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Research Article

**COMPARISON BETWEEN CAREER CHOICES OF MEDICAL STUDENTS IN FIRST YEAR MBBS AND CAREER CHOICES OF SAME STUDENTS IN SECOND YEAR MBBS**<sup>1</sup>Dr Arifa Tariq, <sup>2</sup>Dr Hira Nasir, <sup>3</sup>Dr Zahoor Ahmed, <sup>4</sup>Dr Ushbah Waqar Hashmi<sup>1</sup>Demonstrator, Rai Medical college Sargodha<sup>2</sup>WMO at BHU 33 sb, Sargodha<sup>3</sup>MO, Hameed Latif Hospital Lahore<sup>4</sup>Demonstrator Rai Medical College Sargodha

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**Abstract:**

**Background:** Career choice is very important for every medical student even in first year because if they don't know their path and destination how they can walk through it. Purpose of our study is to find career choice in first and second year, factors responsible for making or changing a choice and their practice station.

**Methodology:** It is an observational study in which 102 students of RAI medical college Sargodha were given questionnaire. Their career choice in 1<sup>st</sup> and 2<sup>nd</sup> year, factors influencing career choice and practice station was asked in that questionnaire.

**Result:** Total 101(99%) students filled and returned performas. In our study 56(54.5%) participants were females and 46(45.5%) were males (6). Out of 101 students 66 (65.34%) students decided their career in 1<sup>st</sup> year and did not change in second year. Among males cardiology is most preferred specialty in 1<sup>st</sup> year (26%) as well as 2<sup>nd</sup> year (23.91%) followed by general surgery and internal medicine. Among females cardiology is most preferred specialty in 1<sup>st</sup> year (23.63%) as well as 2<sup>nd</sup> year (18.18%). In 1<sup>st</sup> year cardiac surgery (12.72%) and obstetrics and gynaecology (10.9%) is next preferred specialty. In 2<sup>nd</sup> year obstetrics and gynaecology (16.36%) and dermatology (10.9%) is most preferred specialty. Most influencing factor is personal interest in both genders (83.16%). Most people preferred Pakistan as practice station (65.35%).

**Conclusion:** This study showed mostly students chose clinical specialties. A few students have idea about new emerging fields. This study emphasizes the need of career counseling of medical student in early phase. Career guidance is also important for those students who remained undecided about their career even after house job.

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**INTRODUCTION:**

A student when get admission in medical college, he/she has some aims about his/her career.(1) Career choice is very important for every medical student even in first year because if they don't know their path and their destination how they can walkthrough it; MBBS. Career choice is not a simple task. It is influenced by many factors like personal interests, parents wish, availability of hospitals in their areas etc (2). Most of the times, career choice by students is not the ultimate decision. Throughout study period their profession of interest continuously keeps changing due to multiple factors like emergence of new fields, new job opportunities, changing circumstances and changing interests.(8) The ultimate choice and adoption of certain subspecialty affects whole life of a medical person as well as patients. (3)

According to different researches, it is observed that most of students choose clinical subjects and a few students choose basic subjects. (2)

According to a research done in Ziauddin Medical University Pakistan it is observed that internal medicine, G.P., and Pediatrics are first three preferred specialties. Most important factor in career choice is personal interest. (1)

Another study done in Allama Iqbal medical college Lahore showed that most important factor that cause change of decision about career is expected problems in near future marriage.(2)

A survey done in China, Malaysia and regions of South Asia showed males are more interested in general medicine and surgery while girls are more interested in obstetrics and gynaecology plus surgery and general practice. This survey also showed most people choose surgery because of good quality life and obstetrics and gynaecology was chosen as it is interesting. (3)

Now we are conducting this study to identify career choices of students in first year and second year as well as factors responsible for career choices and change of career choices in Sargodha, Pakistan.(5)

**Study Objectives (1)**

This study is conducted in Rai Medical College Sargodha Pakistan. Participants are students of

second year (2016-2018) and we will compare their career choices in first year and now in second year. We have following objectives:

