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Periodontology

KNOWLEDGE, ATTITUDE, AND AWARENESS OF MEDICAL POSTGRADUATE STUDENTS ON THE ROLE OF PERIODONTISTS IN THE MAINTENANCE OF ORAL HYGIENE AND GENERAL HEALTH: A QUESTIONNAIRE-BASED SURVEY

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ABSTRACT The study assesses the knowledge, attitude, and awareness of medical postgraduate students regarding the role of periodontists in maintaining oral hygiene and general health. Using a self-structured questionnaire distributed among 100 postgraduate students at Sri Siddhartha Medical College and Hospital, Tumkuru, the study evaluates their perspectives on oral health's integration with general health, the impact of oral diseases on systemic conditions, and the importance of interdisciplinary collaboration between medical and dental practitioners. The findings reveal a generally positive attitude, good knowledge, and high awareness among the students, though there are areas requiring further education and emphasis.

KEYWORDS : Oral Health, Periodontists, Medical Postgraduate Students, Knowledge, Attitude, Awareness

INTRODUCTION

Maintaining good oral health is not just about having a nice smile; it significantly impacts the overall well-being. Poor dental hygiene is linked to serious systemic diseases such as cardiovascular disease, diabetes, and respiratory infections. These conditions can worsen if oral health is neglected, underscoring the importance of comprehensive dental care alongside the general medical care.

Despite these connections, dental education often receives less attention in the medical school curricula. This gap means that medical students may not fully understand how oral health affects overall health, potentially leading to incomplete patient care.

Periodontal diseases, which are primarily caused by the build up of plaque and bacteria around the gums, can trigger systemic inflammatory responses. These inflammatory responses can exacerbate chronic conditions like diabetes and cardiovascular disease. Therefore, managing gum health is crucial not only for preventing tooth loss but also for reducing the risk of these systemic effects.

Advancements in diagnostics, such as using saliva to detect biomarkers of systemic diseases, highlight the growing role of oral health in medical diagnostics. Saliva tests can provide early indications of conditions like diabetes or cardiovascular disease, allowing for earlier intervention and better patient outcomes.

This study evaluates the knowledge, attitude, and awareness of postgraduate medical students regarding the role of periodontists—specialists in gum care—in maintaining oral hygiene and general health. By identifying educational gaps, the study aims to promote interdisciplinary collaboration between medical and dental professionals. This collaboration is essential for ensuring that future healthcare providers are well-prepared to address both oral and systemic health effectively.

By integrating oral health education more robustly into medical training programs and fostering collaboration between medical and dental fields, healthcare professionals can deliver more comprehensive care, leading to improved overall health outcomes for patients.

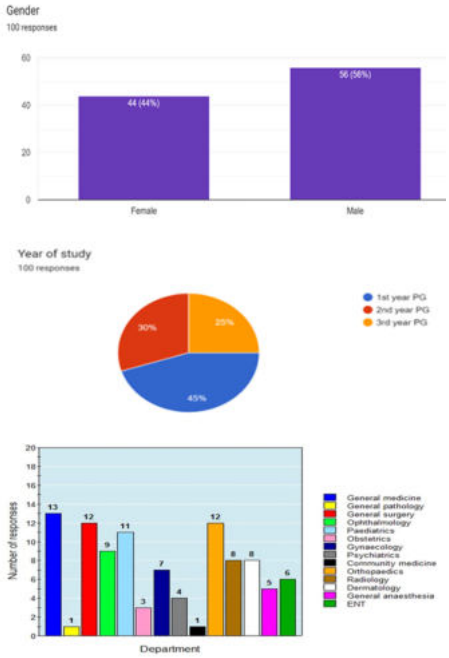
Methodology

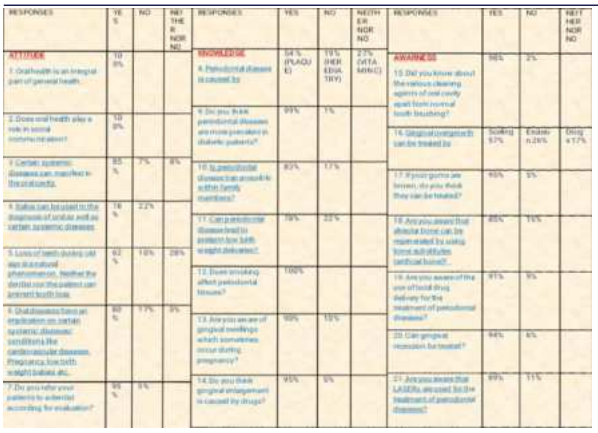
A questionnaire comprising 21 close-ended questions was administered to 100 postgraduate students at Sri Siddhartha Medical College and Hospital. The questions were divided into three sections: attitude, knowledge, and awareness, covering the demographic data and various aspects of oral and periodontal health. The survey was conducted via Google Forms to facilitate easy distribution and data collection.

