

## Awareness and attitude of Medical and Dental professionals regarding MBBS bridge course: A qualitative study

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### Abstract

**Purpose/Objectives:** The aim of this study was to understand the perceptions influencing the awareness and attitude of medical and dental professionals regarding the 'Bachelor of Medicine, Bachelor of surgery' (MBBS) bridge course. **Methods:** A qualitative study was conducted using a grounded theory approach. The study was carried out from April to September in the year 2020. Participants were recruited based on a non-probabilistic convenient sampling method after obtaining informed consent. Data was collected from eighteen in-depth interviews conducted among medical and dental professionals until adequate data saturation was attained. Thematic analysis was used to analyze the data. **Results:** Based on in-depth interviews, thematic analysis was done and the concept of the MBBS bridge course was broadly divided into four categories and their subcategories. The categories include "Rationale", "Consequences", "Execution challenges" and "Constraints". **Conclusion:** Our study highlights research areas relevant to further investigation, such as rationale, consequences, execution challenges, and constraints related to the MBBS bridge course. Participants from different zones of the country could emerge with varied categories that could help the decision-makers before implementing the course.

**Keywords:** Interprofessional Education, Rural Health, Health Care Quality, Attitude, Health services.

### Introduction

India is the second-most populous country in the world with a population of around 1.3 billion. In India, there is less than one doctor for every one thousand people, which does not meet World Health Organisation standards. Although the majority of India's population lives in rural areas, most health professionals work in cities.<sup>[1]</sup>

Globalization has a significant effect on the country's economic development, and as a result, we are seeing an increasingly urbanized India. The majority of medical students may find it difficult to change their attitude towards working in rural settings. Specialists in medical education have advocated rural medical schools as a strategy to improve the willingness of students for rural medical practice. These schools are expected to develop doctors who are receptive to the needs of rural communities and interested in working in those environments. Similar efforts should be made in India to divert future physicians to the rural areas, otherwise, they would continue the present trend of being stationed in urban areas, which will still have a substantial effect against meeting the current deficit of rural physicians.<sup>[2]</sup>

In India, there are five hundred and thirty-nine medical colleges. As per the current population estimate of 1.33 billion, the medical doctor: population ratio is 0.77: 1,000. On the flip side of the issue, a few states like Kerala have already achieved an adequate doctor to population ratio.<sup>[3]</sup>

The Dental Council of India has put forward the idea of launching the 'Bachelor of Dental Surgery' (BDS) to 'Bachelor of Medicine, Bachelor of surgery' (MBBS) bridge course in 2014. The proposal was placed to lessen the severe shortage of MBBS doctors in the country, particularly in rural areas. It also aims to help dental students to get proper placements and recruitment after the completion of their courses.

The Medical Council of India (MCI) formed a special committee in 2018 to focus on special technical issues and the modification of the curriculum for the bridge course. The National Medical commission has been entrusted with processing further steps to implement this course.

In 2019, The National Institution for Transforming India decided to explore the option of allowing dentists to practice family medicine or mainstream medicine following a bridge course. To get the proposal in the shape of reality, the Medical Council of India, Dental Council of India, and the Union Health Ministry are to review the curriculum.

Till date, there have been not any studies conducted in India to understand the opinions of different stakeholders regarding the MBBS bridge course. The present study is being planned to understand the factors and perceptions influencing the attitude of medical and dental professionals regarding the MBBS bridge course.

## **METHODS**

This study was approved by the Institutional Review Board (IEC No. M/17/2019/DCK). A qualitative framework was adopted and conducted and grounded theory approach was employed.

Face-to-face in-depth interviews were conducted among medical and dental professionals. Participants were recruited based on a non-probabilistic convenient sampling method. The participants signed a written informed consent after being informed about the study's goals and procedures.

A semi-structured interview guide was developed for conducting interviews based on the review of relevant literature. It was initially translated to Malayalam and then back-translated to English by language experts to ensure translational validity. The interview guide was pretested in ten subjects to assess the comprehension of respondents to the framed questions.

