



## “Comparison of Difference in Career Preferences Between First and Final Year Medical Students”

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## **ABSTRACT**

### **Objective**

*Comparison of difference in career preferences between first and final year medical students.*

### **Study and Methods**

*Cross-sectional Study was conducted in 390 medical students among them 195 were first year and 195 were final year medical students (MBBS) of Dow Medical College. Data was collected during December 2014 to February 2015. Convenient sampling technique was used as study was questionnaire based. Questionnaire was about specialties and sub specialties preferences and factors that might help them to choose their preferred specialties and sub specialties. SPSS version 16 was used for analytical analysis.*

### **Results**

*Respondents were 195 (50%) final year medical students and 195 (50%) first year medical students. Fields of Internal medicine (17%), cardiology (12.5%) and*

*pediatrics (11%) were chosen as most desired fields of specialization overall, but internal medicine 57(29.23%) was chosen by final year student at top most, while surgical fields (cardiac surgery, neurosurgery, obstetrics and gynecology, general surgery, pediatrics surgery and ENT) 80(41%) were chosen by first year medical students at top most. The difference in influencing factors were noted as, parental influence 139(71.2%), few specialties of desired field in our country 117(60%), policy/mission of medical college 116(59.5%) were selected by first year students as influences to choose the specialty in future while personal interest 190(97.43%), intellectual challenge 163(83.58%), opportunity to contribute to society 160(82.05%) were selected by final year students as their influences to choose particular speciality.*

### **Conclusion**

*Students were aware of the importance of specialization in a particular field, but seemed to need career counseling to help them in their decision-making.*

## **Keywords**

Career preference; intended medical field; Specialization; Medical students; influencing factors.

## **OBJECTIVE OF THE RESEARCH**

- To compare the career preferences of first and final year medical students.
- To determine the factors affecting their career preferences.
- To find the most preferred country and set-up for practice among first and final year medical students.

## **RATIONALE**

- Any student doing MBBS has wide area for career selection among many different specialties and sub-specialties.
- Also there are many individually specified factors that can direct one to choose the field of future practice
- In this process of career selection, some specialties are more often chosen by future doctors while some are almost completely overlooked (especially by those sharing same circumstances and facing same ground realities.
- So, there is a great need of proper guidance to distribute man-power equally in all the fields of practice.<sup>[1]</sup>

## **INTRODUCTION**

Medical learning necessitates students studying a great scope of medical specialties. Currently, there is a greater appreciation of career preference in medicine affecting student's learning and academic performance. During pre-clinical and clinical experiences, medical students construct their professional identity through a process of medical socialization. Within this progression, they are paying attention on gaining of new knowledge and skills, but they also cooperate with other medical students, health professionals and patients. Through such relations, students build their professional identity stuck on principles of the biomedical representation [2]

There are hardly up to forty-seven medical colleges in all over Pakistan. Public colleges are in general the best reputable and prominent; they have an average of 300 students per batch of MBBS. Private medical colleges have gained attractiveness in recent times, and are increasing sharply in numbers; they have an average of 120 students per batch of MBBS. Hence, the number of students is variable. Overall five year program was established for MBBS in Pakistan. But in United State it takes eight years to complete a graduate degree in medicine. With only some exceptions, the first two years are steadfast toward basic health sciences with no exposure to clinical rotations. The next three years are associated with clinical experience in the wards at associated teaching hospital. This clinical exposure gives an individual sufficient opportunity to decide upon



