



## Fostering Oral Health Education as a Social Investment in Schools

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### Abstract

Particularly in the early years of life, oral health education is crucial in determining an individual's general well-being. The need of including comprehensive oral health instruction in the school curriculum is examined in this essay as a wise social investment. The study explores the many advantages of this kind of program, highlighting how it might improve students' oral health conditions as well as their general health results. The abstract demonstrates the beneficial effects of oral health education on preventing dental problems, enhancing general health literacy, and lowering healthcare inequities by reviewing the body of research and successful case studies. Additionally, it talks on the financial benefits of funding preventive dental health initiatives, highlighting the possible long-term cost savings for patients as well as healthcare systems. The essay also discusses the societal ramifications, highlighting the ways that encouraging oral health education in schools can help to end the cycle of disparities in oral health, advance equity, and improve the standard of living. This article concludes by arguing in favor of oral health education be given priority in schools and presenting it as an important social investment that will pay off handsomely in the long run for the health of communities and people.

**Keywords:** *Oral Health Education; Schools; Social Investment.*

## Fomentar la educación en salud bucodental como inversión social en las escuelas

### Resumen

Especialmente en los primeros años de vida, la educación en salud bucodental es crucial para determinar el bienestar general de un individuo. En este ensayo se examina la necesidad de incluir una formación integral en salud bucodental en el currículo escolar como una sabia inversión social. El estudio explora las numerosas ventajas de este tipo de programa, destacando cómo podría mejorar las condiciones de salud bucodental de los alumnos, así como sus resultados de salud general. El resumen demuestra los efectos beneficiosos de la educación para la salud bucodental en la prevención de problemas dentales, la mejora de los conocimientos generales sobre salud y la reducción de las desigualdades sanitarias mediante la revisión del conjunto de investigaciones y estudios de casos de éxito. Además, habla de los beneficios económicos de financiar iniciativas de salud dental preventiva, destacando el posible ahorro de costes a largo plazo tanto para los pacientes como para los sistemas sanitarios.

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El ensayo también analiza las ramificaciones sociales, destacando las formas en que el fomento de la educación en salud bucodental en las escuelas puede ayudar a poner fin al ciclo de disparidades en salud bucodental, avanzar en la equidad y mejorar el nivel de vida. El artículo concluye abogando porque se dé prioridad a la educación en salud bucodental en las escuelas y presentándola como una importante inversión social que, a largo plazo, reportará grandes beneficios para la salud de las comunidades y las personas.

**Palabras Clave:** *Educación para la salud bucodental; Escuelas; Inversión social.*

## **Promovendo a educação em saúde bucal como um investimento social nas escolas**

### **Resumo**

Particularmente nos primeiros anos de vida, a educação em saúde bucal é crucial para determinar o bem-estar geral de um indivíduo. A necessidade de incluir instrução abrangente sobre saúde bucal no currículo escolar é examinada neste ensaio como um investimento social inteligente. O estudo explora as muitas vantagens desse tipo de programa, destacando como ele pode melhorar as condições de saúde bucal dos alunos, bem como seus resultados gerais de saúde. O resumo demonstra os efeitos benéficos da educação em saúde bucal na prevenção de problemas dentários, no aprimoramento da alfabetização em saúde geral e na redução das desigualdades na área da saúde, analisando o conjunto de pesquisas e estudos de caso bem-sucedidos. Além disso, fala sobre os benefícios financeiros do financiamento de iniciativas de saúde bucal preventiva, destacando a possível economia de custos a longo prazo para os pacientes e para os sistemas de saúde. O ensaio também discute as ramificações sociais, destacando as maneiras pelas quais o incentivo à educação em saúde bucal nas escolas pode ajudar a encerrar o ciclo de disparidades na saúde bucal, promover a equidade e melhorar o padrão de vida. Este artigo conclui argumentando a favor da prioridade da educação em saúde bucal nas escolas e apresentando-a como um importante investimento social que, a longo prazo, trará grandes benefícios para a saúde das comunidades e das pessoas.

