

Career in Obstetrics and Gynecology- to be or Not to be: A Study of Intern Doctors in a Nepalese Medical College

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ABSTRACT

Aims: To find the preference of career in Obstetrics and Gynecology among interns at the end of internship and factors influencing this choice.

Methods: A semistructured questionnaire was distributed to interns at the end of a one year rotatory internship. Demographic factors and clinical exposure in Obstetrics and Gynecology (ObGyn) were assessed using chi-square test and attitudinal factors were measured using 5 point Likerts scale. This was compared with interns choosing other subjects. Mean score on Likerts scale was compared with independent t-test. Logistic regression analysis was used to predict independent factors affecting career choice in ObGyn.

Results: Out of 174 interns, 22 (12.6%) chose ObGyn as the first career choice. Female gender (OR=1.46), urban residence (OR=1.21) and having a doctor in the family (OR=1.22) were factors associated with choosing ObGyn. Social commitment (p=0.027), high income potential (p=0.000), focus on urgent care (p= 0.000), gratifying practice (p=0.043) and short postgraduate training (p=0.000) were attitudinal factors related to this choice.

Conclusions: Though ObGyn is a popular choice, students tend to change minds against it throughout medical school, influenced by various experiences. Department of ObGyn has a major responsibility to develop role models and encouraging mentors so that students choose ObsGyn with interest and do not regret the choice till the end of medical school.

Keywords: career, choice, interns, obstetrics and gynecology

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INTRODUCTION

Quality speciality training in medicine has been the focus of medical education in Nepal. With the increasing need of specialist in the country, medical students enter medical school with a vision to become a specialist. There are various experiences throughout entry to exit from medical school which affect a student's decision of career choice. Obstetrics and Gynecology (ObGyn) has been a popular choice so far but surveys in medical schools in UK and Canada have shown the career choice in ObGyn is declining specially in young male doctors.^{1,2}

Nepal has a low doctor to population ratio of 2.4 per 100,000 people and specialist in ObGyn is even low.³ With increasing number of births and a struggle to achieve SDG-5 and increasing institutional delivery, fewer ObGyn specialist would pose a problem for quality health care. As of 2018, number of ObGyn specialist registered in Nepal Society of Obstetrics and Gynecology are 490.⁴ With increasing number of residency positions in private medical colleges, the need for this specialty may be fulfilled, but not with the decreasing preference of students for the subject. Studies have been done in Nepal, showing factors affecting medicine as a career choice^{5,6} but no

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data are available for factors affecting the choice of students to pursue career in ObGyn.

To study medicine in Nepal, a candidate has to complete secondary level schooling with a science background and pass one of the many medical entrance exams. Medical graduation (MBBS) course consists of four and a half years of study and one year of rotational internship. Medical graduates from this institute (LMCTH-Lumbini Medical College Teaching Hospital) enroll in rotational internship training in different clinical departments as per the norms of Kathmandu University where interns work for three months each under three major departments i.e Internal Medicine along with Psychiatry and Dermatology, Surgery along with Orthopaedics and ObGyn. The remaining three months are under Emergency, Anesthesiology, Pediatrics, Ophthalmology and Otorhinolaryngology departments.

MBBS graduates can then apply for a MD degree for which they are chosen on merit basis of the MD entrance examinations. MD degrees are divided into clinical subjects and basic science subjects that include Anatomy, Physiology, Biochemistry, Pharmacology, Pathology, Community Medicine.

This study aims to find the preference of career in ObGyn among interns at the end of their one year rotatory internship and factors influencing this choice.

METHODS

This is a cross sectional, analytical study done at Lumbini Medical College Teaching Hospital (LMCTH) for a duration of one year from September 2018 to August 2019. Ethical approval was taken from the Institutional Review Committee.

Two batches of interns at the end of their one year rotational internship in all clinical subjects were included in this study. The first batch was included in the study in September 2018 and second batch in August 2019.

A semi-structured questionnaire was distributed to them on the last week of internship after taking informed consent. Confidentiality was maintained.

