

# Medical internship training in Saudi Arabia: interns' views and perceptions

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**Background:** Internship training offers an important opportunity for personal development and career planning. However, there are many factors affecting the efficiency of training, and the views of interns are rarely considered. The main objective of this study was to explore the views of interns enrolled in Jazan University internship program during the year 2015.

**Subjects and methods:** A web-based cross-sectional study was conducted in the Jazan region, Kingdom of Saudi Arabia, during the academic year 2015. To achieve the study goals, an online questionnaire was distributed to all interns (n=85) enrolled in the Jazan University internship program.

**Results:** Results revealed that satisfaction with training was more evident in general surgery and pediatrics (76.1%, n=54 and 77.5%, n=55, respectively). Satisfaction was lowest for obstetrics and gynecology programs (45.1%, n=32), while in internal medicine it was 54.9% (n=39). Training in general surgery and pediatrics was rated as excellent by most of the interns (45.8% and 43.1%, respectively). The picture is reversed in obstetrics and gynecology, as 43.1% rated it as average. More than half of the study sample felt that they were well prepared to start the next step in their career at the end of internship (50.7%), while 25.4% felt that they were moderately prepared.

**Conclusion:** It is clear that training quality in views of interns is variable across the major specialties, and there are some problems in obstetrics and gynecology training. More studies are needed to explore in-depth dimensions of internship training program in the Kingdom of Saudi Arabia.

**Keywords:** Jazan University, internship program, gynecology and pediatrics

## Introduction

Internship training, in spite of its transient nature, offers an important opportunity for personal development and career planning.<sup>1</sup> Medical internship has undergone many innovations since its inception in the middle of the last century.<sup>2</sup> In Saudi Arabia, it extends to a 12-month period of supervised training in different specialties: 2 months duration in general surgery, internal medicine, pediatrics, obstetrics and gynecology, and family medicine (1 month), which are known as core rotations are mandatory, and the rest of the period is spent in elective rotations.<sup>3</sup> Medical colleges oversee internship programs and have the freedom to modify the elective rotations. During this period, the intern is supposed to master skills and consolidate his medical knowledge as well as deliver patient service under supervision.

Literature suggested that many factors affect the efficiency of training.<sup>4</sup> The tendency to treat patients on outpatient basis, the increasing use of day surgery, and the increasing patient awareness in addition to cultural factors have affected the experience of the trainee.<sup>1</sup> Furthermore, the increasing number of litigations has affected those who supervise interns

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as they become more reluctant to give interns responsibilities that offer them the chances to practice medical skills.<sup>5</sup>

It has been shown by many studies elsewhere that an intern's satisfaction with training varies widely at the institute level and at different clinical rotations.<sup>6-8</sup> Determinants of effective training associated with an intern's satisfaction include a wide variety of factors. Quality of supervisors, effective supervision, adequate opportunity to experiential learning, conducive environment, good support system (hospital management, hospital staff, academic opportunities), personal attributes, and reasonable workload are some of the factors highlighted by some authors.<sup>9,10</sup> On the other hand, maltreatment and abuse of interns, which is very common worldwide,<sup>11-13</sup> might have a negative impact on intern satisfaction and the outcome of internship in general. In Saudi Arabia, Iftikhar et al<sup>14</sup> showed that abuse and maltreatment are very common among interns.

Studies addressing Internship training are very scarce in Saudi Arabia. The main objective of this study was to explore the views and perceptions of the interns enrolled in Jazan University internship program during the year 2015 regarding their insight and career orientation, satisfaction with training, and the degree of preparedness to start the next step in their career at the end of internship.

## Subjects and methods

### Study place

The study was conducted in the College of Medicine, Jazan University. This university is the leading higher educational institution in the region. Jazan region is one of the 13 administrative regions of Saudi Arabia. The total area of the region is estimated at 40,457 km<sup>2</sup>, and the total population is around 1.5 million. The College of Medicine was established in 2001 in Jazan town with the main purpose of graduating qualified doctors who will participate actively in the medical services in the region and the country at large. The college oversees the internship program for its own graduates as well as medical graduates from other universities who are enrolled in it.

### Study design and participants

The study was an observational cross-sectional survey that targeted all medical graduates who were doing their internship training under the auspices of Jazan University Faculty of Medicine in the year 2015. Data collection was done based on full census, as all interns enrolled in the internship program were considered eligible for participating in this survey (n=85).