**Palavras-chave:** *Educação em saúde bucal; escolas; investimento social.*



## 1. Introduction

In recent years, the significance of oral health as a vital component of overall well-being has gained widespread recognition. Oral health is not only integral to an individual's quality of life but also bears substantial economic and social implications. One of the critical arenas where the battle for oral health can be decisively fought is within the educational system. Schools, as microcosms of society, not only impart academic knowledge but also play a pivotal role in shaping behaviors and attitudes, including those related to oral hygiene.

This paper explores the important idea of supporting dental health education in schools as a social responsibility. In the past, oral health education has frequently been neglected in favor of larger public health programs. The paradigm is changing, though, as more people realize that funding dental health education is a significant social investment as well as a health initiative. We are planting the seeds for healthier, more self-assured, and economically productive future generations by arming young minds with the knowledge and behaviors required for maintaining good dental health.

This article examines the various facets of oral health education in schools, looking at how it affects students' personal health as well as how it could help with social injustices and financial hardships. It explores how schools and public health organizations incorporate comprehensive oral health education into their curricula to raise a generation that is not only academically capable but also dentally healthy.

This article tries to shed light on the transformative effect of oral health education when seen as a social investment through case studies, research findings, and real-life experiences. We can prevent oral diseases and inculcate lifelong habits that can considerably lower the social burden of dental ailments by promoting oral health awareness and hygiene in schools. We also look at how these programs help close gaps in the inequities in oral health and guarantee that all children, regardless of socioeconomic status, have access to the information and materials needed to maintain good oral health.

### 1.1 Literature Review

Grembowski, et al. (2010). The body of research emphasizes the value of oral health education in schools as a strategy to close the gap in dental care access, particularly for low-income households. The findings show that 27% of moms and 38% of mothers had regular dentist visits. Along with an increase in the number of private dentists and safety net clinics for White and Hispanic mothers, having a regular dentist was linked to dental insurance, higher levels of education, income, length of residency, and improved mental health for Black, Hispanic, and White mothers. Moms who don't have access to dental care on a regular basis may exacerbate disparities in oral health that negatively impact their kids.

Simón-Soro & Mira (2015). This paper addresses the contribution oral health education initiatives make to the prevention of dental caries, a prevalent oral health problem among school-age children. This provides support to the theory that consortia composed of several microorganisms initiate and propagate the cavity jointly, most likely in a synergistic manner. Therefore, it is anticipated that antimicrobial therapies will not be successful in treating caries or other polymicrobial diseases that defy the traditional Koch's postulates.



Kwan et al. (2005). With an impact on over 1 billion children, school personnel, families, and communities, schools are vital in promoting health. Childhood health education shapes lifelong attitudes and abilities. Children's future success, academic performance, and quality of life are all impacted by poor dental health. Using the framework of a health-promoting school, this paper discusses the WHO Global School Health Initiative and examines the global need for oral health promotion in schools. The article discusses the difficulties in promoting dental health in both developed and developing nations, highlighting the significance of validated frameworks and evaluation techniques for oral health initiatives in schools.

Aboalsaud et al. (2023). Study shows that 91% percent of dental hygiene programs in the US, Canada, and Australia that participated in the survey had implemented the new staging and grading system for periodontal diseases. There were 94% clinical courses and 99% didactic/theory courses in the curriculum. Benefits mentioned included taking into account treatment individualization, individual risk factors, and disease progression. A significant obstacle was a lack of faculty support (26%). Institutional context determined how confident instructors were in teaching the system; community and technical colleges were less confident. Overall, the new system was successfully implemented by dental hygiene educators, who appreciated its customized approach.

