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Exploring motivators and challenges for preceptors to teach in the clinical settings: a survey-based study

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Abstract

Background The retention of qualified faculty in medical colleges is hindered by low salaries and inadequate faculty-to-student ratios, despite intrinsic motivators like job satisfaction playing a critical role in faculty motivation. This study aims to understand and address the specific motivating factors and constraints within Saudi Arabia's medical education sector.

Methodology A cross-sectional, validated online survey was conducted from November 2023 to January 2024 among physicians in Saudi Arabia's governmental and private sectors. Participants ranked teaching motivators and challenges using a Likert scale ranging from 5 (very important) to 1 (not very important). The collected data were analyzed using descriptive statistics and Chi-square test.

Results Of the 145 respondents, 62.1% were male, with a mean age of 38.2 years (SD = 8.9). Saudi nationals comprised 54.5% of the sample. Sharing knowledge (64%) and educating the next generation (63%) were the top motivators. Notably, student preparedness was crucial for 45.5%. In contrast, extrinsic factors like financial gain (20%) and recognition events (9.7%) ranked lowest. The main challenges were heavy clinical workload (31.3%) and lack of time (28%).

Conclusion Preceptors were primarily motivated by intrinsic factors, with student preparedness being the most significant external factor. Time constraints and clinical workload were the major challenges to teaching. These insights can guide strategies to better support clinical educators.

Keywords Exploring, Motivators, Challenges, Preceptors

Background

The landscape of medical education in the Arab world, particularly within the Gulf Cooperation Council (GCC) countries, is currently facing a critical challenge in the retention of highly qualified faculty necessary for training the next generation of medical professionals [1]. This issue is exacerbated by a complex interplay of factors, including an unattractive salary scale for faculty when compared to other medical institutes or private practice opportunities [1]. The Committee of Deans of Medical Colleges in the GCC has set forth a recommended faculty-to-student ratio of 1:7. Despite this, many established medical colleges are struggling with significantly lower ratios [1].

Moreover, intrinsic factors such as a supportive work environment and opportunities for professional development have been shown to significantly influence faculty motivation more than extrinsic rewards such as financial

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compensation [2, 3]. Research indicates that faculty who are intrinsically motivated adopt a more student-centered teaching approach, which is critical for effective medical education [2]. This suggests that efforts to improve faculty retention should focus on enhancing job satisfaction and motivation through proper incentives possibly in the form of stipends [4, 5].

The rapid growth in the number of medical students further compounds these challenges, necessitating innovative solutions to expand clinical training facilities [1]. One such solution is the integration of private sector hospitals and clinics into the training framework, which offers a different set of incentives and barriers compared to traditional academic settings.

The ambulatory care setting presents unique challenges due to its less controlled and more unpredictable environment. This study aims to explore the motivating factors and constraints faced by medical educators in both private and governmental sectors in Saudi Arabia. By understanding the specific drivers and challenges of our preceptors in clinical settings and examining how these factors correlate with demographic characteristics and clinical experience, we can better strategize on recruiting and retaining faculty. This is not only essential for meeting current educational demands but also for ensuring the quality and effectiveness of medical training in the region.

Methodology

Study design, setting and population

This cross-sectional online survey was distributed between November 2023 and January 2024 to physicians from both academic and nonacademic governmental and private sectors in Saudi Arabia. We included medical doctors with different levels of education; residents, specialists and consultants. For those working in academic institutes; demonstrators, assistant professors, associate professors and full professors. Excluded were non-medical teachers and medical teachers who teach other health specialties e.g. nursing, medical technicians and medical sciences.

