

Original Research Article

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ATTITUDE OF FINAL YEAR MEDICAL STUDENTS AND HOUSE OFFICERS TO OTORHINOLARYNGOLOGY SURGERY TRAINING

Abstract:

Background

A good proportion of medical students and house officers will consider specialization in different aspects of medicine following graduation. However, there are still portions who at this stage are undecided both in the question of specialization as well as on what area to pursue a career on. In a developing and resource poor country such as our environment where the doctor-patient ratio is very poor, proper distribution of physicians to meet the health demands of the people becomes of utmost importance.

Aim

This study is aimed at determining the attitude to and what informs the choice of otorhinolaryngology (ORL) surgery as a specialty amongst final year medical students and house officers.

Patients and methods

A descriptive questionnaire based study. A semi structured self- administered questionnaire was distributed to final year medical students and house officers all in the university of Port Harcourt/teaching hospital from January 2019 to March 2019. Only the house officers that did rotation in the ORL surgery department and final year medical students who gave their consent were recruited into the study. The data obtained was analyzed using SPSS version 20.0 and results presented in simple statistical tables.

Introduction

There is low doctor-population ratio in Nigeria with funding of health services often done by out of pocket expenses hence there is need for proper distribution of the health workforce. The choice and preferences of both the medical students and house officers invariably affect the composition of this workforce and therefore could affect the health care policy and planning.

32 Some of these students already have certain specialty preferences even before commencement of their
33 medical training .[1] However some as they progress through their training and rotations sometimes do
34 change in their preferences of specialty.[2]The sub-Sahara African region has the lowest doctor-patient
35 ratio of 2.5/10,000 population.[3] In Nigeria, there are 4 doctors per 10,000 patients compared to UK
36 with 30 doctors per 10,000.[4] In terms of medical education, Nigeria has 37 medical schools, 31 fully
37 accredited for undergraduate training while there are 2 colleges for postgraduate training; national
38 postgraduate medical college of Nigeria (NPGMCN) established in 1979 and West African post graduate
39 medical college comprising of college of physicians and college of surgeons some years earlier.[5]The
40 NPGMC has 52 centers accredited while West African college has 46 centers accredited for postgraduate
41 training. Owing to the increase globally in the standard of medical practice there is a need for optimizing
42 the training of the doctors through specialization and sub-specialization. The NPGMCN since its
43 inception in 1979 has by the end of 2013 produced about 3286 consultants through residency training
44 out of which 55% belong to the core clinical disciplines; surgery, medicine, pediatrics, obstetrics and
45 gynaecology. while Obstetrics &gynaecology are the highest with 15% of the consultants, ORL was the
46 least with 2%.[6] It is known that the specialty preferences of the medical students determine the
47 composition of the physician workforce of the nation[7], therefore there is a need to regularly carryout
48 surveys amongst this population so as to tailor these preferences to the Health need of the people,
49 hence planning of health services and policy formulations.[8] One of such surveys carried out in 2009 by
50 Fagan through PAFOS highlighted the paucity of training facilities and specialized services in sub-Saharan
51 Africa. It was noted from this survey that Nigeria despite the 37 fully accredited medical schools has just
52 19 centers for ORL training and 4 ORL surgeons qualify annually.[9] some of the factors noted that can
53 affect training in a specialty include , training institution, age, marital status, availability of facilities.[10]

54 The interest of these students and young doctors in a particular specialty can also be stimulated because
55 of the dedication and innovative teaching styles of the lecturers they meet during their clinical
56 rotations.[11] It is possible that close interactions with these teachers in various specialties who also
57 act as their mentors can influence the choices[11]

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59 Patients and methods

60 A descriptive study carried out among final year medical students and house officers in the university of
61 Port Harcourt/teaching hospital using a semi structured self-administered questionnaire from January
62 2019 to March 2019. Data sought included but not limited to age, sex, decisions on specialization and
63 reasons for the choice, perceptions of ORL and the training. Only the house officers that did rotation in
64 the ORL surgery department and final year medical students who gave their consent were recruited into
65 the study. Approval was sought and obtained from the hospital ethical committee. The data was
66 analyzed using SPSS version 20.0 and results presented in simple statistical tables.