### Data collection

A standardized web-based questionnaire was designed for data collection after consulting previous studies.<sup>4,15</sup> The

questionnaire consisted of two sections. The main section evaluated respondents' satisfaction toward their internship experience. There were 20 internship variables measured. Respondents were requested to give a score to each of the 20 variables using a 5-point Likert-type scale. The Likert scale was used with 1=not satisfied, 2=slightly satisfied, 3=moderately satisfied, 4=very satisfied, and 5=extremely satisfied. Likert scores of 1 and 2 were combined as unsatisfied, while Likert scores 4 and 5 were combined and considered satisfied. The demographic questionnaire covered age, gender, and university from which the intern graduated. Other information such as prior idea about the training, orientation workshops, and degree of preparedness were also taken into consideration.

### Data management and analysis

The data entry and analysis were performed using SPSS (version 17 Inc., Chicago, IL, USA) software. Descriptive statistics as well as inferential statistics was used for data analysis. Data are presented as percentage of respondents answering 1 and 2 or 4 and 5 on the Likert scale for preparation and importance ratings. The association between gender and level of satisfaction with the different specialties was assessed using the chi-square test. A *P*-value of 0.05 or less was used as the cutoff level for statistical significance.

### Ethics approval and consent to participate

This study was conducted in accordance with ethical standards within the political borders of the Kingdom of Saudi Arabia. Participants were told that they had the freedom to participate or to withdraw from the study at any time. The anonymity of participants was emphasized, and confidentiality was strictly maintained on all collected questionnaires. The study was approved by the Committee of Faculty of Medicine – Jazan University Saudi Arabia and all the students included in the study completed an electronic consent form before the start of the study.

### Availability of data and materials

The datasets generated during and/or analyzed during the current study are available from the corresponding author on reasonable request.

## Results

### Background of study participants

A total of 71 interns out of 85 responded to an online questionnaire (83.5% response). The vast majority of the interns (94.4%) are graduates of Jazan University. Around 56.3% of the respondents were females, while (43.7%) were males (Table 1).

**Table 1** Background characteristic of the study population

Characteristics	Number	%
Gender		
Male	31	43.7
Female	40	56.3
Nationality		
Saudi	70	98.6
Non-Saudi	1	1.4
Age groups (years)		
20–24	54	75.6
25+	17	24.4
University of graduation		
Jazan	67	94.4
Other university	4	5.6
Year of graduation		
2013 or earlier	1	1.4
2014	52	73.2
2015	18	25.4
Total	71	100

**Table 2** Interns' attitudes toward orientation workshop on specialty choosing activities attended during internship period

Characteristics	Number	%
Prior idea about different rotations		
I had full idea	9	12.7
I had no idea	11	15.5
I had some idea	51	71.8
Source of your idea		
Workshops	12	16.9
Internet	14	19.7
Senior colleague	40	56.3
Was the orientation workshop of a benefit to you		
Extremely beneficial	0	0
Very beneficial	10	13.9
Moderately beneficial	23	31.9
Slightly beneficial	12	16.7
Not beneficial at all	27	37.5
Was the workshop on specialty choosing helpful to you		
Extremely beneficial	4	5.6
Very beneficial	17	23.6
Moderately beneficial	17	23.6
Slightly beneficial	14	19.4
Not beneficial at all	12	16.7
Did not attend	8	11.1
Total	71	100

## Insight and career orientation

Interns were asked whether they have a prior idea about what to expect (responsibilities during the different rotations before starting their internship program). They were also asked to point out the source of that idea from a number of options. As can be seen from the data in Table 2, the vast majority of the study group (71.8%) mentioned that they had some idea about internship prior to its start, while 15.5% stated that they have no idea. Most of the interns got their knowledge about internship from senior colleagues (56.3%), 19.7% searched

the Internet to get information, and only 16.9% got their information from workshops.

A mandatory orientation workshop addressing internship and training issues is organized every year for all interns before enrolling in their internship rotations. Opinions are divided about this workshop as a significant proportion of interns found it not beneficial at all (37.5%). Around 16.7% think that it was slightly beneficial, while 31.9% found it moderately beneficial, and 13.9% think that it was very beneficial. However, no one thought that it was extremely beneficial (Table 2).

Another workshop (nonmandatory) addressing career advice is organized every year just before graduation. Interestingly, opinions about this workshop are more divided and follow an almost normal distribution varying from extremely beneficial to not beneficial at all (Table 2).

