trends were the same for survival to reintervention and for survival to extraction.

DISCUSSION

Better survival was associated with smaller restorations and restorations located in posterior areas. In addition, younger patients had better amalgam restoration survival than those placed in older patients. Patient history of frequent visits to the dentist or higher annual treatment costs was also associated with a shorter time to reintervention or to extraction.

Burke FJT, Lucarotti PSK: The ultimate guide to restoration longevity in England and Wales. Part 2: Amalgam restorations—time to next intervention and to extraction of the restored tooth. *Br Dent J* 224:789-800, 2018

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SMOKELESS TOBACCO

Sports-related use of smokeless tobacco

BACKGROUND

Although smoking among youth has declined, the prevalence of youth using smokeless tobacco (ST) in 2015 rose to the same level as their use of cigarettes. Snuff and chewing tobacco products are linked to oral and pancreatic cancer as well as periodontal disease, dental caries, tooth loss, mucosal lesions, and other adverse oral conditions. The use of ST among major league baseball (MLB) players may be a factor in tempting youth to take up the habit. Dental professionals are likely to have youth among their patients who use or are tempted to use ST. This gives dentists the opportunity to counsel these patients regarding the dangers of using ST and hopefully will lead to them quitting or never beginning it.

METHODS

Tobacco behavior surveys were given to 360 male baseball players (mean age 15.8 years) at 25 rural California high schools. In addition, these players were asked how likely they thought it was that their favorite MLB player used ST. ST use was compared to their favorite player's use. Among ST never-users, the willingness and expectation they would use ST was judged in the context of their favorite player's use.

RESULTS

Demographically, the sample included 47% Hispanic/Latino and 41% non-Hispanic White individuals based on self-reports. Fifty-seven percent had at least 1 parent who had a college degree.

Thirty-one percent of the respondents had tried ST at least once, and 13% had used ST in the previous month. Both older age and identifying as non-Hispanic White showed a positive association with ST use.

When asked whether their favorite MLB player used ST, 8% said definitely yes, 36% said probably yes, 41% said probably not, and 15% said definitely not. The selection of MLB players included 82 players from 27 teams. The youth who believed their favorite MLB player definitely or probably used ST were significantly more likely than those who believed their favorite player did not or probably did not use ST to have tried ST themselves (38% versus 25%) and to have used ST in the previous month (18% versus 8%).

Statistical analysis showed a gradated, positive association between ST susceptibility and perceived ST use by a favorite MLB player. Those who never used ST but perceived their favorite player definitely did use ST were more likely to be willing to try ST, have positive expectations about their use of ST in the future, and to be susceptible to ST initiation compared to persons who believed their favorite player did not use ST. The relationship was robust even after adjusting for sociodemographic factors and persisted among never-users of any tobacco product.

Clinical Significance

MLB has prohibited players from carrying ST products on their uniforms but has not barred on-field use, which is often seen during telecasts. In addition, some cities have enacted ordinances to ban tobacco in MLB stadiums, although enforcement is challenging. It's unclear how influential these restrictions have been because of the wide perception that baseball and tobacco chewing are culturally intertwined. The dental team and public health professionals have the opportunity to step up and support consistent control measures aimed at tobacco use in sports and to prevent young fans from taking up the habit of using ST.

DISCUSSION

Admired MLB players who were perceived to use ST served as a strong influence on high school baseball players' current use of ST and likely future use among never-users. The dangers associated with ST use and the potential influences older athletes have on young athletes provide sufficient reason for further limiting tobacco use in professional sports.

Chaffee BW, Couch ET, Gansky SA: Adolescents' smokeless tobacco susceptibility by perceived professional baseball players' use. *J Public Health Dent* 78:5-8, 2018

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TEMPOROMANDIBULAR JOINT

Nonsurgical and surgical treatment

BACKGROUND

Temporomandibular joint disorders (TMDs) can alter jaw function, cause pain in the masticatory muscles or TMJs that can make dental care difficult to accomplish, and affect the patient's speech and eating functions. Between 60% and 70% of the general population has at least 1 sign of TMD, but just 25% of these people report the symptoms. Female patients outnumber male patients 4 to 1. These disorders are seen most often in early adulthood. The 3 most common disorders are myofascial pain and dysfunction, internal derangement, and osteoarthosis. Myofascial pain and dysfunction accounts for the majority of cases and is primarily a muscle disorder resulting from oral parafunctional habits and sometimes related to psychogenic disorders. Internal derangement refers to an abnormal position of the articular disc, which causes mechanical interference and restricted mandibular activity or hypermobility. Osteoarthrosis is a localized degenerative disorder that affects mainly the articular cartilage of the mandibular condyle of the TMJ and is more common in older patients. Nonsurgical treatment is undertaken in 90% of cases, with fewer than 10% requiring surgery. The clinical evaluation and treatment options for TMD patients were presented.

CLINICAL EVALUATION

Orofacial pain, joint noise, and restricted jaw function are the cardinal features of TMDs, with pain being the most common presenting symptom and the most difficult problem to assess. The diagnosis is based on a complete history, clinical examination, and additional investigations as indicated.

History

In addition to the primary complaint, patients may report less specific problems such as headache and tinnitus. Pain onset, nature, intensity, site, duration, aggravating and relieving factors, and how the pain relates to features such as joint noise and restricted mandibular motion should be documented. Pain centered immediately in front of the tragus of the ear and projecting to the ear, temple, cheek, and along the mandible is highly diagnostic of a TMD. It may be accompanied by a click or grating sound in the pre-auricular region that occurs during chewing or yawning. Intermittent limited mouth opening that may be progressive is also a key feature.

The patient should be asked about influences such as stress, anxiety, depression, or significant life events to assess the possibility of a psychogenic basis for the TMD. Usually, the longer the duration of the symptoms and the greater the number of treatments the patient has undergone, especially failed ones, the less likely it is that the patient will respond well to further treatments unless a psychogenic cause can be identified.

Clinical Examination

Palpation should be done to assess the presence of tenderness in the pre-auricular region while the patient opens his or her mouth. Pain specifically located in the pre-auricular area often indicates actual joint pathology. Digital palpation of the masticatory muscles can also identify areas of tenderness, trigger points, and pain referral patterns, which can be mapped out to demonstrate the extent of the pain.

The examination should also evaluate joint sounds and their location during opening, closing, and lateral excursions of the mandible. Clicking reliably indicates internal derangement. Grating/crepitus is more likely to indicate advanced degenerative joint disease.

Mandibular function is evaluated by determining if the line of vertical opening is straight and smooth or deviates with jerky movements, indicating pathology of the joint. The range of painless maximal vertical opening is normally 40 to 55 mm interincisally. Measures less than 40 mm indicate limitation, and less than 30 mm require urgent attention and referral.