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Research Article

Inclination of undergraduate medical students towards teaching as career

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Abstract

Introduction: There is acute shortage of teachers in medical field and very few new members are joining this noble profession. The shortage of medical teachers is resulting in decrease of teaching quality, decrease in number of medical seats and the country is losing its education standard worldwide.

Aims: To find out the view and inclination of undergraduate medical students towards teaching as career.

Objectives: It is an attempt to find possible reasons preventing or stimulating the undergraduates' students to consider teaching as career. Many studies are available about the students view towards clinical specialties choice but literature hardly mentions medical teaching as choice. The objective is to attempt to collect undergraduate student's view.

Methods: A questionnaire based cross sectional descriptive study involving 315 undergraduate MBBS students of first year (115), second year (72) and third year part II (128). Their responses were recorded on Likert's scale, tabulated and analyzed.

Conclusion: This study shows a trend going against the option of teaching as career. The data collected does not give definite proof but indications are visible that as the students progresses from first to final year their positive attitude towards considering teaching as career show decline.

Keywords: Medical teaching, Medical teacher

1. Introduction

There is a hot debate going on about the number of doctors available per number of patients in India. There is a vast gap in demand and availability of doctors. The number of medical colleges is not sufficient to cater to ever increasing patient load. The existing medical colleges in India are facing acute shortage of medical teachers while the establishments of new colleges are facing utmost difficulty in recruiting medical teachers. The shortage of teachers is resulting in skewed ratio of teachers to student and the colleges are losing number of seats, further aggravating the crisis. Recently state of Maharashtra lost 650 MBBS seats because of shortage of medical teachers.

This study is an attempt to find from the target population who will be joining the medical profession within next few years after completing their graduation and post graduation. Do they consider medical teaching as career?

The literature is full of surveys about choices of specialty selection by medical students but there is hardly any mention of medical teaching as career option. We know that teaching is 'Noble 'profession and 'Guru' is looked upon with high esteem in our country. But practice does not reflect this tradition and ground reality reveals severe dearth of teachers.

2. Methods and Materials

This is a questionnaire based cross sectional descriptive institutional study involving 315 undergraduate MBBS students. A permission of ethical committee was obtained to carry out the survey. Undergraduate MBBS students of first, second and third year were provided with a questionnaire. The participation was voluntary and consents were requested and obtained from participating student. The questionnaire was blind and did not ask for identification and was collected in box with slit to maintain strict confidentiality.

Most of the first year students were of 17 years age; while rests of students were above age of 18 years. The sample contained 115 first year students, 72 second year students and 128 third year part II students. (Total 315 students).

The questionnaire contained 16 questions in the form of statements. These statements were a build up to present the problem under consideration, give essential background, and ask probing questions reflecting personal views. The responses were recorded in the form of Likert's scale as **1)** Strongly agree (SA) **2)** Agree(A) **3)** Not agree Not Disagree (NAND) **4)** Disagree (DA) **5)** Strongly Disagree(SA) and finally asking the climax leading question seeking answer in affirmative or negative.(YES or NO)

The questionnaire was validated by members of medical education unit and research cell unit. The questionnaire was presented to all the students in three different lecture halls at one time. The introduction was kept brief to avoid investigators bias. The responses of first, second and third years were collected separately. The responses for each question were tabulated and percentage of each response was recorded.