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70 Results

71 The number of questionnaire shared was 85 but 70 was recovered and met the inclusion criteria. This
72 gave a recovery rate of 82.4%. There were 45 males and 25 females with a ratio of 1.8:1. The age ranged
73 from 20 to 39 years. Majority of the respondents were in the age range 25-29 (58.57%) and least in age
74 35-39(4.29%) table1. The final year medical students constituted 57.14% of the study population and
75 about 60% (n=42) did not want to specialize while only about 31.43% will like to specialize. Most
76 assessed their exposure during rotation especially in the clinic to be excellent 57.14% while the rating of
77 the trainer`s method was mainly average. table 2. ORL will not be the choice of specialization for
78 majority of the respondents; 74.3% while 14.3% were undecided about it and only 11.4% will like to
79 choose ORL as a specialty. figure 1

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81 Table 1: demographic characteristics

Variables (N=70)	Frequency	Percentage(%)
Age		
20-24	19	27.14
25-29	41	58.57
30-34	7	10.0
35-39	3	4.29
sex		
Male	45	64.29
Female	25	35.71
Level of training		
Final year medical students	40	57.14
House officers	30	42.86

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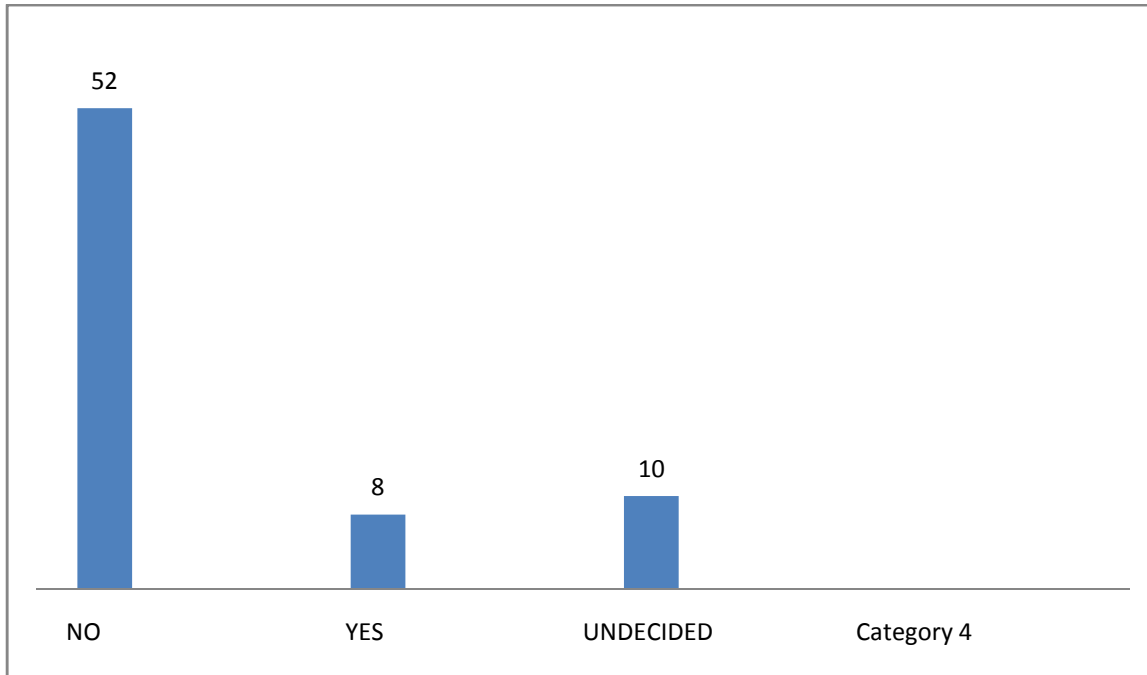
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91 FIGURE 1: Choice of ORL



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98 Among those that will like to specialize in ORL, exposure to the specialty during their clinical rotation
99 and posting was the main reason for this choice while mentorship from the teachers as a reason was
100 seen in 25%. None of the respondents will choose ORL due to financial rewards. Table 3

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108 Table 2: Training characteristics

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Variables	Frequency	Percentage(%)
CHOOSING TO SPECIALIZE		
Yes	22	31.43
No	42	60.0
Undecided	6	8.57
ASSESSMENT OF EXPOSURE		
Clinic		
Average	10	14.29
Good	20	28.57
Excellent	40	57.14
Theatre		
Average	55	78.57
Good	10	14.29
Excellent	5	7.14
In-patient management		
Average	48	68.57
Good	16	22.86
Excellent	6	8.57
RELATIONSHIP WITH TRAINERS(MENTORSHIP)		
Cordial	25	35.71
Good	25	35.71
Excellent	20	28.57
TRAINER'S METHOD OF TRAINING		
Poor	5	7.14
Average	35	50.0
Good	20	28.57
Excellent	10	14.29