1. To find their future plans?
2. To find how many students have changed their career choices?
3. To find why they changed decision?
4. To find how many students want to exit this field?
5. To find how many students want to leave Pakistan?(1)

**METHODOLOGY: (5)**

It is an observational study. The study was conducted upon the undergraduate students of Rai Medical College Sargodha. Total 101 students took part in study. Participants are students of second year MBBS (2016-2021). Their career choices in current year (2018) are studied and are compared with career choices of the same students in first year (2017). The students were asked to fill a questionnaire voluntarily after signing consent form. Students who were not interested in filling the questionnaire, those who did not give consent and non medical students were not included in study. The study was approved by Ethical review committee of Rai medical college Sargodha. The study, its purpose and questions asked in perform all were briefly explained to student by faculty members of Anatomy department before filling perform. (4)

**Statistical analysis (3)**

The collected data were computerized. It was analyzed by using Statistical package for the Social Sciences (SPSS version 25). Frequencies and percentages were calculated for gender distribution, age, marital status, career decision, career preferences in first year as well as second year, factors responsible for career choice in first year, factors leading to change in career choice and practice station. Results are also represented by Bar charts. (2,6)

**RESULTS :(7)**

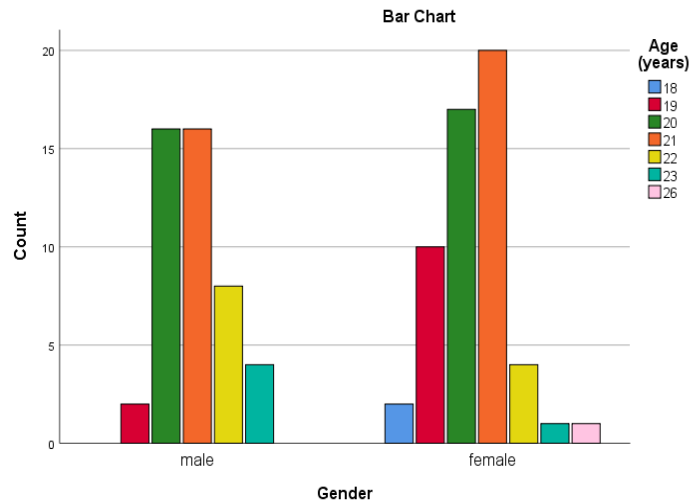
The questionnaire was distributed among 102 students of 2<sup>nd</sup> year in Rai Medical College Sargodha. A total of 101 students filled and returned the questionnaire. In our study 45.5% (n=46) were males and 54.5% (n=55) were females. A gender wise result was also performed. (7)

**Table1: total number (male + female) of participants**

	n	%
Male	46	45.5
Female	55	54.5
Total	101	100

**Table 2: age distribution of participants**

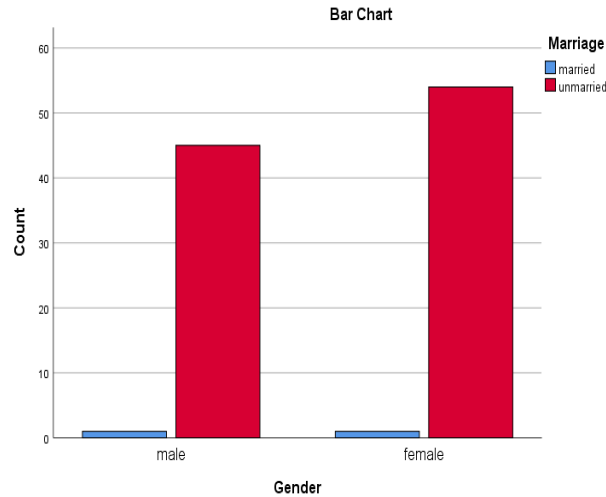
Age (years)	Male		Female		Total	
	n	%	n	%	n	%
18	0	0	2	3.6	2	2.0
19	2	4.3	10	18.2	12	11.9
20	16	34.8	17	30.9	33	32.7
21	16	34.8	20	36.4	36	35.6
22	8	17.4	4	7.3	12	11.9
23	4	8.7	1	1.8	5	5.0
24	0	0	0	0	0	0
25	0	0	0	0	0	0
26	0	0	1	1.8	1	1.0
	46	100	55	100	101	100