3. Result

Table No. 1: Responses in Likert's scale

Year	No of students	Responses in Likert's scale					Percentage				
		SA	A	NAND	DA	SD	SA	A	NAND	DA	SD
Q1. ***There is scarcity medical teachers***											
I	115	20	71	14	9	1	**29.56**	**61.73**	12.17	7.82	0.86
II	72	8	54	8	2	0	11.11	**75**	11.11	2.77	0
III	128	28	80	14	6	0	**21.87**	**62.5**	10.93	4.68	0
							20.84	**66.41**	11.4	5.09	0.28
Q2. ***Even after respectable pay packages medical persons are not attracted to teaching profession***											
I	115	20	60	21	14	0	17.39	**52.17**	**18.26**	12.17	0
II	72	3	43	14	12	0	4.16	**59.72**	**19.44**	16.66	0
III	128	20	57	32	19	0	15.62	**44.53**	**25**	14.84	0
							12.39	**52.14**	**20.9**	14.55	0
Q3. ***Compromised financial status is a reason behind choosing medical teaching as career.***											
I	115	11	40	22	36	6	9.56	**34.78**	19.13	**31.3**	5.21
II	72	4	26	25	15	2	5.55	**36.11**	**34.72**	20.83	2.77
III	128	19	41	38	26	4	14.84	**32.03**	**29.68**	20.31	3.12
							9.98	**34.3**	**27.84**	24.14	3.7
Q4. ***All teachers have equal ability to teach.****											
I	115	8	12	11	56	28	6.95	10.43	9.56	**48.69**	**24.34**
II	72	1	6	6	41	18	1.38	8.33	8.33	**56.94**	**25**
III	128	5	11	16	54	42	3.9	8.59	12.5	**42.18**	**32.81**
							4.07	9.11	10.13	**49.27**	**27.38**
Q5. ***All teachers adapt medical teaching because they have passion about it***											
I	115	6	32	27	36	14	5.21	**27.82**	23.47	**31.3**	12.17
II	72	1	17	20	34	0	1.38	23.61	**27.77**	**47.22**	0
III	128	6	21	30	58	13	4.68	16.4	**23.43**	**45.31**	10.15
							3.75	22.61	**24.89**	**41.27**	7.44
Q6. ***Medical teachers inspire students to become good clinicians***											
I	115	46	57	8	3	1	**40**	**49.55**	6.95	2.6	0.86
II	72	27	33	8	4	0	**37.5**	**45.83**	11.11	5.55	0
III	128	48	64	13	1	2	**37.5**	**50**	10.15	0.78	1.56
							38.33	**48.46**	9.4	2.97	0.8
Q7. ***Personal intelligence and individuals competency play a role in choosing medical teaching as career****											
I	115	34	61	6	12	2	**29.56**	**53.04**	5.21	10.43	1.73
II	72	10	49	8	5	0	**13.88**	**68.05**	11.11	6.94	0
III	128	25	69	20	11	3	**19.53**	**53.9**	15.62	8.59	2.34
							20.99	**58.33**	10.64	8.65	1.35
Q8. ***Advice from family , friends or practicing specialists influence students in deciding medical teaching as profession***											
I	115	9	48	16	38	4	7.82	**41.73**	13.91	**33.04**	3.47
II	72	8	32	12	19	1	11.11	**44.44**	16.66	**26.38**	1.38
III	128	13	55	31	25	4	10.15	**42.96**	**24.21**	19.53	3.125
							9.69	**43.04**	18.26	**26.31**	2.65
Q9. ***Medical teaching is considered as lucrative job****											
I	115	5	26	48	27	9	4.34	22.6	**41.73**	**23.47**	7.82
II	72	2	16	39	14	1	2.77	**22.22**	**54.16**	19.44	1.38
III	128	1	26	54	42	5	0.78	20.31	**42.18**	**32.81**	3.9
							2.63	21.71	**46.02**	**25.24**	4.36
Q10. ***Medical teachers inspire students to become good teachers***											
I	115	9	36	30	31	9	7.82	31.3	**26.08**	**26.95**	7.82
II	72	5	20	28	18	1	6.94	**27.77**	**38.88**	25	1.38
III	128	12	42	35	35	4	9.37	**32.81**	**27.34**	**27.34**	3.12
							8.04	**30.62**	**30.76**	**26.43**	**4.1**
Q11. ***Medical teachers are respected more in society.***											
I	115	28	44	29	11	3	24.37	**38.26**	**25.21**	9.56	2.6
II	72	5	37	19	9	2	6.94	**51.38**	**26.38**	12.5	2.77
III	128	18	52	40	17	1	14.06	**40.62**	**31.25**	13.28	0.78
							15.12	**43.42**	**27.61**	11.78	2.05
Q12. ***Medical teaching is more challenging than the clinical practice.***											
I	115	14	23	24	41	13	12.17	20	**20.86**	**35.65**	11.3
II	72	0	10	20	30	12	0	13.88.	**27.77**	**41.66**	16.66
III	128	11	24	40	39	14	8.59	18.75	**31.25**	**30.46**	10.93
							6.92	19.37	**26.62**	**35.92**	12.96
Q13. ***Now a days teaching and research has good scope***											
I	115	31	59	14	8	3	**26.95**	**51.3**	12.17	6.95	2.6
II	72	11	39	16	6	0	15.27	**54.16**	**22.22**	8.33	0
III	128	17	70	26	13	2	13.28	**54.68**	**20.31**	10.15	1.56
							18.5	**55.38**	**18.23**	8.47	1.38

