Status of Otorhinolaryngology as Specialty of Choice Among Female Medical Graduates

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Abstract Specialty choices among medical graduates have undergone changes over time. We aimed to analyze status of otorhinolaryngology as specialty of choice among female medical graduates and factors affecting it. A total of 123 female medical graduates were surveyed during their internship over a period of 1 year in a tertiary-care hospital. Each intern was assessed using a questionnaire at the end of otorhinolaryngology rotation. The survey included nine questions about future career choices with special focus on ENT as a choice for specialization. Questions on choice of specialty, reason for choice, quality of undergraduate teaching and clinical postings were included. The post graduation specialty choices in descending order are Medicine, Pediatrics, Surgery, Obstetrics and Gynecology, Dermatology, Ophthalmology, Radiology, ENT, Anesthesia, Psychiatry followed by Physiology, Anatomy and Biochemistry. Among surgical branches most popular choice was General Surgery followed by Obstetrics and Gynecology, Ophthalmology, ENT and Orthopedics in descending order. Reason for the choice included advice from family and friends. Forty two interns (34.2%) followed advice of senior colleagues, 42 (34.2%) followed advice of relatives in the medical field, 25 (20.3%) took advice of non-medico parents while 14 (11.3%) followed their peer group. Regarding the opinion on the quality of

undergraduate teaching and clinical postings, both were rated good by the majority. Otorhinolaryngology is less preferred than other general surgery, Obstetrics and Gynecology and ophthalmology by female medical graduates among surgical disciplines. Possible reasons and ways to improve status of Otorhinolaryngology are discussed.

Keywords Medical graduates · Otorhinolaryngology · Specialty

Introduction

Choosing a specialty for post graduation is one of the biggest decisions for a medical graduate. The choice of specialty dictates rest of the doctor's life including professional satisfaction, lifestyle, potential earning etc. [1–3]. After long and difficult years spent in training, good remuneration is well-deserved. Another crucial issue in today's gender-sensitive atmosphere is the representation and promotion of women in field of medicine. Now, women are working in every imaginable work-field, even those fields previously believed to be the exclusive bastion of men, for instance surgical specialties. It is a general perception that women opt for so-called 'soft' specialties: family medicine, pediatrics, non-clinical fields like pathology or radiology [3, 4]. However this trend is slowly but surely changing as more and more women are choosing surgical specialties [5–10]. Women are becoming more career-oriented and less likely to be satisfied with rendering traditional gender roles. Our aim was to find how female medical graduates choose their fields of specialization, what are their priorities and interests. We aimed to analyze

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status of otorhinolaryngology as specialty of choice among female medical graduates and factors affecting it.

In order to find out the answers to these questions, we conducted a survey among interns of our tertiary care hospital during their Otolaryngology posting. Medical graduates gain considerable experience of actual working conditions during internship and this is usually when they make this crucial decision regarding future career. Moreover, being a women's only institution, our hospital is best suited to assess the aspirations of today's young female medical graduates and probe the factors influencing their choice of specialization field. The survey was designed with special focus on otorhinolaryngology as a possible choice for specialization.

Methodology

The questionnaire had a total of eleven questions, pertaining to choice of field of specialization and factors considered by interns while choosing the same. Questions regarding the quality of undergraduate teaching as well as clinical posting in ENT were also included. One further question was on the possible reasons for students who did not wish to choose ENT as their post graduation field. Three questions were of a subjective nature and required interns to write about their experience as an intern in ENT, how they would rank ENT as a choice for post graduation, and any other comments.

The questionnaires were distributed to interns on the first day of their posting. They were required to voluntarily complete and submit the forms at the end of their 15-day posting.

A total of 123 interns, all female, were assessed over a period of 1 year. The responses were tabulated and put in the form of graphs for easier and at-a-glance analysis of the data. Add the questionnaire.

Results

The first question was regarding the way interns choose their field of post graduation depending on their choice or rank in entrance examination. The majority (80%) preferred to pick a course of their choice (Table 1). But 20% graduates decide their specialization according to their rank

in the post graduate entrance exams. An overwhelming majority (99%) of interns wanted to opt for clinical subjects for their post graduation with only 1% (1 out of a total of 123 interns) wishing to opt for a non-clinical subject.

Regarding factors influencing the choice, 34% graduates (42/123) give preference to advice from their senior colleagues; 34% (42/123) follow the advice of relatives in the medical field; 20% give preference to advice from their non-medico parents, while 11% follow their peer group (1% is missing, give % upto one decimal points) (Table 2; Fig. 1). This shows that senior colleagues and parents/relatives in medical field have most influence on choices of young medical graduates when it comes to choosing their field of specialization.