which specialty to practice after completion of their college education (for example Surgery, Medicine, Pediatrics, Ophthalmology or Gynecology and other sub specialty). [3] First year students come with bare minded thoughts, preferences and the factors are mostly related to their personal Interest but with passageway and clinical experience and work load they got to know pros and cons of every field and convenience of seats and additional opportunities. However, not only medical school entrants, but even medical school applicants, often have strong preferences for or against some medical careers. They keen on to choose clinical specialty rather than a preclinical and Para clinical specialty likes Anatomy, Community Medicine, and Pathology, hematology etc. Some studies have well recommended that majority of medical students want to follow their specialization in clinical branches and very few of them are interested in pre and Para clinical branches. [4] And this opinion of students is creating this threat of divergence for faculty members in medical colleges. Lots of posts are still vacant in these streams despite severe efforts to fill them. Lack of counseling in pre medical schools about career this somehow is diluting medical educational system. [5] So the reasons and factors responsible need to be found out among medical students. So that corrective measures can be searched out at earliest. Same was planned by transmission of this study though at tiny scale, among undergraduate medical students. Many researches had already been done in many colleges of different

countries. Majority had shown that various changes do occur in career preferences among students right through their study years. [6]

## **SUBJECTS AND METHODS:**

**STUDY DESIGN:** This was a cross-sectional study.

**SUBJECT OF STUDY:** Study was conducted among first and final year medical students (MBBS).

**PLACE OF STUDY:** Dow Medical College, DUHS.

**DURATION OF STUDY:** Data was collected from December 2014 to February 2015

**SAMPLE SIZE:** Sample size was calculated by OpenEpi. A total of 384 students, including 192 first year and 192 final year MBBS students of Dow Medical College were taken.

**SAMPLING TECHNIQUE:** Non probability, purposive sampling technique

**STUDY PROTOCOL:** Study was questionnaire based. A written consent was acquired before administering the questionnaire. Questionnaire contained questions regarding gender, age, marital status, guardian job, family income, no of family members, admission in medical college either on merit or self-finance category, type of higher secondary school system they had followed before medical college, which type of study they had followed before medical college, in which specialty or subspecialty of medicine or surgery they intended to do job, their preferred setting for medical practice, preferred country for practice and what factors influenced their career preferences.



The factors included were personal interest, role model in medical college, clinical rotation, intellectual challenges, professional independence, close interaction with patients, content of specialty, availability of desired practice setting, parental preferences, specialty prestige, financial rewards, commitment to family, availability of seats (vacancy), burden of disease, few specialists in country of that field, working with new technologies, opportunities for research, policy of medical college.

**INCLUSION CRITERIA:** First and final year students of Dow Medical College

**EXCLUSION CRITERIA:** Students who didn't give consent to fill questionnaire. Students who were not present at time of data collection.

**STATISTICAL ANALYSIS:** Statistical package for social sciences (spss) version 16 was used for data analysis. Frequency (percentages) was calculated for qualitative data.

## **RESULTS**

In our study the response rate was 100%. There were 195 (50%) final year medical student and 195 (50%) first year medical student respondents. Overall Internal medicine (17%), cardiology (12.5%) and pediatrics (11%) were chosen as most

desired fields of specialization, but internal medicine 57(29.23%) was chosen by final year medical students at top most, while surgical fields(cardiac surgery, neurosurgery, obstetrics and gynecology, general surgery, pediatrics surgery and ENT) 80(41%) were chosen by first year medical students as their first priority. Personal interest was the mutual most influencing factor, while the difference of influencing factors were noted as, few specialties of desired field in our country 117(60%), policy/mission of medical college 116(59.5%) were selected by first year students as influences to choose the specialty in future while personal interest 190(97.43%), intellectual challenge 163(83.58%), opportunity to contribute to society 160(82.05%) were selected by final year students as their influences to choose particular speciality. 249 (63.8%) participants had presence of family members in the medical profession. Overall 300 students were on merit and 90 were on self finance. Among them pediatrics 16(17.77%), internal medicine 14(15.55%) and cardiology 14(15.55%) were the most desired fields by students on self finance some what similar as by student on merit among which internal medicine 54(18%), cardiology 35(11.6%), pediatrics 28(9.33%), obstetrics and gynecology 28(9.33%) were chosen as most desired field.



