

# AWARENESS AMONG ATHLETES ABOUT MOUTH GUARD AMONG CHENNAI POPULATION

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## ABSTRACT

**AIM:** To study the awareness among athletes about mouth guard among chennai population

**BACKGROUND:** Sports and exercise are associated with improved health, although some practices can increase the risk of traumatic injuries to dental and oral tissues. Dental injury is a distressing event often causes physical problems as well as psychological. The risk of athletes getting dental injuries during sports activities can be minimized by using a mouth guard and other oro-facial protective devices. The aim of this study is to determine the knowledge, attitude and practices of athletes about the dental emergency and mouth guard among Chennai population.

**Reason:** The purpose of this study was to evaluate the knowledge, attitudes, and practices of athletes about the dental emergency and mouth guard and to assess the prevalence of mouth guard use and associated factors among the study participants.

**Keywords:** Dental emergency, mouth guard, athletes

## INTRODUCTION

The practice of physical activities provides a series of benefits to people's health. However, these activities end up exposing its practitioners to the risk of certain injuries, including orofacial traumas<sup>[1]</sup>. Dental trauma, including caries lesions, periodontal disease and oral cancer, can be considered as one of the main public health problems<sup>[2]</sup>. Dental trauma is a distressing event often causing psychological as well as physical problems<sup>[3]</sup>, affecting the quality of life of the individual and his family<sup>[4]</sup>.

Most of the orofacial injuries occur during the practice of recreational and sport activities<sup>5</sup> and have a great differential: their effects can be avoided or at least minimised by wearing protective devices<sup>[1,5]</sup>. It is desirable that physical education trainers and, who have direct contact with sport practitioners, be able to provide immediate care in cases of orofacial trauma<sup>[6]</sup> because managing the avulsed tooth and/or dental fragment is directly associated with a more favourable prognosis<sup>[7]</sup>. Competitive and recreational sports activity are necessary for both psychological and physical well-being. Injury to the oro-facial region are most common during various sports activities.<sup>[8]</sup> It is known that majority of dental injuries is seen in children between ages of 8 and 11 years which accounts for 19.2% to 36% of all injuries.<sup>[9]</sup> Consequences of oro-facial trauma for children and their families include psychological effects and economic implications.

Prevention of these oro-facial injuries is a very important step because the patient does not have to suffer from accompanying disfigurement, pain and mental agony. The benefits of wearing mouth guards during contact sports is of principal importance.<sup>[10]</sup> Protective devices help to reduce the likelihood of oral trauma, cerebral hemorrhage, concussions, loss of consciousness and also death due to various mechanism. However, a high rate of dental trauma and minimal utilization of mouth guards has been reported in athletes, in spite of having adequate information about its usage.<sup>[11]</sup>

Hence, the aim of this study was to evaluate the knowledge, attitude and practice of athletes about the dental emergency and mouthguard among chennai population

## MATERIALS AND METHODS:

Subjects for the study comprised of athletes from various schools, college and sports academies situated in and around chennai. In order to assess knowledge, attitude and, a questionnaire type proforma consisting of both open ended and close ended questions was distributed among them. Anonymity of the participants was maintained. The questionnaire was designed to obtain information

on games or activities causing dental injuries including tooth fractures, storage media and the importance of mouth guards in the prevention of oro-facial injuries. The values were taken and the values were entered and evaluated using SPSS software and the results were analyzed.

**RESULT:**

Details about the results are given in table 1 and the analysis of the data is graphically represented above.