All the interviews were conducted by the principal investigator, who is a dentist. Interviews were audio-recorded, anonymized, and transcribed verbatim into the English language by a professional transcriber. During the interviews, field notes were taken. Eighteen In-depth interviews were conducted among all categories until adequate data saturation was attained.

Thematic analysis was performed to evaluate the interview transcripts. Data is organized into a set of 'codes,' which are short sentences that capture the meaning of a phrase. The codes are combined and contrasted to develop categories that group similar codes together, thereby generating a network of associations. Coding of the transcripts was done manually and grouped into four categories and their subcategories.

## **RESULTS**

Eighteen in-depth interviews were conducted among medical and dental professionals. Broadly four themes emerged from the inductive analysis of the transcribed data, which were organized as 1) Rationale 2) Consequences 3) Execution challenges and 4) Constraints concerning the proposed MBBS bridge course (Figure 1 and 2).

### **Category 1 – Rationale**

The majority of the participants expressed the rationale behind the proposal of an MBBS bridge course under three subcategories: Professional success in dentistry, the quest for identity, and improved health care delivery. The study respondents, especially the dental graduates expressed a strong aspiration to shift to the medical stream as evident in the following response: "The majority of dental school graduates have never aspired to be dentists. They happened to enrol in this course after failing to gain entry to an MBBS program". (A BDS graduate).

Others who favored the new course for obtaining professional success highlighted increasing unemployment among dentists and reduced avenues for higher studies in dentistry. "Job opportunities and pay scale offered for BDS graduates are less as compared to MBBS graduates". (A BDS graduate). "It is very difficult to get an MDS admission after completing the BDS degree since the number of seats is much less." (A BDS graduate)

The respondents also expressed concern for identity issues as reasons favoring or against opting for the new course. Lack of self-confidence and disinterest were cited as a possible rationale for the new course.

"Those who choose to switch their course from BDS to MBBS may not be very confident about their profession". (A MBBS graduate)

Yet another rationale for the new course that emerged pertains to improved health care delivery to rural areas of the country. The respondents cited deficiency of doctors, need for increased accessibility as important public health-related reasons for launching the new course.

"The majority of MBBS doctors are unwilling to attend rural postings." So, I think this course can diminish the shortage of MBBS doctors in rural areas". (A BDS graduate)

### **Category 2 – Consequences**

The next major theme that was put forth was the consequences of the MBBS bridge course. Competition among health care workers, impacts on employment, and standard of care was the important subcategories that were identified.

"Every year there are about a hundred MBBS admissions per college. Along with this, if the MBBS bridge course is implemented, medical doctors may face decreased employment opportunities". (A BDS graduate)

I don't think it (employment opportunities) will be much affected. The requirement for qualified and efficient doctors will remain the same. (A Doctor of Medicine (MD) Faculty)

While some of the respondents were concerned about the deterioration in the quality of medical services, others observed that the course would lead to increased accessibility and quality of primary care services. Other negative consequences identified included the risk of the rural population being treated by ill-trained doctors and that it would lead to a debasement of the Medical degree in the country.

"We are providing the population of rural areas with second-hand doctors (bridge course qualified doctors). Social Justice is not guaranteed for them." (A MDS student)

Interestingly, few participants expressed that the new course will further the cause integrating the dentistry with medicine and would lead to parity in society between dental and medical doctors.

"For service-oriented BDS doctors and those who are looking forward to a better career, this should be a good course to do". (A BDS graduate)

### **Category 3 – Execution challenges**

The study results provided useful insights on the execution of the new course in a vast country such as ours. The broad theme 'execution challenges' comprised of course structure and curriculum, emphasis on instilling a service mindset, regional disparities, regulation, and monitoring by authorities.

The majority of respondents preferred an emphasis on clinical subjects and anatomy, practical training and called for stringent evaluation and appraisal similar to the existing MBBS course.

"Two-or three-year exposure to medicine, surgery, obstetrics, and pediatrics should be included. In the BDS course, I don't think the abdomen and the lower part of the body are studied in detail". (A MD Faculty member)

The participants in the study strongly argued for an emphasis on cultivating a service mindset and incorporating a clause to ensure compulsory rural service after completing the course.

