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Research Article

**THE INFLUENCE FACTOR IN SELECTING FORENSIC  
MEDICINE AMONG MEDICAL STUDENTS IN SAUDI ARABIA****Khaled Abdullah Alshahrani<sup>1\*</sup>, Meshari Mesfer Mastour Althobaiti<sup>2</sup>, Shahad Mohammed Alamoudi<sup>3</sup>, Rayan Zuhair Kateb<sup>4</sup>, Tahani Saleh Alsaery<sup>5</sup>, Ahmed Ali Alghamdi<sup>6</sup>**<sup>1</sup> King Abdulaziz University, Jeddah, Saudi Arabia, <sup>2</sup> Taif University, Saudi Arabia, <sup>3</sup> Ibn Sina National College, Jeddah, Saudi Arabia, <sup>4</sup> Taibah University, Almadinah, Saudi Arabia, <sup>5</sup> King Fahad Armed Forces Hospital, Jeddah, Saudi Arabia, <sup>6</sup> Albaha University, Saudi Arabia**Abstract:**

**Background:** Forensic medicine is a branch of medicine dealing with the application of medical knowledge to establish facts in civil or criminal legal cases. It is typically involved in cases concerning blood relationship, injury, or death resulting from violence. For some people, the decision on which specialty to choose is not an easy one. Aim of present study is to assess awareness factors influenced selecting forensic medicine as career among male medical students in Saudi Arabia.

**Methods:** A cross-sectional study. The questionnaire was self-design questionnaire. The sampling was random sampling technique for all undergraduate male students.

**Result:** A total of 95 medical students in all years of study Saudi Arabia were included. Concerning the awareness about forensic medicine 52.8% of student they don't know and the influential factors in developing interest in forensic medicine were personal interest and personal reasons about 84.2% of subjects. The medical students were prefer forensic medicine as specialty by 34%.

**Conclusion:** The medical education has important role to decline the percent of lack of knowledge about forensic medicine and begin action to establishing mentor programs for all specialties to direct students to pike up specialty that suitable for them.

**Keywords:** Forensic medicine, influenced factors, selecting specialty, medical student.

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**INTRODUCTION:**

Forensic medicine or Medical jurisprudence is a branch of medicine that dealing with the application of medical knowledge to establish facts in civil or criminal legal cases. It is typically involved in cases concerning blood related , mental illness, injury, or death resulting from violence. Today ,the services of forensic medicine expanded to cover a wide medical range [1].The importance of forensic medicine as medical specialty and the over need of forensic doctors nowadays leading us to look after factors influenced selecting it as career . Areas of medicine that are commonly involved in forensic medicine are anatomy, pathology, and psychiatry [2]. Forensic doctors work with cases related to the medical malpractice, possible causes of death, the rape crime and fabrication crime, disputed paternity, inheritance, change of newborns in maternal hospital and injuries of children that may relate to neglect or abuse and sometimes witness in tribunals [1,2]. The undergraduate student must get enough orientation about the forensic medicine from their college, also the media should contribute in this part of education by spreading the awareness among communities [3]. Studies have found that the students divided into three groups on according to their of knowledge about forensic medicine : the greater number of students had average level of knowledge 40% ,the second group show insufficient level of knowledge 36.3% and finally group pass with sufficient level of knowledge 23.7% , this study suggested to support the student in practice aspects and build them up on the side of learning weakness [4].The choice of specialty is one of the important decision in the life . For some people, the decision on which specialty to choose is not an easy one.

There are many factors influencing to choose one specialty from other .These including personality characteristic, abilities, interests, ambitions, aptitudes, limitations and task-management skills [5]. In this paper we assessed which factors influenced them to select forensic medicine as a career such as personal interest, personal reasons (eg: family , friends ),geographical ,location influence from a mentor, lifestyle and financial rewards and future job opportunities in that field , helping the student to choice specialties by leading them and advise them via directors programs [6].

This study support previous study [5] to work hard to help student during choosing specialty in verity of ways through creating opportunities to find job ,financial rewards and important thing is personal inserted , the beauty of this study appears the desire for forensic medicine of the students unfortunately the result was least popular specialties [7].Thus, more studies are needed to provide evidence-based data to

higher education and health authorities to building and design strategies to improve the educational process in the study areas.The aims of the present study to assess awareness and affect factors to choice forensic medicine among medical students in Saudi Arabia.

**METHODS:**

A cross-sectional study was conducted during the period from May to October 2018 among medical students in Saudi Arabia. The questionnaire was self-design questionnaire to gather information about awareness and affect factors to choice forensic medicine among medical students and conduct by well-trained persons. The questionnaire was pretested in a few subjects similar to the study participants (not selected in the study sample) before the study for validity. The questionnaire includes information such as questions about awareness, the affect factors related to forensic medicine and affect of the media in this part . Informed consent was taken from the participants.In the consent we insured that all information of the participants will be used only for the research purposes and the privacy of the participants will not be violated by any of the researchers. The importance and aims of the study were explained and permission to participate in the study was obtained from all respondents.

**Statistical analysis**

Data were entered and analyzed using SPSS 19v (Statistical Package for Social Science, version 19). Proportions and frequency tables were used to summarize categorical variables. Continuous variables were categorized. Descriptive and inferential statistics were performed.

**RESULTS:**

In the present study, a total of 95 medical students in all years of study in Universities were included. The age group 19-25 years with mean age of 21.36 (Table 1). All of student 100% had agree that forensic medicine is a part from medicine (Table 2).