## Satisfaction with training and level of preparedness

Satisfaction with training showed significant variation of opinions across the major specialties ( $P < 0.0001$ ). Around 76.1% stated that they were satisfied with their training in general surgery, and 12.7% were moderately satisfied, while 11.3% expressed their dissatisfaction with training. In internal medicine, 54.9% were satisfied with their training, 35.2% were moderately satisfied, and 9.9% were dissatisfied. Only 45.1% were satisfied with training in obstetrics and gynecology, 25.4% moderately satisfied, and 29.6% expressed their dissatisfaction; the highest percentage compared to the other specialties. However, satisfaction with training was highest in pediatrics with 77.5% satisfied, 22.5% moderately satisfied, and remarkably, no one expressed dissatisfaction. There is no significant statistical difference between males and females regarding satisfaction with training in the different specialties ( $P > 0.05$ ) (Table 3). More details regarding the level of satisfaction with training are shown in Figure 1.

When asked to give a rating to the quality of training in the different specialties, the study sample responses are consistent with their satisfaction. General surgery and pediatrics received the highest rating as excellent (45.8% and 43.1%, respectively). Opinions were divided when rating the quality of training in internal medicine; around 34.7% gave an excellent rating, while 31.9% rated it as average. Dissatisfaction was clear in the rating of obstetrics and gynecology as 43.1% rated it as average and only 20.8% claimed that it was excellent (Figure 2).

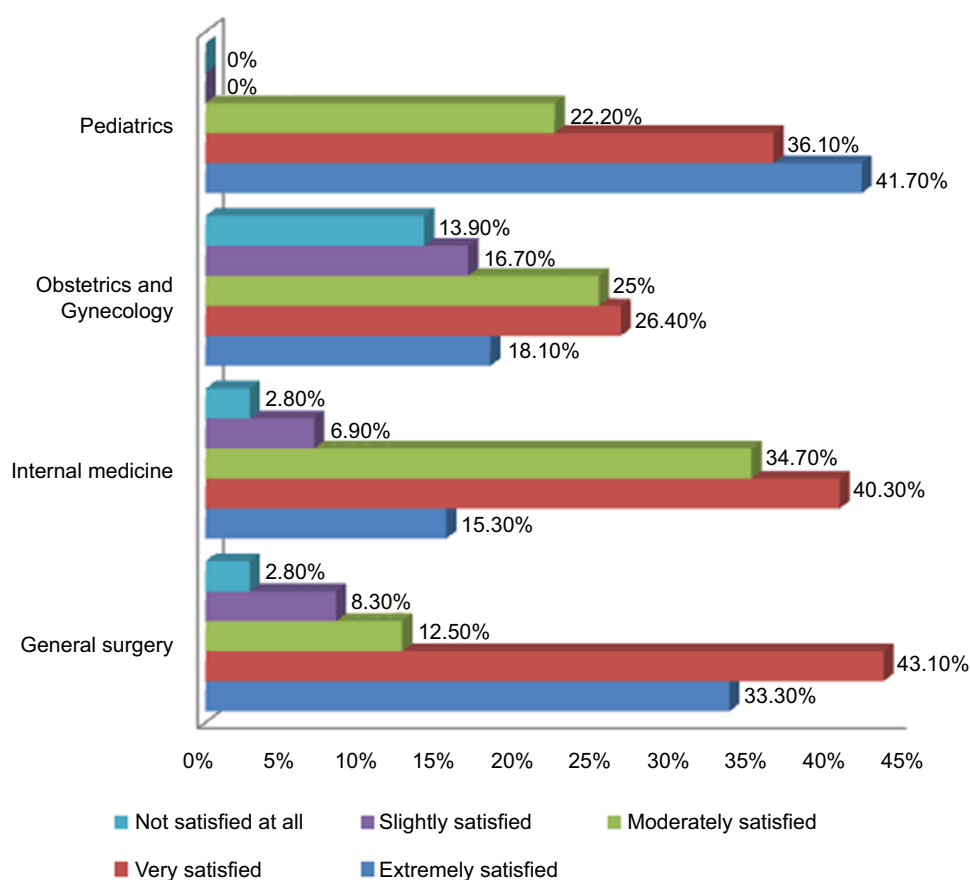
When asked whether they felt prepared to start their future career training, more than half of the interns stated