Rai and Tiwari (2018). According to this study, early childhood caries, or ECC, is common in developing countries. In a 2005–2017 systematic review, parental factors in children under 6's ECC development were examined. Out of 325 studies, 18 qualified. In ten and seven studies, respectively, maternal and parental education was found to be a significant factor. There are 13 studies that link socioeconomic status to ECC. Four studies found that breastfeeding length affected ECC, and four studies found that oral health knowledge and attitudes. Only a few studies looked at behavioral and psychosocial factors. In developing countries, it is critical to implement interventions that focus on the oral health knowledge and behavior of low-income parents.

Yu et al (2023). This study used data from 1988-1994 to examine the effect of oral health on mortality in 4,880 adults aged 60 and over. When confounders were taken into account, edentulism dramatically shortened survival times (average treatment effect = -26.13). Periodontal disease and dental caries were originally associated with mortality, but their significance disappeared when adjusted survival was estimated. A healthy mouth was strongly associated with a longer survival time (average treatment effect = 21.50). The results highlight oral health, both objective and subjective, as a mortality risk factor in the elderly. Improving senior citizens' access to dentistry care can reduce the risks of death associated with poor oral health.

Divaris et al (2012). This study looked at the dental care-seeking behaviors of young Medicaid-enrolled children. Of the 1000 kids who had never visited the dentist before, 39% joined the system during a 25-month period, and 13% needed emergency care. Dental neglect by caregivers impeded entry. Even though they frequently required emergency care, children with baseline oral health issues were more likely to seek dental care. The results emphasize the vital role that caregivers play. Good interventions should emphasize early oral health for children and involve caregivers during infancy or toddlerhood through outreach that is sensitive to cultural differences.



Weyant et al (2013). The expert panel of the American Dental Association revised its 2006 recommendations regarding fluoride agents for the prevention of dental cavities. They examined 71 trials that assessed different topical fluoride products, including mouthrinses, gels, and varnishes. It is advised that patients who are at risk use 1.23% fluoride gel or 2.26% fluoride varnish, whereas younger patients should use 2.26% fluoride varnish. It is recommended to use prescription-strength 0.05% fluoride gel/paste or 0.09% fluoride mouthrinse. The spectrum of recommendations is "in favor" to "expert opinion for." For efficient dental care, these evidence-based recommendations ought to be in line with clinical expertise and patient preferences.

Fisher-Owens et al (2011). This article draws on the fields of social epidemiology and population health to present a comprehensive conceptual model for understanding children's oral health. Genetic, social, environmental, and healthcare factors are all integrated into the model, which encompasses influences at the individual, family, and community levels. It recognizes how these variables have changed over time and how oral health conditions like caries have evolved as a result. This model offers a framework for addressing the oral health issues that children face by adopting a multilevel, holistic approach and taking into account different risk factors, pathways, and resilience. The field needs more investigation and advancement in order to improve the methods used to improve the oral health of children.

## **2. Methodology**

Creating a framework for promoting oral health education as a social investment in schools necessitates a methodical approach to the planning, carrying out, and assessment of educational initiatives. The purpose of the current study was to evaluate the impact of oral health education on parents of students in the 05- to 14-year-old age range in terms of their knowledge and oral health practices. The schools were chosen using a straightforward random sampling technique. The ratio was upheld when choosing samples from various regions. Sample size 50 people were used.

All parents received a structured, closed-ended questionnaire at the start of the study to determine their level of oral health knowledge and practice. The examiner gave them brief explanations of the questions. The questionnaire was collected back and checked out after a reasonable amount of time. Each right response received a score of one. After gathering the baseline data, the study subjects received a quick oral health education on a variety of subjects related to oral health.

The questionnaire consists of various parts. First is the basic information of the subject and the next section consists of Awareness and Knowledge, third being Impact of Oral Health Education and finally School Environment and Practical Application and concluded with feedback.

## **3. Results and Discussion**

Based on the responses from the subjects below are the various results obtained after evaluation. Results were categorized into Awareness and Knowledge, Impact of Oral Health Education, School Environment and Practical Application.

### **Awareness and Knowledge:**

The below section explains about the results with regards to awareness and knowledge about oral health.