We measured the awareness of medical students about forensic medicine through their understanding of the concept of the forensic medicine, 34% of students believe it deal with the medical malpractice , about 48.4 % of participants think it assess the possible causes of death, and 40 % of them agree forensic medicine practitioners can assess the rape crime and fabrication crime . Only 29.5% of respondents know it deal with the disputed paternity, inheritance, change of newborns in maternal hospital the result ,34.8% of respondents state it assess injuries of children that may relate to neglect or abuse. about half of students think they give a certification of death (Table 3). Almost 34% of The

medical students prefer forensic medicine as specialty (Table 4).

The most influential factors in developing interest in forensic medicine were personal interest and personal reasons (eg: family , friends) about 84.2% of subjects . The number of responders who were encouraged by financial rewards, times of working and job opportunities 80% of students. About 82.1%

of students were favored the nature of work( eg: deals with crime, dead body, medical malpractice) (table 5).

The TV and radio 62.1% they students believe that have no affect to know about forensic medicine, in other hand lectures, doctors, friends, social media, conferences and workshops that affect to know about forensic medicine 68.8% (Table 6).

**Table (1):Shows age among male students (n = 95)**

	N	Minimum	Maximum	Mean
Age	95	19	25	21.36

**Table (2) :Shows awareness by related questions among male students (n = 95)**

forensic medicine is a part from medicine	Frequency	Percent
YES	95	100.0

**Table (3) :Shows awareness by related questions among male students (n = 95)**

Assessment the medical malpractice	Frequency	Percent
I don't know	52	54.7
Disagree	10	10.5
Agree	33	34.7
Total	95	100
Assessment of possible causes of death		
I don't know	43	45.3
Disagree	6	6.3
Agree	46	48.4
Total	95	100.0
Assessment the rape crime and fabrication crime		
I don't know	52	54.7
Disagree	5	5.3
Agree	38	40.0
Total	95	100.0
Assessment disputed paternity, inheritance, change of newborns in maternal hospital		
I don't know	57	60.0
Disagree	10	10.5
Agree	28	29.5
Total	95	100.0
He/she gives a certification of death		
I don't know	44	46.3
Disagree	5	5.3
Agree	46	48.4
Total	95	100.0

Table (4) :Shows dose the student like forensic medicine as specialty among male students (n = 95)

Did you like forensic medicine as specialty	Frequency	Percent
YES	33	34.7
NO	62	65.3
Total	95	100.0

Table (5) :Shows the factors that affect to choose the forensic medicine as specialty among male students (n = 95)

Nature of work( eg:deals with crime , dead body, medical malpractice)	Frequency	Percent
Not effective	17	17.9
Effective	78	82.1
Total	95	100.0
Personal interest and personal reasons (eg: family , friends)		
Not effective	15	15.8
Effective	80	84.2
Total	95	100.0
financial rewards, times of working and job opportunities		
Not effective	19	20.0
Effective	76	80.0
Total	95	100.0

Table No (6) :Shows the media that affecting to choice forensic medicine as specialty among male students (n = 95)

Lectures	Frequency	Percent
YES	68	71.6
NO	27	28.4
Total	95	100.0
Your friends		
YES	54	56.8
NO	41	43.2
Total	95	100.0
Doctors of your college		
YES	74	77.9
NO	21	22.1
Total	95	100.0
Social media channels		
YES	68	71.6
NO	27	28.4
Total	95	100.0
Conferences and Workshops		
YES	63	66.3
NO	31	32.6
Total	95	100.0
TV and radio		
YES	36	37.9
NO	59	62.1
Total	95	100.0

**DISCUSSION:**

The present study examined the awareness and affect factors to choice forensic medicine among all years medical students studying in Saudi Arabia. In this study all of students (100%) knows that the forensic medicine is a part of medicine. but majority of student (52.8%) they don't know a lot about forensic medicine . (7.7%) have only confused information about forensic medicine .(39%) have aware about forensic medicine .

This study has insufficient level of knowledge (36.3%) and sufficient level of knowledge (23.7%) compared to the average level of knowledge (40%) [4] which guide us to know that the majority of student don't know a lot about forensic medicine , also there is a weak knowledge and limited awareness of the importance [3]. The factors that affects choosing specialty in this study was , high income (27.8%) , opportunities in the private sector (22.2 %), stimulated interest( 22.2 %),acceptable working hours ( 22.2%) [6].

In our study we have found that , the nature of work ( eg: deals with crime, dead body, medical malpractice) is chosen as an effective factor by (82.1%) , personal interest and personal reasons (eg: family , friends) also chosen by (84.2%) as an effective factor ,the financial rewards, times of working and job opportunities is represented by (80 %) as an effective factor, but other studies was found that working hours and opportunities chosen by (22.2%) and high income by (27.8%) [6].

The medical student in Saudi universities seeing forensic medicine as specialty was (34.7%) which is good , in comparison with the study that shows the forensic medicine least popular specialties 4.6% [7] , (62.1%) of student think that the TV & radio have no effect to know about forensic medicine , but the lectures, doctors, friends, social media, conferences and workshops have more effect to know about forensic medicine , which represented by (68.8%) of student .

**CONCLUSION:**

Although measures have been taken to reduce the feasible limitations of this study as much as possible, the main obstacle was lack of literatures and still some limitations in the following aspects; Selection bias has known effect on the validity of the study results. Failure to obtain information from a designated individual for any reason (absence or

refusal to reply) was expected in this study especially incomplete response when academic grade requested . The study showed the undergraduate students knowledge about forensic medicine is weak , also there is poor attitudes toward and limited awareness of the importance of it. So encourage of medical institutes to solve this issue is a big concern and they have to influence this knowledge by using the available channels to get student interest for forensic medicine . On the other hand must begin action to establishing mentor programs for all specialties to direct students to pick up specialty that suitable for them before clash with desiring that doesn't wanted . Finally , work very hard from medical education on the media the affecting to know about forensic medicine to deliver information to students in all side and do more studies to find proper media that affecting.

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