Q14. ***Medical teaching is promising profession as your knowledge is continuously updated***											
I	115	41	59	10	2	3	**35.65**	**51.3**	8.69	1.73	2.6
II	72	16	38	12	6	0	**22.22**	**52.77**	16.66	8.33	0
III	128	31	66	21	9	1	**24.21**	**51.56**	16.4	7.03	0.78
							27.36	**51.87**	13.91	5.69	1.12
Q15. ***For students medical teachers are role models***											
I	115	27	54	19	12	3	**23.47**	**46.95**	16.52	10.43	2.6
II	72	12	32	15	12	1	16.66	**44.44**	**20.83**	16.66	1.38
III	128	28	50	31	18	1	21.87	**39.06**	**24.21**	14.06	0.78
							20.66	**43.48**	**20.52**	13.71	1.58
Q16. ***Financial status plays role in choosing medical teaching as career***											
I	115	22	57	14	20	2	**19.13**	**49.56**	12.17	17.39	1.73
II	72	10	32	10	19	1	13.88	**44.44**	13.88	**26.38**	1.38
III	128	33	57	24	11	3	**25.78**	**44.53**	18.75	8.59	2.34
							19.59	**46.17**	14.93	17.45	1.81

SA= Strongly Agree, A= Agree, NAND= Not Agree Not Disagree, DA= Disagree, SD= Strongly Disagree

Table No. 2: Response sheet

Q17. ***Would you consider teaching as career / profession for yourself?***						
No of students	***Answer YES or NO***			**Percentage**		
	Yes	**No**	**No comment**	**Yes**	**No**	**No Comment**
115	36	**76**	3	31.3	**66.08**	2.6
72	28	**43**	1	38.9	**59.72**	1.38
128	38	**75**	15	29.7	**58.59**	11.7
315	102	**194**	19	33.33	**61.64**	5.23

Table No. 3 Percentage distribution of responses of first year students

	SA	**A**	**NAND**	**DA**	**SD**
Q1	**29.56**	**61.73**	12.17	7.82	0.86
Q2	17.39	**52.17**	**18.26**	12.17	0
Q3	17.39	**52.17**	**18.26**	12.17	0
Q4	6.95	10.43	9.56	**48.69**	**24.34**
Q5	5.21	**27.82**	23.47	**31.3**	12.17
Q6	**40**	**49.55**	6.95	2.6	0.86
Q7	**29.56**	**53.04**	5.21	10.43	1.73
Q8	7.82	**41.73**	13.91	**33.04**	3.47
Q9	4.34	22.6	**41.73**	**23.47**	7.82
Q10	7.82	31.3	**26.08**	**26.95**	7.82
Q11	24.37	**38.26**	**25.21**	9.56	2.6
Q12	12.17	20	**20.86**	**35.65**	11.3
Q13	**26.95**	**51.3**	12.17	6.95	2.6
Q14	**35.65**	**51.3**	8.69	1.73	2.6
Q15	**23.47**	**46.95**	16.52	10.43	2.6
Q16	**19.13**	**49.56**	12.17	17.39	1.73

