

Assessing Patient Awareness of Oral Health and Its Impact on Lung Disorders

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Abstract:

In recent years, growing attention has been directed toward the relationship between oral health and systemic conditions, particularly lung disorders. Oral health, which includes the condition of the teeth, gums, and oral tissues, plays an important role in overall well-being. Scientific evidence has shown that poor oral hygiene may contribute to respiratory infections and other lung-related complications through the transmission of bacteria from the oral cavity to the lungs.

Despite these established connections, public awareness regarding the relationship between oral health and lung disorders remains limited. Previous studies have emphasized that patient awareness is essential in promoting preventive behaviors, as individuals who are knowledgeable about health risks are more likely to practice proper hygiene and seek timely medical care.

Several factors also influence individuals' understanding of the relationship between oral health and lung disorders. These include socioeconomic status, educational background, access to healthcare services, and exposure to health-related information.

Research suggests that individuals from higher socioeconomic backgrounds often have better access to healthcare information and services, resulting in improved health knowledge and practices.

In addition, perceptions and beliefs regarding oral health significantly influence behavior. Individuals who recognize the importance of oral hygiene are more likely to engage in preventive practices, even when their knowledge of specific health connections is limited.

This study aimed to assess the level of patient awareness regarding the impact of oral health on lung disorders, identify the factors influencing their awareness and knowledge, and examine how their perceptions and beliefs affect health-seeking behavior. Specifically, the study focused on awareness of oral-systemic health, socioeconomic influences, perceptions of oral health importance, and practices related to oral hygiene and healthcare utilization.

A descriptive quantitative research design was employed to analyze respondents' awareness, perceptions, and behaviors. Data were collected from 40 dental patients selected through purposive sampling from a dental clinic in Imus, Cavite. A structured researcher-made questionnaire served as the primary data-gathering instrument. The collected data were analyzed using frequency and mean to determine the distribution of responses and the overall level of awareness and behavior among participants.

The findings revealed that respondents demonstrated a moderate level of awareness regarding the relationship between oral health and lung disorders, indicating that while general knowledge exists, understanding of specific concepts remains limited. Socioeconomic status emerged as the most significant

factor influencing awareness, highlighting disparities in access to health information.

Despite this, respondents displayed positive perceptions and beliefs regarding the importance of oral health, strongly agreeing that it is essential to overall well-being. In terms of health-seeking behavior, respondents expressed willingness to improve their oral hygiene practices and seek medical advice; however, regular dental visits were not consistently practiced, indicating a gap between knowledge and actual behavior.

The study concludes that although awareness and positive attitudes toward oral health are present, there remains a need to strengthen knowledge and translate awareness into consistent preventive practices. Enhancing health education programs and improving access to dental care services are essential to bridge this gap and promote better oral and respiratory health outcomes.

Keywords: oral health awareness, lung disorders, patient knowledge, health-seeking behavior, socioeconomic factors, preventive health practices

1. Introduction

Oral health is an essential component of overall well-being, encompassing the condition of the teeth, gums, and supporting oral tissues. Its importance extends beyond the oral cavity, as emerging research continues to highlight its significant influence on systemic health. In recent years, increasing attention has been given to the relationship between oral health and various systemic conditions, revealing connections that go beyond traditional dental concerns.

The relationship between oral health and systemic diseases has become an important focus in medical research, emphasizing the interconnected nature of the body's systems. Among these conditions, lung disorders have gained particular attention because of their possible association with oral health status. Oral health reflects an individual's hygiene practices and overall wellness, while poor oral hygiene has been linked to several systemic diseases, including cardiovascular diseases, diabetes, and respiratory conditions. Understanding the impact of oral health on systemic conditions is therefore essential in promoting overall health and disease prevention.