"Rural postings can bring many positive changes in a doctor. Minimum 1-year of rural service should be implemented". (A MBBS graduate)

The wide disparity in local needs of different states/ regions of the country was highlighted in the study and called for a pilot study before implanting the course at a national level.

"I believe that an adequate number of medical doctors are already available in South India. However, the rural areas of North India experience a shortage of medical doctors. I do support the course in North India". (A MD Faculty)

### **Category 4 – Constraints**

The final theme that emerged from the analysis pertains to potential and actual constraints related to the proposed bridge course. According to the participants, the constraints that influence the MBBS bridge course were defined under the following subcategories- Individual dilemma, discrediting the dental profession, delay in attainment of professional or life goals, and the possibility of career stagnation.

"I am not willing to do this course. I have already done specialization and invested about 10 to 12 years in this field. For me, it's better to continue in my profession". (A MDS graduate)

"Shifting from one profession to another degrades their initial profession". (A MBBS graduate)

Pragmatic concerns involving time and availability of better alternatives were also put forth. Many respondents also shared other strategies to address the shortage of doctors in rural areas including an increase of medical seats, incentivization of rural service.

“The number of MBBS seats should be increased. A Compulsory rural service should be implemented for all the MBBS graduates”. (A MBBS graduate)

“More vacancies should be created in rural areas, and good pay packages should be offered to doctors who work there”. (A MDS graduate)

Few respondents in the study argued that the proposal for a bridge course was built on pretenses and that there is no scarcity of doctors in certain areas. The real hurdle lies in the fact that rural service in India is unattractive.

"If I had been asked to attend the rural posting after finishing my graduation, I would not have agreed unless it was made mandatory." (A MBBS graduate)

## **DISCUSSION**

The Indian health care system varies from region to region. On one hand, the urban sector of India receives modern technologies with a sufficient number of medical doctors. On the flip side, rural areas are facing a shortage of doctors and infrastructure. <sup>[4]</sup> Medical doctors prefer to work in urban areas due to better pay and standards of living. The dental council of India (DCI) has proposed a BDS to MBBS bridge course to address the shortage of doctors in rural areas and to expand the opportunities for graduate dental surgeons.

The analysis of the data from the participants of this study points to several rationales for the introduction of this bridge course. The foremost rationale for the introduction of the bridge course is related to professional success in dentistry. Most dental graduates have never aspired to become dentists. After having joined the BDS course, some of the dental students would prefer to broaden their spectrum of opportunities. <sup>[5]</sup> The launching of the MBBS bridge course is a boon to those disinterested candidates.

The employment opportunities of graduate dentists have witnessed a southward trend in the last few years. After completing the course, most of the BDS graduates do not get proper placements. Even if they are getting jobs, they are not getting adequate remuneration for supporting their needs. <sup>[6]</sup> The major reasons for unemployment are oversaturation and lack of opportunities.

The quest for identity among BDS graduates is the other rationale behind the idea of launching the MBBS bridge course. The prospect of attending to medical patients and thus earning more social standing is appealing to BDS graduates who feel that their knowledge of medical subjects is incomplete. To overcome the inadequacy, the bridge course will undoubtedly improve the knowledge and competence of the dental graduates.

The MBBS bridge course can improve health care delivery, especially in rural areas. Unfortunately, rural areas are facing a severe shortage of medical doctors and adequate health care facilities. If the MBBS bridge course is implemented, more doctors may come to overcome the shortage in rural areas.

If the MBBS bridge course is implemented, it may lead to many consequences affecting the public as well as medical professionals. With an increase in manpower, there can be competition among fellow medical graduates resulting in unethical practices. However, the demand for existing qualified and efficient doctors will not have any impact on their day-to-day practice. The bridge course will provide an alternate opportunity for higher studies and thereby contribute to reducing competition among dental graduates. Interested service-oriented BDS doctors can use it as an opportunity to think and explore new horizons.

The MBBS bridge course will have a positive impact on the public. If the doctor shortage in rural areas is met by the MBBS bridge course, we can gradually eliminate the quacks and increase the quality of basic primary care. Improved access in rural areas would have a cascading effect, reducing the pressure on tertiary centers as a result of fewer referrals. Some participants hypothesized that since the bridge course is shorter than the MBBS course, there might be a quality difference between the two. As a result, two grades of medical doctors may exist in our country.

