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Career Counseling Activities and Choice of Specialties among Medical Interns

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Objective: To identify the specialties chosen by medical interns and factors influencing their choices during academic year of 2009.

Setting: King Abdulaziz University Hospital.

Design: Questionnaire study.

Method: A questionnaire adopted from the American Graduate Council was distributed to 250 medical interns. Data were analyzed using SPSS software version 16 (2005).

Result: One hundred and fifty-one questionnaires were completed with a response rate of 60%. Hundred and thirteen (75%) of students are planning to become certified in one of the different subspecialties, see figure 1. Seventeen (11.3%) favored internal medicine followed by anesthesia, 11 (7.3%). Pathology, cardiac surgery, dermatology, general surgery and occupational medicine ranked third, 10 (6.7%), see figure 2. Plastic and orthopedic surgeries were not among their interest.

Eighteen (12%) had been engaged in in-house electives, 14 (9.3%) had accessed the websites; the two had been found the most useful tools in helping students in their specialty choices. Career planning programs, careers availability on medicine websites, group presentations, career planning workshops and courses were not considered by students while choosing their career mainly due to unavailability, see table 1.

Personal interest was the most important factor which had strongly influenced students' specialty choices, 109 (73%), see table 2. Family expectations and the length of residency training programs had minor influence.

Conclusion: The lack of physicians in some specialties where should be addressed. Establishing a career advising committee at KAU is advised. This committee should focus on medical students during their final clinical years and during internship rotations putting in perspective the national health problems in the Kingdom of Saudi Arabia.

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In the past decade, the kingdom of Saudi Arabia has showed significant development in healthcare education. In 1997, four medical schools were present in SA[1]. Nowadays, eight medical schools are actively contributing to healthcare development. Despite the facts mentioned earlier, the Saudi physicians only constitute 20% of the total number of physicians working under the ministry of health compared to 16% in 1997[2]. Non Saudi "expatriate" doctors constitute the majority of practicing physicians, which might lead to cultural conflicts, communication, as well as language barriers. In addition, the expatriates stay in Saudi Arabia is usually temporary which makes the efforts to train, develop and advance their knowledge are not cost-effective. Therefore, increasing the number of Saudi medical graduates should be considered of prime importance. A Saudi medical undergraduate takes 6 years to complete their school curriculum followed by one year compulsory house office service. Practitioners then, are eligible to apply for residency programs inside or outside the kingdom. The distribution of Saudi physicians among the different subspecialties is imbalanced with significant deficiencies in some specialties: Anesthesia 4.7%, Physical medicine 6.7%, Pulmonology 11.1% and General Practice 11.4%… etc[2].

In Taiwan, the number of Taiwanese physicians is not sufficient in the fields of Surgery, Gynecology, Obstetrics and Anesthesia[3]. Researchers have found that different factors were attributable to post graduate career choices. The factors include: heavy work load, intense working pressure, lower salaries, health insurance payment system, scientific challenges and interaction with patients[4]. The scientific challenge (61.4%) and interaction with patients (60.6%) seem to be the major influencing factors for most students' specialty preferences[4]. Chang et al found that personal intelligence/ability preference and career opportunities were more important factors to the current generation of students in choosing a specialty[3].

The aim of the study is to identify the specialties that might be chosen by medical interns and factors influencing their choices during the academic year of 2009.

METHOD

A cross sectional study was conducted; two-hundreds and fifty questionnaires were distributed to the medical interns of 2008-2009. One hundred and fifty-one questionnaires were completed.

The questionnaire was adopted from the American Graduate Council. Modification of questions was done by a group of interns guided by the vice dean of clinical affairs to make the questionnaire suitable to the cultural background and habits in the Kingdom of Saudi Arabia.

Students were allowed to choose only one answer in each question. Data were analyzed using SPSS software version 16 (2005).

RESULT

One hundred and fifty-one questionnaires were completed with a response rate of 60%; male to female ratio was 2:1. The age ranged between 24 to 26. All of the students can speak Arabic and English with only a minority being able to speak French or other languages. Eighty-five percent of the students came from Makkah province and 8.5% coming from Riyadh. Ninety-three percent of the students are Saudi.

Hundred and thirteen (75%) are planning to become certified in one of the subspecialties, see figure 1. Thirty-three (22%) are still undecided, see figure 1. Internal medicine was the most desirable specialty, 17 (11.3%), see figure 2.

Anesthesia was the second most desirable specialty, 11 (7.3%). Pathology, cardiac surgery, dermatology, general surgery and occupational medicine ranked third, 10 (6.7%), followed by hematological pathology and neurosurgery, 9 (6%), see figure 2. Pediatrics, psychiatry, urology, plastic surgery, and orthopedic surgery were not among their interest. Basic sciences had variable interest ranging from 1 (0.7%) for medical biochemistry to 10 (6.7%) in pathology, see figure 2. Four (3%) students did not choose any specialty, see figure 1.

