



## Original Research Article

## Empowering female dentists in India: A modern perspective

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## ABSTRACT

**Background and Objective:** Women outnumber males in several occupations. Some topics and courses are strongly dominated by women, like the dentistry industry. Today, women's roles in dentistry have evolved from dental assistant to dental student and professional. One of the finest instances is that female students enrolled in dental education courses account for 75 percent or more of all dental college admissions in India. The study's goal was to learn about the surge of women entering dentistry in India, as well as the reasons why they chose this profession.

**Materials and Methods:** The study looks at the current situation of female dentists in Andhra Pradesh and Telangana, India. Also addresses the problems that women experience, as well as the progress being made towards gender equality in the dentistry profession. Because this is an opinion poll, a questionnaire was distributed to all female academics in the two south Indian states. All female dentists were asked to mark the right replies to the questions, and the information gathered was forwarded for statistical analysis.

**Results:** This opinion-based poll revealed that female students are more interested in the profession of dentistry. In this observational study, the majority of females chose dentistry because dentists do not have to deal with life-threatening situations on a regular basis, and there is little on-call work and no emergency cases to attend.

**Conclusion:** According to the findings of this survey, more female students than male students chose dentistry as a professional path. Compared to past days, the number of female dentists has grown in both academic and clinical practice. This is a rudimentary kind of female empowerment in dentistry.

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## 1. Introduction

Prior to India's independence in 1947, cultural conventions and restricted access to education kept many women from pursuing professional jobs, including dentistry. Despite these hurdles, a few pioneering women were able to break down cultural boundaries. Dr. Haimabati Sen, for example, was one of the first Indian women to study medicine and

practise as a doctor, paving the way for women in medical fields such as dentistry.<sup>1</sup>

Following independence, the Indian government prioritised extending educational opportunities for all, including women. More women enrolled in dentistry programmes, prompted by shifting cultural views and increasing support for women's education. During this time, the number of dental institutions in India increased substantially, as did the number of female students enrolled, reflecting wider cultural developments towards gender

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equality in education.<sup>2</sup>

The Indian Dental Association (IDA) began to recognise the importance of supporting female dentists and promoting gender equality within the profession. Women's committees were formed at various dental colleges, and associations began to form committees focused on the issues faced by female dental professionals.<sup>3,4</sup>

Dr. Smita Kolhe and Dr. Rani Bang are two famous female dentists who have made important contributions to dentistry and public health in India. Women are increasingly taking up leadership roles in dental institutions and professional organisations, with the potential to influence policies and practices. According to the Dental Council of India, women currently account for a considerable share of dental students and practicing dentists. In certain dentistry institutions, female students account for more than 70% of overall enrollment.

Female dentists continue to struggle with combining their professional and personal duties. However, there is a rising emphasis on developing supportive work environments. Empowerment projects geared at mentoring young female dentists have been launched, offering advice and assistance. Efforts to provide continuing education and professional development programmes specifically for female dentists are ongoing.<sup>5,6</sup>

The goal of this research is to examine the rising enrollment of women in dental education and their engagement in the dental workforce in India, as well as to determine the primary reasons for their decision to pursue a profession in dentistry. The study intends to give a thorough knowledge of the factors motivating women to pursue dentistry by studying changes in female enrollment, graduation rates, and workforce involvement, as well as investigating personal, professional, and social variables impacting their career selections. This knowledge will assist to shape policy suggestions to promote and encourage more women to enter and prosper in the dentistry profession.

## 2. Materials and Methods

This cross-sectional questionnaire research seeks to investigate the views of female dentists in India on empowerment. The study included female dentists from Andhra Pradesh and Telangana in India. Purposive sampling was used to choose participants who represented a varied range of experiences and ethnicities.

The questionnaire was created after doing a thorough examination of the literature on empowerment in dentistry, as well as consulting with industry professionals. A group of specialists assessed the content validity, and a small sample of female dentists pilot tested it to verify clarity and relevance.

Data was collected over a three-month period, from January to March 2018, using an online survey platform. Participants were promised of secrecy and anonymity in

order to promote candid replies. The questionnaire collected demographic information, opinions of empowerment, problems encountered, and ideas for development from female dentists in India.

