

ORIGINAL ARTICLE

Otolaryngology specialty choice among the 4th year MBBS studentsMUMTAZ AHMAD UMAR¹, MOHIBULLAH MUSHWANI², NAVEED ARSHAD³¹Assistant Professor, ²Senior Registrar, ³Assistant Professor Rehabilitation Sciences
Islamabad Medical and Dental College, IslamabadCorrespondence to Dr. Mohibullah Mushwani, Email: mohibullah@imdcollge.edu.pk, Cell: +92-3215010450**ABSTRACT****Background:** The discipline of otorhinolaryngology specialty is a very promising field all over the globe. This field is equipped with modified lifestyle as compared to general surgery field. However, otolaryngology is a flexible, promising and important field but still its trend is decreasing all over the world across the undergraduate's professionals.**Aim:** To determine the frequency of otolaryngology specialty choice being taken by 4th year MBBS students.**Methods:** A descriptive cross-sectional study was conducted in otorhinolaryngology department of Islamabad Medical and Dental College, Islamabad from January to December 2020. The answers were obtained through the Likert scale-5 having the following components, as strongly agree, agree, not sure, disagree, strongly disagree.**Results:** A 100 undergraduate students participated in this survey. All students were of 4th year MBBS. 20% students were agreed and 40% not sure about the question regarding taking up otorhinolaryngology as a career choice and 15% strongly agreed for this.**Conclusion:** The study concluded that the graduates are not sure whether they want to choose otorhinolaryngology as their final career choice. We suggest that it should be one of the compulsory rotations during the internship.**Keywords:** Otorhinolaryngology; Specialty; Undergraduate medical education; Postgraduate; Career choice.**INTRODUCTION**

The specialty of otorhinolaryngology is equipped with a modest level of field across the globe. The tendencies of graduates choosing a specialty are varying across the world¹. Perceived that the newer generation being more attentive on family and friends; are opting for professions where they can spend quality time with family. A suggestion has been made that new generation more inclined towards parents and friends, opting for subject which is not very commenting and they can spend quality life with their family. However, in parallel to this older generation and professionals are more devoted to their professional career².

The advancement in the field of general medicine and general surgery overall has an integral system which is more complex due to burdening of the professional work not only during the internships but later in the future as well. The field demands to visit patients in the off time and having night duties as well owing to the critical condition of the patients^{3,4}. In this regard, the field of otorhinolaryngology provides with more regulated life style⁵ and it is the most valuable specialty in United States⁶. A suitable training of this specialty is also necessity for good general practitioners as around 40-60% of patients are being visited routinely with ear, nose and throat diseases in their outpatient clinics⁷. Being a significant and flexible specialty with a controllable life style; the status it is given in the undergraduate teaching is declining worldwide due to the less time given to this subject. In United Kingdom, the exposure time to the clinical rotations of the field otorhinolaryngology teaching is about 4.4 days however, 5.5 days is given to the departmental experience⁸.

In a study, it is demonstrated that the medical students have low confidence in managing the patients due to inadequate clinical exposure as compared to the trainee residents are much more confident to managing the patients due to the vast involvement and regular sufficient time given to them⁹⁻¹¹. Recently, in Pakistan it has been observed a steady decrease in the otorhinolaryngology as being opted as the field of specialization of graduating students because of exit examination being taught in the 4th year instead of the final year. As a result, it is decreasing the interest of the individual serving at all level in this important field. All these factors cumulatively decreasing the specialized trained professionals in the field who could serve the nation¹²⁻¹⁴.

The objective of the study was to determine the frequency of otolaryngology specialty choice being taken by 4th year MBBS students.