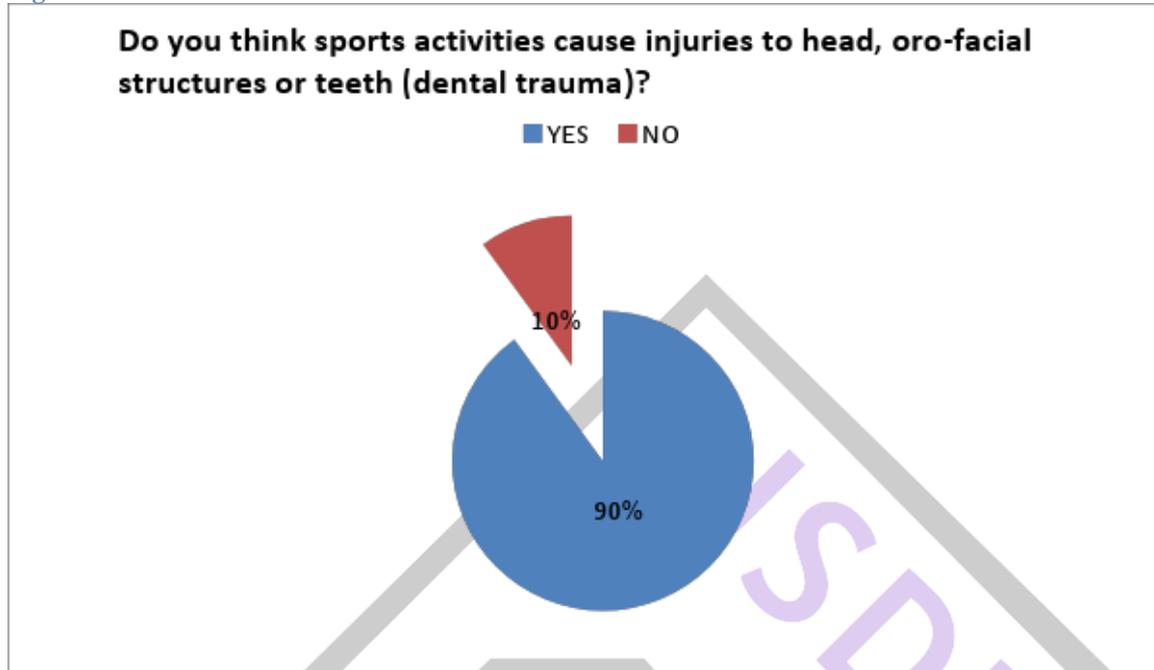
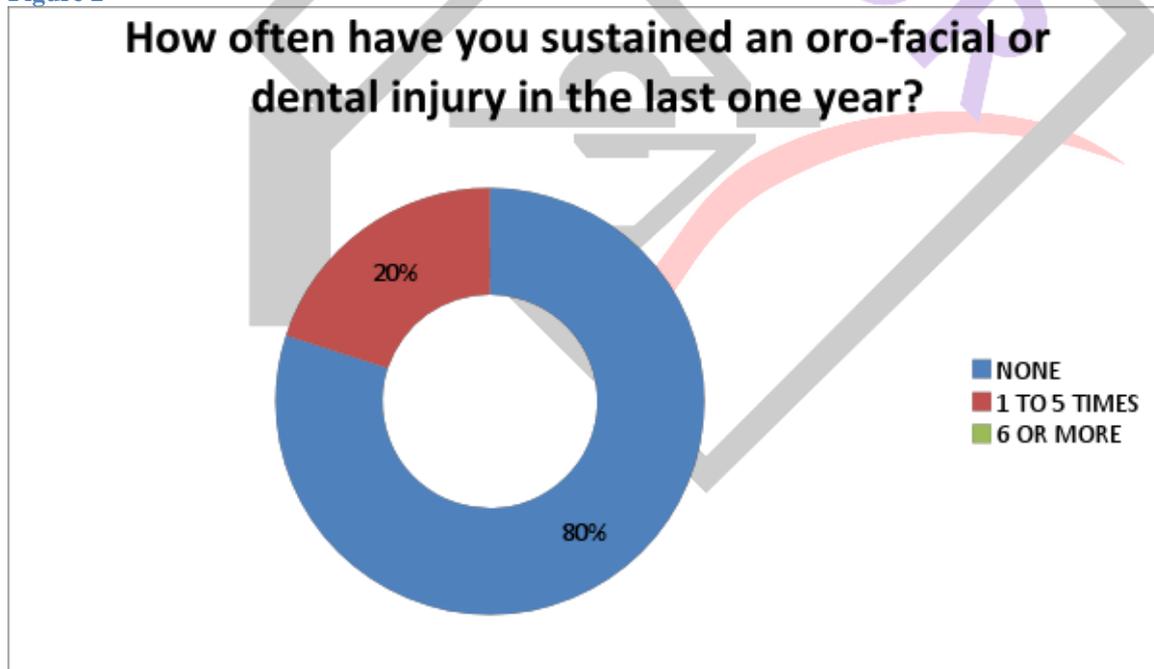
**Figure 1****Figure 2**