**Table 3** Interns' level of satisfaction with training in the different specialties

Specialties	Male			Female			P-value	Total			P-value
	Unsatisfied	M. Satisfied	Satisfied	Unsatisfied	M. Satisfied	Satisfied		Unsatisfied <sup>a</sup>	M. Satisfied	Satisfied <sup>b</sup>	
General Surgery	4 (12.9)	2 (6.5)	25 (80.6)	7 (17.5)	4 (10.0)	29 (72.5)	0.322	8 (11.3)	9 (12.7)	54 (76.1)	0.000
Internal Medicine	2 (6.5)	12 (38.7)	17 (54.8)	5 (12.5)	13 (32.5)	22 (55)	0.081	7 (9.9)	25 (35.2)	39 (54.9)	
Obstetrics and Gynecology	9 (29)	12 (38)	10 (32.3)	12 (30)	6 (15)	22 (55)	0.067	21 (29.6)	18 (25.4)	32 (45.1)	
Pediatrics	0 (0)	8 (25.8)	23 (74.2)	0 (0)	8 (20)	32 (80)	0.592	0 (0)	16 (22.5)	55 (77.5)	

**Notes:** <sup>a</sup>Unsatisfied includes not satisfied and slightly satisfied; <sup>b</sup>satisfied includes very satisfied and moderately satisfied.

**Abbreviation:** M, moderately.

**Figure 1** Interns' level of satisfaction with the training in the different specialties.

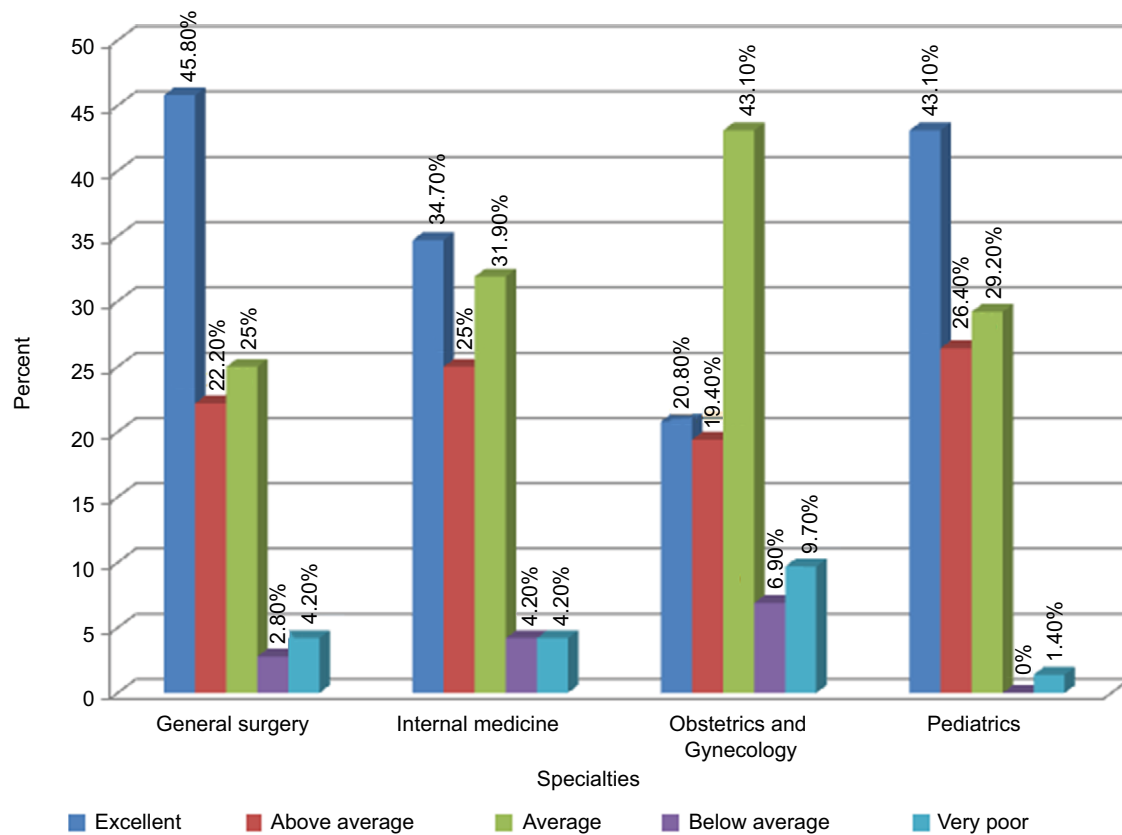
that they were well prepared (57.5% males, 41.9% females). Approximately 25.8% of the interns mentioned that they were moderately prepared. There was no significant statistical difference between males and females regarding preparedness. Interestingly, two female interns stated that they were not prepared at all (Figure 3).