Data collection and instruments

The data were collected through convenient sampling using an online survey adapted from several validated questionnaires [3, 4, 6, 7] (appendix 1) to identify the motivators and challenges of preceptors to teach in their practice. Experts for the questionnaire validation process were carefully selected based on their experience in judgment and decision-making, their academic and scientific reputation. The online questionnaire was administered through Google Forms, an online survey platform, and distributed randomly among preceptors via social media platforms and email through the registry of physicians within the Saudi Commission for Health Specialties which includes 5000 registered health care providers. The questionnaire comprised 17 questions distributed among three sections; demographics, motivators to teach and challenges to teach. Demographic questions included closed-ended questions with multiple-choice regarding preceptor age, gender, highest level of education, current position, rank, specialty, place of work, nationality, nature of work, clinical experience years and teaching experience years. The motivators section asked the preceptors to rate the importance of 15 different motivators to precept, such as 'opportunity to receive a teaching award' on Likert-scale. Response options were from 1–5 (1 = not very important; 5 = very important). Finally, the challenges section required preceptors to rate the significance of 14 different challenges such as 'heavy clinical workload 'on Likert-scale from 1–5 (1 = not very significant; 5 = very significant).

Data analysis

Statistical analysis was done using IBM SPSS version 28.0. Descriptive statistics were employed to summarize demographic and teaching variables, providing a detailed profile of the study population using frequency and percentage for categorical variables and mean ± SD for numerical variables. In the study, the data were dichotomized based on the computed mean scores of overall motivation and challenges items. A median cutoff of 3.9 and 3.2 was utilized for motivations and challenges, respectively. Participants with mean scores at or above the cutoff were classified as having good motivations, while those below were deemed to have poor motivations. Similarly, for challenges, participants scoring below the cutoff were classified as having weak challenges, while those scoring above were categorized as having strong challenges. Subsequently, chi-square tests were applied to investigate associations between motivations and challenges with different demographics and teaching characteristics.

Ethical approval/consent for publication

This study with the application number (UJ-23-AK-SPE-20) was approved by Bioethics Committee of Scientific and Medical Research at the University of Jeddah, Saudi Arabia (Reference number HPA-02-J-094). Informed consent to participate was obtained from all the participants as their agreement to participate by filling out the survey. The study was conducted in accordance with the Declaration of Helsinki, and the protocol was approved by the Ethics Committee.

Results

Demographics

A total of 145 participants were surveyed. The majority of the participants were male, 62.1% ($N=90$). The mean age of the participants was 38.20 years (SD = 8.9), 54.5% ($N=79$) identified as Saudi. Regarding the province of work, Makkah province had the highest representation with 46.9% ($N=68$) of participants. In terms of education, most participants reported having subspecialty training (fellowship), 40.0% ($N=58$), followed by board certification at 31.0% ($N=45$). Regarding their current positions, consultants represented the largest group at 46.2% ($N=67$), followed by specialists and residents at 26.9% each. Among academic staff, assistant professors constituted the majority at 76.7% ($N=56$), followed by demonstrators at 16.4% ($N=12$), and professors at 6.8% ($N=5$). Ophthalmology was the predominant specialty among participants at 17.7% ($N=25$), followed by pediatrics (10.6%, $N=15$) and general surgery (7.1%, $N=10$) (Table 1).

Clinical teaching experience

Among the participants, 68.3% ($N=99$) reported having a formal medical student teaching program, while 57.2% ($N=83$) indicated having a formal residency training program in place. A majority of the participants, 71.0% ($N=103$), reported engaging in teaching activities for undergraduate or postgraduate students. Among them, 33.1% ($N=48$) reported teaching both groups. Participants predominantly worked in the governmental sector, 58.6% ($N=85$) compared to the private sector, 25.5%($N=37$) or both, 15.9%($N=23$). Regarding clinical experience, a significant proportion of participants reported having 10–14 years of clinical experience (31.0%, $N=45$), while teaching experience varied, with 29.0% ($N=42$) having less than one year of teaching experience and 24.8% ($N=36$) having 1–4 years of experience (Table 2).