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119 Table 3: Reasons for choice of ORL

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Variables (N=8)	frequency	Percentage (%)
Exposure during rotation	3	37.5
Mentorship	2	25
Uncommon specialty	1	12.5
Personal interest	1	12.5
Financial reward	0	0
Grasp of head and neck anatomy	1	12.5

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124 Discussion

125 In this study there is a response rate of 82.4% which is lower than the 86.7% and 97.4% obtained by
 126 Ossai et al and Adoga et al respectively.[12],[13] There is a male preponderance observed which is in
 127 tandem with some other studies [13] however, Rosenberg et al in their 2011 survey had 27.4% increase
 128 in females. [14] Adoga had 4.7:1 ratio, in this study it was 1.8:1, despite an apparent increase in the
 129 females in the medical schools, the males still dominate.

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131 In this study, majority of the respondents were in the age range of 25-29 agreeing with the study by
 132 Ossai et al but differs from 30-34 range obtained by Adoga et al, possibly because the study was on
 133 those who were already residents in the ORL training. It has also been observed that the age of
 134 commencement of specialization differs in different nations and it is relevant since it could determine
 135 how easily others such as friends and family can influence the making of choice of specialty.[14]

136 The percentage of those that will like to pursue specialist medical education was only 31.43% while
 137 60% will not want to specialize. In a similar study, the percentage of those choosing not to specialize was
 138 just 10.5% while 89.5% will like to specialize.[12]This finding is out of tune with the global trend amongst
 139 students which is to pursue specialist medical education after graduation[15] At this level of their
 140 education, 8.57% was still undecided concerning specialization and this included a few of the house
 141 officers. The present economic state of the nation could play a role in this decision. There is difficulty in
 142 getting a placement for residency training and poor remuneration warranting a continuous exodus of
 143 medical doctors in search of greener pastures outside the nation. It is also possible that some at this
 144 stage may not have decided perhaps because they had no career guidance which could have helped in
 145 this area. In addition, aside from those undecided about whether to specialize or not, a percentage;
 146 14.3% were not decided on what specialty to choose.it was also observed by other researchers.[16] This
 147 percentage is higher when compared with the study by Ossai et al that had 11.2%. This finding could still

148 be due to lack of formal career counselling of these medical students. Generally in Africa, career
149 counselling amongst medical students does not seem to be formalized or integrated into the
150 curriculum.[15],[17] There is therefore need to emphasize institutionalization of career guidance
151 especially at just before the final year of these students. Some other studies has rightly ear marked this
152 stage of training as appropriate to institute career guidance so as to help them make a choice in
153 specialization[18]

154 Amongst the 70 respondents studied, only 8(11.4%) will like to pursue ORL as a specialty. This score is
155 still low but compared with a previous study with 0.2% there appears to be an improvement even
156 though they studied a larger population.[12] Most of the medical students when left to make a choice
157 will rather choose from any of the core specialties; surgery, paediatrics, obstetrics and gynaecology,
158 internal medicine. [19] This choice was seen typically in the number of consultants produced by both
159 West African colleges of physicians/surgeons and the National postgraduate medical college. These
160 colleges conduct fellowship exams that produce consultants twice a year; April-May and October-
161 November. In 2017 October examination, West African colleges produced a total number of 175
162 consultants while the national college in the same year november had 131. Out of this total of 306
163 consultants, ORL was only 4(1.31%) .[20],[21],[22] This may give credence to the fact that the specialty
164 preference of the medical students determine the composition of the physicians work force.[7] it could
165 appear as though the various training centers prioritize some specialties over others resulting in
166 disparity in the number of consultants produced.[23] In the study by Fagan et al that involved 18
167 countries including Nigeria, the number of ORL surgeons compared to UK is below 0.1 mark, for Nigeria
168 it is about 0.05 mark per 100,000 people. In Nigeria with a population of about 130 million, there are
169 only 70 ORL surgeons when you compare this to another African country; South Africa with 48 million
170 population and 200 ORL surgeons and ratio of 0.47 per 100,000 people[9], Nigeria is obviously way
171 below the mark. In this study only 11.4% are ready to choose ORL as their specialty laying credence to
172 the result of the above survey. Number of surgeons who qualify annually as at 2009 is about 4.[9] A
173 repeat survey similar to that of Fagan in 2017 showed an apparent increase of 43% in the specialists
174 when all the countries are put together however, population increase of 23% was also noted therefore
175 when this apparent increase is considered per 100,000 of the population, there was actually a decrease
176 in some countries.[24] Nigeria in 2009, had 70 ORL surgeons but in 2015 the number increased to 140
177 but with per 100,000 ratio, it is 0.076, increased but still below the 0.1 mark. Judging from the 2017 ORL
178 fellowship examination pass rate, it does not seem to have increased much since then.

