

# “Perception, Knowledge & Attitude about Integrated Teaching in Medical Curriculum among Medical Students in India”

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## Abstract

**Background:** In recent days, in a Medical Curriculum, students are taught in different departments, subject-wise, without integration to interrelate the subjects & this results in compartmentalization of medical education. The effort to introduce integrated teaching in medical curriculum in order to have a better contextual knowledge among medical students.

**Objective:** This study was conducted among medical students of different years of studies to know about their perception, knowledge and awareness about integrated teaching methods.

**Methods:** This Cross-sectional questionnaire-based study was conducted in India among medical students. The data was analysed.

**Results:** Among the participants 96% of the participants were in favour of the integrated teaching.

**Conclusion:** Integrated Teaching was found to be more effective than the conventional one as statistically significant result was obtained. It was suggested by students to introduce it in the whole curriculum.

**Keywords:** Awareness, Perception, Integrated teaching, Medical Students

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## I. Introduction

Changing needs of the society, advances in scientific knowledge & innovations in the educational field requires constant changes in Medical Curriculum if necessary.<sup>[1]</sup> The medical Council of India <sup>[2]</sup> guidelines stipulate that undergraduate medical education should be oriented towards health and community. The term integration has been derived from the Latin word integer which means coordination of different activities to ensure harmonious functioning. Integration of teaching is defined as the organization of teaching matter to interrelate the subjects which are frequently taught in separate academic departments. Widespread adoption of Curriculum Based Medical Education (CBME) is a current approach to medical education <sup>[3,4]</sup>. Integrated teaching is also called synergistic teaching, interconnected teaching, thematic teaching because on the same topic different subject experts will deliver their knowledge at the same time.<sup>[5]</sup> Subject specific learning with appropriate alignment increases the competency of a medical graduate.<sup>[6]</sup> In a time where the world was at a standstill & in-person medical education was severely curtailed, the involvement of expatriate doctors, specialists made this system a knowledge sharing platform. It is a unique example of integrated medical education.<sup>[7]</sup>

## II. Material And Methods

A cross-sectional online based study was conducted with a pre-tested & pre-validated questionnaire administered via Google forms to the medical students in different parts of India. Informed consent was taken on the Google forms. Those who were willing to take part only those respondents were considered. The data statistically analysed.

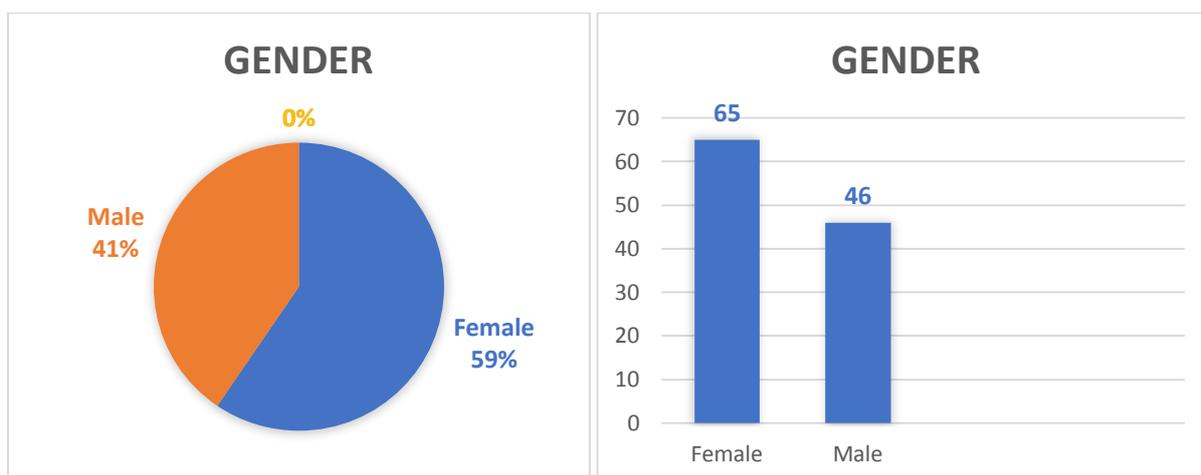
## III. Result

Total number of participants were 111. Among them 59% were female & 41% were male. 74% were I MBBS students, 26% were II MBBS students. 96% of the participants agreed that integrated teaching is better than traditional teaching. 28% of students agreed that integrated teaching is more time consuming than traditional teaching. Only 3% disagreed with the fact that integrated teaching has more advantages than traditional teaching. About student's enhanced intellectual curiosity 96% of the respondents agreed. 100% students agree about the question that integrated teaching should be in the form of Case Discussion. 98% of the

respondents agree that integrated teaching brings faculty together for student's welfare. 97% of the students agree about the fact that cooperation of other departments is very important in integrated teaching. 83% of the participants agreed about integrated teaching being made mandatory in the Medical Curriculum.

