

Perception of MBBS, BDS & Nursing Students and Nurses on Lifestyle Medicine and Preventive Healthcare: A Cross-Sectional Study in Four Tertiary Hospitals of India

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ABSTRACT

Background: Lifestyle medicine and preventive healthcare are critical in reducing the burden of non-communicable diseases (NCDs). Understanding perceptions among healthcare trainees and professionals is essential for curriculum and practice development.

Objective: To assess perceptions of MBBS students/interns, BDS students, and nurses regarding lifestyle medicine and preventive healthcare in four tertiary hospitals in India.

Methods: A cross-sectional survey was conducted among 250 participants (100 MBBS students/interns, 50 BDS students, 100 nurses). A 15-item Likert-scale questionnaire assessed awareness, attitudes, and perceived importance of lifestyle medicine. Descriptive and comparative analyses were performed.

Results: MBBS students demonstrated the highest awareness (78%), followed by BDS students (62%) and nurses (55%). Preventive healthcare was rated “very important” by 85% of MBBS students, 72% of BDS students, and 68% of nurses. Nurses highlighted barriers such as workload and patient compliance.

Conclusion: While lifestyle medicine is perceived as important across groups, awareness and emphasis vary. Integration into curricula and interprofessional training is recommended.

Keywords: Lifestyle medicine, preventive healthcare, MBBS, BDS, nursing, India, perceptions

1. INTRODUCTION

Non-communicable diseases (NCDs) such as diabetes, cardiovascular disease, and cancer account for the majority of morbidity and mortality worldwide. Lifestyle medicine, which emphasizes evidence-based interventions like nutrition, physical activity, sleep hygiene, stress management, and avoidance of risky behaviors, is a cornerstone of preventive healthcare.

In India, where the burden of NCDs is rapidly rising, healthcare professionals play a critical role in promoting lifestyle interventions. However, the perception and preparedness of medical, dental, and nursing students toward lifestyle medicine remain underexplored. This study aims to assess their awareness, attitudes, and perceived importance of lifestyle medicine and preventive healthcare.

2. OBJECTIVES

To assess the level of awareness of lifestyle medicine among MBBS, BDS, and nursing students and nurses.

To evaluate their attitudes toward preventive healthcare practices.

To compare perceptions across different professional groups.

To identify gaps in knowledge and training needs.

3. METHODS

Study Design: Cross-sectional descriptive study.

Setting: Four tertiary-level hospitals in India (Four tertiary care hospitals in India (Four tertiary-level teaching hospitals in India (National Institute of Medical Sciences Jaipur 303121, Jaipur, Rajasthan, India; Government Institute of Medical Sciences, Gautam Buddha Nagar 201310, Uttar Pradesh, India; Fortis Hospital, Malviya Nagar, Jaipur 302017, Flora & Fauna 31 (2) (2025) ISSN 2456-9364 248 Rajasthan, India; Dental College and Hospital, Bagru, Jaipur, Rajasthan; Rajasthan College of Nursing, Bagru, Jaipur, Rajasthan).

Participants:

100 MBBS students and interns

50 BDS (dental) students

100 nurses

Data Collection: Structured questionnaire covering:

Awareness of lifestyle medicine concepts

Attitudes toward preventive healthcare

Perceived importance of integrating lifestyle medicine into practice

15-Item Likert Scale Questionnaire

Responses: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree

I am familiar with the concept of lifestyle medicine.

Preventive healthcare is essential in reducing disease burden.

My curriculum adequately covers lifestyle medicine.

I feel confident counseling patients on lifestyle changes.

Nutrition education is emphasized in my training.

Physical activity promotion is part of my professional role.

Stress management strategies are important for patient care.

Sleep hygiene should be addressed in healthcare practice.

Tobacco and alcohol cessation counseling is my responsibility.

Preventive healthcare should be prioritized in clinical practice.

Lifestyle medicine should be integrated into all healthcare curricula.

Interprofessional collaboration improves preventive healthcare delivery.

Patient compliance is a major barrier to lifestyle interventions.

Institutional support is necessary for preventive healthcare implementation.

I am motivated to apply lifestyle medicine principles in my future practice.

Analysis: Responses were analyzed using descriptive statistics and comparative analysis across groups.

4. RESULTS

Awareness

MBBS students/interns: 78% reported familiarity with lifestyle medicine concepts.

BDS students: 62% reported awareness, primarily related to oral health and diet.

Nurses: 55% reported awareness, with emphasis on patient counseling and preventive practices.

Attitudes

MBBS students/interns: Strongly agreed (82%) that lifestyle medicine should be integrated into medical curriculum.

BDS students: 70% agreed, but many felt it was less emphasized in dental training.

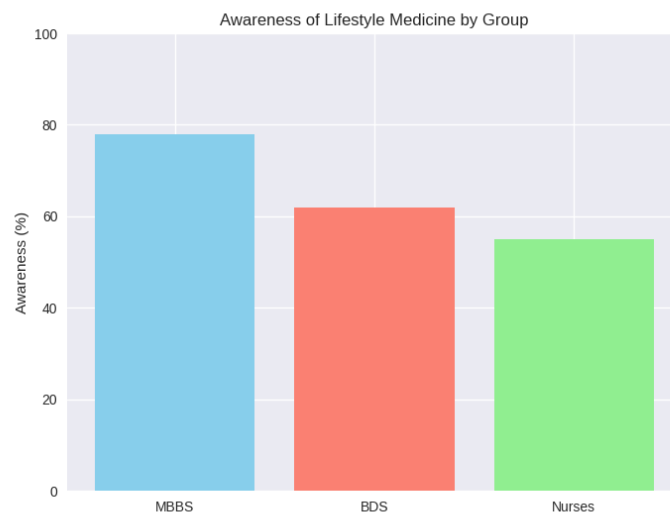
Nurses: 65% agreed, highlighting the importance of preventive counseling in nursing practice.