**Figure1: age distribution of participants (2)**

Among 101 students total 2 students were married and 99 were unmarried. Gender wise result is following:

**Table3: marital status of participants**

Marital status	Male		Female		Total	
	n	%	n	%	n	%
Married	1	2.2	1	1.8	2	2.0
Unmarried	45	97.8	54	98.2	99	98
	46	100	56	100	101	100

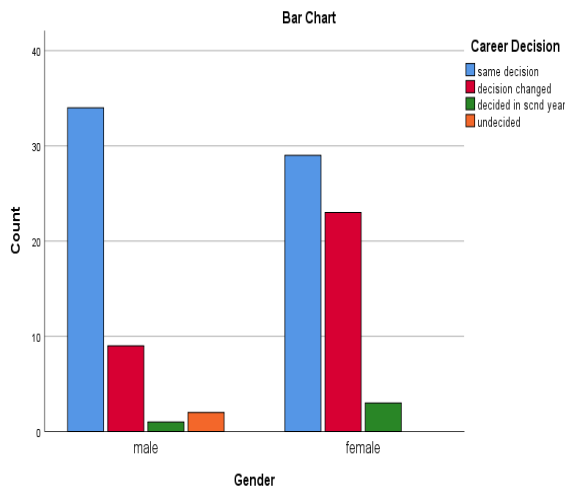


**Figure2: marital status (2)**

Out of 101 students 63 (62.4%) [male=34 (73.9%) female=29 (52.7%)] students have decided their career in first year and did not change in second year. Thirty two (31.7%) students [male=9 (19.6) female=23 (41.8)] were those who changed their decision in second year. Four (4.0%) students [male=1 (2.2%), female=3 (5.5%)] were those who chose their career in second year. Two (2.0%) students [male=2 (4.3%)] were those who still have not chosen their career. (6)

**Table 4: career decision of participants (total=101)**

Category	Male		Female		Total	
	n	%	n	%	n	%
Same decision	34	73.9	29	52.7	63	62.4
Decision change	9	19.6	23	41.8	32	31.7
Decided in 2 <sup>nd</sup> year	1	2.2	3	5.5	4	4.0
Still undecided	2	4.3	0	0	2	2.0
	46	100	55	100	101	100



**Figure 3: carrier decision (2)**

Among males who have decided their career, 26.1% (n=12) chose cardiology, 15.2% (n=7) chose internal medicine and general surgery and 8.7% (n=4) in first year. In second year, 26.1% (n=12) chose cardiology, 17.4% (n=8) chose general surgery and 10.9% (n=5) chose internal medicine and cardiac surgery as their career. (6)

Among females who have decided their career, 21.8% (n=12) chose cardiology, 12.7% (n=7) chose cardiac surgery and 10.9% (n=6) chose obstetrics and gynaecology and internal medicine as career in first year. In second year

25.5% (n=14) chose cardiology, 14.5% (n=8) chose obstetrics and gynaecology and 10.9% (n=6) chose internal medicine as their career choice. (6)