The questionnaire had two parts. The first part included variables like age, gender, score in secondary school and in MBBS, career choice at entry in medical and in the end of final year. Questionnaire also included

inquiry about involvement in obstetric cases during internship. Second part was based on the work by Scott et al.² which included 27 attitudinal variables affecting career choice which was measured using a 5-point Likert scale ranging from 1 (no influence) to 5 (major influence). This questionnaire was modified to suit in the context of Nepalese medical studies and included 24 variables. The questionnaire was validated by a panel of experts and pretested among five interns of previous batch who were not included in the study.

Data were entered in Microsoft excel and analyzed using SPSS 16.0. Categorical variables were compared between interns choosing ObGyn and other subjects and association was shown using Chi Square test with p value <0.05 as significant. Mean score on Likerts scale between two groups were compared with independent t test. Logistic regression was used to predict independent factors affecting career choice in Ob Gyn.

RESULTS

A total of 174 interns were included in this study, 74 from fifth batch of interns at LMCTH completing internship in September 2018, and 100 from the sixth completing in August 2019. Response rate was 100%. Around 30% of students have at least one family member practicing medicine [Table-1].

Table-1: Demographic and social profile of interns

Parameters	Value
Age (Mean \pm SD)	24.79 \pm 1.88
Gender	
Male	101 (58%)
Female	73 (42%)
Mean score in secondary school (%)	70.77 \pm 5.31
Mean score in MBBS (%)	65.87 \pm 4.00
Family members practicing medicine	
Yes	52 (29.8%)
Either one or both parents	6 (3.4%)
Siblings	27 (15.5%)
Others	16 (9.2%)
More than two members	3 (1.7%)
None	122 (70.12%)

Surgery remained the first choice at both these times. Though basic science subjects were the first choice at medical school entry and exit for some, at the end of internship there were none who chose basic science as a career option [Table-2A and 2B].

Table-2A: Career choices at medical school entry [N=174]

Subjects	First choice, N (%)	Second Choice, N (%)	Third Choice, N (%)
Anatomy	0	0	1 (0.6)
Anesthesia	0	1 (0.6)	2 (1.1)
Biochemistry	0	3 (1.7)	0
Community Medicine	0	2 (1.1)	0
Dermatology	4 (2.3)	13 (7.5)	9 (5.2)
ENT	1 (0.6)	5 (2.9)	7 (4.0)
Forensic medicine	0	0	1 (0.6)
MDGP	0	0	1(0.6)
Medicine	38 (21.8)	30 (17.2)	8 (4.6)
ObGyn	24 (13.8)	5 (2.9)	19 (10.9)
Ophthalmology	0	1 (0.6)	1 (0.6)
Orthopaedics	12 (6.9)	10 (5.7)	19 (10.9)
Paediatrics	4 (2.3)	6 (3.4)	29 (16.7)
Pathology	0	0	1 (0.6)
Pharmacology	0	0	2(1.1)
Psychiatry	0	0	2(1.1)
Physiology	0	1 (0.6)	0
Radiology	8 (4.6)	11 (6.3)	6(3.5)
Surgery	44 (25.3)	42 (24.1)	15 (8.6)
UD	39 (22.4)	44 (25.3)	51(29.3)

Table-2B: Career choices at medical school exit [N=174]

Subjects	First choice, N (%)	Second Choice, N (%)	Third Choice, N (%)
Anesthesia	1 (0.6)	3 (1.7)	3 (1.7)
Biochemistry	0	3 (1.7)	0
Community	0	1 (0.6)	0
Dermatology	13 (7.5)	14 (8.0)	14 (8.0)
ENT	4 (2.3)	3 (1.7)	10 (5.7)
Forensic Medicine	0	0	1(0.6)
MDGP	0	0	1(0.6)
Medicine	36 (20.7)	39 (22.4)	14 (8.1)
ObGyn	23 (13.2)	15 (8.6)	36(20.7)
Ophthalmology	1 (0.6)	1 (0.6)	3 (1.7)
Orthopaedics	31 (17.8)	21 (12.1)	22 (12.6)
Paediatrics	4 (2.3)	6 (3.4)	22 (12.6)
Pharmacology	0	0	2 (1.1)
Psychiatry	0	0	2 (1.1)
Pathology	2 (1.1)	1 (0.6)	0
Radiology	10 (5.7)	12 (6.9)	15(8.6)
Surgery	41 (23.6)	45 (25.9)	13 (7.5)
UD	8 (4.6)	10 (5.7)	16 (9.2)