Fig. No. 1 Percenatge of responses of first year students

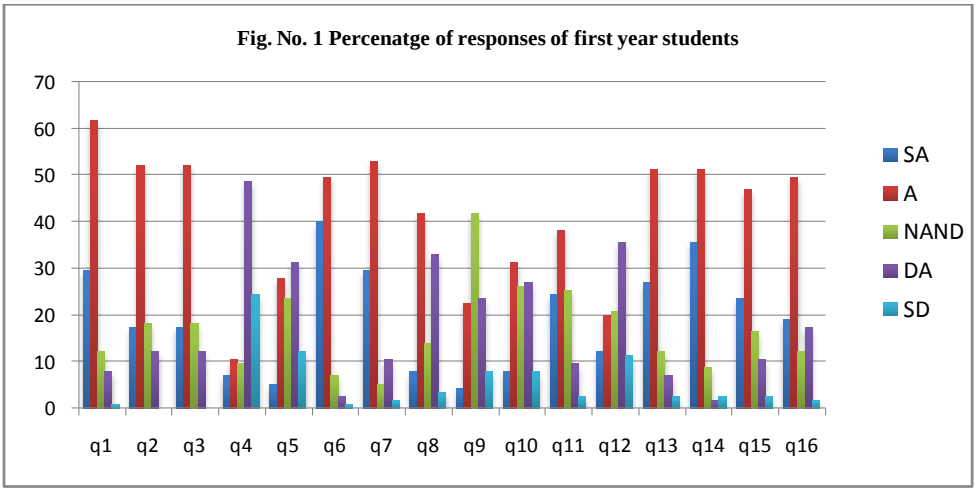


Table No. 4 Percentage of responses of second year students

	SA	A	NAND	DA	SD
Q1	11.11	**75**	11.11	2.77	0
Q2	4.16	**59.72**	**19.44**	16.66	0
Q3	5.55	**36.11**	**34.72**	20.83	2.77
Q4	1.38	8.33	8.33	**56.94**	**25**
Q5	1.38	23.61	**27.77**	**47.22**	0
Q6	**37.5**	**45.83**	11.11	5.55	0
Q7	**13.88**	**68.05**	11.11	6.94	0
Q8	11.11	**44.44**	16.66	**26.38**	1.38
Q9	2.77	**22.22**	**54.16**	19.44	1.38
Q10	6.94	**27.77**	**38.88**	25	1.38
Q11	6.94	**51.38**	**26.38**	12.5	2.77
Q12	0	13.88.	**27.77**	**41.66**	16.66
Q13	15.27	**54.16**	**22.22**	8.33	0
Q14	**22.22**	**52.77**	16.66	8.33	0
Q15	16.66	**44.44**	**20.83**	16.66	1.38
Q16	13.88	**44.44**	13.88	**26.38**	1.38

Fig. No. 2 Percentage of responses of second year students

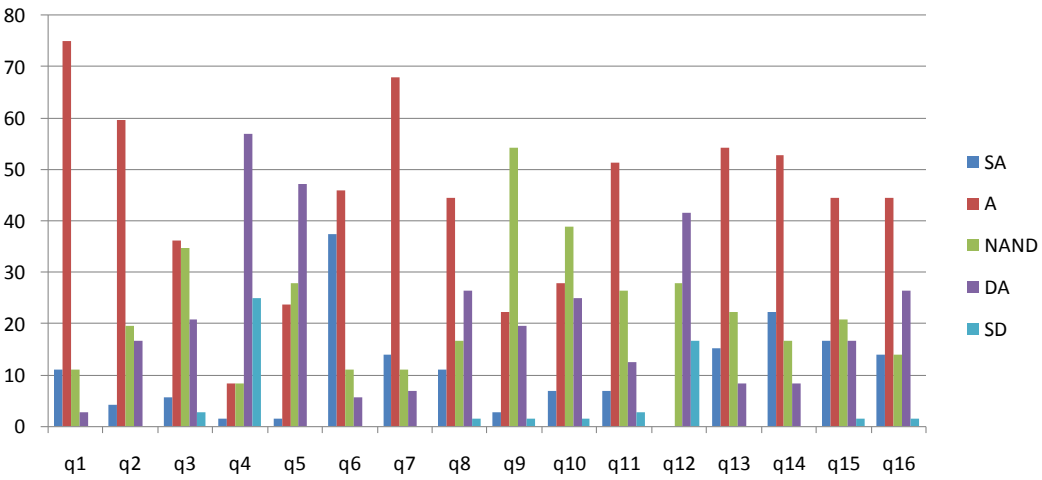


Table No. 5 Percentage of responses of third year students

	SA	A	NAND	DA	SD
Q1	**21.87**	**62.5**	10.93	4.68	0
Q2	15.62	**44.53**	**25**	14.84	0
Q3	14.84	**32.03**	**29.68**	20.31	3.12
Q4	3.9	8.59	12.5	**42.18**	**32.81**
Q5	4.68	16.4	**23.43**	**45.31**	10.15
Q6	**37.5**	**50**	10.15	0.78	1.56
Q7	**19.53**	**53.9**	15.62	8.59	2.34
Q8	10.15	**42.96**	**24.21**	19.53	3.125
Q9	0.78	20.31	**42.18**	**32.81**	3.9
Q10	9.37	**32.81**	**27.34**	**27.34**	3.12
Q11	14.06	**40.62**	**31.25**	13.28	0.78
Q12	8.59	18.75	**31.25**	**30.46**	10.93
Q13	13.28	**54.68**	**20.31**	10.15	1.56
Q14	**24.21**	**51.56**	16.4	7.03	0.78
Q15	21.87	**39.06**	**24.21**	14.06	0.78
Q16	**25.78**	**44.53**	18.75	8.59	2.34

