergraduate and postgraduate medical students indicated that EM was their preferred specialty [8]. The most recent study showed noteworthy trends toward selecting EM as their specialty among sixth-year students, with the preference rate rising from 15% in 2005 to 29% in 2018 [11].

Numerous studies in medical education have investigated the influence of EM courses or rotations on medical students' career decisions. In a study published in 2020, Cevik et al. [1] conducted a survey prospectively collected before and after the EM clerkship to capture students' perceptions. The results indicated that the clerkship positively influenced students' perceptions and increased their likelihood of considering EM as a career option [1].

In our study, one of the key factors that influenced participants' interest in EM was their exposure to EM courses and training. Most participants reported having EM courses or rotations in their curriculum, and these experiences positively impacted their decision to pursue EM as a future career. This emphasizes the importance of providing comprehensive and engaging EM education during medical school to foster interest and understanding of the specialty. Furthermore, participants who had undergone EM elective (summer training) also reported a positive influence on their choice of EM as a future career. Such hands-on experiences provide valuable insights into the practice of EM and contribute to shaping students' career aspirations.

Although the presence of first-degree relatives or close family friends who were EM physicians had the least influential impact on students interested in an EM career, it is important to note that participants with such connections showed a higher interest in pursuing EM as a career. This finding suggests that role models and mentorship influence specialty choices among medical students. Therefore, efforts should be made to promote

exposure to successful EM professionals as potential role models for aspiring medical students.

The study also highlighted the impact of the healthcare transformation program and Vision 2030 on participants' decision-making when choosing a medical specialty. Most participants were aware of these initiatives, and a significant proportion believed that Vision 2030 could influence their choice of specialty. This finding underscores the importance of aligning medical education and career pathways with national healthcare goals and aspirations. By incorporating the objectives and priorities of Vision 2030 into medical curriculum and training programs, medical schools and healthcare institutions can contribute to developing a skilled workforce that meets the evolving healthcare needs of Saudi Arabia.

Among the factors and challenges identified, the perception of acceptable working hours and flexibility in balancing personal and professional life emerged as crucial influencers in participants' choice of EM as a future career. This finding emphasizes the importance of work-life balance and the desire for a specialty that offers flexibility and allows individuals to pursue interests outside of medicine. Understanding these preferences can guide healthcare organizations in designing policies and practices that support a healthy work environment and enable physicians to maintain a satisfactory work-life balance.

It is worth noting that certain factors, such as encountering a physician as a role model before entering medical school, did not significantly influence participants' decision to pursue EM as their future career. This finding suggests that while individual experiences and personal connections play a role in specialty selection, they may not be the primary determinants. Other factors, such as lifestyle considerations and exposure to educational opportunities, significantly impact shaping career aspirations.

The findings of this study emphasize the importance of targeted educational interventions, exposure to EM experiences, and the incorporation of Vision 2030 objectives in medical education to attract and retain talented individuals in EM. By addressing these factors and challenges, healthcare systems in Saudi Arabia can ensure a robust workforce that meets emergency care demands and contributes to achieving national healthcare goals.

However, it is important to acknowledge some limitations of this study. The cross-sectional design limits our ability to establish causality or capture participant perceptions changes over time. Additionally, the study sample was limited to medical students in their sixth year and internship years, which may only partially represent the broader population of Saudi medical graduates. Future research could consider a longitudinal design and include a larger and more diverse sample to validate and expand on the findings of this study.

In conclusion, this study highlights the factors and challenges that influence Saudi medical graduates' pursuit of EM as a career path in the context of Vision 2030. The findings underscore the significance of exposure to EM education and training, the influence of role models and mentorship, and the alignment of medical education with national healthcare goals. By addressing these factors, healthcare systems can foster a motivated, skilled, and committed workforce to provide high-quality emergency care to meet the evolving healthcare needs of Saudi Arabia.

Funding
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Conflicts of interest
All authors declare no conflicts of interest in this research.

Consent to participate
All participants provided informed consent and were informed about the purpose of the study.

Ethical approval
The study received ethical approval from the IRB of King Fahad Armed Forces Hospital in Jeddah, Saudi Arabia, via reference number REC 564, dated 2/2/2023.

Data and materials availability
All datasets used during this research are available upon reasonable request from the corresponding author.

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