**TABLE.1 CAREER PREFERENCES OF FIRST AND FINAL YEAR MBBS STUDENTS (n = 390)**

<b>CAREER PREFERENCE</b>	<b>FINAL YEAR(%)</b>	<b>FIRST YEAR(%)</b>
<b>Internal medicine</b>	<b>57(29.23%)</b>	<b>11(5.64%)</b>
<b>Psychiatry</b>	<b>8(4.10%)</b>	<b>9(4.61%)</b>
<b>Pathology</b>	<b>0(0%)</b>	<b>1(0.51%)</b>
<b>Oncology</b>	<b>6(3.07%)</b>	<b>6(3.07%)</b>
<b>Anesthesiology</b>	<b>1(0.51%)</b>	<b>1(0.51%)</b>
<b>Neurology</b>	<b>7(3.58%)</b>	<b>13(6.66%)</b>
<b>Neurosurgery</b>	<b>12(6.15%)</b>	<b>21(10.76%)</b>
<b>Dermatology</b>	<b>3(1.53%)</b>	<b>9(4.61%)</b>
<b>General surgery</b>	<b>19(9.74%)</b>	<b>15(7.69%)</b>
<b>Pediatrics</b>	<b>26(13.33%)</b>	<b>18(9.2%)</b>
<b>Peds surgery</b>	<b>0(0%)</b>	<b>5(2.56%)</b>
<b>Cardiology</b>	<b>13(6.66%)</b>	<b>36(18.46%)</b>
<b>Cardiac surgery</b>	<b>16(8.2%)</b>	<b>21(10.77%)</b>
<b>Ent</b>	<b>3(1.53%)</b>	<b>0(0%)</b>
<b>O&amp;G</b>	<b>12(6.15%)</b>	<b>18(9.23%)</b>
<b>Others</b>	<b>12(6.15%)</b>	<b>11(5.69%)</b>

**TABLE.2 FACTORS INFLUENCING CAREER PREFERENCES**

<b><u>FACTORS</u></b>	<b><u>FIRST YEAR</u></b>	<b><u>FINAL YEAR</u></b>
Personal interest	183(93.8%)	190(97.43%)
Role model in medical college	107(54.87%)	85(43.58%)
Clinical rotations	132(67.69%)	154(78.97%)
Intellectual challenge	159(81.54%)	163(83.58%)
Professional independence	171(87.69%)	147(75.38%)
Close interaction with patient	159(81.53%)	130(66.66%)
Content of specialty	162(83.07%)	154(78.97%)
Working hour	108(55.38%)	112(57.43%)
Parental preference	139(71.28%)	87(44.61%)
Specialty prestige	167(85.64%)	150(76.92%)
Financially rewarded	120(61.53%)	118(60.51%)
Commitment to family/community	139(71.28%)	119(61.02%)
Availability of seats	91(46.66%)	86(44.10%)
Burden of disease	80(41.02%)	93(47.69%)
Few specialist of desired fields in country	117(60%)	66(33.84%)
Working with new technologies	144(73.84%)	113(57.94%)
Opportunities to contribute to society	173(88.71%)	160(82.05%)
Opportunity for research	173(88.7%)	113(57.94%)
Policy/mission of medical college	116(59.48%)	71(36.41%)
Medical reason	102(52.3%)	87(44.61%)