METHODS

This descriptive cross-sectional survey study was conducted in otorhinolaryngology department of Islamabad Medical and Dental College from January to December 2020. This is a single center study conducted over one year. A sample size of 100 students (WHO sample size calculator was used and the parameters were as following; confidence interval 95%, power of test 80% and alpha error was 5%) of 4th year MBBS was voluntarily participated in this study. Islamabad Medical and Dental College allocated 100 MBBS students in a batch by Pakistan Medical and Dental Council (PM&DC). Non-probability convenience sampling was used. A self-structured, unspecified questionnaire was used to conduct the study. All those students were selected who has to fill the Performa at the end of the clinical rotations. However, the clinical hours were divided into 4 student's groups (n=25 students each) for four weeks of each group. Students of other classes and disciplines were excluded from the study. To demonstrate the overall expertise and experience in otorhinolaryngology, various questions were asked and evaluated and were put along to enhance the preferences of individuals regarding the otorhinolaryngology as the field of specialty. A Likert scale was selected having numbering from 1-5 in which, strongly agree [1], agree [2], not sure [3], disagree [4], strongly disagree [5]. The document was prepared in accordance with the "uniform requirements submitted to biomedical journals"¹⁵. Informed consent was obtained from each individual before completing the questionnaire. Data were analyzed using SPSS version 23. Statistical analysis was performed to obtain the results. For numerical data which was presented in mean and standard deviation whereas for categorical data, the data was presented in for of frequencies and percentages. P value ≤ 0.05 was considered significant.

RESULTS

A total of 100 students were studied. Male and female ratio was 1:1.5 and percentage was 40% and 60% respectively. Limited related questions were inquired concerning their otorhinolaryngology rotations. 22% students strongly agreed and 34.7% agreed that the exposure of patients was adequate in otorhinolaryngology. 26% students strongly agreed and 35% agreed on feeling confident in taking otorhinolaryngology history. 31% students were strongly agreed and 28% agreed for doing otorhinolaryngology examination. 26% students strongly agreed and 41% agreed for lecture being informative. 26% students strongly agreed and 32% agreed about the ward rounds being informative for understanding the subject. 18% students strongly agreed and 29% agreed for how they would like to be treated as a house officer while in the ward rotations ($p = 0.018$). 15% students strongly agreed, 20% agreed and 40% were not sure for take up otorhinolaryngology as their final career.

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Table II: Descriptive statistics of questionnaire which asked by students (n=100)

Questions	Strongly disagree	Disagree	Not sure	Agree	Strongly agree
Exposure to patients	6%	10%	27.3%	34.7%	22%
Taking history	-	9%	30%	35%	26%
Otorhinolaryngology examination	10%	11%	20%	28%	31%
Lecture being informative	8%	10%	15%	41%	26%
Ward rounds being informative	5%	7%	30%	32%	26%
House officer in wards	8%	10%	35%	29%	18%
Otorhinolaryngology as their final career	13%	12%	40%	20%	15%

Figure I: Percentages of questionnaire which asked by students (n=100)

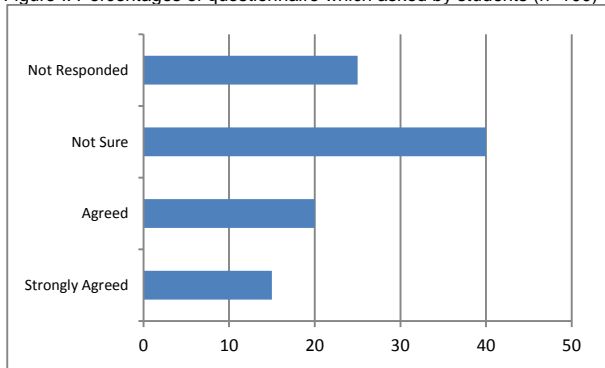


Table I: Demographic characteristics (n=100)

Variables	Frequency (mean)	%age (SD)
Age (years)	21.67	1.42
Male	40	40.0
Female	60	60.0
Gender ratio (male/female)	1:1.5	