Figure 3

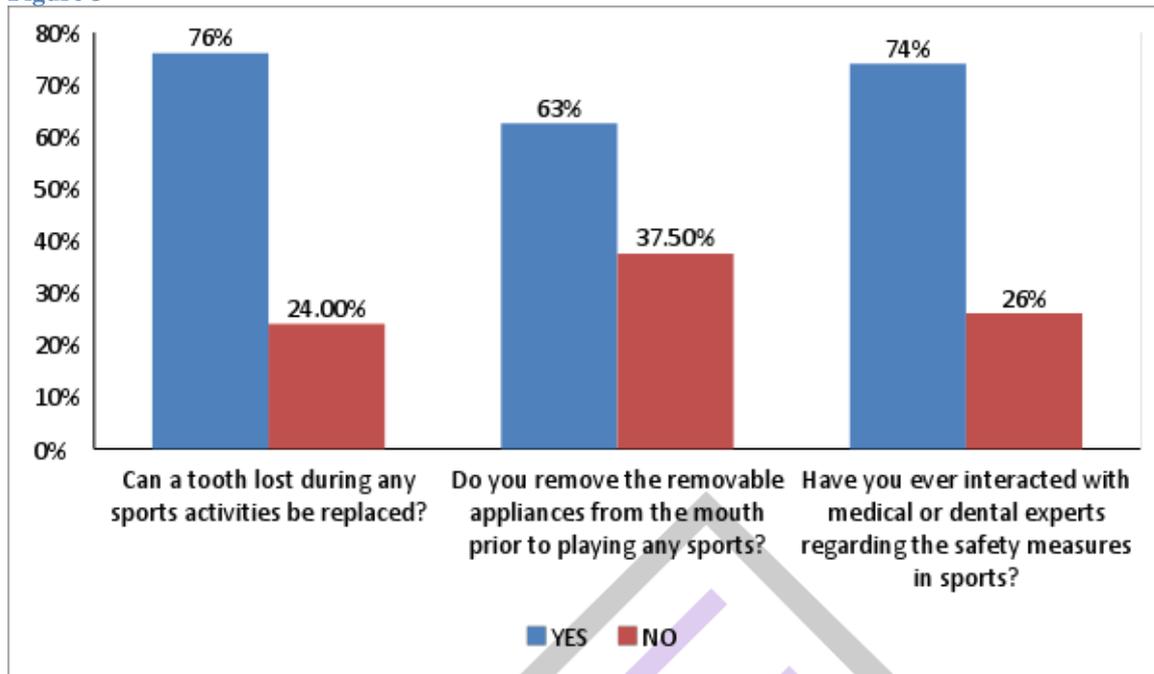


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