**Table 5: professions choice in first year (total=101)**

Specialty	Males		Females		Total	
	N	%	n	%	n	%
General Practice	2	4.3	3	5.5	5	5.0
Internal Medicine	7	15.2	6	10.9	13	12.9
Cardiology	12	26.1	12	21.8	24	23.8
Dermatology	1	2.2	4	7.3	5	5.0
Nephrology	3	6.5	0	0	3	3.0
Neurology	0	0	2	3.6	2	2.0
Gastroenterology	0	0	0	0	0	0
Pediatrics	1	2.2	3	5.5	4	4.0
General surgery	7	15.2	2	3.6	9	8.9
Otolaryngology	0	0	0	0	0	0
Neurosurgery	3	6.5	1	1.8	4	4.0
Ophthalmology	1	2.2	1	1.8	2	2.0
Orthopedics	0	0	0	0	0	0
Cardiac surgery	4	8.7	7	12.7	11	10.9
Plastic surgery	0	0	0	0	0	0
Urology	0	0	0	0	0	0
Obstetrics and Gynecology	0	0	6	10.9	6	5.9
Anesthesia	0	0	1	1.8	1	1.0
Psychiatry	1	2.2	0	0	1	1.0
General pathology	1	2.2	0	0	1	1.0
Microbiology	0	0	0	0	0	0
Histopathology	0	0	0	0	0	0
Hematology	0	0	1	1.8	1	1.0
Chemical pathology	0	0	0	0	0	0
Clinical immunology	0	0	0	0	0	0
Family medicine	0	0	1	1.8	1	1.0
Public health	0	0	0	0	0	0
Radiology	0	0	1	1.8	1	1.0
Medical administration	0	0	0	0	0	0
Anatomy	0	0	0	0	0	0
Physiology	0	0	0	0	0	0
Biochemistry	0	0	1	1.8	1	1.0
Pharmacology	0	0	0	0	0	0
Forensic medicine	0	0	0	0	0	0
Undecided	3	6.5	3	5.5	6	5.9
	46	100	55	100	101	100

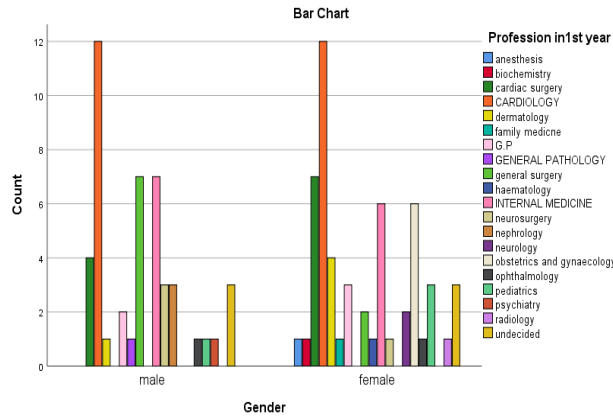
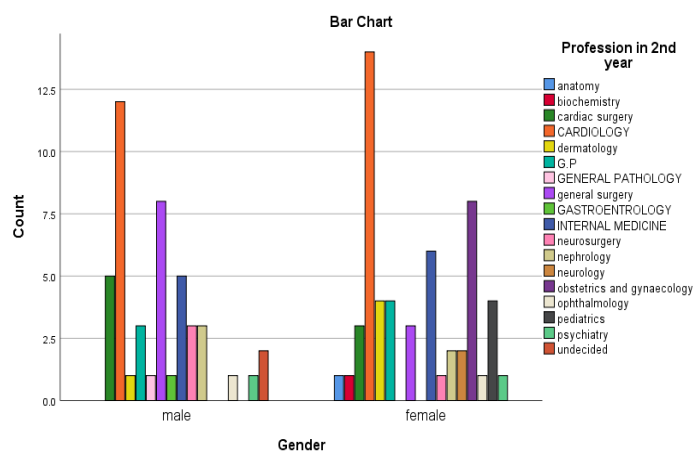


Figure 4: professions choice in 1<sup>st</sup> year (2)  
Table 6: professions choice in second year (total=101)