179 It was noted in a study by Burch et al that career plans of medical students in Africa rarely aligns with
180 the man power needs of the health sector of the region.[25] This was reflected as well in the above
181 survey. In Nigeria for instance, there is no regular assessment of the personnel needs in the health
182 sector and therefore no projections in this area so as to plan proper health policies and programs. There
183 is need therefore to tailor the choices of these young doctors to meet the national health needs. The
184 trainers have a lot of part to play in this regard. In this study, majority of the respondents, more than
185 50%, have very good relationship with the trainers therefore affording them adequate opportunity to
186 influence them appropriately. However the respondents' rating of the ORL trainer's method was
187 deemed average by 50% .while only 21.43% rated it excellent. Therefore, there is need to work at

188 improving the training of these students possibly by employing more innovative methods during the
189 short time of their exposure to ORL. Most found their exposure to ORL in the clinic to be excellent,
190 possible due to the practical patient –doctor experience and they are able to see and learn directly from
191 the patients and not just the text books. The theatre exposure was rated lowest obviously because the
192 surgeries are on the head and neck hence operation is on a small space therefore without provision of
193 audiovisuals or streaming on the screens there will be limited appreciation on the part of the trainees.
194 Few had opportunity of having a hands-on exposure on some minor procedures, generally however,
195 many rated their ORL training as good.

196 In this study, majority decided to choose ORL because of their exposure to the specialty during their
197 rotation; 37.5%. Incidentally, in Nigerian medical education, ORL is ranked among the special postings in
198 surgery, usually done towards the end of senior surgery posting for the medical students while the
199 house officers may or may not be posted to ORL during their rotation in surgery. This could mean that
200 the exposure during the clinical rotation gave them better understanding of the specialty. In contrast
201 Adoga et al found personal interest to be the highest reason among residents 89.5%, while in that by
202 Ossai et al this ranked second; 19.7%, it was the third commonest reason with 12.5% in the present
203 study. The exposure to the specialty both for the final year medical students and the house officers is
204 very short. The medical student does only 2months of rotation while the house officers except they are
205 posted to this specialty, will not have any further exposure unlike other major specialties where they
206 have to compulsorily pass through during their internship. This may explain why majority do not choose
207 ORL as their area of specialization.

208 Role of mentorship ranked second highest reason for a choice in ORL with 25%. This shows that there is
209 need for even more intentional and deliberate effort at mentoring and encouragement on the part of
210 the teachers. In a similar study, it was found that dedication of the trainers to these trainees during the
211 clinical exposure can help to make their choice in a particular specialty.[26] It is of note that the
212 understanding of the complex anatomy of the head and neck was a reason in another 12.5%. So also the
213 specialty being rare was a reason in 12.5%. It is interesting to note that none of the respondents that
214 were ready to make a choice for ORL was going to do it because of financial rewards. ORL surgery was
215 therefore not deemed to be very lucrative among these trainees.

216 It is therefore highlighted from this study that there is a paucity of interest in ORL among the final year
217 medical students and house officers and a lot is required on the part of trainers to kindle and build
218 interest in this specialty.

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221 Limitation

222 The studied population was small and it was based on one institution. There is room therefore for a
223 study that should be wider involving students from other institutions and other regions.

224 Only those among the house officers that did rotation in ORL were recruited while those that didn't
225 were excluded, there could be some among this last group that may have decided to specialize in ORL.

226

227 Conclusion

228

229 Very few medical students and newly graduated doctors are interested in orl. The highest reason for
230 pursuing a specialization in orl is clinical exposure.

231 There is therefore need to use better methods in training, be more innovative with these trainees during
232 their clinical exposure to the specialty. Mentor them more so as to change their perspective of the
233 specialty for the better.

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