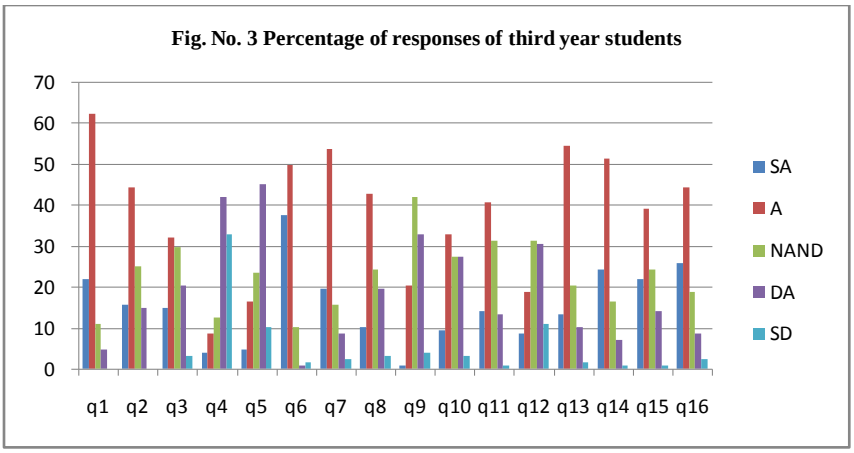
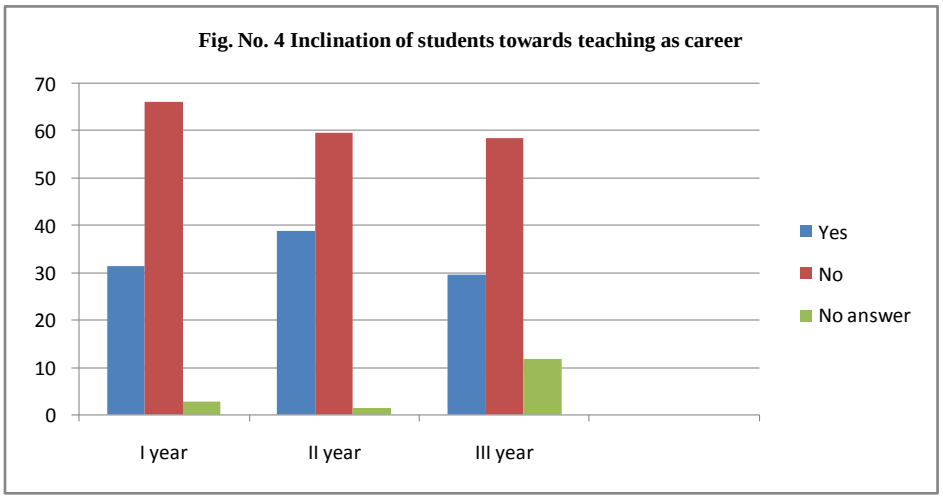


Table No. 6 Percentage of students' response about inclination towards teaching as career

	Yes	No	No Answer
I year	31.3	66.08	2.6
II year	38.88	59.72	1.38
III year	29.68	58.59	11.71