**TABLE.3 CAREER PREFERENCES BETWEEN STUDENTS ON MERIT AND ON SELFFINANCE**
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<b>INTENDED MEDICAL SPECIALITY</b>	<b>STUDENTS ON MERIT</b>	<b>STUDENTS ON SELF-FINANCE</b>
<b>Internal medicine</b>	<b>54(18%)</b>	<b>14(15.55%)</b>
<b>Psychiatry</b>	<b>13(4.33%)</b>	<b>4(4.44%)</b>
<b>Pathology</b>	<b>1(0.33%)</b>	<b>0(0%)</b>
<b>Oncology</b>	<b>8(2.66%)</b>	<b>4(4.44%)</b>
<b>Anesthesiology</b>	<b>2(.66%)</b>	<b>0(0%)</b>
<b>Neurology</b>	<b>17(5.66%)</b>	<b>3(3.33%)</b>
<b>Neurosurgery</b>	<b>27(9%)</b>	<b>6(6.66%)</b>
<b>Dermatology</b>	<b>9(3%)</b>	<b>3(3.33%)</b>
<b>General surgery</b>	<b>24(8%)</b>	<b>10(11.11%)</b>
<b>Pediatrics</b>	<b>28(9.33%)</b>	<b>16(17.77%)</b>
<b>Peads surgery</b>	<b>4(1.3%)</b>	<b>1(1.11%)</b>
<b>Cardiology</b>	<b>35(11.6%)</b>	<b>14(15.55%)</b>
<b>Cardiac surgery</b>	<b>27(9%)</b>	<b>10(11.11%)</b>
<b>Ent</b>	<b>3(1%)</b>	<b>0(0%)</b>
<b>O&amp;g</b>	<b>28(9.33%)</b>	<b>2(2.22%)</b>
<b>other</b>	<b>12(6.15%)</b>	<b>11(5.69%)</b>
<b>TOTAL</b>	<b>300</b>	<b>90</b>




**TABLE.4 PREFERRED SETTING FOR PRACTICE**

<b>Preferred setting for practice</b>	<b>Final year students</b>	<b>Final year students</b>
<b>Public university teaching hospital</b>	<b>85(43.58%)</b>	<b>85(43.58%)</b>
<b>Private university teaching hospital</b>	<b>76(38.97%)</b>	<b>52(26.66%)</b>
<b>Private specialist clinic</b>	<b>23(11.7%)</b>	<b>27(13.8%)</b>
<b>Public/municipal dispensary</b>	<b>1(0.51%)</b>	<b>4((0.02%)</b>
<b>District hospital</b>	<b>2(1.02%)</b>	<b>16(8.2%)</b>
<b>NGO</b>	<b>4(2.05%)</b>	<b>3(1.53%)</b>
<b>OTHERS</b>	<b>4(2.05%)</b>	<b>8(4.1%)</b>


**TABLE.5 PREFERRED COUNTRY FOR PRACTICE**

<b>PREFERRED COUNTRY</b>	<b>FINAL YEAR</b>	<b>FIRST YEAR</b>
<b>Pakistan</b>	<b>127(65.1%)</b>	<b>125(64.1%)</b>
<b>USA</b>	<b>28(14.35%)</b>	<b>33(16.9%)</b>
<b>Europe</b>	<b>9(4.6%)</b>	<b>10(5.12%)</b>
<b>Australia</b>	<b>5(2.56%)</b>	<b>11(5.64%)</b>
<b>UAE</b>	<b>4(2.05%)</b>	<b>1(0.5%)</b>
<b>Middle East</b>	<b>8(4.1%)</b>	<b>3(1.53%)</b>
<b>Saudi Arabia</b>	<b>8(4.1%)</b>	<b>2(1.02%)</b>
<b>Others</b>	<b>5(2.56%)</b>	<b>10(5.12%)</b>

## **DISCUSSION**

According to our research internal medicine was preferred by 57(29.23%) students of MBBS final year of Dow medical college and 11(5.64%) students of first year of Dow medical college. Pediatrics was preferred by 26(13.33%) students of final year of MBBS of Dow medical college and 18(9.2%) students of first year. General surgery was preferred by 19(9.74%) students of final year and 15(7.69%) students of first year. Cardiac surgery was preferred by 16(8.2%) students of final year and 21(10.77%)

students of first year. Cardiology was preferred by 13(8.2%) final year medical students and 36(18.46%) students of first year. Obstetrics and gynecology was preferred by 12(6.51%) students of final year and 18(9.23%) students of first year. Neurosurgery was preferred by 12(6.51%) students of final year and 13(10.76%) students of first year. Psychiatry was preferred by 8(4.10%) students of final year and 9(4.61%) students of first year. Neurology was preferred by 7(3.58%) students of final year and 13(6.66%) students of first year. Oncology was