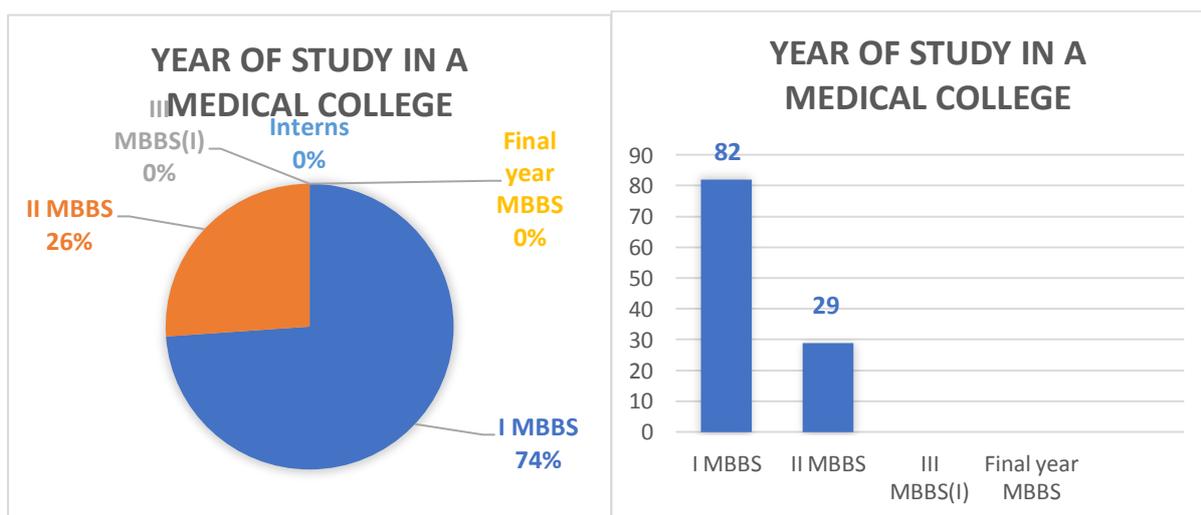
GENDER	No. of participants (Out of-111)	Percentage
Female	65	59
Male	46	41

**Table 1: Gender distribution**



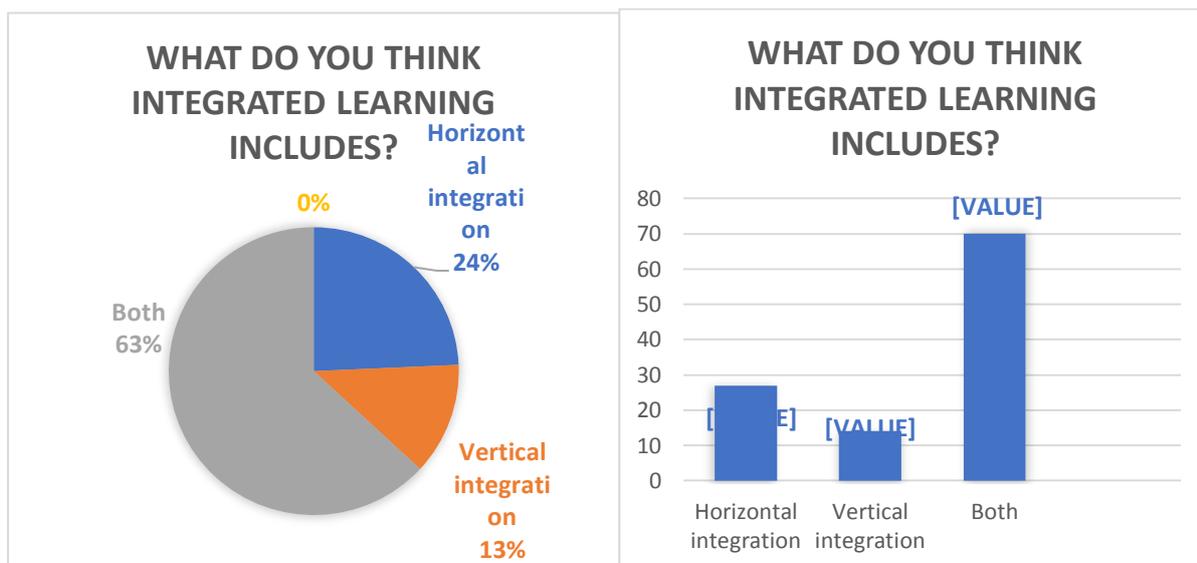
Year of study in a Medical College	No. of participants (Out of-111)	Percentage
I MBBS	82	74
II MBBS	29	26
III MBBS(I)	0	0
Final year MBBS	0	0