This study received ethical approval from the Institutional Review Board at the St. Joseph Dental College's Institutional Ethics Committee in Duggirala, Eluru (permission no: CEC/10/2018-19). All participants provided informed consent, and efforts were made to maintain confidentiality and data security throughout the study. We obtained informed permission from every research participant.

Quantitative data will be analyzed using descriptive statistics to summarise demographic variables and questionnaire responses. To discover common themes and patterns, thematic analysis will be applied to qualitative replies.

### 2.1. Statistical analysis

Statistical analysis will include chi-square tests to examine associations between demographic variables and empowerment perceptions among female dentists.

## 3. Results

A questionnaire research was undertaken to investigate the empowerment of female dentists in India in terms of reaching gender parity within the dental profession, as well as improving healthcare outcomes, encouraging inclusion, and driving economic and social growth. It is an important step towards building a more egalitarian and robust healthcare system for everyone.

The study examined 500 dentists (faculty) in Andhra Pradesh and Telangana, India, with respondents ranging in age from 25 to 60 years old. Geographic distribution was wide, with participation from large cities, smaller cities, and rural regions spanning both states.

In our survey of 500 dentists (faculty) from two South Indian states, we discovered that a considerable proportion, approximately 30%, were female faculty members. This demonstrates a considerable representation of women in academic positions within the dentistry profession in this region. The variety of faculty makeup reflects a potentially progressive trend towards gender inclusion in dentistry education and practice. (Figure 1)

The distribution of male and female students across various stages of dental education in dental colleges within two South Indian states is as follows:

During the first BDS (Bachelor of Dental Surgery) level, 10% of students were male and 90% were female. Moving on to the second BDS level, the percentage changed little, with 20% men and 80% girls. At the third BDS level, the proportion was 30% male and 70% female. In the last year of BDS (4th BDS), the numbers reversed to 10% male

and 90% female. During the internship phase, the gender distribution was 20% male and 80% female. As a result, in the post-graduate phase, 40% of students were male and 60% were female. (Figure 2)

These findings illustrate a varied gender distribution across different stages of dental education within the sampled dental colleges in the two South Indian states.

Several variables contribute to the prevalence of female dental patients in this observational research. One key factor is the belief that dentistry provides a career path in which practitioners do not frequently face life-or-death circumstances. 90% of female dentists stated that they do not have to deal with life-threatening situations on a regular basis.

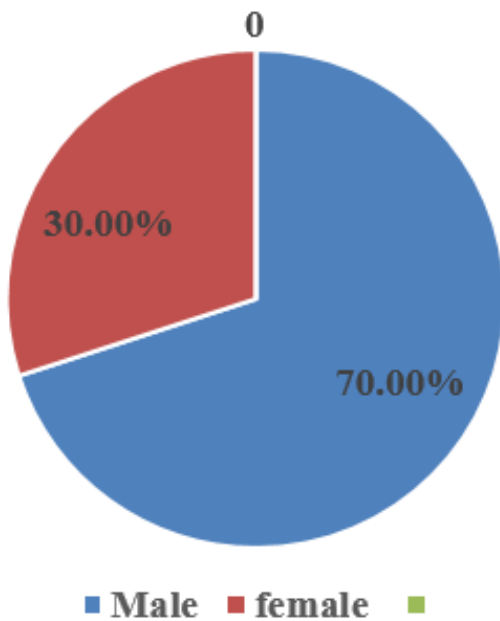


Figure 1: Female to male faculty ratio

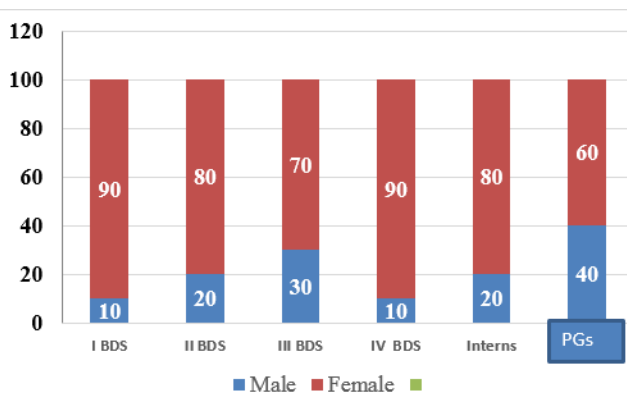


Figure 2: Risk assessment of bias with cochrane collaboration tool

Furthermore, the impression of dentistry as a discipline that allows for more regulated and routine patient contacts may correspond to a need for a stable and less stressful professional environment. This attitude may be especially significant among the 90% of female students evaluating career possibilities, since it provides a sense of stability and predictability in their future professional life.