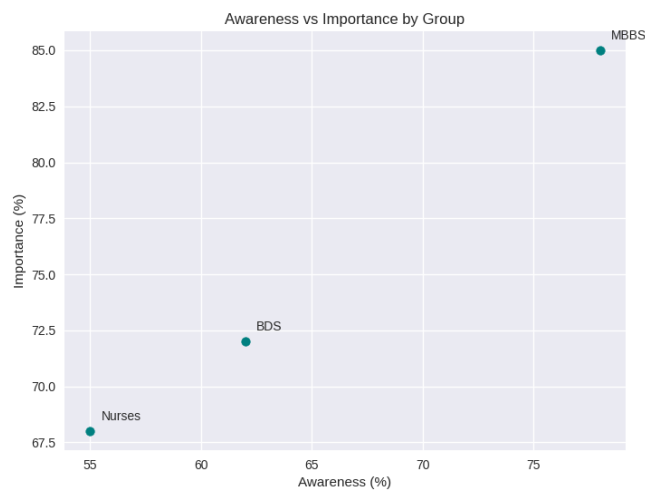
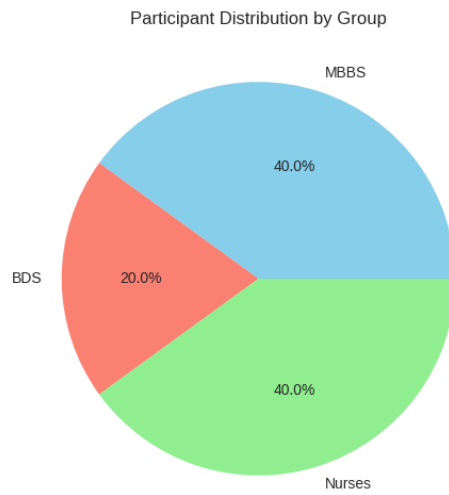
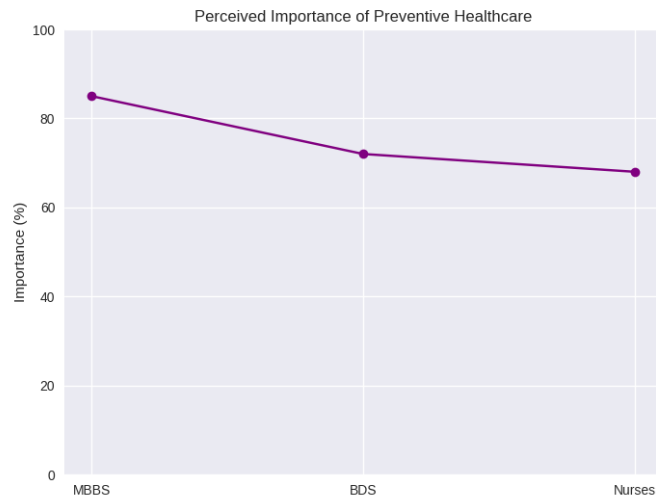
Perceived Importance

Preventive healthcare was rated as “very important” by 85% of MBBS students, 72% of BDS students, and 68% of nurses.

Nurses emphasized practical barriers such as patient compliance and workload.

Visuals





Bar Chart: Awareness of lifestyle medicine across MBBS, BDS, and Nurses

Pie Chart: Participant distribution by group

Line Chart: Perceived importance of preventive healthcare across groups

Box Plot: Simulated distribution of awareness scores

Scatter Plot: Awareness vs. importance comparison for each group

DISCUSSION

The study highlights varying levels of awareness and attitudes toward lifestyle medicine among healthcare trainees and professionals. MBBS students showed the highest awareness, likely due to broader exposure to NCDs in medical training. BDS students recognized the role of lifestyle factors in oral health but reported limited curriculum emphasis. Nurses demonstrated practical understanding but identified systemic barriers to implementation.

These findings underscore the need for:

Curriculum integration: Lifestyle medicine modules in MBBS, BDS, and nursing programs.

Interprofessional training: Collaborative workshops to align perceptions across disciplines.

Policy support: Institutional emphasis on preventive healthcare practices.

5. CONCLUSION

Lifestyle medicine and preventive healthcare are perceived as important by MBBS, BDS, and nursing students and nurses, though awareness and emphasis vary across groups. Strengthening education and training in lifestyle medicine across healthcare disciplines is essential to address India's growing burden of NCDs.

6. LIMITATIONS

Conducted in only four tertiary hospitals; findings may not generalize to all regions.

Self-reported questionnaire responses may introduce bias.

Cross-sectional design limits causal inference.

Sample size relatively small for BDS students (n=50).

Did not assess long-term behavioral outcomes.

7. RECOMMENDATIONS

Integrate lifestyle medicine modules into MBBS, BDS, and nursing curricula.

Provide interprofessional workshops to align perceptions across disciplines.

Strengthen institutional support for preventive healthcare delivery.

Address barriers such as workload and patient compliance.

Encourage continuing education in lifestyle medicine for practicing professionals.

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