**Table 2: Distribution according to year of study**



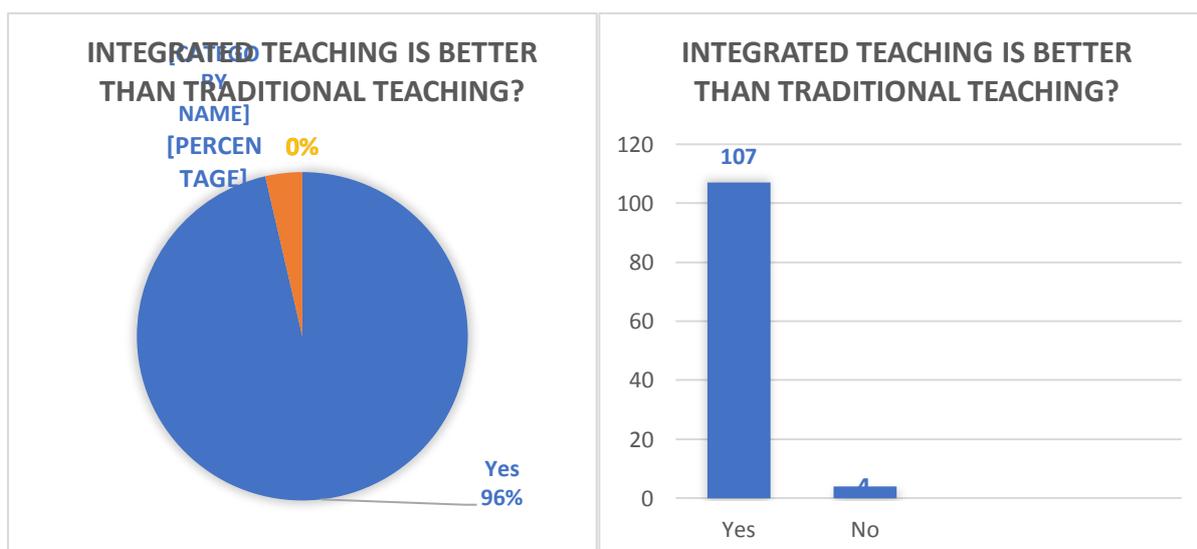
What do you think integrated learning includes?	No. of participants (Out of 111)	Percentage
Horizontal integration	27	24
Vertical integration	14	13
Both	70	63

**Table 3: Awareness of individuals on what do they think integrated learning includes**



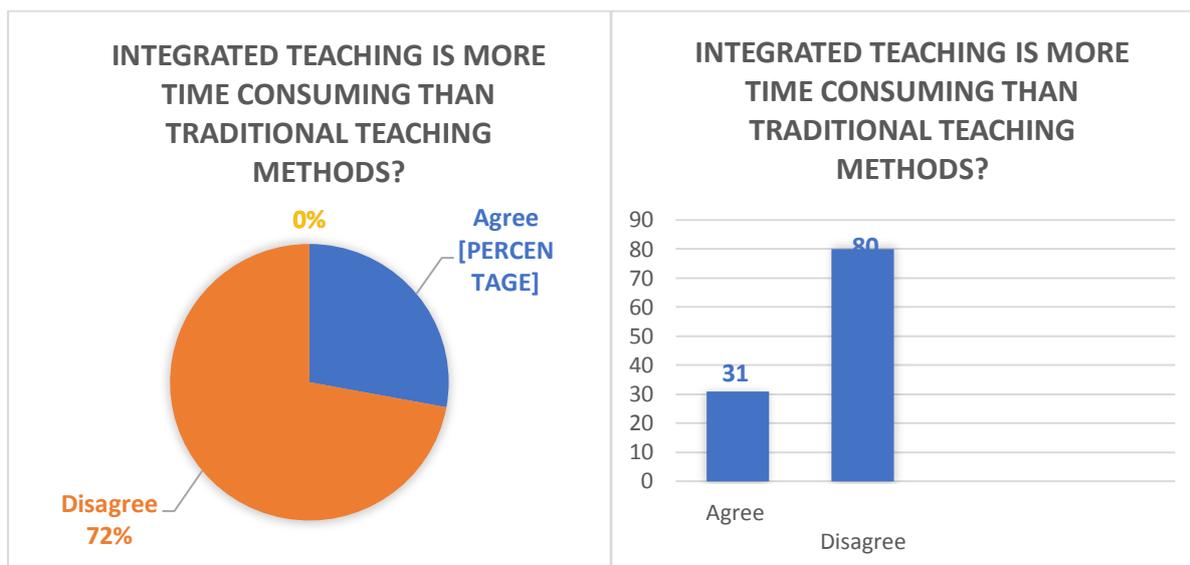
**Table 4: Opinion of participants on Integrated teaching being better than traditional teaching**

Integrated teaching is better than traditional teaching?	No. of participants (Out of 111)	Percentage
Yes	107	96
No	4	4