Figure 1: Awareness on importance of oral health before oral health program

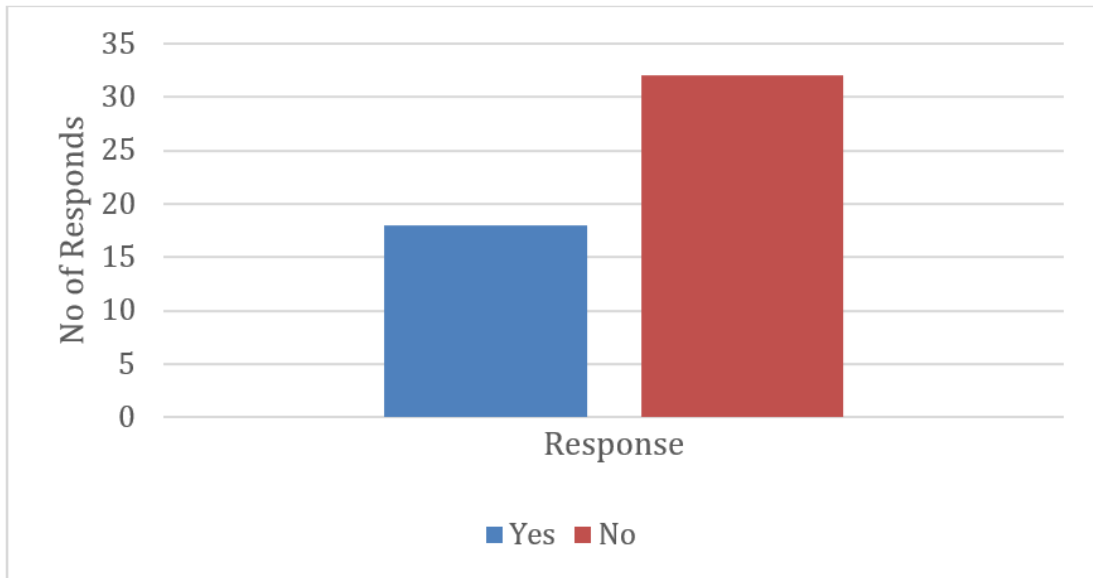


Fig 1 shows that the awareness of importance of oral health among the parents of the students are low which is 36%. This shows they awareness has to be created among students and parents about the importance of oral health.

