

# “Substance and physical abuse: the effects on oral health”

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Substance abuse is an escalating health problem. Apart from the serious consequences experienced by drug users, such abuse negatively affects the operational activities of law enforcement officers, teachers and health care workers. Adverse pharmacological and physiological effects predispose to permanent changes in neurological processes, to increasingly violent and high-risk sexual behaviour, to a higher susceptibility to HIV and to a detrimental effect on oral health with a consequent decrease in the quality of life.

Social concerns include absenteeism, an increasing crime rate, a deterioration in psycho-social functioning and overburdened psychiatric institutions. The mouth of a patient who is practising substance abuse shows a clinical picture which includes generalised caries, periodontal disease, mucosal dysplasia, xerostomia, tooth wear and tooth loss.<sup>1</sup>

The main categories of drugs involved in abuse include opiates, cannabis, hallucinogens, cocaine- and amphetamine-type stimulants and various “club” drugs.<sup>2</sup> Alcohol abuse, which is very common, is also an established risk factor for oral cancer, while the combination of heavy drinking and smoking contributes significantly towards a 48-fold increase in the risk of oral and pharyngeal cancer.<sup>3</sup> The WHO age-standardised, estimated

prevalence of smoking any tobacco on a daily basis, is 23% for males and 6% for females.<sup>4</sup>

The University of the Western Cape will be hosting the SADA theme for 2014:

**“Substance and physical abuse: the effects on oral health”.**

The rationale behind selecting this theme is to gain an opportunity to educate the public and keep dentists informed on the latest research and developments regarding this issue. Abuse is a broad multi-disciplinary problem and includes the following sub-themes:

- Effects of substance abuse on the oral cavity;
- Psychological aspects;
- The relationship between substance abuse and physical abuse (trauma);
- General and oral rehabilitation after substance abuse has been controlled;
- Physical abuse and oral health and
- Substance abuse amongst members of the dental profession.

Research has shown that alcohol consumption and experimentation with illicit drug use is increasing amongst medical undergraduates, continuing through to the first year of their being junior doctors.<sup>5</sup> In South Africa, alcohol is the dominant substance of abuse, while methamphetamine (aka ‘Tik’) is mostly used in the Western Cape.<sup>6</sup> The United Nations Office of Drugs and Crime (UNODC) reported that about 1% of all South Africans are using amphetamines and 3.65% are using cannabis.<sup>7</sup>

The estimated prevalence of disorders associated with alcohol- use is 3.64% for males and 0.88% for females

(WHO, 2004). Almost half of all non-natural deaths in this country are associated with Blood Alcohol Concentrations (BACs) greater than or equal to 0.05g/100ml, which is the legal limit for South Africa.<sup>8</sup> A 2001 study showed that 39% of trauma patients had a BAC greater than, or equal, to the legal limit.<sup>9</sup>

Drug users often present with poor oral hygiene and suffer severe adverse effects on hard and soft oral structures with subsequent pathological changes. Inadequate tooth brushing among users, hyposalivation, bruxism and an increased consumption of sugar-containing beverages can be viewed as contributing risk factors. Oral and dental evidence of physical abuse inflicted on a patient include bite marks as well as perioral and intraoral injuries, infections and diseases which may arouse suspicion during examination.<sup>10</sup>

The harsh nature of substance addiction and physical abuse in South Africa is a reality, affecting the entire country. It is therefore more than appropriate to have this topic as a dedicated SADA theme for 2014. Dentists can play a crucial role in the early detection of abuse, of whatever nature and can facilitate the restoration of the health status of a sufferer. All professionals are strongly encouraged to collaborate in providing patient education, referral to treatment centres and to offer appropriate dental care. Restoring the oral health of patients who have recovered from some form of abuse may assist them in regaining their self-esteem and may also improve their quality of life.

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## Dirk Smit

Convener for the 2014 Association Theme.

*A series of papers on this theme will be published during the year. The first appears in this issue of the JOURNAL.*