preferred by 6(3.07%) students of final year and 6(3.07%) students of first year. Derma was preferred by 3(1.53%) student of final year and 9(4.61%) students of first year. Anesthesiology was preferred by 1(0.51%) student of final year and 1(0.51%) student of first year. Pediatric surgery was preferred by 0(0%) student of final year and 5(2.564%) students of first year. Pathology was preferred by 0(0%) student of final year and 1(0.51%) student of first year and other medical specialties were preferred by 12(6.15%) final year medical students and 11(5.64%) first year medical students. According to one research published in 2011, done on first, third and final year students of two private medical colleges of Bangladesh, surgery was preferred by 48% first year and 28% final year medical students while medicine was preferred by 30% first medical students and 50% final year medical students.<sup>[6]</sup> According to one research published in 2013 done on medical students of Nepal medicine was preferred by 145/346(41.9%) students of first year and 71/221(32.1%) students of final year while surgery was preferred by 63/346(25.6%) first year medical students and 79/221(35.7%) final year medical students.<sup>[7]</sup> And according to one research published in 2013 done on first year medical students of Nelson R Mendela school of medicine, University of KwaZulu-Natal, most responded fields were surgical specialties(53%), general surgery(50%), cardiology(46.6%), basic sciences(21%) and psychiatry(17%)<sup>[8]</sup> and according to one research published in 2006 done on 232 final year MBBS students of Ziauddin medical university, internal medicine was preferred by 85(36.6%) students as first priority, general surgery was preferred by 49(21.1%) students, pediatrics

was preferred by 41(17.7%) students, cardiology was preferred by 24(10.3%) students, obstetrics and gynecology was preferred by 21(9.1%) students, radiology was preferred by 20(8.6%) students, ENT was preferred by 15(6.5%) students, oncology was preferred by 13(5.6%), ophthalmology was preferred by 13(5.6%) students, psychiatry was preferred by 11(4.7%) students, community medicine was preferred by 10(4.3%) students, pathology was preferred by 8(3.5%), basic sciences was preferred by 6(2.6%) and other medical specialties were preferred by 13(5.6%) students.<sup>[9]</sup> And according to one research published on August 2012 in Gambia on 200 medical students on topic medical students choices of specialty in the Gambia, surgery, obstetrics, gynecology, internal medicine, pediatrics and public health were the most preferred fields selected by students.<sup>[2]</sup>

According to our research collectively internal medicine was preferred by 68(17%) students of first and final year, cardiology was preferred by 49(12.5%) students of first year and final year, pediatrics was preferred by 44(11.28%) students, cardiac surgery was preferred by 37(9.48%), general surgery was preferred by 34(8.71%), neurosurgery was preferred by 33(8.46%), obstetrics and gynae were preferred by 30(7.69%), neurology was preferred by 20(5.12), psychiatry was preferred by 17(4.35%), derma was preferred by 12(3.07%), oncology was preferred by 12(3.07%), pediatric surgery was preferred by 12(3.07%), anesthesiology was preferred by 2(.51%), pathology was preferred by 1(.25%) and according to one research published in July 2011 done in Karachi, most student's desired specialties and subspecialties were in this order: surgery and



its subspecialty 50.3%, internal medicine 25.8%, paediatrics 23.2%, derma 16.7%, psychiatry 13.1%, radiology 10.8%, ENT 8.8%, anesthesiology, administrative medicine 8.6%, orthopedics 8.2%, gynae and obstetrics 8.2%, ophthalmology 7.5% and laboratory medicine 6.1%<sup>[3]</sup>

Most common factors affecting first and final year career choice collectively were personal interest (95.6%), opportunity to contribute to society (85.3) and intellectual challenges (82.5%). However according to research held at Oxford University (U.K) in 2014 concluded that the largest influence upon career choice of medical students were enthusiasm/commitment (78.8%). The next most influential factor were experience of job so far (55.1%) self-appraisal of own attitude (55.1%)<sup>[10]</sup> Another study held at multiple institutions (Dow medical college, Liaquat national college and Muhammad medical college in 2009 concluded that most important influential factor was personal choice and prestige<sup>[2]</sup>. In our study we find out that there is a significant influence of parental preference upon career choices among first year students (73.1%) while 47.5% final year students chose their future specialty on parental preference.