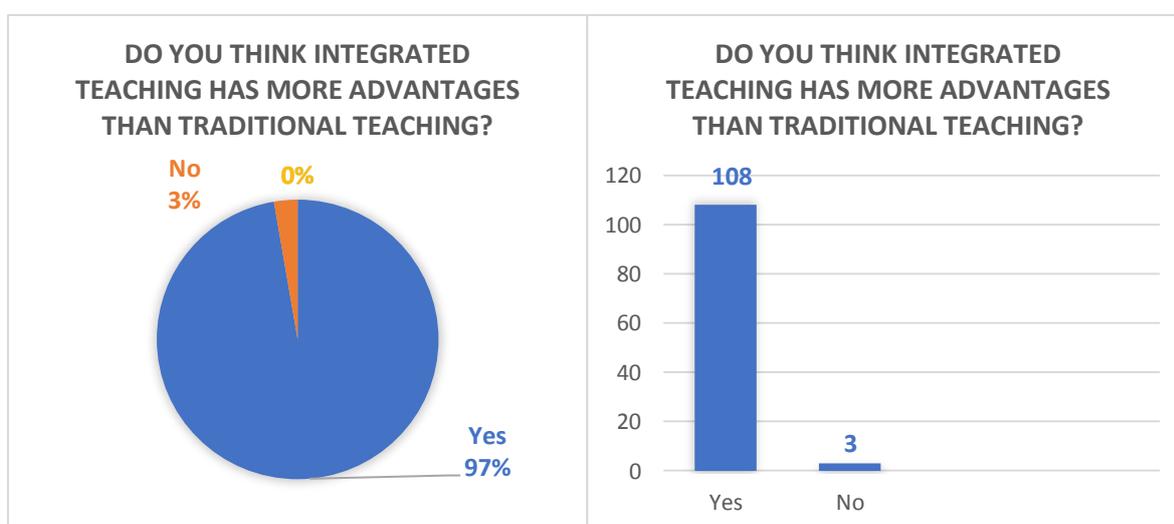
**Table 5: Opinion of participants on whether Integrated teaching is more time consuming than traditional teaching methods**

Integrated teaching is more time consuming than traditional teaching methods?	No. of participants (Out of 111)	Percentage
Agree	31	28
Disagree	80	72



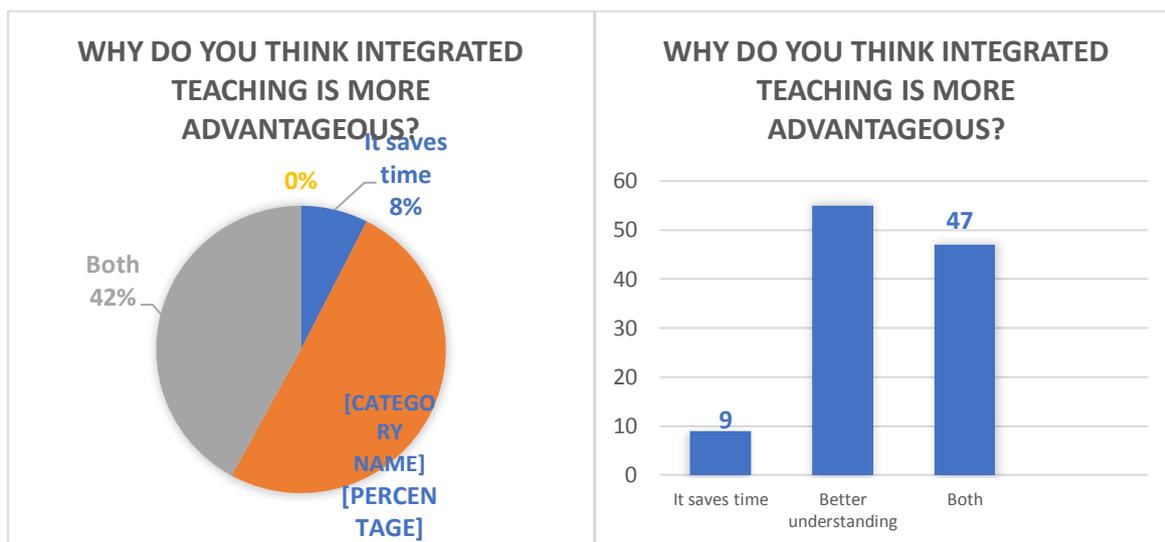
**Table 6: Response of participants on whether they think integrated teaching has more advantages than traditional teaching**

Do you think integrated teaching has more advantages than traditional teaching?	No. of participants (Out of 111)	Percentage
Yes	108	97
No	3	3



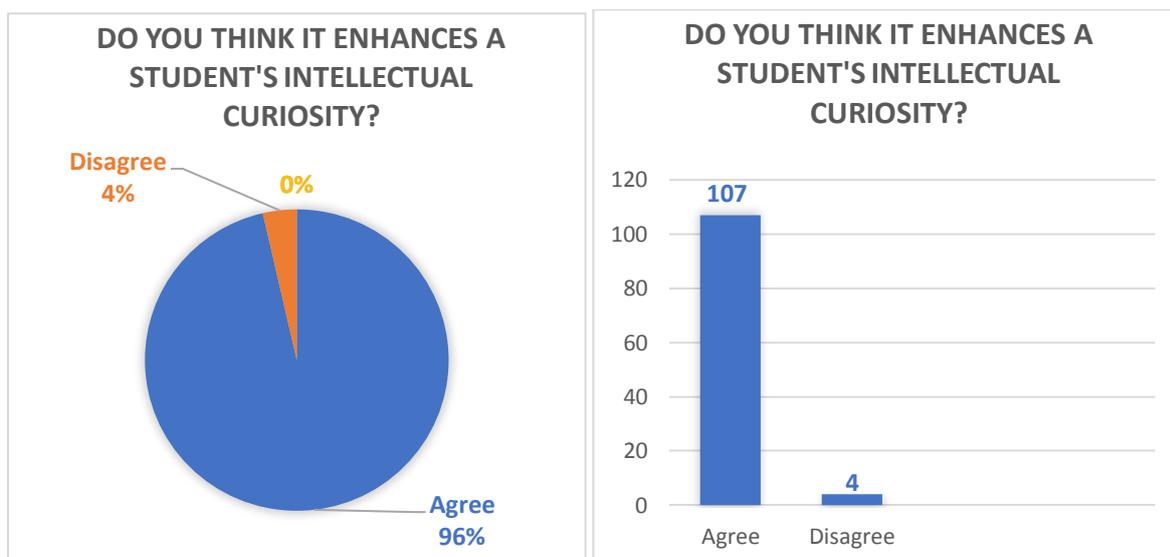
**Table 7: Response of participants on why they feel integrated teaching is more advantageous**

