ISSN PRINT 2319 1775 Online 2320 7876

Research paper UGC CARE Listed (Group -I) Journal Volume 11,Iss 6, Sep 2022

A Review on the Effectiveness of Dental Health Education

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ABSTRACT

Health Education of the general public is an integral part of a prevention oriented approach to health and disease problems. Health education can bring about changes in life styles and risk factors of disease. Oral disease continues to bother mankind in spite of great advances made in the field of oral health. In order to reduce the level of dental diseases and to improve oral health in populations; oral health workers, government departments and NGO's have embarked on oral health education (OHE) programmes as a means to achieve this goal. The different target groups in dental health education are: School Children, Adults, Chronically ill & Geriatric people and emotionally ill people. Oral health education is the need of the hour in spite of advances made in the direction of prevention of oral diseases. Dental health education programs should be applicable to all segments of the population and should be developed through appropriate program planning and implementation criteria. One may conclude that the time is favourable for effective and adequate programs for dental health education to be developed and implemented.

Keywords: Health Education, Effectiveness, School children, Programs, Oral diseases.

INTRODUCTION

Public health education is a crucial component of a prevention-focused strategy for tackling health and disease issues. Knowledge can grow as a result of education. It is frequently believed that information influences attitudes, and attitudes influence behavior. [1]

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Lifestyle adjustments and reductions in disease risk factors can result from health education. The majority of the world's major health issues and early deaths can be avoided at cheap cost by altering human behavior.

Despite significant advancements in the field of oral health, mouth illness still affects humans. Oral cancer, malocclusion, periodontal disease, and dental caries continue to be serious public health issues. Positive dental health behavior with a focus on personal oral health care helps prevent or control certain disorders. In this circumstance, dental health education can be used effectively to close the gap between the general public and the dental profession in order to promote better oral health. [2]

The educational approach to the prevention and control of oral health issues has garnered more attention in recent years, in both developed and developing nations worldwide.

Oral health professionals, government agencies, and non-profit organizations have started oral health education (OHE) programs as a way to lower the prevalence of dental diseases and enhance oral health in populations. Recent research has been done on the effectiveness of oral health education interventions. "Oral health interventions have a small beneficial, but transient, effect on plaque accumulation, no discernable effect on caries increment, and a consistent favorable effect on knowledge," Kay and Locker concluded. [3] In a different review, Schou came to the conclusion that straightforward instructional tactics can successfully enhance oral health knowledge, behavior, and indices. 4 It was also proven that a more thorough strategy utilizing a variety of psychological and behavioral techniques results in changes of a bigger magnitude than a one-time educational intervention.

Comparative effectiveness of dental health education

The customization of materials and teaching strategies to the target audience is one of the first steps in every educational program. The best learning happens in response to an identified need. In order to deliver appropriate content to each group in an appropriate way, the psychological traits of the various age and social groupings must be evaluated. [4] The following target audiences are included in dental health education:

1. School Children
2. Adults
3. Chronically ill and Geriatric people
4. Emotionally ill people

Dental Health Education for School Children

ISSN PRINT 2319 1775 Online 2320 7876

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Schoolchildren are by far the most significant group in need of health education. Children are the best learners because they are also just starting to have dental health issues. A review of the literature on school health education reveals that numerous nations have sought to implement dental health education programs over the years in schools. [5]

There have been conflicting results from studies on how well dental health education works with school-aged children. In comparison to a single classroom-based lecture, Hawkins et al. [6] concluded that a classroom-based lesson combined with small-group sessions is a more effective way to improve oral hygiene awareness among high-risk Grade One pupils. According to Rong et al. [7], oral health education programs were successful in helping preschoolers develop good oral hygiene routines and in raising their parents' oral health literacy. According to a study by Kang et al. [8], teaching children to clean their teeth has a limited impact on their dental health. According to Song [9], oral health education improved oral health by reducing the use of cariogenic foods and by preventing dental caries. However, a study by Paul Erik Peterson et al. [10] shown that dental health education programs had a favorable impact on children's oral health behaviors and gingival bleeding scores. There was no discernible improvement in the incidence rate of dental caries. According to Vannoborgenet al. [11], the oral health education program was successful in enhancing dietary practices and the appropriate application of topical fluorides but did not significantly reduce the prevalence of caries. According to Marvin Bentley et al. [12], dental health education had a beneficial impact on how often kids used dental services. Robinson et al. 1964 [13] came to the conclusion that it is exceedingly improbable that dental health education will significantly alter preexisting habits if a kid has not learned healthy dental habits throughout the early years.

