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Letter to the Editor

## The importance of nicotine use among winter sports athletes especially in skiers

*Dear Editor,*

We read with great interest the article by Menz et al., entitled "The use of medication and alcohol in recreational downhill skiers: results of a survey including 816 subjects in Tyrol."[1] The authors reported the prevalence of medication use and alcohol consumption in a representative population of recreational downhill skiers. The finding that 63% of skiers under medication concomitantly consumed alcohol is alarming. The Authors also reported the prevalence of smoking use. With our letter we would like to provide additional data and insights about nicotine and tobacco use in skiers.

In recent years there has been growing interest on the effects of nicotine and tobacco on exercise given its documented increase in use by athletes, in particular as smokeless tobacco products.[2,3] Recently, we investigated with two surveys the prevalence and status of smokeless tobacco use in winter sport athletes in the Italian Dolomites area (Northern Italy), a geographical area very close to Tyrol. In the first investigation, we found that 74% of the athletes who practice winter sports (n = 108) have tried snus (smokeless tobacco product) at least once, with 50% of them regular users. In the second survey on 61 regular snus users, we found that regular nicotine could induce greater satisfaction and psychological reward than occasional use.[3]

As the Authors have pointed out, the misuse of painkillers in the sport environment (i.e., not for a clinical indication), is a growing and critical phenomenon considering that evidence-based research has not demonstrated efficacy in exercise performance.[4,5] Nicotine and some analgesics, however, may be considered a potential health risk (e.g., addiction) and a possible gateway toward doping.[6,7] An interesting debate is how nicotine may modulate pain. Animal models have consistently demonstrated acute pain-inhibitory effects of nicotine/tobacco administration, while human experimental studies have generated mixed findings.[8]

In addition, it is well known that there is a high comorbidity between alcohol and nicotine use. For instance, more than 80% of patients with alcohol use disorder smoke cigarettes.[9] Furthermore, cigarette smoking affects drug metabolism via pharmacokinetic and pharmacodynamic mechanisms with possible serious adverse reactions.[10] Likewise, alcohol consumption is positively related to increased sports group identification and value.[11] The same could be considered for social reinforcing and rewarding effects of smoking.

Athletes turn to substances for various reasons and could be prone to develop substance use disorders in contexts other than sport. As Menz et al., and our studies suggested, more studies are needed on alcohol consumption, nicotine use and the possible interaction with other drugs. Monitoring is therefore highly recommended in order to prevent drug misuse and chronic licit substance use in athletes.

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