Although previous studies have explored the clinical and epidemiological aspects of the oral-systemic health connection, limited research has focused on patients' awareness of this relationship. Patient awareness plays a critical role in preventive healthcare, as informed individuals are more likely to adopt proper oral hygiene practices and seek timely medical intervention. However, there remains insufficient understanding of how patients perceive the connection between oral health and lung disorders specifically. To address this gap, the study aimed to investigate patients' awareness of the relationship between oral health and lung disorders through a quantitative research approach. By conducting surveys and analyzing participants' responses, the study sought to determine the level of awareness, identify knowledge gaps, and examine possible misconceptions among the general population. The findings of this study may provide valuable insights for healthcare providers, policymakers, and public health initiatives in developing targeted educational programs and preventive strategies that can improve both oral and respiratory health outcomes.

Statement of the Problem

This study aimed to assess the level of patient awareness regarding the impact of oral health on lung disorders, identify the factors influencing awareness and knowledge, and examine how perceptions and

beliefs affect health-seeking behavior. Specifically, the study sought to answer the following research questions:

1. What is the current level of patient awareness regarding the potential impact of oral health on the development and progression of lung disorders?
2. What factors influence patients' awareness and knowledge of the oral-systemic health connection, specifically in relation to lung disorders?
3. How do patients' perceptions and beliefs regarding the relationship between oral health practices and lung health influence their health seeking behavior?

2. Methodology

2.1 Research Design

This study employed a descriptive quantitative research design using survey questionnaires to collect data from dental patients. The design enabled the researchers to obtain a clear understanding of participants' awareness, perceptions, and behaviors regarding the relationship between oral health and lung disorders. According to Creswell and Poth (2013), the descriptive quantitative method is used to describe the characteristics of a population or phenomenon being studied. In this research, the method was utilized to describe patients' awareness, perceptions, and health-seeking behaviors related to the oral health–lung disorder connection.

2.2 Research Instrument

The primary instrument used in this study was a researcher-made structured questionnaire designed to gather data regarding patients' awareness of the relationship between oral health and lung disorders. The questionnaire was developed based on the objectives of the study, related literature, and the conceptual framework focusing on oral health behaviors, lung health outcomes, and patient awareness.

The instrument aimed to assess respondents' level of awareness, perceptions, and health-seeking behaviors concerning the connection between oral health and lung disorders.

2.3 Population and Sampling

The study included adult dental patients aged 18 years and above. Purposive sampling was used in selecting participants from Diolata Dental Clinic located at 150 Tamsui Ave., Bayan Luma III, Imus, Cavite. Efforts were made to ensure diversity in terms of age, gender, and socioeconomic background.

A total of 40 respondents were purposively selected based on the inclusion criteria, which required participants to be at least 18 years old, have a history of respiratory conditions or concerns, and be able to communicate effectively during the survey process. Diversity in age, gender, socioeconomic status, and oral health status was also considered during participant selection.

2.4 Data Analysis

Frequency and mean were used to summarize and describe the collected data. These statistical tools were appropriate for the study because they provided a clear and straightforward interpretation of respondents' answers. Frequency was used to identify the most common responses among participants, while mean was utilized to determine the overall level of awareness, knowledge, and perceptions regarding the oral health–lung disorder connection.

3. Results

Table 1.1 Age Distribution of Respondents

Age Group	Frequency	Percentage
18–29 years old	13	32.5%
30–39 years old	9	22.5%
40–49 years old	5	12.5%
50–59 years old	10	25.0%
60 years old and above	3	7.5%
Total	40	100%

The data showed that the majority of respondents belong to the 18–29 age group, comprising 32.5% of the total sample. This indicated that younger adults are more represented in the study. The 50–59 age group follows with 25.0%, suggesting a significant participation of middle-aged individuals. Meanwhile, the least represented group is those aged 60 years and above at 7.5%. Overall, the distribution reflects a diverse age range, although younger respondents dominate the sample.

Table 1.2 Gender Distribution of Respondents

Gender	Frequency	Percentage
Male	17	42.5%
Female	23	57.5%
Total	40	100%

The results revealed that female respondents constitute the majority, accounting for 57.5% of the total participants, while male respondents make up 42.5%. This indicates a higher level of participation among females in the study. The difference suggests that female respondents may have shown greater interest or availability in answering the survey related to health awareness.