Why do you think integrated teaching is more advantageous?	No. of participants (Out of 111)	Percentage
It saves time	9	8
Better understanding	55	50
Both	47	42



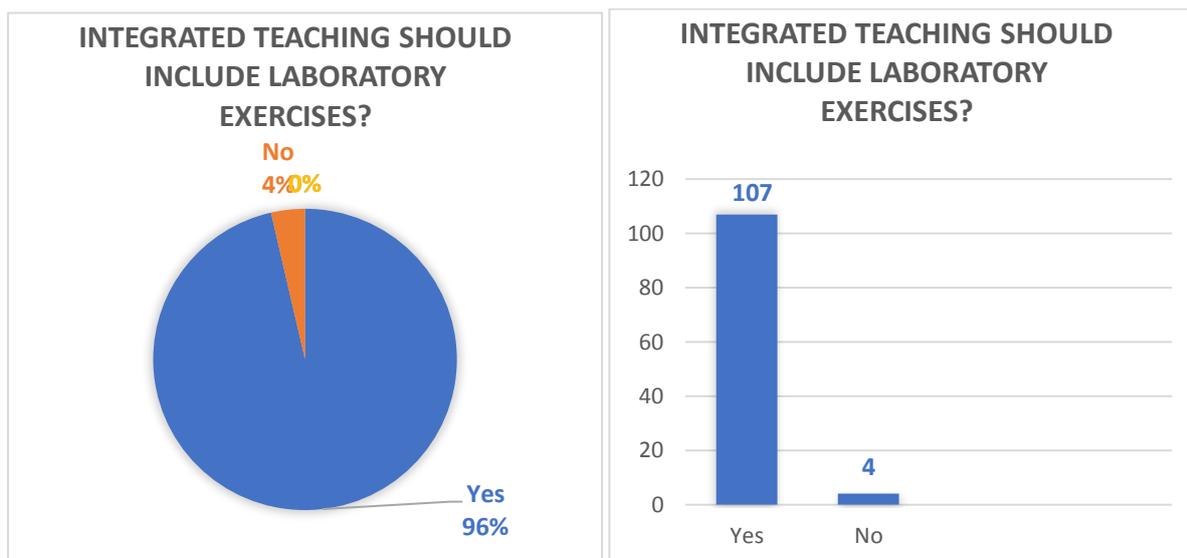
**Table 8: The views of respondents if they felt integrated teaching enhances a student's intellectual curiosity**

Do you think it enhances a student's intellectual curiosity?	No. of participants (Out of 111)	Percentage
Agree	107	96
Disagree	4	4



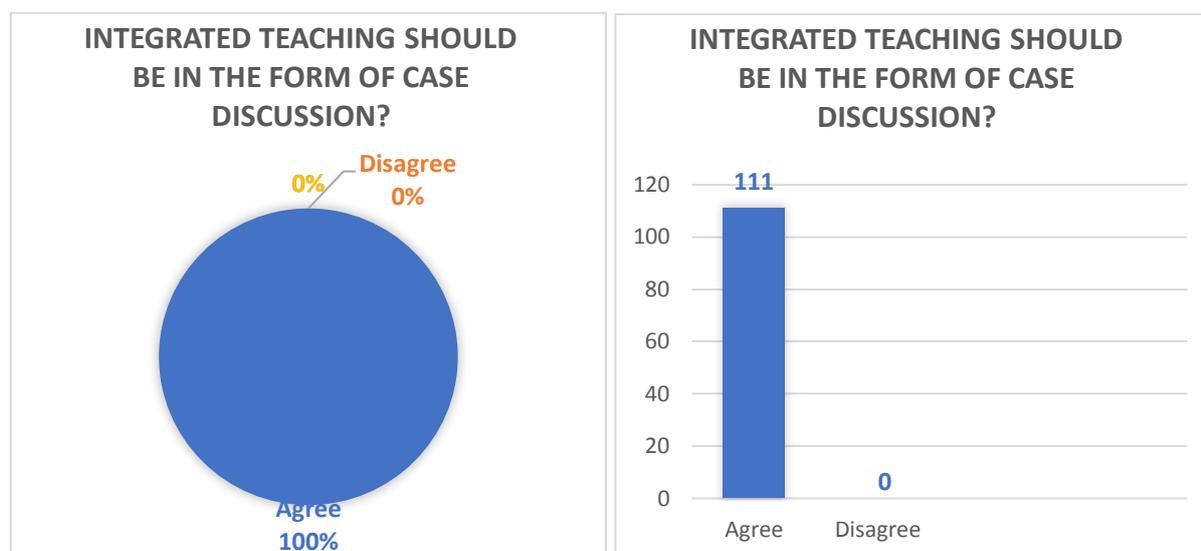
**Table 9: The views of participants on whether or not Integrated teaching should include laboratory exercises**