Specialty	Males		Females		Total	
	N	%	n	%	n	%
General Practice	3	6.5	4	7.3	7	6.9
Internal Medicine	5	10.9	6	10.9	11	10.9
Cardiology	12	26.1	14	25.5	26	25.7
Dermatology	1	2.2	4	7.3	5	5.0
Nephrology	3	6.5	2	3.6	5	5.0
Neurology	0	0	2	3.6	2	2.0
Gastroenterology	1	2.2	0	0	1	1.0
Pediatrics	0	0	4	7.3	4	4.0
General surgery	8	17.4	3	5.5	11	10.9
Otolaryngology	0	0	0	0	0	0
Neurosurgery	3	6.5	1	1.8	4	4.0
Ophthalmology	1	2.2	1	1.8	2	2.0
Orthopedics	0	0	0	0	0	0
Cardiac surgery	5	10.9	3	5.5	8	7.9
Plastic surgery	0	0	0	0	0	0
Urology	0	0	0	0	0	0
Obstetrics and Gynecology	0	0	8	14.5	8	7.9
Anesthesia	0	0	0	0	0	0
Psychiatry	1	2.2	1	1.8	2	2.0
General pathology	1	2.2	0	0	1	1.0
Microbiology	0	0	0	0	0	0
Histopathology	0	0	0	0	0	0
Hematology	0	0	0	0	0	0
Chemical pathology	0	0	0	0	0	0
Clinical immunology	0	0	0	0	0	0
Family medicine	0	0	0	0	0	0
Public health	0	0	0	0	0	0
Radiology	0	0	0	0	0	0
Medical administration	0	0	0	0	0	0
Anatomy	0	0	1	1.8	1	1.0

Physiology	0	0	0	0	0	0
Biochemistry	0	0	1	1.8	1	1.0
Pharmacology	0	0	0	0	0	0
Forensic medicine	0	0	0	0	0	0
Undecided	2	4.3	0	0	2	2.0
	46	100	55	100	101	100



**Figure5: professions choice in 2<sup>nd</sup> year (2)**

Regarding factors responsible for making career choice, among 95 students who have decided their career in first year personal interest is most influencing factor ; in males 39.1% (n=18) females 41.8% (n=23). (9)

Personal interest along with parents' wish is 2<sup>nd</sup> most influencing factor in males 9.1% (n=5) as well as in females 8.7% (n=4). (9)

Personal interest along with option to help people [5.9%, n=6, (male=2.2% n=1 female=7.3% n=4)] and parents' wish along with wide job opportunity and time for family [5.9%, n=6 (male=6.5%, n=3 female=5.5% n=3)] is 3<sup>rd</sup> most influencing factor. (9)

**Table 7: factors responsible for career choice in first year (decided=95) (9)**

Factors	Male		Females		Total	
	N	%	n	%	n	%
personal interest	18	39.1	23	41.8	41	40.6
enjoyable life style	1	2.2	0	0	1	1.0
having direct dealing with patient	3	6.5	0	0	3	3.0
having teaching prospects	2	4.3	0	0	2	2.0
having option to help people	2	4.3	2	3.6	4	4.0
fixed hours of work	0	0	1	1.8	1	1.0
parents' wish	1	2.2	4	7.3	5	5.0
personal interest + help people	2	4.3	4	7.3	6	5.9
personal interest+ patient wish+ wide job opportunity	0	0	3	5.5	3	3.0
parent wish+ wide job opportunity+ time for family	2	4.3	2	3.6	4	4.0
personal interest+ parent wish+ option to help people	3	6.5	3	5.5	6	5.9

personal interest +parents' wish	4	8.7	5	9.1	9	8.9
personal interest+ enjoyable lifestyle + help people	3	6.5	2	3.6	5	5.0
personal interest+ enjoyable life style+ wide job opportunity	1	2.2	1	1.8	2	2.0
personal interest + wide job opportunity+ help people+ availability of pg training	1	2.2	2	3.6	3	3.0
Total	43	93.5	52	94.5	95	94.1

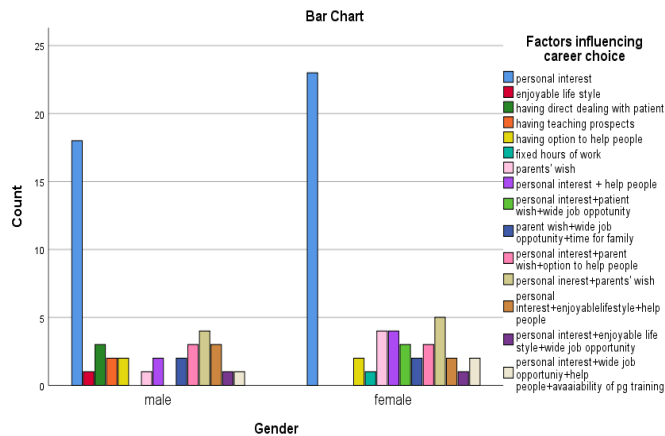


Figure6: factors influencing career choice (7)