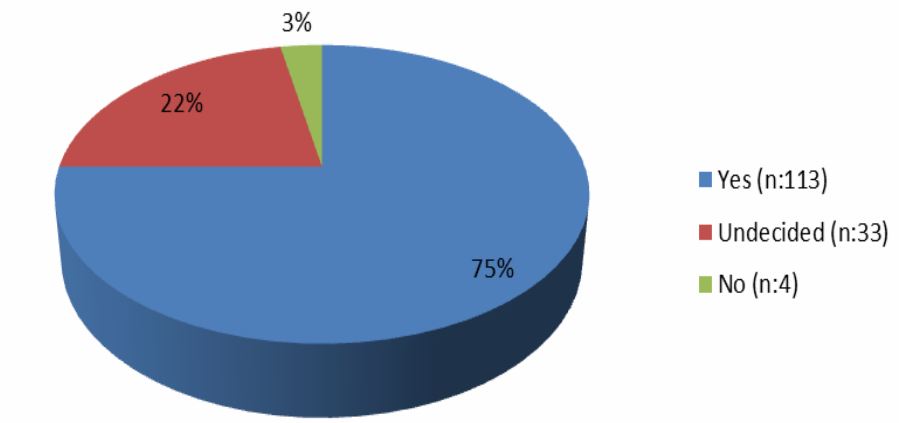

Figure 1: Are You Planning to become Certified in One of the Different Subspecialties?

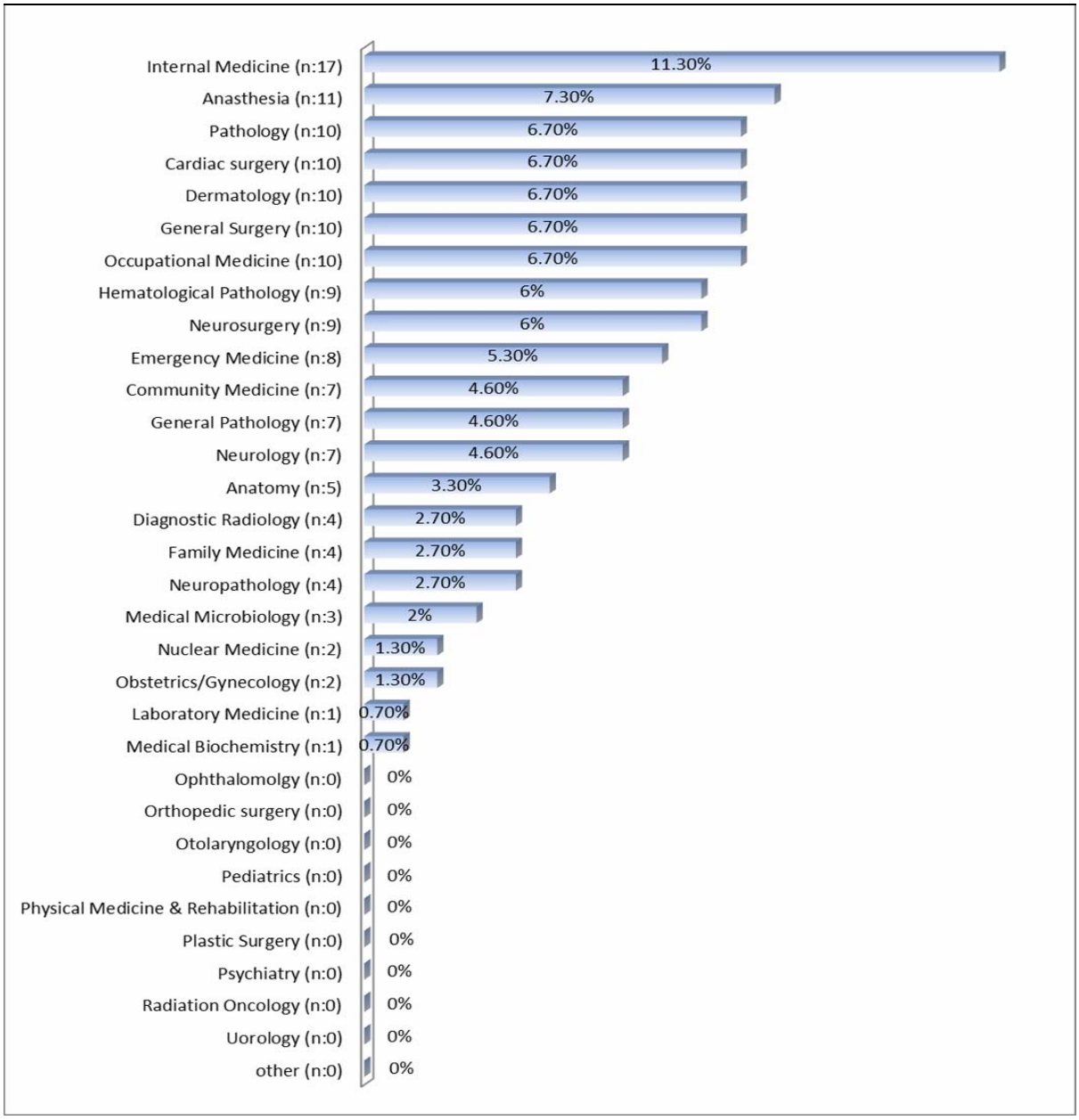

Figure 2: Choice of Specialty / Subspecialty

Eighteen (12%) had ranked engagement in in-house electives as the most useful tool. Fourteen (9.3%) had ranked the access to websites as the second most useful tool. Fifty-eight (38.7%) had ranked advising and mentoring as useful, see table 1. Other tools, such as, career planning programs, careers availability on medicine websites, group presentations, career planning workshops and courses were not considered by the students as useful tools, see table 1.