RESULTS

The survey results indicated a high percentage of positive attitudes towards oral health as an integral part of general health. Notably, 100% of participants acknowledged the role of oral health in social communication and systemic diseases. However, only 62% disagreed that tooth loss in old age is unavoidable, indicating some gaps in understanding preventive measures.

In terms of knowledge, 99% recognized the higher prevalence of periodontal diseases in diabetic patients, and 100% agreed that smoking affects periodontal tissues. Awareness of periodontal procedures and treatments was also high, with 95% of participants aware of gingival swellings during pregnancy and 89% knowledgeable about the use of lasers in periodontal treatment.





DISCUSSION

The findings of this study align with several previous investigations, reinforcing the critical link between oral health and systemic diseases. Offenbacher et al. (2001) established a paradigm connecting periodontal disease with conditions such as cardiovascular disease and adverse pregnancy outcomes. This means that problems with gums and teeth can be related to serious health issues like heart disease and complications during pregnancy. Our study participants showed high awareness of these connections, which is encouraging.4

Similarly, Tonetti and Van Dyke (2013) emphasized the necessity of periodontal care in managing atherosclerotic cardiovascular disease. Atherosclerosis is when arteries become clogged with fatty substances, which can lead to heart problems. Proper care of gums and teeth can help manage and even prevent these issues. This highlights the need for comprehensive patient care and interdisciplinary education, where doctors and dentists work together to improve overall health.5

Needleman and Suvan (2012) demonstrated the general health benefits of effective periodontal therapy. This means that treating gum disease effectively can improve overall health, not just oral health. Enhancing medical students' understanding of these connections could improve patient outcomes, ensuring better care and healthier patients.8

Bahekar and Singh (2007) and Petersen and Ogawa (2012) also underscored the importance of integrating oral health with chronic disease prevention. Chronic diseases like diabetes and heart disease can be better managed when oral health is taken into account. Our results indicate that more education is needed in specific areas like preventing tooth loss and understanding effect of gum disease on the whole body.9

The findings align with previous studies by Jha et al. (2016) and Arora et al. (2018), which also highlighted the importance of integrating oral health education into the medical curricula. This means that teaching medical students about the connections between oral health and overall health can lead to better care for patients.1 , 2

Moreover, Pihlstrom et al. (2005) conducted a comprehensive review demonstrating the significant impact of periodontal disease on systemic health. This review showed that gum disease can affect the entire body, making it clear that interdisciplinary education is necessary. A study by Chapple and Genco (2013) discussed the bi-directional relationship between diabetes and periodontal disease. This means that diabetes can worsen gum disease and vice versa, highlighting the importance of educating medical professionals on these interconnections.18

Additionally, Borgnakke et al. (2013) emphasized the role of periodontal disease in increasing the risk of respiratory diseases. Gum disease can make it easier for bacteria to enter the lungs, leading to infections. This is another crucial area for medical education, ensuring that doctors understand the wide-reaching effects of oral health.13

While the general attitude and awareness were commendable, specific areas such as the prevention of tooth loss and the implications of periodontal diseases on systemic health require further emphasis. Enhancing interdisciplinary education and collaboration through regular continuing dental and medical education (CDE/CME) programs can bridge these gaps. This means that regular training sessions for both doctors and dentists can help keep everyone informed about the latest research and best practices.

A review by Jeffcoat et al. (2014) on the potential of periodontal therapy to reduce medical costs in patients with chronic diseases further advocates for integrated health education approaches. Treating gum disease can lower medical costs by preventing more serious health issues. Similarly, Sanz and Kornman (2013) discussed the future directions for periodontal medicine, stressing the need for a collaborative approach to patient care. This means that doctors and dentists should work together to provide the best care for patients.15

By integrating the findings of these comprehensive studies, our research underscores the necessity for ongoing interdisciplinary education to foster a deeper understanding of the systemic implications of periodontal disease among healthcare professionals. This integrated approach can lead to better health outcomes for patients and a more effective healthcare system overall.

CONCLUSION

Postgraduate medical students demonstrated a strong understanding and positive attitude towards the role of periodontists in maintaining oral and general health. However, continuous education and better integration of oral health topics in medical training are necessary to further improve their knowledge and awareness. Strengthening the interface between dental and medical practitioners is crucial for comprehensive patient care.

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