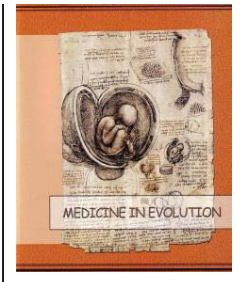


Teachers and oral health education in ROMANIA: a questionnaire based study



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Abstract

Teachers and schools have the opportunity to play an essential role in developing healthy habits in students. Their purpose is to determine behavioral patterns at this stage of a child's development. Many oral health problems can be prevented, and their early onset can be reversible. However, a considerable number of children, parents and teachers have limited knowledge of the causes and prevention of oral diseases. Oral health can be promoted by improving education and correct information about risk factors, as well as encouraging the population to adopt healthy behaviors and lifestyles.

Keywords: education, oral health, oral hygiene, program, prevention

INTRODUCTION

Students' education on oral health is crucial because healthy oral habits are developed during childhood. Hewitt C.N. talks about the importance of passing on knowledge about oral hygiene to children (infants, preschoolers or school-age children) since 1878 (1,2). Children spend a considerable amount of time in school, especially at the age where habits and behavioral patterns are formed (3,4). The school represents an effective platform for promoting oral health, as it reaches over 1 billion children worldwide (3). Teachers can play a critical role in developing healthy habits in their students. Therefore, their role during these stages of a child's development and well-being is essential. (4,5)) The need to promote health in schools is obvious and could be integrated into school curricula and activities carried out during school hours. Children can develop skills that will allow them to make healthy decisions or adopt a healthy lifestyle in the future. Many oral health problems can be prevented, and their early onset can be reversible (6,7,8). However, in many countries, a considerable number of children, parents and teachers have limited knowledge of the causes and prevention of oral diseases. Oral health can be promoted by improving knowledge about risk factors (bacterial plaque, smoking, high-sugar foods) and encouraging people to adopt healthy behaviors and lifestyles. It can also be promoted through initiatives aimed at ensuring a favorable school environment.(9,10,11,12) A stress-free environment, where smoking is prohibited, healthy foods are available so that children can benefit from adequate nutrition, can help reduce the risk of impaired oral and general health and promote a healthy and sustainable lifestyle. Running water and sanitation facilities are essential for teeth brushing and prevention of cross-infections. Schools have an enormous capacity to support programs involving preventive dentistry for children. Numerous studies have been conducted worldwide that have demonstrated the attitude, knowledge, practices and desire of teachers to promote oral health among children in schools. (9,12,13,14). Studies in Romania, China, Saudi Arabia have reported positive attitudes and knowledge about oral health among teachers and that they have expressed a desire to participate in oral health promotion (15,16,17). All of this research demonstrates that providing oral health education in schools helps children develop personal skills, provides knowledge about oral health, and promotes positive attitudes and healthy behaviors. (18,19,20)

A 2018 study don by Graca S.R. and Cuculescu M. et.all, involving 455 adolescents, demonstrates that in Romania adolescents gather their knowledge on oral health problems in a percentage of 23.9% from the Media (internet, TV), 52.2% from the dental offices (doctor dentist), 10.6% from the family and only 6.9% from school. These results raise the following questions: 1. If the Romanian schools have sufficient resources (material and human) to carry out health education for children and 2. If teachers possess enough knowledge about oral health and are interested in their own oral hygiene enough in order to be able to transmit correct information.

Aim and objectives

The purpose of this pilot study is to examine the potential of promoting oral health in Romanian schools through teachers, as well as the level of oral health knowledge held by teachers regarding the notions of oral hygiene, the degree of their involvement in educational activities for oral health and how to apply the notions of oro-dental health in schools.