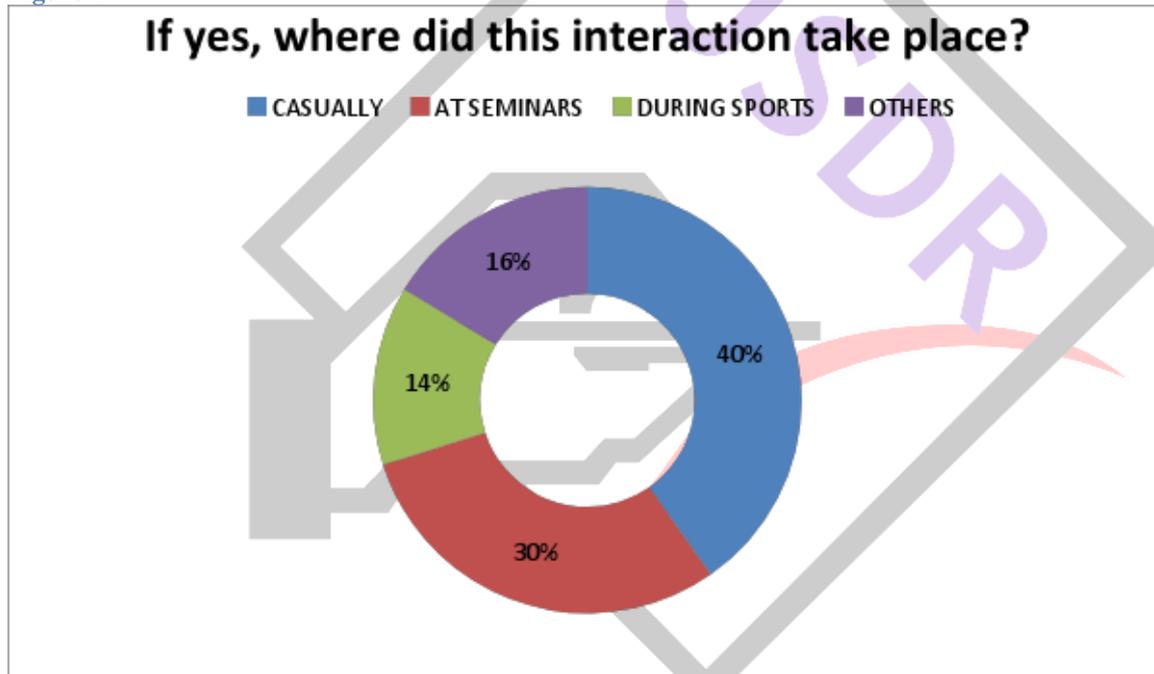


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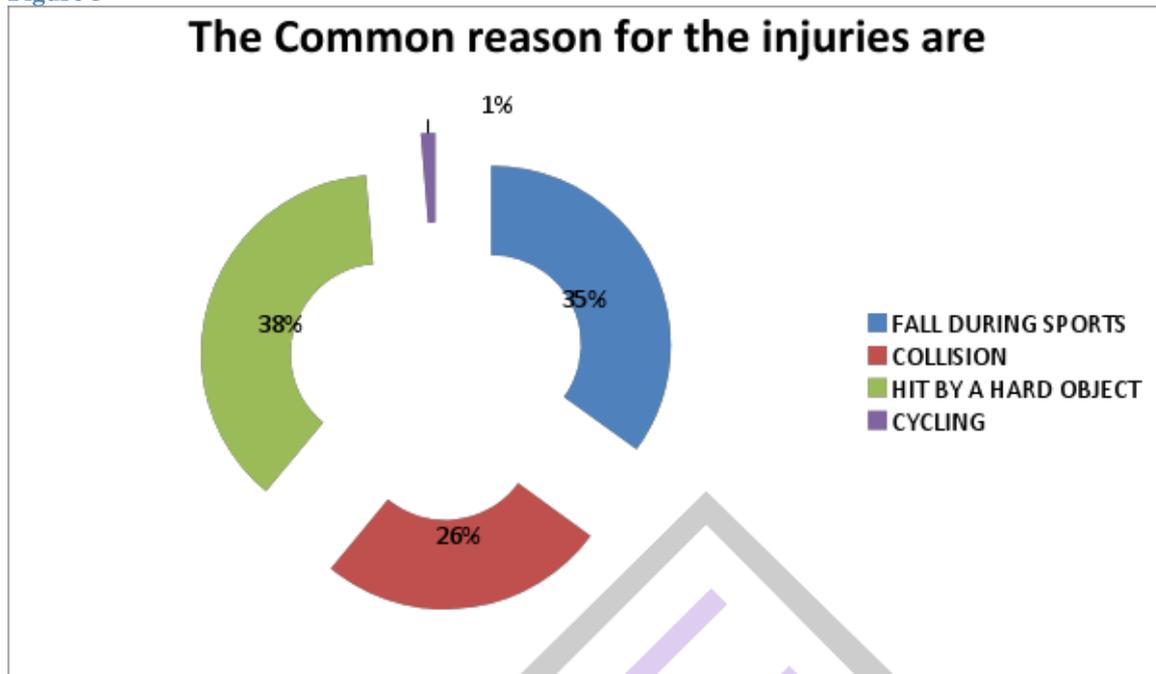


