Sleep deprivation affects facial appearance

by Dental Tribune International

STOCKHOLM, Sweden: Researchers at the Karolinska Institute in Stockholm have found that sleep deprivation affects features relating to the mouth, eyes and skin. They also suggested that these features function as cues of sleep loss to other people and may thus have significant social consequences.

In order to investigate the facial cues by which individuals recognize that someone is sleep deprived, the researchers photographed the faces of five men and five women after eight hours of normal sleep and after 31 hours of sleep deprivation. Afterwards, 20 male and 20 female participants with an average age of 25 rated the photographs with respect to fatigue, facial cues and sadness.

Overall, the faces of sleep-deprived individuals were perceived as having more wrinkles or fine lines and droopier corners of the mouth, the researchers reported. The participants also stated that those who had slept less had droopier eyelids, redder eyes, eyes that were more swollen, darker circles under the eyes and paler skin. In addition, sleep-deprived individuals appeared sadder than after normal sleep, and this apparent sadness was related to looking fatigued.

“Since facial regions, such as the eyes and mouth in particular, contain a lot of information on which humans base their interactions with each other, how fatigued a person appears may affect how others behave toward him or her,” said Tina Sundelin, lead author and a doctoral student at Stockholm University’s Department of Psychology.

The study, titled “Cues of fatigue: Effects of sleep deprivation on facial appearance”, was published in the September issue of the SLEEP journal.

Coconut oil could reduce dental caries

ATHLONE, Ireland: Researchers think that coconut oil may be of great interest to the oral health industry in the future because a new study has found that its natural antibiotic properties strongly inhibit the growth of bacteria that cause oral infections.

The researchers suggest that the oil could be integrated into commercial dental consumer products to combat tooth decay.

In particular, the researchers discovered that coconut oil that had been treated with enzymes similar to those found in the digestive tract was most effective in blocking the development of most strains of Streptococcus bacteria, including Streptococcus mutans, which is a major cause of tooth decay.

Additional tests revealed that the same enzyme-modified variant of coconut oil was also harmful to Candida albicans, the yeast that causes oral thrush, among others.

“Dental caries is a commonly overlooked health problem affecting 60 to 90 per cent of children and the majority of adults in industrialised countries,” said Dr Damien Brady, who lectures in Microbiology, Environmental Science and Veterinary Medicine. “Incorporating enzyme-modified coconut oil into dental hygiene products would be an attractive alternative to chemical additives, particularly as it works at relatively low concentrations,” he added.

The research was carried out at the Athlone Institute of Technology’s Bioscience Research Institute.

The findings were presented on 3 September at the Society for General Microbiology’s autumn conference at the University of Warwick.