Figure 2: Current knowledge about oral health and hygiene

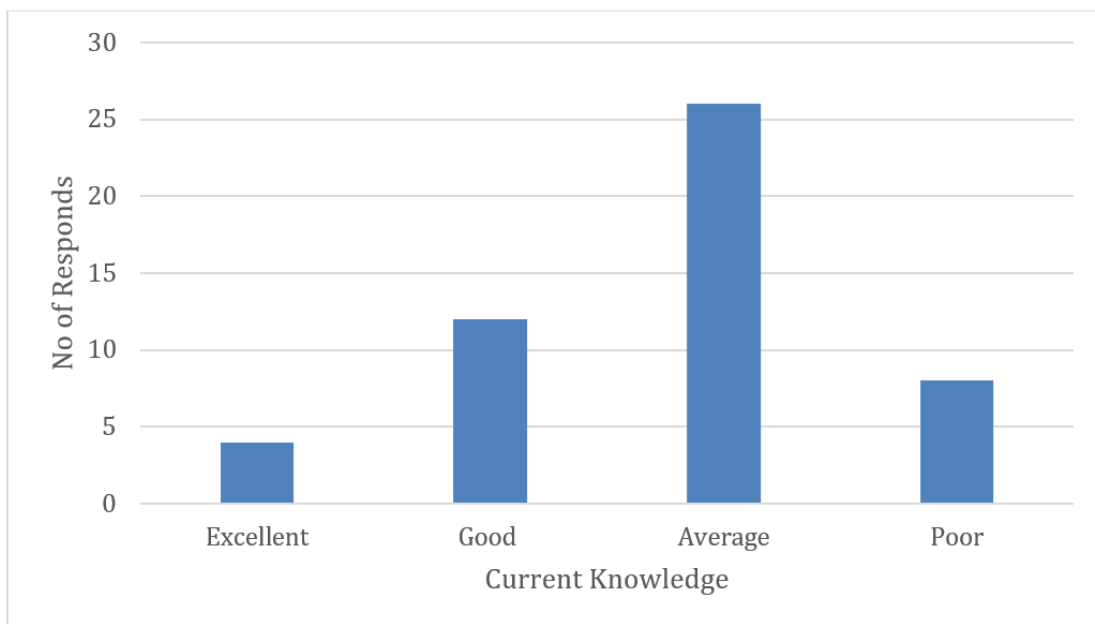


Fig 2 shows the knowledge about oral health and hygiene among respondents and the result shows that the over all knowledge is average which is 52% and 16% of the respondent's knowledge is poor which shows that oral health education is important.



### Impact of Oral Health Education:

The below section explains about the results with regards to impact of oral health education.

Figure 3: Oral health education programs in your school positively influenced your oral hygiene habits

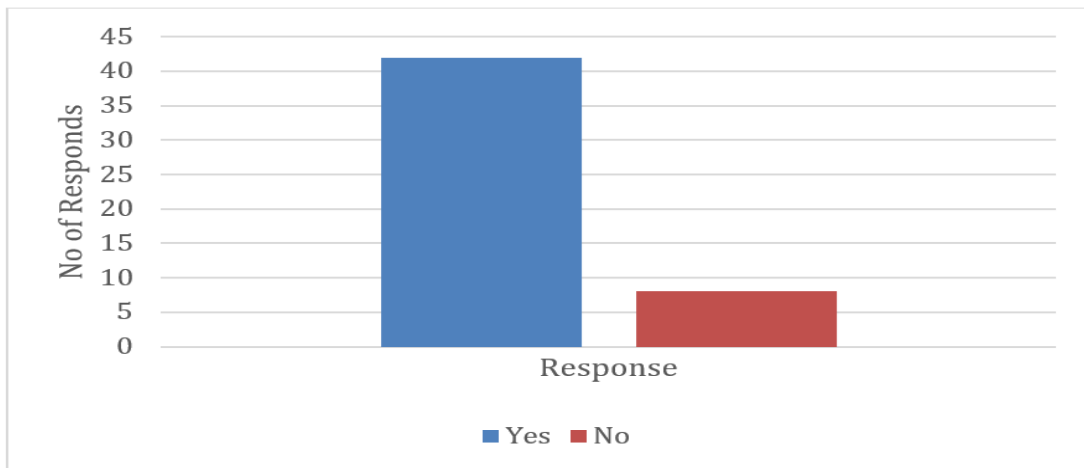


Fig 3 shows that oral hygiene habits have been improved for 84% with regards to oral health programs in school. Which shows that oral health education is important.

Respondents feel that the most helpful aspects of oral health education are brushing technique, importance of regular dental check-ups, eating habits which will change the human community to a healthy one.