Table 1: How Useful the Following in Helping You Choose Your Specialty

	Ratings (%)				
	Did not Use	**Not Useful**	**Slightly Useful**	**Moderately Useful**	**Very Useful**
Overall career planning program in your school N = 150	35.3	18.7	34	10.6	1.4
Advising/Mentoring N = 150	25.4	17.3	38.7	15.3	4
Careers in medicine web site N = 150	35.3	18.7	24.7	17.3	4
Specialty interest group sponsored panels and presentation N = 150	41.9	16.7	18.7	20	2.7
School-sponsored career planning workshops and courses N = 150	47.3	12.7	22	14.7	3.3
Publications and web-based resources N = 150	38	18	22.7	12	9.3
Participation in in-house extramural electives N = 150	37.4	12	19.3	19.3	12

0: did not use
1: not useful
2: slightly useful
3. moderately useful
4. very useful

One hundred and nine (73%) students were motivated by personal interest in their choice of specialty, see table 2. Lifestyle expectations, options for sub specialization mentor influence and the current need of a physician in a specific branch were considered important influences in a descending order. Competitiveness of specialty choice, the high level of education debt, salary expectations and geographic consideration have moderately influenced students' choice. However, minor influence was family expectations and the length of residency training programs.

Table 2: How Important Were the Following Factors in Determining Your Specialty Choice?

	Ratings (%)			
	No Influence	**Minor Influence**	**Moderate Influence**	**Strong Influence**
Lifestyle expectations N = 150	8	23.3	30	38.7
Competitiveness of specialty choice N = 150	13.3	22.7	35.3	28.7
Personal interest N = 150	4.7	8.7	14.7	73
High Level of education debt N = 150	24.7	26.7	31.3	17.3
Mentor/role model influence N = 150	19.3	24.7	24.7	31.3
Options for sub specialization N = 150	12	22	30	36
Salary expectations N = 150	15.3	24.7	32	28
Length of residency training N = 150	20	27.3	26.7	26
Family expectations (spouse, parents, children, relatives) N = 150	18.7	29.3	29.3	22.7
Geographic considerations N = 150	20.7	25.3	31.3	22.7

0: No influence
1: Minor influence
2: Moderate influence
3: Strong influence

DISCUSSION

This is one of the few studies of its kind in Saudi Arabia[1,5,6]. Similar studies were done in the world, such as, Canada, USA, Greece and the United Kingdom[4,7-10].

In this study, the majority of graduates do not plan to pursue a career in general practice. Comparable result was shown in a study done in Greece[4]. The result differs from several studies performed in Canada, USA and Europe which shows a high number of students pursuing a career in general practice[4,7-10].

Thirty-three (22%) students were undecided at the time of the study; this is mostly due to the lack of proper implementation of career counseling activities, see figure 1. Similar results were found in a study 10 years ago[6]. The lack of interest in general practice will lead to a bigger deficiency of certified Saudi physicians to cover the deficit of primary health care.

The result of this study was similar to that by Jarallah et al[6]. In addition, the result was comparable with the current distribution of registered doctors in the ministry of health according to the national health survey[2].

Seventy-one (47.3%) students did not use any of the available tools for career counseling and counseling activities such as school-sponsored career planning workshops and courses, see table 1.

School-sponsored career planning workshops, courses and specialty interest group were difficult to evaluate because large number of the students did not use these tools.

The most useful tool found by the students was the in-house electives; similar results were shown in several studies[5,6,7]. The second most important tool was advising and mentoring.

Important factors which influenced students' choices were personal interest 109 (73%), followed by lifestyle expectations; similar results were obtained in other studies[7,11,12].

Khan and Hamdani found that salary expectations was one of the most important factors in choosing anesthesia as a subspecialty, compared to the result of this study which showed the salary expectations to be one of the moderate factors influencing the career choice[12]. Proper education and awareness programs are needed to orient students to the importance of choosing different specialties based on the need of the community.

CONCLUSION

This study showed that 75% of students are planning to become certified in one of the sub-specialties available. Internal medicine was the most desirable specialty of 11.3% of students' wishes. The majority of graduates have no plan in pursuing a career in general practice. A very significant number of the students did not use any of the available tools for career counseling and counseling activities.

It is advised to establish a career advising committee at KAU and utilization of the KAU Faculty of Medicine website. The committee should focus on medical students during their final clinical years and during internship rotations.

The lack of physicians in some specialties should be addressed by this committee putting in perspective the national health problems in the Kingdom of Saudi Arabia.

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