Integrated teaching should include laboratory exercises?	No. of participants (Out of 111)	Percentage
Yes	107	96
No	4	4



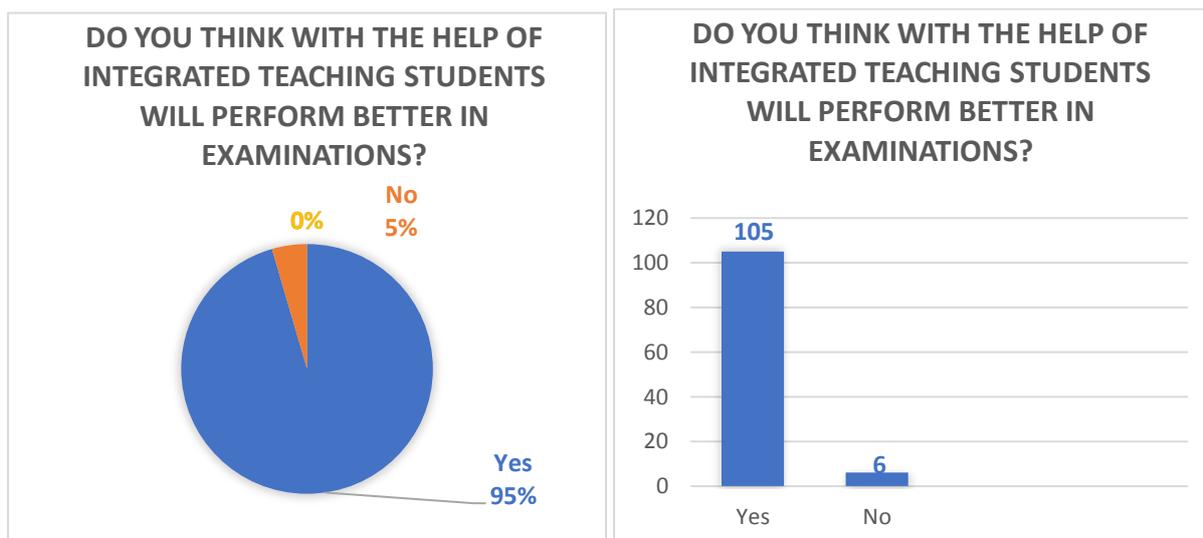
**Table 10: The views of participants on whether or not Integrated teaching should be in the form of case discussion**

Integrated teaching should be in the form of case discussion?	No. of participants (Out of 111)	Percentage
Agree	111	100
Disagree	0	0



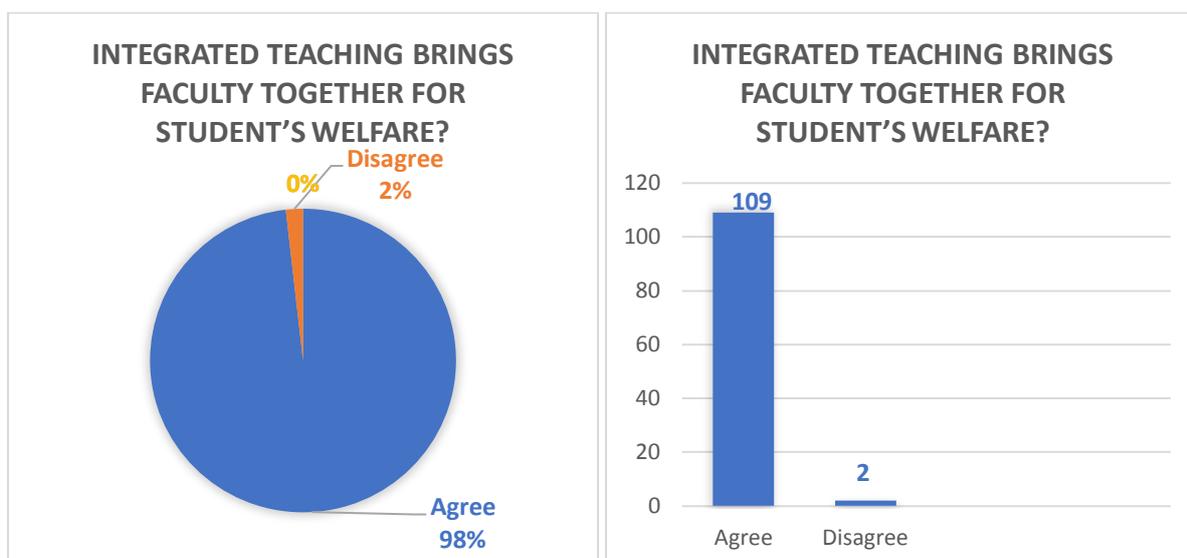
**Table 11: Response for whether the participants thought with the help of integrated teaching they will be able to perform better in examinations**