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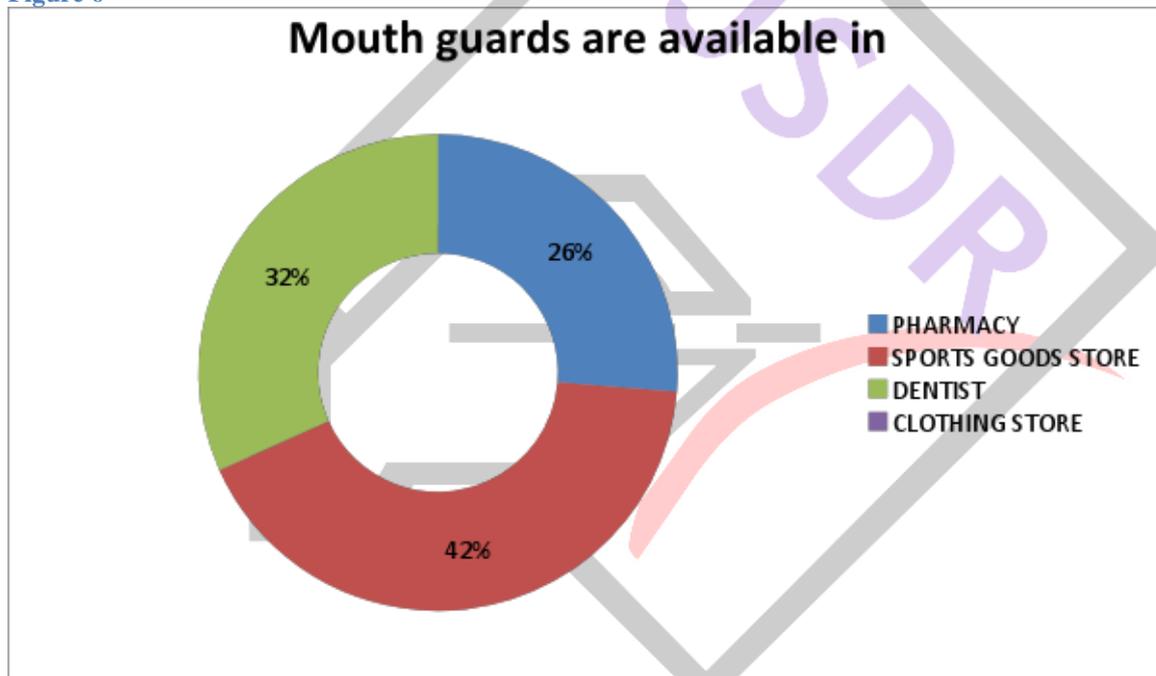