MATERIAL AND METHODS

The present study was conducted on the basis of a questionnaire carried out during a time period of two weeks in September 2019, on a sample of 61 teachers, who work in public schools in Romania. The study participants were: teachers (primary school, grades 0- IV) - 42

(14 rural areas, 28 urban areas), teachers (gymnasium, grades V - VIII) - 19 (8 from rural areas, 11 urban areas). The self-report questionnaire was realised using the application "Google Forms", and the interpretation of the results using Google Sheets. The administration of the survey was made online, through specialised Romanian teacher groups by voluntary participation. The data were collected using a structured questionnaire, which assessed the dental knowledge, attitudes and practices of teachers who teach in Romanian schools, the questionnaire having a total of 43 items as closed questions. The survey was divided into 2 parts: the first referred to the oral health topics encountered and taught in the school curriculum (20 questions), and the second referred to the teacher's personal attitude and practices related to oral health (23 questions), wanting to see if the information they teach are correct and current.

RESULTS

During the implementation of the questionnaire, 61 teachers participated voluntarily. The collected data was introduced in Microsoft Excell and descriptive statistics were used to assess the results obtained from the survey. This study presents an overview that includes the knowledge, attitudes and practices of teachers in Romanian schools in relation to oral health.

Part I of the questionnaire

Socio-demographic data: Out of 61 teachers, 16.4% were men and 83.6% were women. A large number (63.9%) came from urban areas and 36.1% from rural areas; 68.9% of them taught teaching in primary schools (grades 0-IV), while 31.1% taught in gymnasium (Grades V-VIII).

The results were the following: according to Figure 1, most teachers mention the following topics regarding oral health to students in class: frequency of tooth brushing (43%), brushing technique (38%), dental check-ups (16%) and frequency of changing the toothbrush.

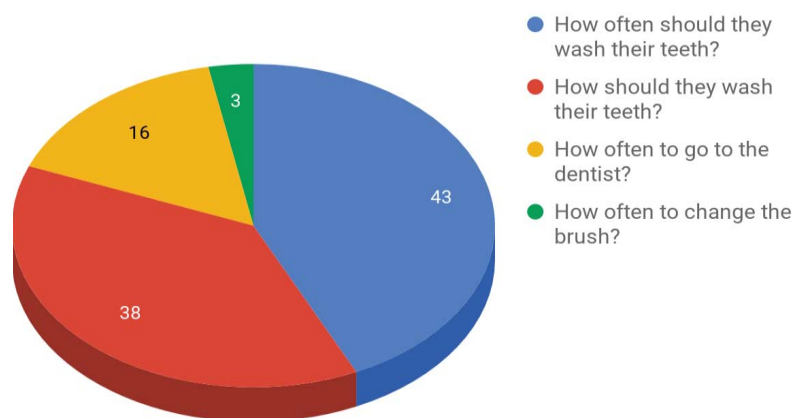


Figure 1. Which of the following oral health topics are discussed with students in the classroom? In percent

According to Figure 2, 74.5% of the surveyed teachers have reported that they noticed the absence of children from class due to dental pain, 78.7% of the children visited the dentist to solve the medical problem, and 9.8% did not. (fig.2)

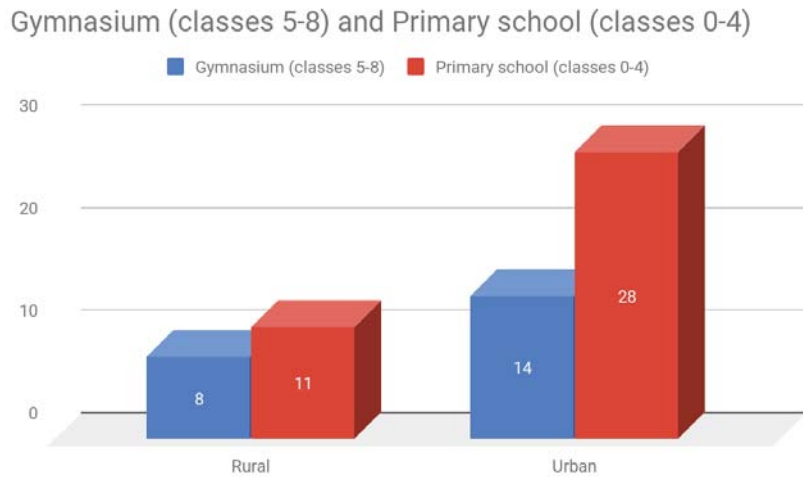


Figure 2. Figure 2. Absence of children from classes due to dental pain observed by teachers in rural and urban areas

Most teachers (59%) claim that they noticed interest from the parents regarding the dental hygiene of the child and 41% report that they did not see any interest from the parent regard.