4. Observations and Discussion

Q1- Majority students agreed that there is scarcity of medical teachers (66.41% Agreed and 20.84% Strongly Agreed)
Q2- Respectable pay packages does not attract medical persons towards teaching was agreed upon by majority.(52.14% Agreed and 12.39% Strongly Agreed)
Q3- Compromised financial status is a reason to choose medical profession : produced an equivocal response (34.33% Agreed, 9.98% Strongly Agreed, 27.84% remained Neutral , 24.14% Disagreed and 3.7& Strongly Disagreed)
Q4- This statement "All teachers have equal ability to teach was expectedly denied by majority. (49.27% Disagreed and 27.38% Strongly Disagreed)
Q5- The notion of teachers adapting medical profession because of passion was disagreed by 41.27% while 24.89% remained noncommittal.
Q6- Medical teachers inspire students to become good clinician was accepted by majority. (48.46% Agreed and 38.33 Strongly Agreed)
Q7- One of the probing statement" Personal intelligence and individuals' competency play a role in choosing medical teaching as career" was agreed by majority. (58.33% Agreed and 20.99% Strongly Agreed)
Q8- The statement about influencing persons in deciding medical teaching as career was also agreed upon by majority. (43.04% Agreed and 9.69 % Strongly Agreed)
Q9- Was introduced as misleading statement to check the bias of students who tend to answer favourably to majority questions to please the investigator. But here the response was careful. Majority 46.02% preferred Neutral opinion (NAND) while 25.24% Disagreed. This was recorded as equivocal response towards disagreement.
Q10- This googly "Teachers inspire students to become good teachers " was batted well by students and also produced equivocal response (30.62% Agreed, 30.76% remained Noncommittal and 26.43 Disagreed)
Q11- "Medical teachers are respected more in society" was agreed by 43.42% but 27.61% offered No Opinion. The agreeing percentage was almost neutralized by No Opinion and Disagreement percentage.
Q12- The statement Medical teaching being more challenging than clinical practice was refused by students (35.92% Disagreed and 12.96% Strongly Disagreed while 26.62% remained Noncommittal)
Q13- Good scope for teaching and research was accepted by majority. (55.38 % Agreed and 18.50% Strongly Agreed)
Q14- The knowledge updating scope was also accepted by majority. (51.87% Agreed and 27.36% Strongly Agreed).
Q15- Teachers as role model was accepted by majority (43.48 Agreed, 20.66 Strongly Agreed) but almost equal percentage countered by Noncommittal 20.52%, Disagree 20.52% and 1.58 Strongly Disagree.

Q16- Financial status plays role in choosing medical teaching as career- was agreed upon by majority. (46.17% Agreed and 19.59 Strongly Agreed)
Q17- The main leading question: Would you consider teaching as career for yourself produced 61.64% negative (NO) response and only 33.33% positive (YES) response.
Majority students agreed to Q1, Q2, Q6, Q7.Q8, Q11, Q13, Q14, Q15, Q16, Disagreed to Q4,Q5, Q12 and remained Noncommittal to Q3, Q9 and Q10. Thus majority statements were agreed, probing questions answered with alertness, controversial statement cautiously responded with No Comments. The main question was answered with clarity by majority in Negative.
An interesting observation noted that as students progressed towards final year, their positive attitude towards considering teaching as career showed decline.
Here we quote few references by different authors. Their views are similar to the observations of this survey.

Yu Wei Chew[1] in his study of 425 students stated that: influence of teaching faculty & consultants at teaching hospitals (74.4%) and inspiration obtained during clinical posting (71.9%) are the factors rated as important for choosing a specialty as career. Huda, Faseeh [2] found that personal interest contributes to choice of specialty with high rating of clinical specialty as career. Mustafa Dikici [3] in their study of 770 first year medical students of 4 Universities in different regions of Turkey noted nearly exclusive intention towards specialization and some inclination to work in primary care for short period to gain experience and least preferred family medicine. Onakpoya [4] et al in a descriptive survey of 353 second & third year medical students in Nigeria only 22(6.2%) showed inclination to choose Anatomy teacher as a career even though Anatomy as subject is perceived positively by 346 students. Similar findings are observed by Christopher Morley in their cohort study of 596 preclinical medical students which showed that idealism begins to decline in the first two years of medical school. The decline may be due to a hidden curriculum that shifts students away from relatively less lucrative and more service oriented careers with increased concerns over money, lifestyle, career and prestige. This suggests the need for earlier interventions [5].

Majority of students are at loss to decide career direction at the end of graduation. We noted a decline in their inclination towards teaching as career. Somehow every student gets exposed to and attracted to lucrative aspect of clinical practice, while is necessary that medical school should positively discuss career options during under graduation so that the choice of specialization may be made earlier [6]. Future doctors need to be exposed to the basic principles of clinical teaching from the undergraduate years to post graduation[7].

Few limitations were observed:

1) Positive statements towards teaching and teachers were agreed readily by students.
2) Students agreed positively to Q11, Q13 and Q14 concerned with positive scope of teaching but answered in negative to consider teaching as career. This does not correlate to the percentage of responses to questionnaire.
3) This sample represents students from private medical college belonging to affluent class and in majority answered 'No' to teaching as career.

5. Conclusions

This study shows a trend going against the option of teaching as career. The data collected does not give definite proof but indications are visible that as the students progresses from first to final year their positive attitude towards considering teaching as career show decline.

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