Regarding factors causing change in decision about career, among 36 students personal interest is most influencing factor. (6)

Table 8: factors responsible for change of career (changed=36)

Factors	Male		Females		Total	
	N	%	n	%	n	%
personal interest	3	6.5	15	27.3	18	17.8
availability of P.G training	0	0	2	3.6	2	2.0
enjoyable life style	0	0	1	1.8	1	1.0
wide job opportunity	1	2.2	1	1.8	2	2.0
having teaching prospects	0	0	1	1.8	1	1.0
having option to help people	0	0	1	1.8	1	1.0
option to practice in rural areas	0	0	1	1.8	1	1.0
time for personal interests	0	0	1	1.8	1	1.0
parents' wish	1	2.2	0	0	1	1.0
personal interest + help people	0	0	1	1.8	1	1.0
personal interest+ patient wish+ wide job opportunity	1	2.2	0	0	1	1.0
personal interest+ enjoyable life style+ wide job opportunity	1	2.2	1	1.8	2	2.0
enjoyable lifestyle+ help people+ wide job opportunity	2	4.3	0	0	2	2.0



personal interest+ direct deal with patient+ help people	1	2.2	0	0	1	1.0
enjoyable life style+ wide job opportunity+ having time for personal interest	0	0	1	1.8	1	1.0
Total	10	21.7	26	47.3	36	35.6

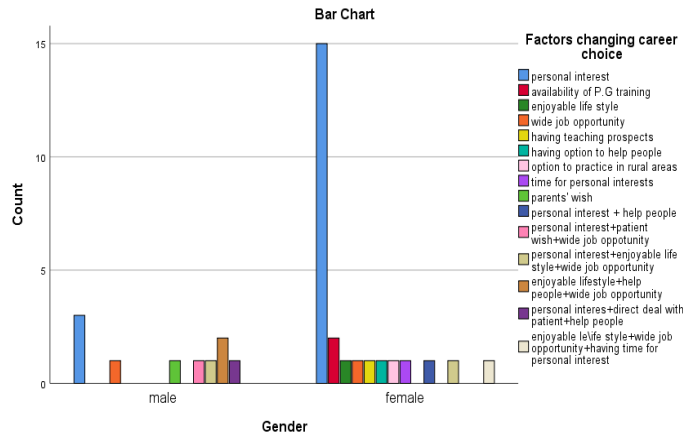


Figure7: factors causing change in decision (7)

Regarding practicing station, 58.7% (n=27) males and 63.6% (n=35) females chose Pakistan. 41.3% (n=19) males and 36.4% (n=20) females chose to practice abroad. (1)

TABLE 7: Practice Station

Practice station	MALE		FEMALE		Total	
	N	%	n	%	n	%
ABROAD	19	41.3	20	36.4	39	38.6
PAKISTAN	27	58.7	35	63.6	62	61.4
	46	100.0	55	100.0	101	100.0

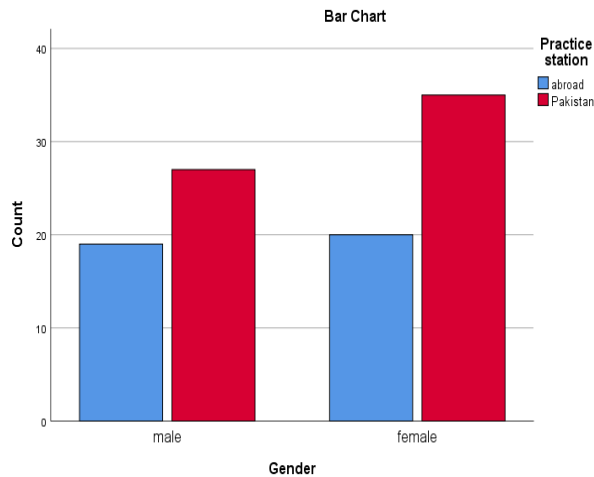


Figure8: practice station (7)