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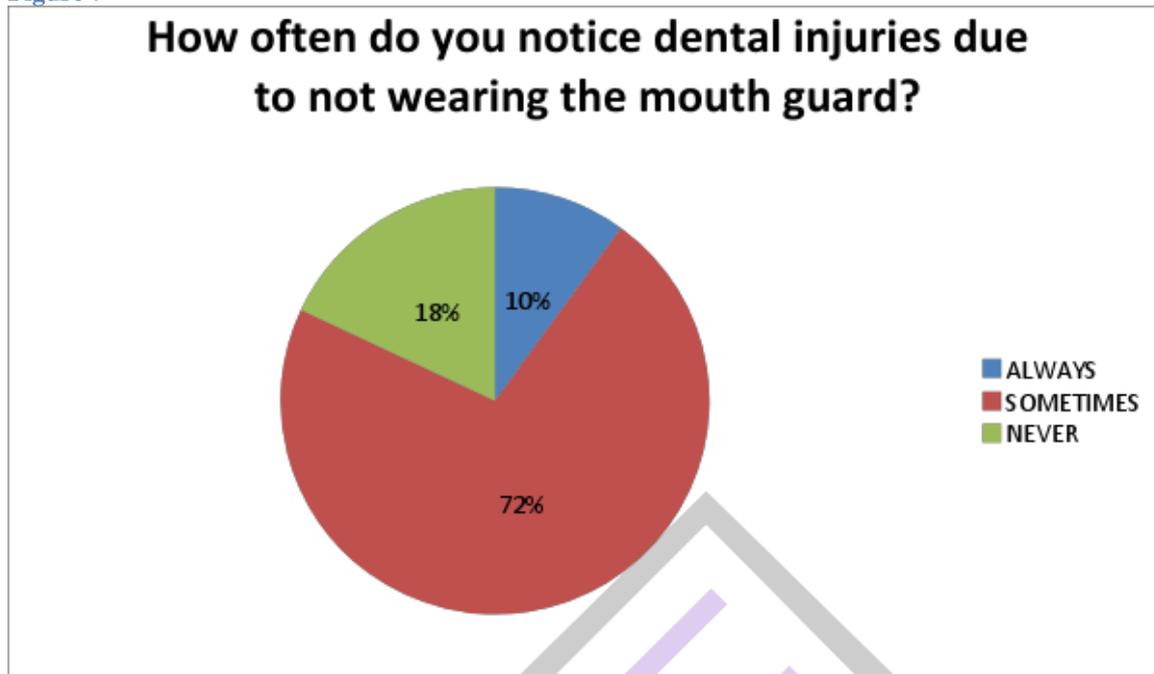


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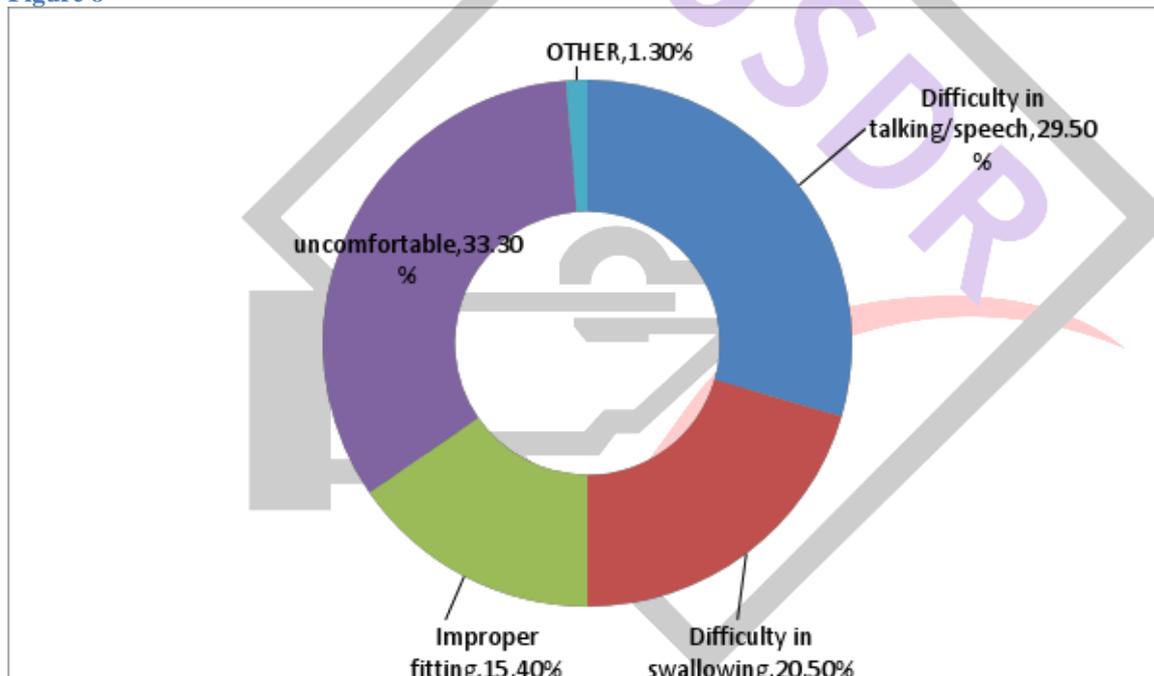