Most common first career choice at the end of internship was surgery 44 (25.3%) followed by internal medicine 30 (17.2%), and orthopaedics

26 (14.9%). ObGyn and Dermatology was the first choice in equal number of interns 22 (12.6%). Sixty-nine (39.6%) interns had mentioned ObGyn amongst the first three choices [Table-3C].

Table-3C: Career choices at the end of internship

Subjects	First choice, N (%)	Second Choice, N (%)	Third Choice, N (%)
Anesthesia	3 (1.7)	5 (2.8)	6 (3.4)
Biochemistry	0	2 (1.1)	0
Community Medicine	0	1 (0.6)	0
Forensic Medicine	0	0	1 (0.6)
MDGP	0	0	1 (0.6)
Dermatology	22 (12.6)	18 (10.3)	18 (10.3)
ENT	4(2.3)	3 (1.7)	11 (6.3)
Medicine	30 (17.2)	35 (20.1)	15 (8.6)
ObGyn	22 (12.6)	15 (8.6)	32 (18.4)
Ophthalmology	1 (0.6)	3 (1.7)	0
Orthopaedics	26 (14.9)	15 (8.6)	31 (17.8)
Paediatrics	4 (2.3)	4 (2.3)	22 (12.6)
Pathology	1(0.6)	1 (0.6)	0
Pharmacology	0	0	2 (1.1)
Psychiatry	5 (2.9)	0	2 (1.1)
Radiology	12 (6.9)	18 (10.3)	9 (5.2)
Surgery	44(25.3)	43 (24.7)	9 (5.2)
Undecided	0	8 (4.6)	15 (8.6)

Fifty eight (33.3 %) interns said that they would choose ObGyn as a career if given a chance, 82 (47.1%) said “maybe” they would and the remaining 34 (19.5%) said they would “never” choose ObGyn as a career. 90 (51.7%) said that they would pursue ObGyn residency if given a scholarship in the subject.

The career choice of students changed throughout medical school. There is the trend of change in career choice at different stages of medical school. Interns tend to change their minds against ObGyn as they move through medical school. Dermatology seems to be more popular as medical school ends [Figure-1].

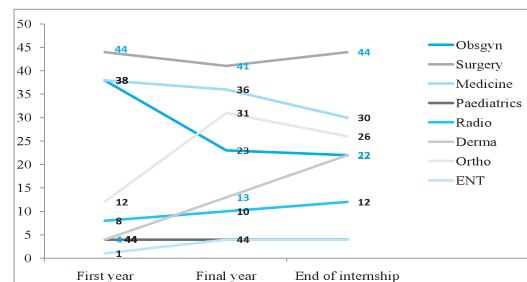


Figure-1: Career choice at three points throughout medical school

The female gender ($X^2=37.58, p=0.000, df=2$), urban residence ($X^2=10.184, p=0.006, df=2$) and having a doctor in the family ($X^2=10.389, p=0.003, df=2$) are significantly associated with choosing ObGyn compared to other subjects. Mean score in MBBS was significantly more amongst interns choosing ObGyn ($p=0.003$). Exposure in obstetric wards like number of deliveries and caesarean sections observed or assisted were not significantly different in interns choosing ObGyn and other subjects [Table-4]

Various experiences in medical school were assessed through attitude factors and were compared between interns choosing ObGyn and other subjects. Social commitment ($p=0.027$), high income potential ($p=0.000$), focus on urgent care ($p=0.000$), gratifying practice ($p=0.043$) and short postgraduate training ($p=0.000$) were factors which had significant difference in score. Less mean score shows students choosing ObsGyn agree on these factors [Table-5].