Participants' motivations and challenges to teach

Participants reported significantly higher ratings of the following incentives: sharing knowledge and expertise, the opportunity to participate in the education of the next generation of doctors, opportunity to demonstrate the care model to students, opportunity to interact with other educators, a well-prepared student and the opportunity to receive faculty development training. Other motivators such as tuition financial compensation, letter of appreciation, CME credit, and annual recognition lunch/dinner had less degrees of importance among the participants (Fig. 1).

Participant identified challenges to teach in (Fig. 2). The most significant challenges were heavy clinical workload, lack of time and insufficient support and resource for teaching. Other potential Challenges were limited space to accommodate trainees, teaching was against practice policy and patients do not want to see students. The least significant challenges were the lack of trainees

Table 1 Demographic characteristics of the study participants

Variable	Options	N	%
Gender	Male	90	62.1%
	Female	55	37.9%
Age	○ Mean ± SD ○ Range	38.20 ± 8.9 (22 – 70)	
Saudi	Yes	79	54.5%
	No	66	45.5%
Highest level of education	Bachelor degree	19	13.1%
	Completion of residency program	20	13.8%
	Board certified	45	31.0%
	Master	1	0.7%
	PhD	2	1.4%
	Subspecialty training (fellowship)	58	40.0%
Current position	Resident	39	26.9%
	Specialist	39	26.9%
	Consultant	67	46.2%
Staff rank	Assistant professor	56	76.7%
	Demonstrator	12	16.4%
	Professor	5	6.8%

Data is presented as numbers and percentages

Table 2 Teaching in clinical setting

Variables	Options	N	%
Presence of formal medical student teaching program	Yes	99	68.3%
	No	46	31.7%
Presence of formal residency program in the institute	Yes	83	57.2%
	No	62	42.8%
Teaching undergraduate or post graduate students	Yes	103	71.0%
	No	42	29.0%
Student level	Undergraduate student	40	27.6%
	Post graduate residents	13	9.0%
	Both undergraduate and postgraduate	48	33.1%
	I do not teach	44	30.3%
Nature of work	Governmental sector	85	58.6%
	Private sector	37	25.5%
	Both	23	15.9%
Years of clinical experience	< 1 year	3	2.1%
	1–4	21	14.5%
	5–9	42	29.0%
	10–14	45	31.0%
	15–19	22	15.2%
	> 20 years	12	8.3%
Years of teaching experience	< 1 year	42	29.0%
	1–4	36	24.8%
	5–9	31	21.4%
	10–14	17	11.7%
	15–19	19	13.1%

Data is presented as number and percentage

knowledge and skill, no formal residency training program, lack of incentives and feedback regarding the preceptors performance.

Association between demographic characteristics and the motivators or challenges

No significant associations were observed between overall motivation to teach and the demographic characteristics, including gender, nationality, highest level of education, or current position. However, participants with 5–7 years of clinical experience exhibited the highest motivation levels.

There were no significant associations between challenges and demographic factors. However, insights from teaching contexts provided valuable perspectives. Among participants involved in teaching roles, those in the private sector exhibited the highest levels of challenges, with (67.6%) of those reporting strong challenges.

Discussion

This study was conducted to identify factors that play a role in motivating or inhibiting preceptors to teach in the clinical settings. We established that most preceptors endorsed intrinsic motivators as having a higher impact on their willingness to teach than extrinsic motivators. This aligned with a previous report about job satisfaction coming from intrinsic factors [7–9]. The major challenges to teach were related to time and heavy clinical workload, a redemonstration of one of the common challenges encountered during literature search [7].