## Discussion

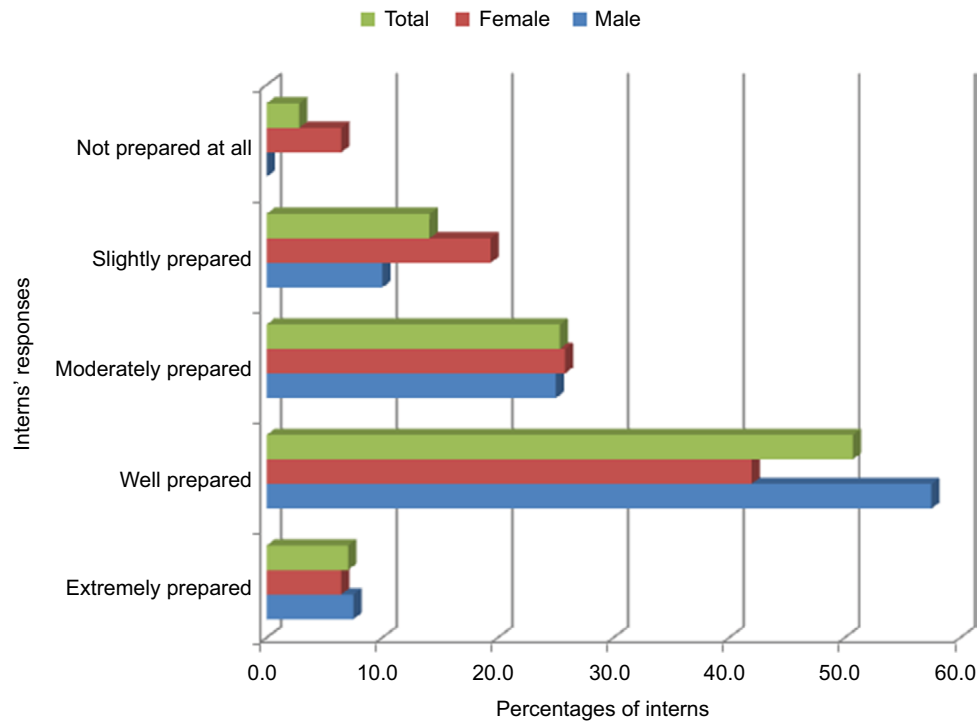
The primary purpose of internship is to offer practical work experience in the health facilities setup. It is a transitional period where medical graduates acquire the necessary skills

and credentials needed to pursue their future careers. In the final years of medical college, medical students are faced with the uncertainty of the prospect of their professional careers. The impact of internship experience on the choice of future specialty is not clear. Alshahrani et al<sup>15</sup> found 11.4% of their study population of interns citing their internship experience as the main reason in specialty choice.

In our study, most of the interns had some idea about what to expect from an internship, although the source of this idea was mostly senior colleagues. Many authors highlighted the lack of career advice for medical students.<sup>16,17</sup> In Saudi



**Figure 2** Interns' views about the quality of training in the different specialties.



**Figure 3** Interns' views regarding level of preparedness for the next step in their career.

Arabia, Mehmood et al<sup>4</sup> found that only 53% of the study participants received career advice. However, this career advice was not structured as it consisted of advice from family

members, friends, and senior colleagues. Many authorities have developed measures to prepare medical students for internships. Induction courses, transition courses, a preintern

year, and Tomorrow's doctors curriculum (general medical council, UK) are a few examples of these measures.<sup>18–21</sup>

In Jazan University, we used to organize a workshop every year for new medical graduates providing career advice. Another workshop, which is mandatory, aims to orient the students about the internship and is organized every year by Jazan Training Administration. Opinions about this workshop are also divided. In spite of this, it seems that the content of these workshops is not up to the expectations of a significant proportion of our interns. This shows the importance of structuring career guidance and advice and even considering its incorporation in the medical curricula.<sup>18</sup>