If this bridge course becomes a reality, it may lessen the gap between dentistry and medicine. According to some participants, MBBS bridge course qualified doctors will be more efficient and have a comprehensive type of service than medical doctors. People can have a comprehensive consultation about both general and dental-related problems. This can enable the easy referral of patients requiring a high level of care to tertiary centers. Thus, the burden of the health system can be decreased.

Among the public and health care workers, oral health needs normally are given low priority. After the completion of the bridge course, dental graduates can be more robust and efficient in society in delivering health services. BDS candidates can use this course as an avenue for themselves as well as career satisfaction.

The government should formulate the strategies before launching the course. The first and foremost one is course structure and curriculum. Courses should be structured in a way that qualified bridge course doctors should be equally comparable with the standards of MBBS doctors.

The bridge course should be formulated and structured in a way that should enhance the mindset of the candidates. The majority of participants believe that a one-year rural service should be included after this course, which can bring many positive outlooks to a doctor.

India is a diverse country with diverse needs among people. According to some participants, the South Indian states are not facing a scarcity of doctors. On the other hand, areas in remote North Indian states are facing a dearth of doctors. So, the course should be planned based on the circumstances and needs of the people.

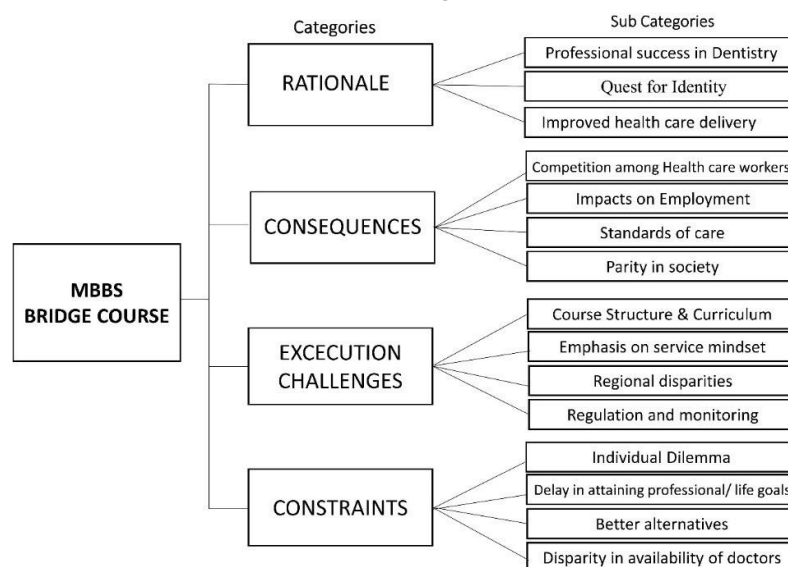
Many factors oppose the idea of launching the MBBS bridge course. According to some of the participants, introduction to these new courses may not benefit the dental graduates. Dentistry is a profession with art and skill and has its own value and dignity; it cannot be substituted by other new courses.

Normally, five years is required to complete a BDS degree. Extending the course for three more years just to obtain an undergraduate degree will delay attaining professional as well as life goals. In addition, financial and time constraints will have an impact on choosing this course.

On the other hand, there are many ways to improve our health care system without launching the bridge course. The expertise of qualified medical doctors who have completed the MBBS program will remain unchanged. The MBBS seats, as well as postgraduate seats, should be increased proportionally in the country, especially in government colleges. Rural services should be made compulsory for them to obtain the degree.

The government should also enhance the health care infrastructure and employment opportunities in rural areas. Doctors practicing in rural areas should be encouraged by giving special incentives like a bonus in salary or reservations for medical entrance exams. With the improvement in infrastructure and living conditions, medical doctors will prefer to practice in rural areas. Before starting the course, the decision-makers should understand the challenges of practicing in rural areas.

Table 1: The perceptions influencing the awareness and attitude of medical and dental professionals regarding the MBBS bridge course.