Furthermore, the nature of dental practice frequently entails regular appointments rather than emergency treatments, which relieves the burden of quick, essential decision-making that is typical in other disciplines of healthcare. In this observational study, 85% of female dentists choose the dentistry profession because they do not wish to attend emergency interventions.

#### 4. Discussion

The study found that female dentists in India's Andhra Pradesh and Telangana states have different perspectives of empowerment, with a large number citing gender-specific barriers in their professional careers. Participants emphasised the need for regulatory reforms and institutional assistance to create a more welcoming and friendly environment for women in dentistry.<sup>7</sup>

Our findings are consistent with earlier research showing that female healthcare workers frequently face difficulties such as gender discrimination and work-life balance issues. However, our study offers complex insights into the dentistry profession in India, revealing cultural and institutional issues that influence empowerment beliefs.<sup>8</sup>

The observed inequalities in empowerment beliefs may be due to ingrained gender prejudices within the dentistry profession, which are exacerbated by social expectations and restricted possibilities for professional progression. Furthermore, our findings indicate that initiatives to increase empowerment should focus on systemic concerns such as mentoring programmes, leadership training, and lobbying for gender parity in dentistry practice.<sup>9</sup>

Surdu S. et al. (2021) did a study to analyse gender variations in dental practice using the American Dental Association's 2010-2016 Masterfile and the 2017 Survey of Dental Practice. According to the study's findings, gender diversity in dentistry, as well as generational disparities and changes in the dental service delivery system and public policy, will continue to transform oral health care delivery.<sup>10</sup>

Gallagher JE et al. (2021) undertook a research to emphasise the process of transitioning to a female majority in dentistry, investigate numerous variables on this trajectory, and assess the ramifications for the profession, health systems, patients, and individual dentists. According to the study's findings, a concerted effort between the dental profession and larger health-care systems is essential to guarantee that everyone has opportunity to thrive and contribute to the profession and society.<sup>11</sup>

In 2019, Li J et al. conducted a study to determine women's representation in leadership positions in NA dental and specialty associations/organizations, dental education, and dental journals, as well as the proportion of men/women researchers at the American Association for Dental Research (AADR). The study's findings revealed that, despite an increase of female dentists, it will require time and effort to guarantee that they advance up the pipeline to senior leadership roles in the same way that their male counterparts have.<sup>12</sup>

Tiwari T. et al. (2019) undertook a study to assess the increase of diversity and inclusion in global academic dental research, with an emphasis on gender equality. According to the findings of the current study, initiatives to advance gender equality in dentistry academics and research should focus on collecting and disseminating data on gender-specific distributions.<sup>13</sup>

Overall, these considerations explain why the majority of females in this survey selected dentistry over other healthcare professions, citing the discipline's perceived qualities of controllable stress levels, predictable work schedules, and an emphasis on non-emergency treatment.

To empower female dentists in India, policymakers should consider enacting gender-sensitive regulations, expanding professional development opportunities, and encouraging inclusive workplace environments. Stakeholders may also play an important role by lobbying for mentoring programmes and networking platforms that help women advance their careers and take on leadership roles in dentistry.<sup>14,15</sup>

## 5. Limitations

Limitations include dependence on self-reported data, potential response bias, and the study's cross-sectional design, which restricts causal inference.

## 6. Conclusion

Women entering the dentistry profession in India have made great progress and achieved impressive results. Female dentists in India have made amazing progress, overcoming early cultural restrictions and becoming field leaders. Continuous assistance, campaigning, and legislative reforms are required to better empower women in this field.

## 7. Conflict of Interest

None.


## 8. Source of Funding


None.

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