Figure 4: School environment supports good oral health practices

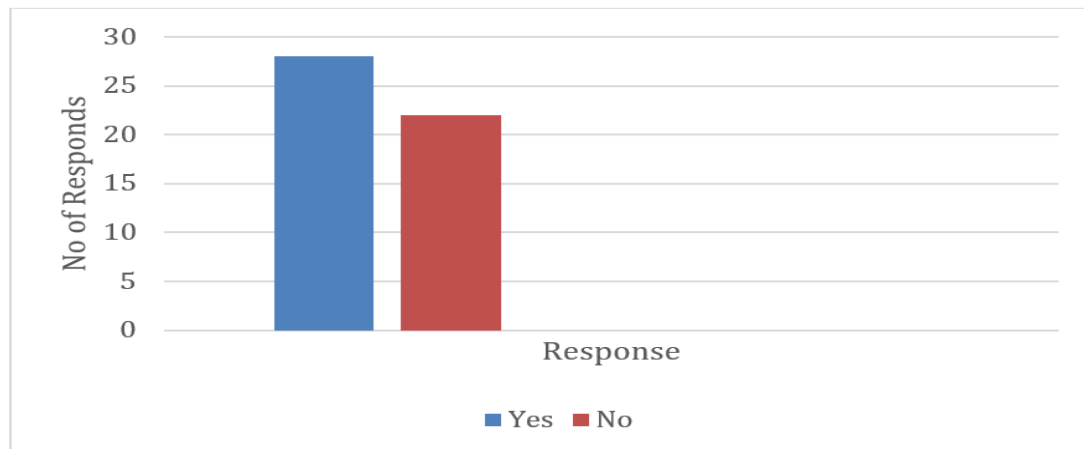


Fig 4 shows that 56% of the respondent feel that school environment provides good support for oral health.

Respondents suggest making the school environment more conducive to oral health by conducting campaigns on importance of oral health, monitoring and restricts of unhealthy foods.



#### Practical Application:

The below section explains about the results with regards to Practical Application.

Figure 5: Applied the knowledge gained from oral health education in your daily life

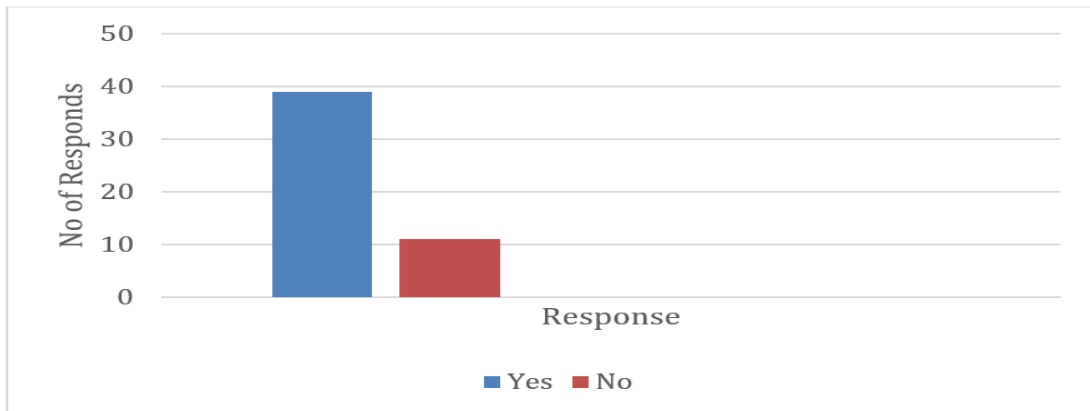


Fig 5 shows that people have applied the knowledge that they received in their day-to-day life and lives a health life.

Respondents shared few examples on how oral health education has influenced their daily routine and few of them are, handling the brush and choosing the right brush, brushing times, eating and choosing food and maintaining tooth.

#### 4. Conclusion

The result of the study shows that oral health education becomes a good social investment for the benefit of human community. Based on the study we can conclude that early diagnosis and treatment of oral problems can be achieved by educating the students at school level. It is possible for society to equip the next generation with the necessary knowledge and habits for maintaining good oral health by integrating comprehensive oral health education programs into school curricula. In addition to preventing dental problems, this proactive strategy lessens the overall strain on healthcare systems and raises community standards of living.

Oral health education in schools fosters positive behavioral changes in families, communities, and students by encouraging a sense of responsibility. It creates enduring habits that can guard against a range of oral health issues, ultimately leading to a healthier populace. Schools are an essential step toward achieving health equity because they not only help to reduce disparities in access to dental care but also raise awareness about the importance of oral health.

Additionally, funding dental health education has a positive snowball effect that improves student academic performance, attendance at school, and overall health outcomes. Additionally, it gives kids the information they need to make wise choices regarding their dental health, enabling them to lead healthier adult lives.





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