**Table 2: Examples of codes, subcategories and categories from the thematic analysis about the awareness and attitude of Medical and Dental professionals regarding MBBS bridge course**

| CODES                                               | SUBCATEGORY                                 | CATEGORY              |
|-----------------------------------------------------|---------------------------------------------|-----------------------|
| Aspiration                                          | Professional success in Dentistry           | RATIONALE             |
| Unemployment                                        |                                             |                       |
| Reduced avenue for higher studies in dentistry      | Quest for Identity                          |                       |
| Lack of self confidence                             |                                             |                       |
| Dissatisfaction                                     |                                             |                       |
| Deficiency of doctors                               | Improved health care delivery               |                       |
| Increased accessibility                             |                                             |                       |
| Decreased employment for medical doctors            | Competition among Health care workers       | CONSEQUENCES          |
| Employment and pay scale remain the same            | Impacts on Employment                       |                       |
| Improved career opportunity for dentists            |                                             |                       |
| Deterioration in quality of medical services        |                                             |                       |
| Increased accessibility and quality of primary care | Standards of care                           |                       |
| Reduced Deficiency of doctors in rural areas        |                                             |                       |
| Debasement of Medical degree                        | Parity in society                           |                       |
| Integrates dentistry into medicine                  |                                             |                       |
| Avenue for career satisfaction                      |                                             |                       |
| Emphasis on clinical subjects and anatomy           | Course Structure & Curriculum               | EXCECUTION CHALLENGES |
| Evaluation standards same as that for MBBS          | Emphasis on service mindset                 |                       |
| Need for practical training                         |                                             |                       |
| Quality control/Appraisal                           | Regional disparities                        |                       |
| Compulsory Rural service                            | Regulation and monitoring                   |                       |
| Different needs across the country                  |                                             |                       |
| Need for Pilot Study                                |                                             |                       |
| Not needed for BDS doctors                          | Individual Dilemma                          | CONSTRAINTS           |
| Shows dentistry in poor light                       |                                             |                       |
| Stagnation in career                                | Delay in attaining professional/ life goals |                       |
| Time constraints                                    |                                             |                       |
| Other strategies- Increase of Medical seats         | Better alternatives                         |                       |
| Increased recruitment of doctors by Government      |                                             |                       |
| Incentivization of rural service                    | Disparity in availability of doctors        |                       |
| No scarcity of doctors in certain areas             |                                             |                       |
| work in rural area unattractive                     |                                             |                       |

## STRENGTHS AND LIMITATIONS

This is the first qualitative research study to investigate the awareness and attitudes of medical, dental, and interns toward the MBBS bridge course. The semi-structured interview approach was appropriate and allowed the participants to openly share their perspectives. Some limitations of the research are acknowledged. This study was based on data generated from the individual in-depth interviews conducted by the principal investigator, who is a dentist, which may have influenced the participants' responses. However, as in the case for any qualitative study, biases were unavoidable.

## CONCLUSION

Our study highlights research areas relevant to further investigation, such as rationale, consequences, execution challenges, and constraints related to the MBBS bridge course. According to some participants, the course can be beneficial to the public as well as dental graduates. On the other hand, some participants think that the course is not at all needed. Participants from different zones of the country could emerge with varied categories which could help the decision-makers before implementing the course.

## ACKNOWLEDGMENTS

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## **APPENDIX 1**

### **Semi-structured interview Guide**

1. What is your opinion regarding the MBBS bridge course?
2. Why do you think that the bridge course can fulfill the shortage of medical doctors in rural areas?
3. What are your expectations regarding the difference in the quality of services rendered by medical doctors and bridge course qualified doctors?
4. What are the likely advantages for a dentist after doing this course?
5. What are the expected advantages for the public if this course is implemented?
6. What are the elements that should be incorporated into the MBBS bridge course curriculum?
7. What will the impact of this course on the employment and pay scale of medical doctors?
8. What is your opinion about compulsory rural service after the MBBS bridge course?
9. As a dentist, why do you want to do this course?
10. As a young medical doctor, what are your expectations regarding the MBBS bridge course?