Regarding the top four choices for post graduation (Table 3; Fig. 2), the most popular choice for post graduation were Medicine, followed closely by Pediatrics, Surgery, Obstetrics and Gynecology, Dermatology and Ophthalmology, followed by radiology. ENT is preferred less than Radiology; however it is preferred more than Anesthesia and Psychiatry. Orthopedics ranked lowest in popularity among clinical courses among female medical graduates.

The least preferred courses are Physiology, Anatomy and Biochemistry.

Answer to question asked interns to rank ENT among five surgical branches viz. General Surgery, Obstetrics and Gynecology, Orthopedics, Ophthalmology and ENT (Otorhinolaryngology). As is evident from Table 4, the topmost choices among surgical branches were General Surgery, Obstetrics and Gynecology and Ophthalmology, in that order. Obstetrics and Gynecology and Ophthalmology were the most popular second choices.

The popularity of ENT slowly increases from first choice to fourth choice, showing that while it is not popular as first/second choice but interns consider it as a third/fourth choice.

Regarding opinion on the quality of undergraduate teaching and clinical postings, both were rated good by the majority (Table 5).

Among the reasons for not choosing ENT as a preferred specialty, most common reason was lack of interest among the graduates, and fewer choices available for Super specialization (Table 6).

Discussion

The choice of field of post-graduation is generally decided during internship. The first major consideration is whether to go for a clinical or non-clinical branch, and then for clinical branches, whether to choose a surgical or a non-surgical one.

Table 1 Picking a subject for Post-Graduation

Picking a subject for PG course	According to merit list	Personal choice	None
Number	21	99	3

Table 2 Factors influencing decision of course for Post-Graduation

Influence on decision to choose course	Peer group	Advice of senior colleague	Non-medico parents	Medico relatives	Total
n	14	42	25	42	123

Fig. 1 Factors influencing decision of course for post-graduation. Blue, number of interns. Red, total number of interns surveyed

Our survey reveals that nearly 80% interns want to choose a course based on their personal choice and 20% would depend on the available choices according to rank in entrance examination. This means that majority of interns would be willing to wait for a year or more in order to settle for their favored field, in case they don't make it to the merit list in the first time. We surveyed only interns and not first-year post-graduates, as once a specialty is opted

for, viewpoints would change according to the opted specialty. We wanted to analyse the factors that influence medical graduates' choice of specialty before they made the decision.

As far as factors influencing the choice are concerned, nearly 70% interns prefer to take advice from either parents/relatives in medical field or their senior colleagues. 20% interns give preference to choice of non medico parents, while fewer (10%) would follow their peer group. This means that relative/parents in medical field and senior colleagues have a great influence and their opinion shapes the choice of specialization of medical graduates.

Further, in our survey we found that nearly all interns want to opt for clinical branches. This means that very few budding doctors would be content with a purely academic career; most are desirous of the professional satisfaction that is derived from patient interaction. In our survey, we found that a large majority of our fresh medical graduates want to opt for specialties like medicine, pediatrics, obstetrics and gynecology or general surgery (total 86%). The possible reason for the popularity of these four branches may be that, during internship, these specialties are the ones with the greatest exposure for the fresh graduates. Specialties like otorhinolaryngology, ophthalmology, dermatology and radiology have less duration of clinical rotations with resultant lesser exposure. As a result, the new medical graduates do not get adequate exposure about

Table 3 Choice of post graduation course among female medical graduates

Alphabetical order	1st choice	2nd choice	3rd choice	4th choice	Total
Anatomy	0	0	1	0	01
Anesthesia	3	2	3	8	16
Biochemistry	0	0	0	1	01
Dermatology	19	15	15	5	54
ENT	2	2	8	10	22
Forensic Med.	0	2	1	0	03
General surgery	21	14	13	11	59
Medicine	23	24	15	14	76
Microbiology	0	1	0	3	04
Obs. and Gynae.	15	16	11	15	57
Ophthalmology	4	15	17	16	52
Orthopedics	3	2	1	0	06
Pathology	1	1	3	2	07
Pediatrics	23	16	14	9	62
Pharmacology	0	0	1	2	03
Physiology	0	0	0	0	00
Prev. and social Med.	0	1	0	2	03
Psychiatry	1	3	3	3	10
Radiology	8	9	8	7	32