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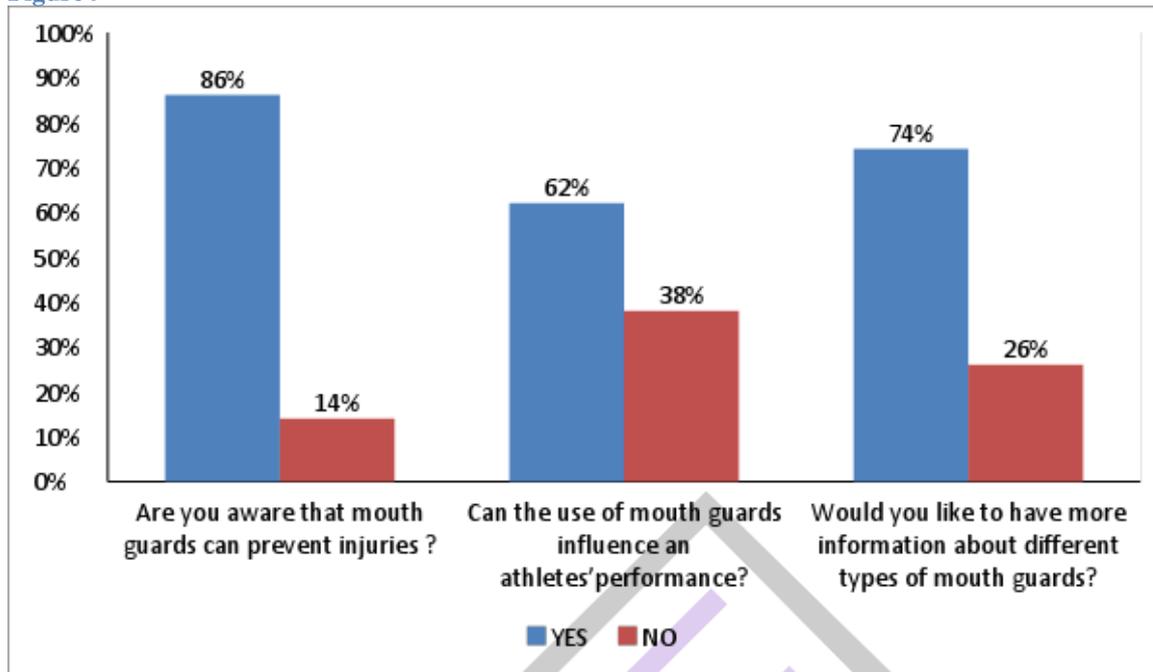