In our study, working in public university teaching hospital was chosen as desired setup by 170 (43.5%) students same by both first year and final year, private university teaching hospital was chosen by 76 (38.9%) of final year student while 52 (26.6%) first year students chose this as the most preferred setting, private specialist clinic 23(11.7%), 27 (13.8%) by first and final year student respectively and other settings 11 (5.6%), 31(15.8%) by first and final year student respectively. The same research that was conducted in Dow medical college and

Sindh medical college in 2011 stated that working in local hospitals and practicing as general clinicians attracted 42.5% and 36.7% of the students respectively. 74.8% students, particularly males, were interested in following their fields of specialization in abroad by all students of MBBS.<sup>[3]</sup>

In our study there were no differences found among final and first year students in choosing the desired country for practice, as both year students had chosen Pakistan as the most desired country for practice 127 (65.1%) , 125 (64.1%) respectively. USA stood as the most attracted foreign country for practice by both first and final year medical student 28 (14.3%), 33(16.9%) respectively. Another research were conducted in Ziauddin Medical University as career preference of final year medical students by Huda & Yousuf, most respondents preferred working in Pakistan as compared to overseas, and for practice selected, private setup was more favored compared to other settings.<sup>[11]</sup> According to one research published in May 2011 done in Nepal on medical students going abroad for medical practice was liked by students with families of higher income.<sup>[12]</sup>

According to our research 300 students of first year and final year were on merit ,among them specialties and subspecialties were preferred in this order : internal medicine 54(18%), cardiology 35(11.66%), pediatrics 28(9.33%), obstetrics and gynaecology 28(9.33%), neurosurgery 27(9%), cardiac surgery 27(9%), general surgery 24(8%), neurology 17(5.66%), psychiatry 13(4.33%), dermatology 9(3%), oncology 8(2.66%), pediatric surgery 4(1.33%), ENT 3(1%), anesthesiology 2(0.66%), pathology 1(0.66%). In our research 90



students of first year and final year were on self finance ,among them specialties and subspecialties were preferred in this order: pediatrics 16(17.77%), internal medicine 14(15.55%), cardiology 14(15.55%), general surgery 10(11.11%), cardiac surgery 10(11.11%), neurosurgery 6(6.66%), psychiatry 4(4.44%), oncology 4(4.44%), dermatology 3(3.33%), neurology 3(3.33%),obstetric and gynecology 2(2.22%), pediatric surgery 1(1.11%) There was no difference found in field selection among students on merit and self finance. In comparison to this, among students of final year in Ziauddin medical university, a private university, first three most preferred fields of practice were in order of internal medicine, surgery and pediatrics. <sup>[11]</sup>

## CONCLUSION

The students of Dow medical college do have some preferences for their future fields of practice in their minds which they admitted to be influenced by some factors either personnel or social. In future prospective,there must be some career counseling sessions arranged for students to create awareness regarding the importance of specialization, encourage students to choose sub-specialties like public health, etc. A critical review by the policy-makers is required to strengthen the fields that are being overlooked by the students, and to take appropriate steps to motivate students to join those fields. Further studies need to be done with a larger sample size to determine the changing trends in career preferences.

## LIMITATIONS:

Subjects were limited to a single set-up. Medical students of first year were having

little knowledge of specialties and clinical rotations.