When asked about the integration of oral health in the school curriculum, 58.3% of the surveyed teachers considered that it was poorly integrated, 35% that it was well integrated and 6.7% did not know how to answer the question.

According to Figure 3, the notions about oral health education provided were as follows.

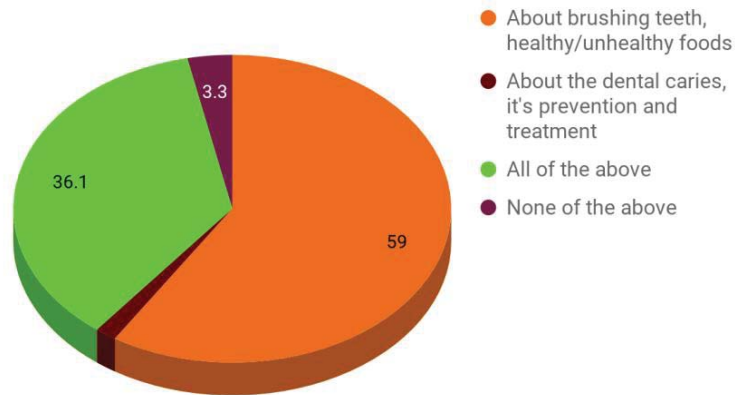


Figure 3. What kind of education did you try to offer in terms of oral health to students? In percent

Part 2 of the questionnaire

The second part of the survey refers to the knowledge and attitudes of teachers related to individual oral health and personal oral hygiene practices.

The first 4 questions inquire about the teachers' attitudes towards oral health, the following 12 about teachers' knowledge of oral health, and the last 7 about personal hygiene practices.

Knowledge:

When teachers' attitudes towards oral health were measured (Table 1), it was observed that the vast majority of teachers (88.5%) recognized that maintaining oral health is an individual responsibility. About 95 % of teachers stated that regular visits to the dentist are necessary to maintain good oral health.

However, 96.7% claim they are aware of the role that oral hygiene plays in general health. It has been noticed that these people have some erroneous information, one of the examples being the answers given to the question regarding the movements used in brushing (figure 4).

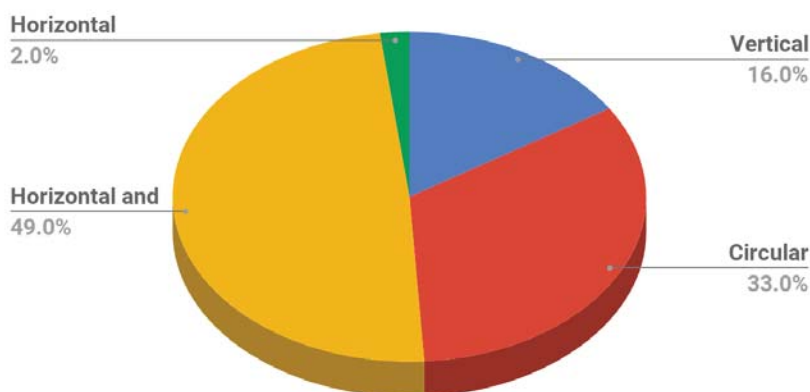


Figure 4. What movements should be used when brushing our teeth?

Almost all teachers (96.7%) knew that a clean oral cavity can prevent cavities and tooth loss, at the same time 13.1% did not know that the dentist can perform a professional hygiene procedures. Most teachers, (78.7%) know that the toothbrush should be changed once every 3 months and 3.3% do not know exactly when it should be changed. It points out that some teachers have erroneous information, and this information is subsequently passed on to students. As auxiliary means to achieve proper oral hygiene, teachers who completed the survey know the importance of the use of: mouth water (55%), dental floss (25%), toothpicks (10%), mouthwash (6.7%) and 3.3% other methods than those mentioned in the questionnaire.

Only 46% of teachers were aware of the use of dental floss.