Motivators

The study reveals a strong intrinsic motivation among medical educators, with 64% of participants placing high value on sharing knowledge and expertise. This is closely followed by 63% who are motivated by the opportunity to educate the next generation of doctors. These findings underscore the deep sense of professional identity and personal fulfillment that medical educators derive from their work, consistent with Kumar et al.'s findings, where personal satisfaction from sharing knowledge was also noted as a key motivator. This reflects the educators' desire to impact the medical field positively, contributing to a legacy of well-trained professionals [3]. A recent systematic review demonstrated that intrinsic factors dominated when it came to motivators to teach, were sense of

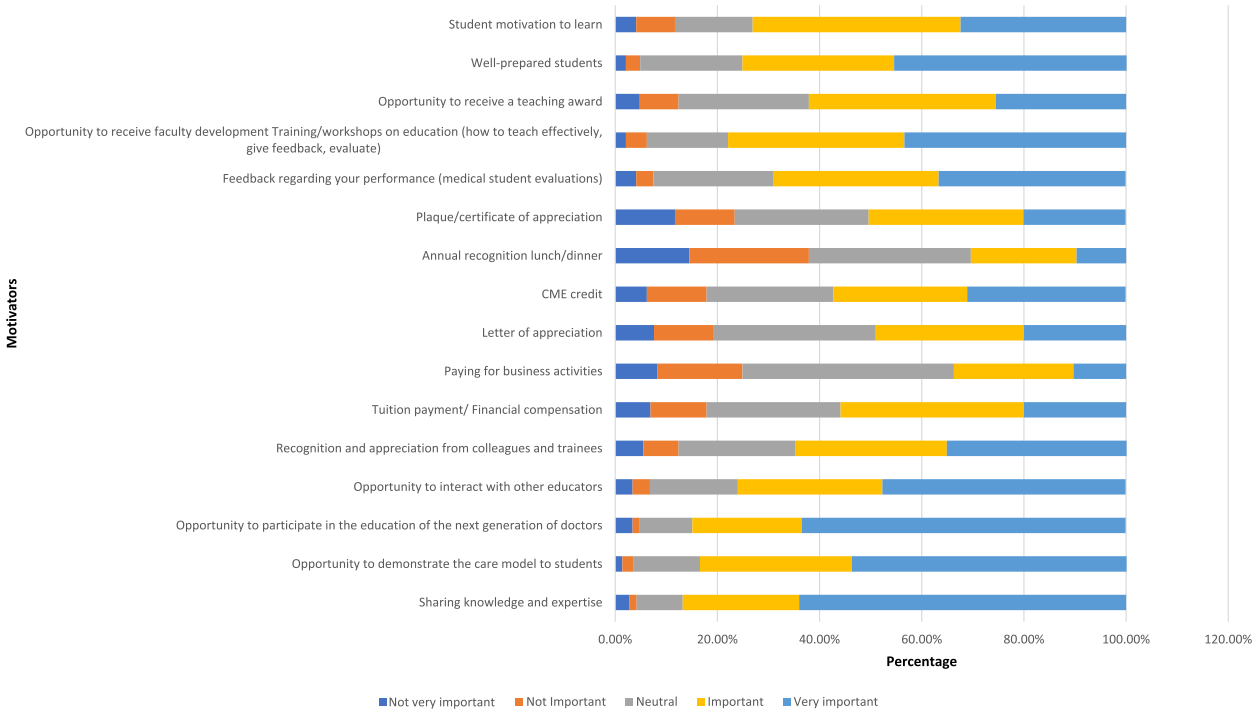

Fig. 1 Stacked bar chart of motivators to teach

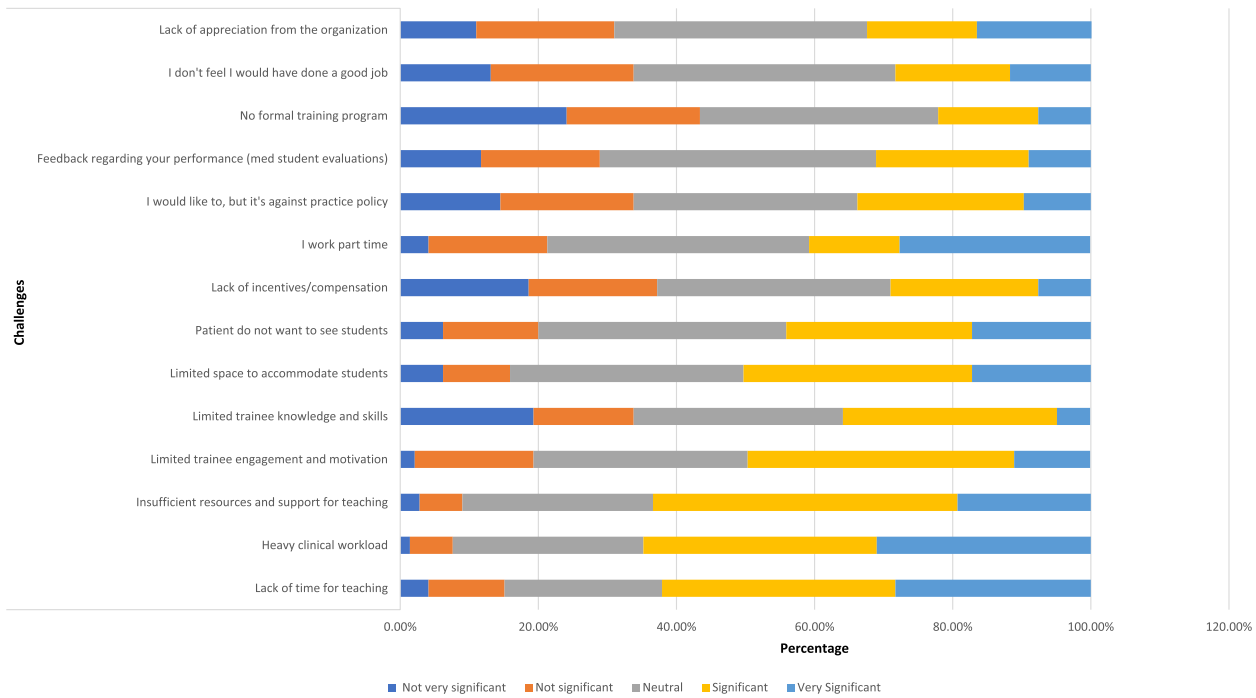

Fig. 2 Stacked bar chart of Challenges to teach

fulfillment, enjoyment and connectedness were the core drivers to teach [10].

Furthermore, 43.4% of your study's participants value faculty development opportunities, highlighting the importance of continuous learning and growth in maintaining job satisfaction and effectiveness. This aligns with the educational initiative in Saudi Arabia, where the Saudi Commission for Health Specialties offers a mandatory free Train of Trainers Workshop, emphasizing both practical skills and institutional support for medical educators [11, 12]. Furthermore, in the study by Kumar et al., faculty ranked sponsorship of scientific activities, travel and registration reimbursement high [3].

Interestingly, extrinsic factors such as financial gain were ranked low among motivational factors by your study's participants, with direct financial rewards like tuition payment, support for business activities, and recognition events scoring between 9.7% and 20%. This might reflect a professional norm where intrinsic rewards are more valued than extrinsic ones. However, contrasting evidence a study from Harvard faculty suggests a complex relationship with financial compensation, they found that their faculty were (2.66) times more likely to return to teach when the financial compensation was raised from 900$ to 2500$, with faculty receiving direct payment more likely to continue teaching than those who are receiving indirect payments [5]. Interestingly, another study found that physicians were motivated to teach when financial compensation was added, despite that when asked about the factors that motivated them to continue to teach, they stated that reimbursement was least significant [4]. This suggests a complex relationship with financial compensation, indicating that while not a primary motivator, it remains an important factor, particularly when substantial and direct.