TABLE 1

Do you think sports activities cause injuries to head, oro-facial structures or teeth (dental trauma)?	YES-90% NO-10%
How often have you sustained an oro-facial or dental injury in the last one year?	NONE-80% 1 TO 5 TIMES-20% 6 OR MORE-0%
Can a tooth lost during any sports activities be replaced?	YES-76% NO-24%
Do you remove the removable appliances from the mouth prior to playing any sports?	YES-62.5% NO-37.5%
Have you ever interacted with medical or dental experts regarding the safety measures in sports?	YES-74% NO-26%
If yes, where did this interaction take place?	CASUALLY-40.6% AT SEMINARS-29.7% DURING SPORTS-13.5% OTHERS-16.2%
The Common reason for the injuries are	FALL DURING SPORTS-35% COLLISION-26% HIT BY A HARD OBJECT-37.7% CYCLING-1.3%
Are you aware that mouth guards can prevent injuries ?	YES-86% NO-14%
Mouth guards are available in	PHARMACY-26.3% SPORTS GOODS STORE-42% DENTIST-31.7% CLOTHING STORE-0%
How often do you notice dental injuries due to not wearing the mouth guard?	ALWAYS-10% SOMETIMES-72% NEVER-18%
Can the use of mouth guards influence an athletes' performance?	YES-62% NO-38%

Sports person do not like to use mouth guard because of	DIFFICULTY IN TALKING/SPEECH-29.5% DIFFICULTY IN SWALLOWING-20.5% IMPROPER FITTING-15.4% UNCOMFORTABLE-33.3% OTHER-1.3%
Would you like to have more information about different types of mouthguards ?	YES-74% NO-26%

## DISCUSSION

The importance of using mouth guards during sports has been widely recognized. Injuries, including dental and soft tissue injuries, jaw fractures, concussions and neck injuries, have been drastically reduced by the use of these protective devices.

The mouth guard is a resilient appliance placed in the oral cavity to decrease injuries, mainly to the teeth and surrounding structures. Mouth guards distribute the impact of a “blow” evenly throughout the mouth, lessening the chances of injury and generally made from Ethylene

Vinyl Acetate (EVA). The use of mouth guards are highly recommended as it is non-toxic, has minimal moisture absorption, elastic and because of the ease of manufacture.[14] The Academy for Sports Dentistry (ASD) “recommend the use of custom made mouth guard made over a dental cast and delivered under the supervision of the dentist. The ASD strongly recommends, encourages and supports a mandate for use of a properly fitted mouth guard in all collision and contact sports.[12]

Therefore, the focus of our study was to evaluate the knowledge, attitude, and practices of athletes.90% of the participants are aware that sports activity can cause injury to oro-facial and dental related trauma. The healthcare provider should implement preventive measures to individuals who take part in different kind of sports and recreational activities and are at a risk of oro-facial injuries. Boxing, football was considered to be the main cause of oro-facial injuries, which is in accordance with the earlier Indian study.[13] Ironically kabadi and karate which are also a kind of contact sports were not considered to be a common cause for dental injuries.. This is a matter of concern, as the game is played very often at schools and playgrounds without adequate protection for the players.only 86% are aware about the mouth guard can prevent injury This was due to their lack of knowledge on the availability of these devices.

The main source for the information was only the media. Also, in our country, there are no regulations that strictly enforce the usage of oro-facial protective devices in schools and gyms.

About 76% of participants are aware the tooth lost during any sports activity can be replaced.

This could have been due to the interaction some of them had with dental experts during their training period. As 76% of participants were willing to gain more knowledge about mouth guards, it is necessary for health professionals particularly pediatric and general dentists, in association with sports organizations to educate athletes on the availability and the types of mouth guards and promote its use widely.

## CONCLUSION:

The majority of athletes were aware about the incidence of oro-facial injuries and oro-facial protective devices. They also agreed on the protective effectiveness of mouthguards against sports related oro-facial injuries. They lack information about professionally fitted mouth guards and the source of its availability. These findings suggest that knowledge alone, on the use of mouthguard, does not ensure its practical utilization. The present study also suggests the need for educating athletes, as they would like to have adequate information on mouth guards. Athletes should be made aware that the cost of the mouth guard and the inconvenience of wearing one are less significant as compared to the benefits of wearing it.

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