DISCUSSIONS

Primary schools and preschools have great potential to influence a child's health behavior. During this period, the child goes through active stages of development. The role of teachers during these stages of a child's development is crucial. Therefore, teachers and professors can play a major role in school-level oral health education programs. Schools have an enormous capacity to support programs involving preventive dentistry for children. (5,8,9,18)

The present study shows that the majority of teachers that participated in this study were women. This is a reflection of the demographic area of teachers in Romania, where the study took place.

Our aim in this study was to assess the knowledge and attitudes of teachers' oral health towards oral health practice by administering questionnaires. However, the use of surveys has its own limitations. Almost all teachers were aware of the importance of a healthy oral cavity. Most teachers visited the dentist if there was a problem. This vision was very similar to the study conducted by Paul Langet et al. Not all teachers were aware of the importance of regular visits to the dentist, but most of them did. This was consistent with the research by Ramroop et al and Chikte et al.

In the present study, just over half (59%) of the teachers who answered the questions in the questionnaire reported that oral health topics currently exist in the current school curriculum, but 77% of them believe that there is a possibility to improve the curriculum by introducing several notions of dental hygiene. 65.6% were trained to provide oral health education and 96.7% tried to provide oral health education to their children in school.

Slightly different results were found in the study conducted by Maganur PC, Satish V, and collaborators in "Knowledge, Attitudes, and Practices of School Teachers towards Oral Health in Davangere, India" (18), where all teachers took into account that Oral health topics were included in the school curriculum, most school teachers (83.33%) were trained to provide oral health education and (83.33%) tried to provide oral health education to children in school.

All teachers, regardless of their experience, had acceptable scores for their attitude towards oral health. This showed that some did not have good knowledge, but still had positive attitudes about their oral health. These results are similar to the previous study by Wyne et al., Ahmed and Sukhabogi et al.

Oral health education can be taught as a specific subject or as part of other subjects, addressing the physical, psychological, cultural and social determinants underlying oral and general health. The teachers, in this study, showed more knowledge about the consequences of brushing the teeth occasionally, 78.7% ticked all the correct answers to this question, 19.6% ticking only one of the 4 correct answers provided. In the study conducted by Maganur PC, Satish V, in India, a very small number of teachers correctly ticked all the correct answers 17.3%, most of them offered only one of the correct answers.

In the present study, more than 50% of teachers were aware of fluoridated toothpastes, observations which were similar to the study of teachers in South Africa (17,18) who also had adequate knowledge about fluoride. However, in contrast, around 37.3% did not have knowledge about fluoridated toothpaste in our study. This being similar to the study conducted by Ankita Moṭa et al and HD Sgan et al⁷ who reported that half of the teachers did not know about fluoridated toothpaste.

About 54% of the teachers who participated in our study has no basic knowledge about dental floss. These results indicate that there is a need to improve knowledge about the use of dental floss, as this means of sanitation helps to remove plaque and other interdental debris. Intervention to increase the knowledge and subsequent use of dental floss is essential and is in line with other studies.

This study may also have some limitations. First of all, the questionnaire was made online and was based on the voluntary cooperation of the available teachers in a time period of two weeks in which the survey was implemented. Moreover, it should be mentioned that the teachers who participated in this study are a small sample of Romanian teachers, which could also result in inaccurate findings.

CONCLUSIONS

Currently, the school curriculum has topics on oral health and its importance. Teachers have the necessary reach in order to educate and motivate students in such a way as to maintain their oral health, thus efforts must be made to involve all teachers in the development of the children regarding oral health. All teachers should be trained at regular intervals on the importance of oral health and raise awareness of the promotion of oral health for their students, with the help of health staff or organizations. Even though most teachers have satisfactory knowledge of some aspects of preventive oral health, they still lag behind in terms of knowledge in some crucial parts of it. There is a clear and immediate need for teacher training programs on basic knowledge of oral health, such as workshops. Although all teachers claimed that they have visited a dentist when they needed it, not every one of them was aware of the role and importance of oral health as part of general health and not everyone knew that the dentist could perform professional hygiene procedures.

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