The factors that are significant p-value to predict career choice in ObGyn are being a female (OR=1.4), living in an urban area (OR=1.2) and having doctors in family (OR=1.2) Logistic regression analysis [Table-6].

DISCUSSION

This study shows that ObsGyn is a preferred career choice among medical students but different factors play a role to change that decision by the end of internship.

Table-6: Logistic regression analysis of factors predicting ObGyn as career choice

Factors	OR	95% CI
Female gender	1.46	1.250-1.706
Urban residence	1.21	1.123-1.319
Having doctors in family	1.22	1.128-1.332

At the end of internship, 22 (12.6%) chose ObGyn as their first career choice. This number is comparable to studies in other medical colleges internationally. In a cohort study of medical students in Quebec, 9.1% students said they definitely would include obstetric care in their future practices.⁷ In a ten year survey of medical students in United States, 13% students chose ObGyn.⁸ In a study in the UK, choice of ObGyn dropped from 4.2% to 2.8% from 1990 to 2002.¹

This study shows that interns tend to change their minds against ObGyn as they move through medical school. This was also found by Bedard MJ et al where 8% of students had changed their minds in favor of an obstetrical career and 20% against it in between the beginning and the end of their clerkships.⁷

All 22 interns choosing ObsGyn were females. Odds of a female choosing ObsGyn was 1.4. This is similar to findings in other studies.^{1,2,8,9} The main reason for male doctors not choosing this subject might be because of reluctance of the patients to be examined by a male doctor. In a society where women are not comfortable being examined, a male doctor is not

Table-4: Comparison of factors between interns choosing ObGyn and other subjects

	Associated factors	Ob/Gyn	Other Clinical	p-value
Age	Mean Age	23.52 ± 1.163	24.97 ± 1.910	t= -3.539; p=0.484
Gender	Male	0	101	0.000*
	Female	22	51	
Address	Rural	0	45	0.006*
	Urban	22	107	
Marital status	Married	0	9	1.592*
	Unmarried	22	143	
Doctors in family	Yes	0	49	.003*
	No	22	103	
Mean score (%)	Secondary school	70.17±3.7	70.95 ± 5.4	0.513
	MBBS	68.21 ± 2.67	65.57 ± 4.05	0.003
Clinical exposure in obstetrics	Number of deliveries observed (Mean ±SD)	13 ±5.14	13.4 ±3.98	T = -.490; p = .085
	Number of deliveries conducted	7.39 ± 3.56	8.03± 3.47	T = -.823; p=0.552
	Number of caesarean observed	9.47 ± 2.93	9.80 ±2.21	T = -.629; p=0.169
	Number of caesarean assisted	5.56 ± 2.44	5.48 ±2.14	T = .167; p=0.363

*Fisher's exact test

Table-5: Comparison of mean score on Likerts scale of attitudinal factors affecting career choice