Moreover, the high importance placed on student preparedness in our study where (45.5%) stated that having a well-prepared student is crucial for a positive teaching experience, reducing stress and enhancing educational effectiveness. These results align with the study by Peters et al. where preceptors rated having good students with 73% as a factor for continuing to teach and in 92% this was the primary source of satisfaction [5]. In a similar study by Hanson et al. and Orsini et al. they reported that student autonomous motivation led to their psychological satisfaction [2, 9]. Therefore, as an intervention attention to hospital-based orientation is important to support learners' transition and engagement from academic to clinical environment [13].

Challenges

The findings from this study underscore significant challenges faced by medical preceptors, primarily a heavy clinical workload and a lack of time, which were reported by 31.3% and 28% of participants respectively. These challnges are consistent with the study by Peters et al., which also identified extended working hours and slower patient turnover when a student is present as critical challenges [5]. Furthermore, Ryan et al. found that a substantial 71% of preceptors ranked time challenges as the most significant barrier to teaching [4]. Additional studies indicating that patient encounter times can double with the presence of a student [14, 15]. This consistency across various studies highlights a systemic issue in clinical education that necessitates strategic interventions. Addressing these challenges could involve several approaches, including adjusting clinical workloads, enhancing educational resources, and providing specific support for time management, which could collectively improve the efficiency and effectiveness of medical preceptors in their educational roles while maintaining quality patient care [16].

Another perceived limitation by our preceptors was lack of space to accommodate the students' numbers. This was also a problem in other regions of the world where the clinical education of medical students is challenged by increased enrollment and insufficient clerkship spots due to factors such as hospital closures, healthcare mergers, and a shift to outpatient care. Additionally, competition from offshore medical schools exacerbates the shortage of available training opportunities. These issues are compounded by a healthcare industry that prioritizes productivity over education, necessitating strategies to expand clinical training and support for medical preceptors [16].

Subsequently, other issues that were perceived as challenges by our preceptors were workplace that does not allow for medical students to be at the facility as well as patients unwillingness to be seen by a medical student. This issue can be ameliorated by optimizing the use of simulation and virtual reality in education [16].

Feedback to the preceptors about their performance was among the least fearsome challenges in our study further making feedback a desirable outcome from this mutual relationship. Student feedback offers valuable opportunities for preceptors to enhance their teaching methods by providing insights into the effectiveness of their instructional approaches. Additionally, receiving positive feedback can validate preceptors' efforts, reinforcing their sense of efficacy and motivating them to continue dedicating time and energy to teaching. This cycle of feedback and improvement not only benefits preceptors but also enhances the overall educational experience for students [17].

In examining the motivators and challenges faced by medical educators, it's clear that intrinsic factors such as

the desire to share knowledge, educate future doctors, and achieve personal fulfillment is the drive for our preceptors. These intrinsic motivations highlight the authentic professional identity and satisfaction derived from their educational roles. Furthermore, the challenges they face, such as heavy clinical workloads, lack of time, and inadequate resources, present significant challenges that can inhibit their ability to effectively teach and engage with students. Despite the presence of extrinsic motivators like financial compensation, which can influence faculty retention to some extent, the intrinsic rewards are more valued. Thus, addressing these challenges through institutional level interventions and support systems is critical to utelise the full potential of educators' and enhance the quality of medical education.

Limitations

Our study has several limitations. First, the cross-sectional design restricts our ability to infer causality between variables. Second, the use of convenience sampling may limit the external validity of the findings, as the sample may not fully represent the broader population. Additionally, low response rates and missing data introduce potential bias and reduce the generalizability of the results. Future studies should aim for larger, more representative samples to improve the robustness and applicability of the findings.

Conclusion

This study highlights that intrinsic motivators, particularly the satisfaction of sharing knowledge and educating future doctors, are key drivers for clinical preceptors, while extrinsic factors like financial compensation were less important. The main barriers were time constraints and heavy clinical workloads, underscoring the need for organizational support. Addressing these challenges through better resource allocation can enhance the quality of clinical teaching. Future research should focus on strategies to support preceptors and improve medical education in the clinical settings.

