

Emergency Management of Dental Trauma among Physical Education Teachers of 2 Districts in Karnataka, India

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World Health Organization theme for the year 2002 says, 'move for health', which emphasizes on the role of physical activity in the healthy living of an individual. During these physical activities, injuries to the face and trauma to primary and permanent teeth are common^[1]. Since a high proportion of dental trauma occurs during physical education classes in school^[2], it would be desirable for physical education teachers to be capable of managing such injuries. The present study aimed to assess the knowledge of physical education teachers about emergency management of dental trauma in Dakshina Kannada and Udupi districts of Karnataka, India.

A self administered questionnaire was mailed to 401 physical education teachers of Mangalore and Udupi along with an informed consent form and a self addressed paid postage envelope, in the month of January 2013. A questionnaire used by Chan et al^[3] was modified and made available in both English and Kannada. The first part of the questionnaire contained questions on sociodemographic details and the second part contained questions on knowledge of dental injuries and management of avulsed teeth. Reliability was assessed by test-retest method ($\rho=0.8$, good reliability).

Only 243 questionnaires were returned, the response rate being 60.5%. Of them, 67.9% were males and 32.1% were females. About 40.7% were in the age group of 40-49 years. About 93.4% had more than 5 years of teaching experience, 99.2% had a formal teachers training and 94.2% had first aid training. However, only 24.7% of them had training regarding management of dental trauma. When asked about the treatment options for a child with broken front tooth due to injury, only 34.2% of the study participants' said they would contact the child's parent to take to a dentist. When asked about avulsion due to trauma, only 18.9% of the teachers responded correctly that they would place the tooth back and take the child to dentist.

When asked about need for further training for management of dental trauma 81.9% responded positively. When asked whether primary teeth needs to be replanted, about 45.7% of the study participants felt that a primary tooth need not be replanted. Very few of the participants 12.3% answered correctly that the tooth should be put back into the socket without scrubbing or washing. Only 1.6% were aware that child's mouth is the best transportation media used when taking tooth to dentist if it has not been replanted. When asked which liquid is preferred for washing an avulsed tooth, about 53.1% responded correctly as tap water.

The participants were categorized based on their age as >20 years, 20-29 years, 30-39 years, 40-49 years, >50 years and based on the teaching experience as >1 year, 1 year, 2 years, 3 years, 4 years, > 5 years. There was no significant difference among the age groups and years of experience for mean knowledge scores using One way ANOVA ($P=0.2$ and $P=0.3$ respectively). Females scored better than the males for knowledge scores which was statistically significant using unpaired t test ($P=0.04$).

Physical education school teachers should ensure a safe environment with an aim to reduce dental trauma. It is the responsibility of the physical education teachers to strongly recommend the use of mouthguards during contact sports. The level of knowledge of physical education teachers of Dakshina Kannada and Udupi districts on the management of dental trauma appears to be inadequate. It is been noticed that physical education teachers felt the need for training in the management of dental trauma as part of their training programme because most of them lacked the knowledge on management and practiced inappropriate methods, which could lead to disability or loss of tooth.

Key Words: Trauma, Teeth; Physical Education Teachers; Emergency Management

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