Do you think with the help of integrated teaching students will perform better in examinations?	No. of participants (Out of 111)	Percentage
Yes	105	95
No	6	5



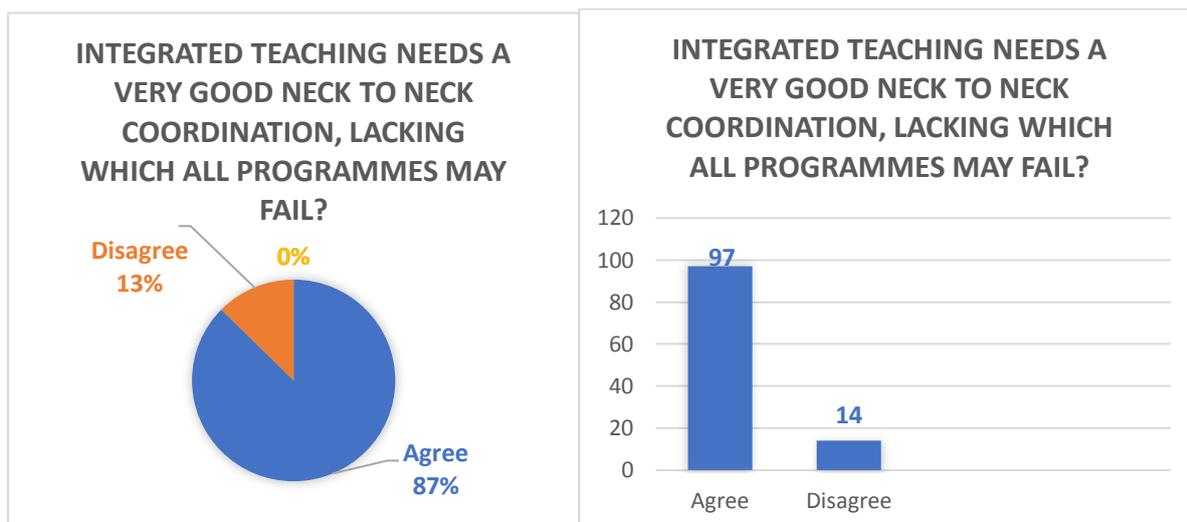
**Table 12: Views of participants on whether Integrated teaching brings faculty together for student’s welfare**

Integrated teaching brings faculty together for student’s welfare?	No. of participants (Out of 111)	Percentage
Agree	109	98
Disagree	2	2



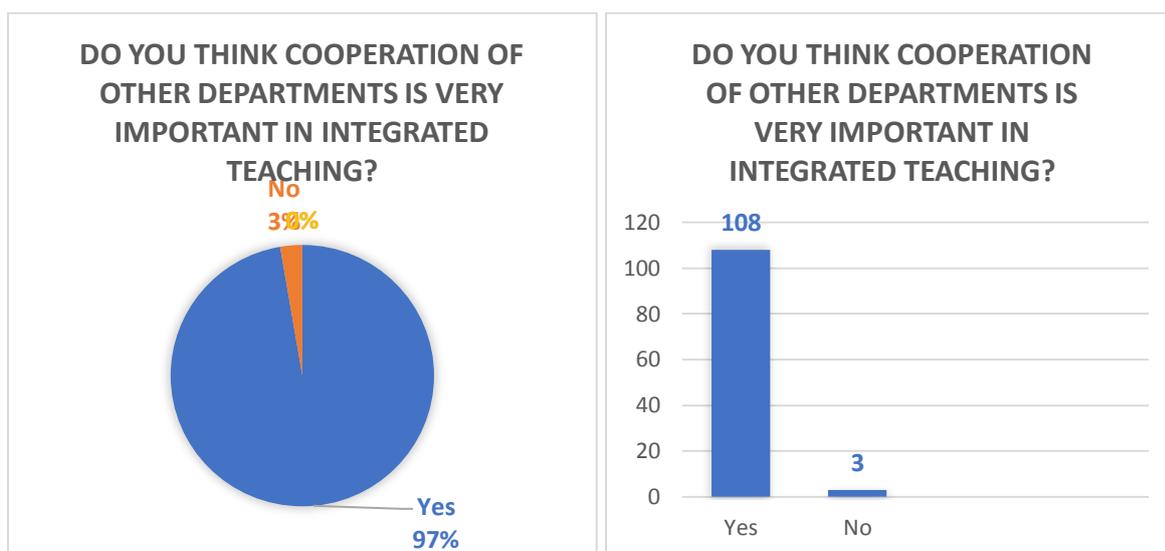
**Table 13: Views of respondents on whether they believe that Integrated teaching needs a very good neck to neck coordination, lacking which all programmes may fail**

Integrated teaching needs a very good neck to neck coordination, lacking which all programmes may fail?	No. of participants (Out of 111)	Percentage
Agree	97	87
Disagree	14	13