Supplementary Information

The online version contains supplementary material available at https://doi.org/10.1186/s12909-025-06842-3.

Supplementary Material 1.

Supplementary Material 2.

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None

Authors' contributions
Nooran Badeeb (conception, design of the work, interpretation, drafted the work and revised it), Yara Alsolami (conception, the acquisition of data and drafted the work), Miad Alhamrani (conception, the acquisition of data, drafted the work), Fadi Hassanin (conception, drafted the work and revised it), Waseem Aalam (conception, drafted the work and revised it).

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Data availability
No datasets were generated or analysed during the current study.

Declarations

Ethics approval and consent to participate
The study with application number (UJ-23-AKSPE-20) was approved by Bioethics Committee of Scientific and Medical Research, University of Jeddah, Saudi Arabia (Reference number HPA-02-J-094). Participant's approval was accepted as their agreement to participate by filling out the survey.

Consent for publication
Not Applicable.

Competing interests
The authors declare no competing interests.

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References

1. Hamdy H, Telmesani AW, Wardy NA, Abdel-Khalek N, Carruthers G, Hassan F, et al. Undergraduate medical education in the Gulf Cooperation Council: A multi-countries study (Part 1). Med Teacher. 2010;32(3):219–24. Available from: https://doi.org/10.3109/01421590903389108.
2. Orsini CA, et al. Exploring teachers' motivation to teach: A multisite study on the associations with the work climate, students' motivation, and teaching approaches. J Dental Educ. 2020;84(4):429–37.
3. Kumar A, Kallen DJ, Mathew T. Volunteer faculty: what rewards or incentives do they prefer? Teach Learn Med. 2002;14(2):119–24.
4. Ryan MS, et al. Benefits and barriers among volunteer teaching faculty: comparison between those who precept and those who do not in the core pediatrics clerkship. Med Educ online. 2013;18(1):20733.
5. Peters AS, et al. How important is money as a reward for teaching? Acad Med. 2009;84(1):42–6.
6. Kumar A, et al. Rewards and incentives for nonsalaried clinical faculty who teach medical students. J Gen Internal Med. 1999;14:370–2.
7. Dahlstrom J, et al. What motivates senior clinicians to teach medical students? BMC Med Educ. 2005;5(1):1–10.
8. Herzberg F. One more time: How do you motivate employees, vol. 65. Boston, MA: Harvard Business Review; 1968.
9. Hanson ER, et al. To teach or not to teach? Assessing medical school faculty motivation to teach in the era of curriculum reform. BMC Med Educ. 2022;22(1):1–10.
10. Orsini C, Imafuku R, Jennings B, Neufeld A, Tricio J, Kusurkar RA. What influences clinical educators' motivation to teach? A BEME systematic review and framework synthesis based on self-determination theory: BEME Review No. 90. Med Teacher. 2024:1–9.
11. Foley R, et al. Recruiting and retaining volunteer community preceptors. Acad Med: J Assoc Am Med Colleges. 1996;71(5):460–3.
12. Saudi Commission for Health Specialties, Train of the Trainer Workshop, https://scfhs.org.sa/en/TOT-workshops.

13. Beavers L, et al. Perceptions of preparedness: How hospital-based orientation can enhance the transition from academic to clinical learning. Can Med Educ J. 2020;11(4):e62.
14. Bowen JL, Irby DM. Assessing quality and costs of education in the ambulatory setting: a review of the literature. Acad Med. 2002;77(7):621–80.
15. Usatine RP, et al. Four exemplary preceptors' strategies for efficient teaching in managed care settings. Acad Med. 1997;72(9):766–9.
16. Cox WJ, Desai GJ. The crisis of clinical education for physicians in training. PubMed. 2019;116(5):389–91.
17. Flodén J. The impact of student feedback on teaching in higher education. Assess Eval High Educ. 2016;42(7):1054–68. https://doi.org/10.1080/02602938.2016.1224997.

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