**DISCUSSION:**

Career choice is very important task among medical students even in their early phase of study. For example if a person wants to become a surgeon he or she will study anatomy and other related subjects keenly. Career choice is influenced by many factors like if father is surgeon; he wants his son also to be a

surgeon. (2)

Students have idea that at the present time simple MBBS degree holder Doctor has no value. Therefore, every student before going to medical college has decided his or her specialty, although many students change their decision with time. (1)

The purpose of this study is to determine the concept of career choice among medical students in their very early phase of medical education. Along with career choices, the study is also defined to investigate and compare the emerging fields of interest among both genders, factors that determine and later on changed their decisions, trends of practicing either in Pakistan or abroad.

Our results show that cardiology is the top most priority of most of students and this goes for both genders in both years. Next most favourite fields differ among both genders. Male students preferred general surgery and internal medicine as 2<sup>nd</sup> and 3<sup>rd</sup> choice respectively in 1<sup>st</sup> year. While in 2<sup>nd</sup> year male student preferred general surgery and internal medicine + cardiac surgery as 2<sup>nd</sup> and 3<sup>rd</sup> choice respectively. While female student preferred cardiac surgery and gynaecology + internal medicine in first year and in second year they preferred obstetrics and gynaecology and internal medicine. In our study only 2 students choose basic science subject in first year and 2 students choose in second year. A study done in Nigeria showed that students considered anatomy an important subject but only 6.2% students chose anatomy as a career choice in post graduation. (10). A study done on Sudanese students says that surgery is top most career choice among both genders. Many studies show males usually choose surgery. (4)

Main factor determining the career choice is personal interest at the top in addition to parents 'wish and to help other people. Our study showed change in decision is due to change in personal interest, teaching opportunities and fixed working hours. Study done in Allama Iqbal medical college Lahore showed that most important factor that cause change of decision about career is expected problems in near future marriage.(2) Most students show aim to work and serve for their own country Pakistan instead of going abroad.

According to a research done in Ziauddin Medical University Pakistan it is observed that internal medicine, G.P., and Pediatrics are first three preferred specialties. Most important factor in career choice is personal interest. (1)

There are certain limitations to his study. First, it is performed just on 101 students of single medical college so, it cannot be generalized. Second, it includes non clinical phase of medical education. Third, students may choose a profession during their educational phase of life and this may vary from their actual choice. (12) Further research in future may reveal similarities or contradictions. (9) Fourth we

took only second year students of medical college and did not involve students of other years. (12)

Studies showed that there is difference among career choices after students has completed graduation. A follow up study will help us to find the fields which are mostly chosen by medical students and we will be able to find which field needs to be strengthened. (1) This study may prove helpful for career counseling and guidance of medical students. This study may also prove useful for making some amendments in order to stabilize doctor-patient ratio among different medical fields. (6)

#### CONCLUSION: (6)

This study showed the trend of choosing clinical specialties instead of basic sciences. Our study showed most students are choosing the specialty in which people are already working. Most influencing factor is their personal interest. Students have no idea about new fields. A few students have some knowledge and decide to choose new emerging fields. (5)

This study emphasizes the need of career counseling of medical student in early phase. Career guidance is very important so that students have idea about new fields and they will choose that fields. Health planners should move forward to highlight new emerging fields. In this way a homogenous distribution of doctors in Pakistan will be possible. Further career guidance is also important for those students who remained undecided about their career even after house job. (5)

#### Conflict of interest (7)

According to author this study has no conflict of interest. (6)

#### ACKNOWLEDGEMENT: (12)

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