DISCUSSION

The literature suggests that various factors play their role in determining the career of the medical students, one being the choices they make regarding their field of specialization. The factor not only include the attention and concentration of the student but it also depends on working hours, lifestyle being maintained, income, and the satisfaction achieved in the required field. The research area lacks evidence regarding the time given to a specialty as well student's satisfaction and attainment in that specialty at the undergraduate level. A study was conducted in United Kingdom by Mayer et al indicated that 20% of post graduate individual opted otolaryngology as a specialty of their choice. It is estimated that the major concern for this low interest among students is due to less time given in the clinical rotations to this subject¹⁶. The present study concluded that 15% of the individual falls under the category of strongly agree group. However, this percentage is less as compared to described in the evidences. Moreover, 20% individuals fall under the category of agree to the choice. The selection of otorhinolaryngology as field of specialization is decreasing. This is alarming as the percentage may fall further once the students are done with their house job or about to finally chose their careers. A study conducted in Canada showed that exposure time of medical students in the clinical rotations of otorhinolaryngology is very less. They are only given 4.6 days of necessary clinical rotations in otorhinolaryngology. As, a result the level of specialty and expertise is decreasing in this field leading to a smaller number of professionals in the field of otorhinolaryngology¹⁷.

The experience of the specialty is gained when the graduates are working in the hospital during their house job period or during the internships. However, this time span is the golden period for graduates to target their career choice as they are given opportunity to deal with patients from various specialities⁹.

In current study, 25% individual strongly agreed to the option asked about the field whereas 33% responded to agree. However,

the practical experience has its roots deep down, of not only enhancing the information to the family medicine trainer but as well providing attainment as well encouragement to the trained specialists in this field. In another study, about 20% of individual who reported in the general practitioner clinic have issues and problems related to otorhinolaryngology.¹⁰ In another study, Powell et al encountered that decrease confidence is reported among students when performing physical examination, history taking and objective examination among patients suffering from otorhinolaryngology⁸.

It is reported that situation is worse in some countries as many of the countries have made this subject as an optional subject. Rosvall et al documented that 19.65% of students participate in these rotational subjects. However, it is also reported that 6 out of 16 medical universities are only offering otorhinolaryngology as the compulsory and major subject¹⁷.

The decision of students deciding their field of specialization depends on their time exposure during the house job or their interest during final year. In our study the unsure group remained high during the 4th year due to load of other subjects as well. However, the uncertain group including 40% of individual indicates that they require more time and exposure to inclined their mind to a specific speciality¹⁸. The decision of students to decide any career depends upon the residents who are getting training in the wards⁹. The clinical rotations and the internships broaden the horizon of the students and help them to communicate with different professionals to make choice regarding their career decision¹⁹. The Pakistan Medical and Dental Council is equipped with important role in determining the need of the community and inhibiting to accept the world-wide inclination which can have counter-productive effect in our set up as majority of individuals have access to GP. If the general practitioner is not specialist in this particular field than due to deficiencies, a proper care and referral cannot be made²⁰. Furthermore, otolaryngology specialists and consultants are also in constant demand for specialized otolaryngology problems within the country. This problem may be exacerbated by the current outflow of otorhinolaryngology consultants to other countries for various reasons and the retirement of older consultants.

CONCLUSION

It is concluded that graduate professionals are not sure regarding their preference to opt otorhinolaryngology as their field of specialization. So, it is suggested that clinical rotations must be made important and compulsory during the internships as well as their clinical hour period, as to broaden their perspective regarding this filed. Moreover, it is the time of need as well.

Recommendation: The evidence and statistics demonstrate that number of students and post graduates attempting to appear in Part-1 examination of otorhinolaryngology is decreasing, as many training sets went unattempted in many prestigious organizations. This is a single centered study and the specialty of choice needs to be shortlisted by having the comparison with undergraduate students of MBBS 4th year among various medical colleges.

Ethics approval and consent to participate: After getting the approval from Institutional Review Board (IRB) of Islamabad Medical and Dental College, Islamabad vide letter number

1.60.IMDC-2020, Dated: 14 January, 2020. Informed written consent was taken from all the study participants.

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Authors' contributions: MAU; provided concept/research design and did data collection, NA, did statistical analysis and manuscript writing, MM, MAU did edit of manuscript and project management, NA did critical revision of the manuscript for important intellectual content, MM & MAU takes the responsibility and is accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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