Table 1.3 Monthly Income Distribution of Respondents

Income Level	Frequency	Percentage
Below ₱10,000	10	25.0%
₱10,000–₱19,999	7	17.5%
₱20,000–₱39,999	15	37.5%
₱40,000–₱59,999	2	5.0%
₱60,000 and above	6	15.0%
Total	40	100%

The data indicated that the largest group of respondents falls within the ₱20,000–₱39,999 income bracket, representing 37.5% of the total sample. This suggests that most participants belong to the middle-income category. Respondents earning below ₱10,000 account for 25.0%, reflecting a notable portion of low-income individuals. On the other hand, only 5.0% fall within the ₱40,000–₱59,999 range, making it the least represented group.

II. Awareness of Oral Health and Lung Disorders

Statement	Weighted Mean	Interpretation
Poor oral health affects overall body health	3.23	Neutral
Bacteria from the mouth can enter the lungs	1.98	Disagree
Poor oral hygiene increases lung infection risk	2.75	Neutral
Gum disease may contribute to lung disorders	2.58	Disagree
Good oral hygiene reduces respiratory problems	2.93	Neutral
Composite Mean	2.69	Neutral

The findings reveal that the respondents have a composite mean of 2.69 (Neutral), indicating a moderate but uncertain level of awareness regarding the relationship between oral health and lung disorders. While respondents somewhat recognize that oral health affects overall health, they show limited understanding of specific concepts such as the transmission of bacteria from the mouth to the lungs. This suggests that awareness is present but not deeply understood.

III. Factors Influencing Awareness and Knowledge

Statement	Weighted Mean	Interpretation
Informed by healthcare professionals	2.75	Neutral
Health education materials increased awareness	3.00	Neutral
Educational background helps understanding	2.95	Neutral
Socioeconomic status affects access	4.05	Agree
Personal/family experience increases awareness	3.08	Neutral
Composite Mean	3.17	Neutral

The results show a composite mean of 3.17 (Neutral), indicating that respondents moderately recognize factors influencing their awareness. Among these, socioeconomic status (WM = 4.05, Agree) is the most significant factor affecting access to health information, while other factors such as healthcare professionals, education, and personal experiences were only rated neutral.

IV. Perceptions and Beliefs

Statement	Weighted Mean	Interpretation
Oral hygiene improves lung health	3.50	Agree
Dental checkups prevent lung illness	3.53	Agree
Oral health is as important as overall health	4.45	Strongly Agree
Neglecting oral health worsens lung conditions	3.58	Agree
Composite Mean	3.77	Agree

The respondents demonstrated a composite mean of 3.77 (Agree), indicating positive perceptions and beliefs regarding oral health. They strongly agreed that oral health is as important as overall health and believe that good oral hygiene can contribute to better respiratory health.

V. Health-Seeking Behavior

Statement	Weighted Mean	Interpretation
Regular dental visits	2.53	Disagree
Seek medical advice for oral problems	3.63	Agree
Knowledge influences hygiene practices	3.23	Neutral
Awareness motivates better habits	4.20	Agree
Willingness to learn more	4.50	Strongly Agree
Composite Mean	3.62	Agree

The findings indicated a composite mean of 3.62 (Agree), suggesting that respondents generally exhibit positive health-seeking behavior. They are willing to seek medical advice and show strong motivation to improve their oral health practices. However, regular dental visits received a low rating (WM = 2.53, Disagree), indicating inconsistency between awareness and actual practice.

4. Discussion

The findings of this study provide important insights into patient awareness regarding the relationship between oral health and lung disorders. The moderate level of awareness observed among respondents indicates that while individuals possess some understanding of oral health, their knowledge of its impact on respiratory health remains limited. This finding is consistent with previous studies reporting gaps in patient knowledge concerning the oral-systemic health connection.