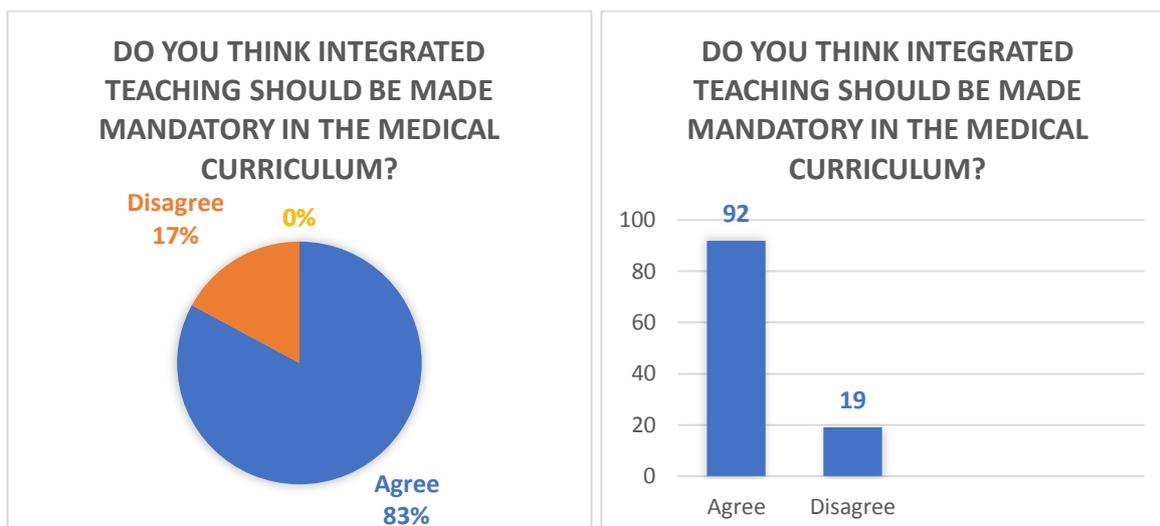
**Table 14: Responses of participants on whether they thought cooperation from other departments is very important in integrated teaching**

Do you think cooperation of other departments is very important in integrated teaching?	No. of participants (Out of 111)	Percentage
Yes	108	97
No	3	3



**Table 15: Responses of participants on whether they think integrated teaching should be made mandatory in the medical curriculum**

Do you think integrated teaching should be made mandatory in the medical curriculum?	No. of participants (Out of 111)	Percentage
Agree	92	83
Disagree	19	17



#### IV. Discussion

There were 111 participants. This study assessed the perception, knowledge and attitude about integrated teaching in medical curriculum in India. Integration in education is a coordination of different learning activities to ensure the harmonious functioning of the educational process. Integrated teaching simply means bridging connections between academic knowledge & practical aspects.<sup>[9]</sup> Puja Dullo et al <sup>[10]</sup> revealed that it encourages students' intellectual curiosity. As per Marjowon et al <sup>[11]</sup> curricular integration represents collaborating between discipline to establish a coherent curriculum & has become the dominant recommendation for medical education.<sup>[11]</sup> Integrated teaching is competency based not time-based like the traditional Curriculum.<sup>[12]</sup>

The redesigning of curriculum is a laborious, tedious, time consuming, and ongoing activity for which researchers have to keep in mind all the objectives, facilities and limitations from students and teachers point of view. The redesigning of curriculum is a laborious, tedious, time consuming, and ongoing activity for which researchers have to keep in mind all the objectives, facilities and limitations from students and teachers point of view. The redesigning of curriculum is a laborious, tedious, time consuming, and ongoing activity for which researchers have to keep in mind all the objectives, facilities and limitations from students and teachers point of view. The redesigning of curriculum is a laborious, tedious, time consuming, and ongoing activity for which researchers have to keep in mind all the objectives, facilities and limitations from students and teachers point of view. The redesigning of curriculum is a laborious, tedious, time consuming, and ongoing activity for which researchers have to keep in mind all the objectives, facilities and limitations from students and teachers point of view. The redesigning of curriculum is a laborious, tedious, time consuming, and ongoing activity for which researchers have to keep in mind all the objectives, facilities and limitations from students and teachers point of view. The redesigning of curriculum is a laborious, tedious, time consuming, and ongoing activity for which researchers have to keep in mind all the objectives, facilities and limitations from students and teachers point of view. The redesigning of curriculum is a laborious, tedious, time consuming, and ongoing activity for which researchers have to keep in mind all the objectives, facilities and limitations from students and teachers point of view. This can only be achieved, by synchronisation of students and faculty that will endorse shift, from discipline-oriented to longitudinal patient-centred curriculum. The implementation will offer students an opportunity to become true 'healer', by relating basic and clinical approach to comprehend and treat the involved subject This can only be achieved, by synchronisation of students and faculty that will endorse shift, from discipline-oriented to longitudinal patient-centred curriculum. The implementation will offer students an opportunity to become true 'healer', by relating basic and clinical approach to comprehend and treat the involved subject

#### V. Conclusion

Conventional Chalk & Blackboard teaching has migrated to technology - integrated teaching. Integrated teaching method is effective, it is an interactive teaching-learning session. This method may be more effective & student friendly too.

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