## RECOMMENDATIONS:

Further researches with larger population and different setups is recommended to have a more precise data and comparison. Career counseling sessions are recommended to be organized annually ,where field experts, professionals and career counsellors should be invited to guide medical students and share their own experiences and explain pros and cons of their fields so that student may get a broader idea of their future preferences and can assess their abilities and interests themselves. The learning in ward rotations should be more practical rather than theoretical and students should be given a force to be involved in ward's happenings directly so that students can understand the ground realities of particular field and can assess their interest themselves, like hands on sessions in surgical rotations or complete case study from admission till discharge by observing and following up patients progress at every single step.

## REFERENCES

- [1.] T. W. Lambert, M. J. Goldacre, C. Edwards, and J. Parkhouse(1996), Career preferences of doctors who qualified in the United Kingdom in 1993 compared with those of doctors qualifying in 1974, 1977, 1980, and 1983 from BMJ. 1996 Jul 6; 313(7048): 19–24.
- [2.] Mustapha Bittaye, Akin-TundeAdemolaOdukogbe, OusmanNyan, BintouJallow and Akinyinka O Omigbodun (2012). Medical students' choices of specialty in The Gambia: the need for career counseling from Bio Med Central(BMC) Medical Education 12:72



doi:10.1186/1472-6920-12-72

<http://www.biomedcentral.com/1472-6920/12/72>

[3.] AnisRehman, Muhammad AteebShaikh, AmmaraAsif, HinaKafil TariqRehman HaleemaYasmin (2011). Pakistani medical students specialty preference and the influencing factors from Journal Of Pakistan Medical Association (JPMA) J Pak Med Assoc. 2011 Jul;61(7):713-8.

[4.] Shiraz Shaikh et all.(2012). Experience of devolution in district health system of Pakistan: Perspectives regarding needed reforms from Journal Of Pakistan Medical Association (JPMA) J Pak Med Assoc. 2012 Jan;62(1):28-32.

[5.] NeerajGour et all. (2011). Specialty Preference Among Medical Students and Factors Affecting It Online Journal of Health and Allied Sciences.2011;10(2):12.volume 10,issue 2.

[6.] SM Moslehuddin Ahmed,MdAnwarulAzimMajumdar,Rezina Karim,SayeedaRahman, and NuzhatRahman (2011).Career choices among medical students in Bangladesh Published Date February 2011 Volume 2011:2 Pages 51—58 doi <http://dx.doi.org/10.2147/AMEP.S13451>

[7.] Bruce W Hayes and RabinaShakya (2013). Career choices and what influences Nepali medical students and young doctors: a cross-sectional study from Human Resources for Health 2013, 11:5 doi:10.1186/1478-4491-11-5

<http://www.human-resources-health.com/content/11/1/5>.

[8.] OnyemaechiO, AzuEdwin NaiduandJesse Naidu (2013). Choice of speciality amongst first-year medical students in the R. Mandela School of Medicine, University of KwaZulu-Natal from African Journal of Primary Health Care & Family Medicine; Vol 5, No 1 , 7 pages. doi: 10.4102/phcfm.v5i1.513.

[9.] J S Thomas, Michelle m koo, Sephershakib, S Khanal (2014). Impact of a compulsory final year medical student curriculum on junior doctor prescribing from Intern Med J. Feb;44(2):156-60. doi: 10.1111/imj.12316.

[10.] Fay Smith (2011). Cohort of UK Medical Graduateswho qualified in 2008(Factors affecting career choice) Report of Second Survey conducted at UK Medical Careers Research Group Oxford University in 2011 report finalized may 2014 .2008 Cohort, 2011 Survey, Page 4

[11.] Huda N and Yousuf S (2006).Career preference of final year medical students of Ziauddin Medical University from Pub Med Educ Health (Abingdon). 2006 Nov;19(3):345-53.

[12.] Ian Huntington, SuvashShrestha, Nicholas G Reich and Amy Hagopian(2012).Career intentions of medical students in the setting of Nepal's rapidly expanding private medical education system from Health Policy Plan. 2012 Aug;27(5):417-28. doi: SSSS10.1093/heapol/czr052. Epub 2011 Aug 31.