A program for dental health education may be successful or unsuccessful depending on a number of additional criteria. These are related to the administrative procedures in place at the schools. Budgeting should include money for things like educational aids. The management and teaching personnel should be prepared to embrace the fundamental premises of curriculum development put forth by the dentistry profession. The local board of education should set out time during the academic year for instructors to review curricula, attend committee meetings, and participate in workshops related to oral health education. The administrative and teaching staffs should, to some extent, share a shared educational philosophy with reference to the development and growth of children as well as the educational process. Finally, educators should not be afraid to experiment and explore new ideas in order to provide dental health education programs in better ways. [14]

Dental Health Education for Adults

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Adult health education should place a strong emphasis on raising knowledge of and preventing conditions including dental caries and periodontal disease. Although these measurements may seem relatively straightforward to comprehend and implement in theory, they may actually create a number of challenges due to social, cultural, situational, environmental, and economic considerations. Dental caries and periodontal disease should be the top priorities in adult oral health education programs because they are so important to the global development of dental health. Based on contemporary dental and sociological research, William J. Putnam et al.[15] talked about communication and patient motivation in preventive periodontics. The authors came to the conclusion that more focus needs to be placed on periodontal disease prevention through prophylaxis and tooth-brushing messages. If we can additionally explain the severity and high vulnerability to periodontal disease, we might be able to change present behavior. Most communities have a large number of adult groups that, depending on the situation, can be crucial targets for oral health education. Mothers of newborns and expectant women frequently require and are motivated to use dental health information.

Mother and Child Health Centers are typically a good way to contact this group (MCHC). Included in educational implications should be information on the importance of primary teeth, proper use of feeding bottles, nursing bottle caries, and pregnancy gingivitis. [4]

In order to determine the impact of parental oral health education and tooth-brushing instruction on the prevalence of mutans streptococci in preschoolers, Seow et al [2003] [16] undertook a study. The study found that mothers who get a single dental health education session and tooth-brushing instructions see a reduction in mutans streptococci infection in young infants of about 25%.

Orthodontic patients should be prioritized in health education. The delicate equilibrium between the many microbiota components in the oral environment could be upset by any outside disturbance. An illustration of this interference would be fixed orthodontic appliances. [17] Acid etching of enamel occurs frequently during bracket bonding, changing the shape and chemical makeup of the mouth cavity. Decalcified enamel has been discovered to be an excellent platform for the adherence and growth of bacterial species like Streptococcus mutans, Veillonellaspp., etc., which promote the formation and preservation of bacterial plaque.

Therefore, it is essential to give these patients proper and meticulous oral hygiene training. According to Grazyna et al. [18], patients with fixed appliances who have received training in meticulous tooth cleaning are nevertheless at risk of developing caries and need to be closely watched. An investigation on the effects of an oral hygiene teaching intervention program on orthodontic patients was conducted by

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Wang SY et al. [19]. According to the study's findings, individuals using fixed orthodontic appliances who receive oral hygiene education can effectively prevent the buildup of dental plaque.

3. Dental health education for chronically ill and Geriatric people

It is becoming more and more clear that patients who are chronically ill or elderly need dental care that is substantially different from that provided to healthy patients. The oral impacts of systemic disorders should be taken into consideration while developing a health education program for elderly persons. The most frequent systemic diseases with distinctive oral symptoms are diabetes and hypertension. Any program promoting health for older individuals should have four sessions, according to Jong [1].

Information on general oral health is covered in the first session. The second lecture is a demonstration of how to properly brush and floss natural teeth. The third session's goal is to demonstrate how to properly clean dentures. Oral examinations for a variety of disorders are conducted during the fourth session.

Although oral hygiene procedures are frequently given a lower priority by health care professionals than their other chores, many elderly persons who reside in long-term care facilities (LTC) rely on assistance from others for these tasks. In LTC institutions, 9% to 65% of the residents have been reported to have oral candidiasis based on elevated yeast scores. [20]

Improved oral hygiene practices have been shown to be effective in treating oral candidiasis in older persons who live in the community and wear dentures. In a long-term care facility with 237 fragile or dependent residents, Budtz-Jrgensenet et al.[20] conducted a study to assess the efficacy of a preventive oral health program on the prevalence of oral candidosis.

The study found that the preventative program was successful in lessening the amount of Candida that colonized the oral mucosa and dentures, consequently enhancing the health of the oral mucosa. Therefore, it is crucial to create and implement programs for the elderly's oral health and to monitor their efficacy.

4. Dental health education for Emotionally Ill patients

The extremely poor oral health that this group typically exhibits 9 attests to the necessity for more effective methods of dental hygiene programs for psychotic people. A psychotic person frequently has a high threshold for criticism and a propensity to withdraw from anxiety-inducing situations. When faced with a potentially dangerous circumstance, he typically displays a relative inability to differentiate between tiny distinctions in his environment. Behaviour control and proper psychiatric counseling are required prior to any programs aimed at these patients. For explaining oral hygiene procedures to hospitalized patients who are emotionally unstable and have a history of chronic illness, Charles E. Bell et al. [21] offered a "fear provoking method."