Attitudinal factors		ObsGyn	Other Clinical	p-value
Medical lifestyle	There is flexible time outside medical practice	2.91 ± 1.08	2.61 ± 0.11	0.228
	Acceptable hours of practice	2.39 ± 0.94	2.06 ± 0.88	0.106
	Acceptable on call schedule	2.22 ± 0.79	2.04 ± 0.56	0.260
Social Orientation / Factors	Long term relationship with patients	1.95 ± .562	2.14 ± 0.77	0.257
	Focus on patients in community	2.26 ± .963	2.28 ± 0.88	0.917
	Social commitment	3.00 ± .852	2.53 ± 0.955	0.027
Prestige	High income potential	1.47 ± 0.99	2.81 ± 1.08	0.000
	Status among colleagues	1.91 ± 0.51	1.85 ± 0.64	0.703
	Stable/secure future	1.86 ± 0.75	1.81 ± 0.61	0.722
Hospital Orientation	Focus on urgent care (life saving procedures)	1.73 ± 0.68	2.75 ± 1.31	0.000
	Focus on in-hospital care	1.78 ± 0.59	2.32 ± 2.41	0.294
	Results of intervention immediately available	1.86 ± 0.86	2.30 ± 1.16	0.089
Scope of Practice	Wide variety of patient problems	2.13 ± 0.69	2.44 ± 1.34	0.278
	Narrow variety of patient problems	3.78 ± 4.12	3.24 ± 3.29	0.480
Role Model	Meaningful past experience with past	2.43 ± 1.27	2.69 ± 1.27	0.371
	Imitate a physicians/teachers	1.91 ± 1.040	2.12 ± 1.04	0.376
Others	Personality matches this career	1.78 ± .67	1.61 ± .59	0.228
	Gratifying practice	2.17 ± .83	2.73 ± 1.28	0.043
	Demanding practice	2.30 ± 1.14	2.14 ± 2.50	0.769
	Short post graduate training	1.73 ± 1.13	3.40 ± 1.21	0.000
	Interesting patient population	2.43 ± 1.03	2.28 ± .88	0.473
	Less legal problems	2.82 ± 1.07	3.09 ± 2.43	0.604
	Research interest	2.34 ± 1.11	2.38 ± 1.20	0.896
	Family pressure	3.60 ± 1.26	3.40 ± 1.40	0.510

easily accepted; and this choice of patients in turn intimidates male medical students which leads them to choose other subjects instead.

We also found that urban residence is a predicting factor for choosing ObsGyn which is similar to the findings by Scott IM et al.² Having doctors in the family is another factor associated with choosing ObGyn and this is a unique finding of this study not reported previously.

Other factors like younger age and higher parental education have been reported by Scott IM et al as a predictive factor for choosing obstetrics.²

The various attitudinal factors which influenced students to choose ObGyn are social commitment, high income potential, focus on urgent care, gratifying practice, and short postgraduate training. Other studies have reported positive experience with obstetrics,⁷ desiring a narrow scope of practice,² and high income,¹⁰ influence of a particular teacher¹ as a

decisive factor.

Bedard et al have discussed that witnessing a well managed delivery might have a positive effect whereas experiencing a high-stress situation will likely have a negative effect.⁷ In our study, clinical exposure to the subject did not have any association with interns' decision to choose the subject.

Studies by Metheny WP et al¹¹ and Deutsch A et al¹² reported that insurance costs and the risk of lawsuit detracted students from ObGyn. Turner G et al¹ and Deutsch A et al¹² reported that long and unsocial working hours were a major reason not to choose this subject. These issues did not play a decisive role in this study probably because risk of lawsuit and insurance policies were not a problem till recent few years and are still not so as compared to high income countries.

The strength of this study is the excellent response rate whereas recall bias is a major limitation of this

study. Interns answered the questions from what they remembered five and a half years ago when they entered medical school. This study also does not address the reasons why male interns do not prefer ObGyn.

This is a cross sectional study but a cohort study of medical students throughout medical school could be a future prospect for a study in Nepalese medical colleges. This type of study would also help to see the trends of career choice over the years. A cohort study following students throughout residency in ObGyn would also give a perspective on whether students choosing ObGyn by choice or otherwise are satisfied with their decision. A multi center study comparing teaching practices in ObGyn to find out if role models play a factor in influencing students in different medical colleges can also be a research prospect.

In order to retain students' interest in ObGyn throughout medical school, encouraging mentorship and role models play a major role. Department of obstetrics and gynecology should work to develop faculties with such positive roles. Use of skilled birth

attendants to reduce working hours for obstetricians can be another policy. Pre examination counseling to patients so that they feel comfortable being examined with a male gynecologist might help develop male doctor to patient bonding.

CONCLUSIONS

Students tend to change minds against their choice of ObGyn throughout medical school that is influenced by demographic and attitudinal factors like gender, residence and family environment. Department of obstetrics and gynecology has a major responsibility to develop role models and encouraging mentors so that students choose ObsGyn with interest and do not regret the choice till the end of medical school. The data from this study can be used to guide education and training program in ObGyn.

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