The strong influence of socioeconomic status on awareness highlights the importance of social determinants of health. Individuals with higher income levels are generally more likely to access healthcare services and health-related information, resulting in improved awareness and preventive practices. This finding emphasizes the need for targeted interventions that address inequalities in access to health education and healthcare services.

Despite limited knowledge, respondents demonstrated positive perceptions and beliefs regarding oral health. This is a promising finding, as positive attitudes may serve as a foundation for behavioral change. However, the inconsistency between awareness and actual practices, particularly regarding regular dental visits, suggests that knowledge alone may not be sufficient to influence behavior. Other factors, such as cost, accessibility, and personal habits, may also affect preventive health practices.

The study underscores the importance of strengthening health education programs that focus on the relationship between oral health and systemic conditions. Healthcare professionals play a vital role in educating patients and promoting preventive practices. Integrating oral health education into routine healthcare services may help improve patient awareness and encourage healthier behaviors.

However, the study has certain limitations. The sample size was relatively small and limited to one dental clinic, which may affect the generalizability of the findings. In addition, the use of self-reported data may introduce bias, as responses depend on the honesty and understanding of participants.

Conclusion

Based on the findings of the study, it can be concluded that respondents demonstrated a moderate level of awareness regarding the relationship between oral health and lung disorders. While participants generally recognized that oral health affects overall health, their understanding of specific concepts, such as the transmission of oral bacteria to the lungs and its contribution to respiratory diseases, remained limited. This suggests that awareness exists but lacks depth and clarity.

In terms of factors influencing awareness, socioeconomic status emerged as the most significant factor, indicating that access to healthcare information and services is strongly influenced by financial capability. Other factors, including education, healthcare professionals, and personal experiences, showed only moderate influence. These findings suggest that disparities in access to healthcare information may contribute to gaps in awareness.

Respondents also exhibited positive perceptions and beliefs regarding oral health, strongly agreeing that oral health is as important as overall health. They believed that maintaining proper oral hygiene may help improve respiratory health. These positive attitudes may support the adoption of healthier behaviors despite limited knowledge.

With regard to health-seeking behavior, respondents expressed willingness to improve their oral health practices and seek medical advice when necessary. However, the low rating for regular dental visits revealed a gap between awareness and actual practice. This suggests that external barriers, such as cost, accessibility, and personal habits, may hinder consistent preventive care.

Overall, the study concludes that although awareness and positive perceptions are present, a disconnect remains between knowledge and actual practice. Strengthening health education initiatives and improving access to dental care services are essential to bridge this gap and promote better oral and respiratory health outcomes.

Recommendations

Based on the findings and conclusions of the study, the following recommendations are proposed:

Strengthen Health Education Programs

Healthcare institutions should intensify health education campaigns focusing on the relationship between oral health and lung disorders. Since respondents demonstrated only moderate awareness regarding the impact of oral bacteria on respiratory health, educational programs should provide clear and accurate information regarding these effects.

Improve Accessibility of Dental Services

Government agencies and policymakers should prioritize affordable dental services, particularly for low- and middle-income populations. The findings revealed disparities in awareness and access to healthcare services based on socioeconomic status. Financial assistance programs, free dental checkups, and mobile dental clinics may help address these concerns.

Enhance the Role of Healthcare Professionals

Healthcare professionals should take a more active role in educating patients about the oral-systemic health connection. Dentists, nurses, and physicians may provide brief but informative discussions during consultations to increase patient awareness.

Promote Preventive Health-Seeking Behavior

Public education campaigns should emphasize the importance of regular dental checkups and preventive oral healthcare practices. Encouraging individuals to maintain consistent oral hygiene habits may contribute to improved respiratory and overall health.

Utilize Media and Digital Platforms for Awareness

Information regarding oral health and lung health should be disseminated through mass media and digital platforms. Social media, television, and online campaigns can reach wider audiences and provide accessible, engaging, and informative health content.

Encourage Further Research and Program Development

Future researchers are encouraged to conduct additional studies exploring other factors that may influence awareness and behavior. Studies involving larger and more diverse populations may provide more comprehensive findings and contribute to the development of more effective health programs

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