Satisfaction with training is influenced by many factors either negatively or positively.<sup>11</sup> Opinions about the adequacy of training, and hence satisfaction with it, vary a lot. Elizabeth and Hughes found 94% of preregistration house officers qualifying at Liverpool University rating their training as adequate.<sup>22</sup> Formal education and training during the internship year in Ireland were found to be poor, as evidenced by the study by Hannon.<sup>23</sup> Our search could not cite any article addressing this issue in Saudi Arabia. In our study, we addressed the issue in more details considering training satisfaction and adequacy of training in general surgery, internal medicine, obstetrics and gynecology, and pediatrics. Satisfaction was highest in general surgery and pediatrics and lowest in obstetrics and gynecology, while in internal medicine mixed opinions were obtained. This was evident when the interns were asked to rate their training: most of them rated training as excellent in general surgery and pediatrics, while almost half of them thought it was average in obstetrics and gynecology. It is well known that good training brings satisfaction, and vice versa. This will be an oversimplification if we assume that it is the only reason. A declining interest in obstetrics and gynecology has been observed by some authors, and many students have a poor perception of their obstetrics and gynecology clerkships.<sup>24–26</sup> Obstetrics and gynecology clerkship factors associated with greater postclerkship interest include higher satisfaction with the resident's professional behavior and the students' sense of inclusion in the clinical team.<sup>25</sup> We think similar factors may be affecting our interns. Although the opinions about the other specialties appear favorable, that does not mean there are no problems. The factors influencing satisfaction were not highlighted in our study. More studies are needed to assess the training adequacy across the specialties in Saudi Arabia and look in more details as to why training in obstetrics and gynecology is less satisfactory.

After successfully completing the internship period, interns are expected to acquire a level of knowledge, skills,

and attitudes needed to embark on a career as a health care provider, or to pursue further training in a medical specialty.<sup>27</sup> Furthermore, working in clinical environment allows interns the opportunity to measure themselves and see where they stand regarding the level of knowledge and skills compared to fully registered doctors. Feeling confident in performing clinical and procedural skills and initiating management of different clinical conditions is important in the perceived preparedness for further career commitments.<sup>28</sup> In a wide scale survey, Blumenthal et al<sup>29</sup> found the vast majority of their population either very prepared or somewhat prepared. Nkabinde et al<sup>30</sup> found that 78% of the interns rated their internship as good or excellent in preparing them for community service.

To our knowledge, this aspect of internship has not been studied in Saudi Arabia. Our study focused on overall preparedness of interns without going into details. We tried to find whether medical college and internship training experience has prepared interns for the next step of their career. Most of our study population felt that they were well prepared, moderately prepared, or extremely prepared (41.9%, 25.8%, and 6.5%, respectively, total 74.2%). On the other hand, some of the interns felt that they were slightly prepared or not prepared at all (19.4% and 6.5%, respectively). Our results, and that of many other studies, confirm that internship is very important in career development. However, these results should be interpreted carefully as the question of preparedness is a complex one and there are many aspects of internship experience that need to be considered individually and separately for better understanding.<sup>31,32</sup>

## Limitations

The strength of this study is that it is the first study in the Kingdom of Saudi Arabia that focuses on intern's views on the internship training program. Despite this strength, the study has some limitations that should be mentioned to facilitate the proper understanding of the outcomes. First, because the work was based on a cross-sectional survey design, the direction of relationships and causal relationships could not be determined. Second, the sample size was small (n=71) and represented only one academic year. It also did not represent all geographical areas of Saudi Arabia. However, it can represent a trend in the country as the cultural background and the infrastructure of medical training remain the same.

## Conclusion

From this study, we conclude that a significant proportion of interns lack orientation about what to expect from



internship and that the main source of information is senior colleagues, highlighting the need for structured career advice. It is also clear that the training quality is variable across the major specialties and that there are some problems in obstetrics and gynecology training. It is also clear that satisfaction is enhanced by a perceived good training, and internship training remains very important in preparing doctors for their future careers. We think that internship in Saudi Arabia is an important area that needs to be targeted with more studies.

## Acknowledgment

The authors are grateful to Dr Nader Wahba and Mr Vikrant for helping with the design of the online questionnaire.

## Author contributions

All authors contributed toward data analysis, drafting and critically revising the paper and agree to be accountable for all aspects of the work.

## Disclosure

The authors report no conflicts of interest in this work.

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