Fig. 2 Most popular choices for post-graduation. Courses shown in alphabetical order. Total, total number of interns choosing that particular course (light-blue)

Table 4 Ranking popularity of surgical specialties

	1st choice	2nd choice	3rd choice	4th choice	5th choice
ENT	3	16	35	46	22
Gen. surgery	49	24	23	21	4
Gyn and Obs.	37	37	17	11	19
Ophthalmology	24	32	27	29	10
Orthopedics	10	13	19	13	65

Table 5 Ranking Classroom teaching and clinical posting as an Undergraduate student

Quality	UG teaching	Clinical posting
Excellent	0	2
Very good	12	17
Good	82	87
Poor	24	12

Table 6 Reasons for not keeping ENT among Top 5 choices for post graduation

Reasons	Yes	No	No response
1. Difficult to learn	10	41	64
2. Nothing interesting to learn	46	21	56
3. Demands more labour	05	44	74
4. Doesn't earn much money	19	33	71
5. Takes longer to become established surgeon	34	25	64
6. Fewer choices for MCh. courses	32	20	71

these fields. As a result, they do not develop an active interest in these fields.

Yet another issue is the generally perceived notion that women hesitate in opting for surgical branches. It is

generally assumed that surgical branches, with the notable exception of Obstetrics and Gynecology, are 'male' specialties with women taking up 'soft' fields like pediatrics or general practice [11–15]. This trends changing very rapidly, as is also evident from our survey. A significant percentage (21%) of our female interns kept surgery as their first choice of specialization. This shows that traditional thinking and gender biases are slowly, but surely decreasing. This trend is consistent with findings of a 2006 study which showed that percentage of women in otolaryngology is rising rapidly (more than 20% of the specialty) [6].

Regarding topmost choice of branch among the five surgical specialties, again surgery and Obstetrics and Gynecology proved to be the most popular, with a total of 86% keeping these two branches as their first choice. The possible reason, we feel, is again the same-greater exposure helps develop greater interest. These issues were also addressed in our survey. When asked the reason for not choosing ENT as a first or even 2nd choice of specialty, nearly 46% said that they don't have interest in ENT. The second most common answer given was that it took longer to train for a surgical specialty; but that holds true for all surgical branches. The solution for this problem lies in increasing the involvement of undergraduate students in ENT clinics in medical colleges. Exposure and environment at undergraduate level ultimately influences career choice at exit, as was highlighted in a 2012 study by Philips et al. [16].

As otolaryngology mostly involves microscopic surgeries, the use of camera heads and monitors to demonstrate live surgeries, along with explanation of the surgical steps, would pique interest of the medical graduates. A good atmosphere stimulating interaction between students and faculty can have good outcomes. Along with innovative teaching techniques, Interaction with pre and postoperative patients would also be of great benefit. Ours being a women only institution puts greater responsibility on us in shaping the thinking of future of

women medical professionals. The gender gap in surgical subspecialties was explored by Grandis et al. via a questionnaire survey [17]. The survey revealed that women generally have more household responsibilities than men, are less likely to be fellowship-trained, and are less likely to be favoured by mentoring and networking. This lack of mentors and role-models from the field may also be a factor responsible for less popularity of the field among our young medical graduates.

Regarding the status of women professionals in ENT, it is interesting to note that even in a developed country like USA, there exist striking regional differences in academic ranking and activity with fewer women reaching the status of full professorship or head of department. Moreover it has been observed that women have a different productivity curve than men; they tend to become more productive during the later stages of their careers rather than earlier stages. This however leads to lag in their careers, as early productivity is essential for advancement especially in an academic career [18, 19]. However a study by Bergeron et al. [20] has found that female authorship in otolaryngology has increased significantly over the past 3 decades, suggesting that women might eventually catch up with, and maybe even surpass men. Yet another study on representation of women in otolaryngology has found that women have achieved parity in otolaryngology leadership positions [21].

To conclude, we need to groom our young medical graduates if we want the popularity of ENT to increase. Faculty has the most important role to play. Innovations in class room and clinical teaching are needed, with increase in time of ENT rotations to achieve this. We must make women feel welcome and valued, especially if they take up surgical branches, and have female role models they can look up to. This has to start at the lowest level i.e. training of undergraduates. With increasing number of women entering medicine, and more women taking up surgical fields, the gender gap is slowly but surely going to diminish.

Compliance with Ethical Standards

Conflict of interest The authors declare that they have no conflict of interest.

Ethical Approval The study was approved by the Institutional Ethical Board.

Informed Consent Informed consent was obtained from all individual participants included in the study.

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