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The outcomes showed that teeth brushing behavior was unaffected. After seeing the messages, the patients tended to wash their teeth a little less frequently. In comparison to other groups, the low fear group reported higher levels of anxiety. The study's findings indicate a highly strict dental hygiene routine to induce meaningful improvements in dental care behavior in schizophrenic individuals since verbal communications appear to have little impact on them.

CONCLUSION

Even if there have been advancements in the field of oral disease prevention, oral health education is still a must today. Regarding the state and prospects of community oral health education programs, the examination of the information supplied here yields a number of findings. We now know that traditional educational activities that solely rely on the cognitive or behavioral models of learning are ineffective for preventing and controlling disease. The methods created and improved for educating a person are different from those that should be used to educate the community. The development, testing, and evaluation of new preventive program combinations as well as the efficacy of new community oral health education initiatives must continue. The dentistry profession works tirelessly to support efforts by the medical community and public health organizations to raise oral health standards. Conclusion: Now is a good time to plan and implement appropriate and effective dental health education programs.

REFERENCES

1. Anthony W Jong. Community Dental Health, 3rd edition. Varghese publishing house.1993.

2. Helen V. Worthington, Kirsty B. Hill, Leanette Mooney et al. A Cluster Randomized Controlled Trial of a Dental Health Education Program for 10-year old Children. Journal of Public Health Dentistry. 2001; 61(1): 22-27.

3. Kay EJ, Locker D. Is dental health education effective? A systematic review of current evidence. Communiiv Dent OraiEpidemiol1996; 24:231-5.

4. Dunning J.M. Principles in Public Health Dentistry. 4th edition. Harvard University press.

5. Soben Peter. Essentials of Preventive and Community Dentistry. 3rd edition.Arya (Medi) Publishing House.2006

6. Hawkins RJ, Zanetti DL, Main PA et al. Oral hygiene knowledge of high-risk Grade One children: an evaluation of two methods of dental health education. Community Dent Oral Epidemiol 2000; 28: 336–43

7. Rong WS, Bian JY, Wang WJ et al. Effectiveness of an oral health education and caries prevention program in kindergartens in China. Community Dent Oral Epidemiol 2003; 31: 412-416.

ISSN PRINT 2319 1775 Online 2320 7876

Research paper UGC CARE Listed (Group -I) Journal Volume 11,Iss 6, Sep 2022

8. Kang BH, Park SN, Sohng KY. Effect of a Tooth-brushing Education Program on Oral Health of Preschool Children.J Korean AcadNurs. 2008; 38 (6): 914-22

9. Song BS. The effect of oral health education on oral health in kindergarten children. TaehanKanhoHakhoe Chi.2004 Feb; 34(1): pages 132-140.

10. Paul Erik Peterson, Bin Peng, Baojun Tai, et al. Effect of a school-based oral health education program in Wuhan city, Peoples Republic of China. International Dental Journal.2004;54: 33-41

11. Vannoborgen J, Declerck D, Mwalili S, Martens L. The effectiveness of a 6-year oral health education programme for primary school children. Community Dent Oral Epidemiol 2004; 32: 173-182.

12. Marvin Bentley, Patricia Cormier, and Jacqueline Oler. The Rural Dental Health Program: The Effect of a School-Based Dental Health Education Program on Children's Utilization of Dental Services. American Journal of Public Health. May 1983; 73 (5): 500-505.

13. Robinson B, Mobley E and Pointer M. Is dental health education the answer? J Amer Dent assoc1967; 74: 124-128

14. Harold L. Applewhite. Dental Health Education in the Schools. American Journal of Public Health. September 1970; 60 (9):1835-1838

15. William J. Putnam, Robert M. O'shea. Communication and Patient Motivation in Preventive Periodontics. Public Health Reports 1967; 82 (9): 779-784.

16. Seow WK, Cheng E, Wan V. Effects of oral health education and tooth-brushing on mutans streptococci infection in young children. Pediatr Dent. 2003 May-Jun 25 (3): 223-228

17. GrazynaSmiech-Slomkowska and Joanna Jablonska-Zrobek. The effect of oral health education on dental plaque development and the level of caries-related Streptococcus mutansand Lactobacillus spp. European Journal of Orthodontics. 2007; 29: 157–160.

18. Wang SY, Yang YH, Chang HP. The effect of an oral hygiene instruction intervention on plaque control by orthodontic patients. Journal of Dental Sciences 2007; 2 (1): 45-51.

19. Cohen L, Snyder T, LaBelle A. Determinants of oral health in university students. ClinPrev Dent 1983; 5: 17-21.

20. Budtz-Jørgensen E, Mojon E, RentschA et al. Effects of an oral health program on the occurrence of oral candidosis in a long-term care facility. Community Dent Oral Epidemiol 2000; 28: 141–9.

21. Charles E. Bell, Thomas M. Lasater, James S. Sawyer. Communicating Dental Hygiene Practices to Chronically, Emotionally Ill, Hospitalized patients. American Journal of Public Health. 1973; 63 (9): 778-781.