

Anti-doping knowledge and educational needs of Finnish pharmacists

Writer(s): Mikko Lemettilä 1, 4, Elli Leppä 2, Marika Pohjanoksa-Mäntylä 4, Anna Simula 3, Jukka Koskelo 4

Organisation(s): 1) Clinical Pharmacy Group, Division of Pharmacology and Pharmacotherapy, Faculty of Pharmacy, University of Helsinki, 2) Pharmaceutical Information Centre, 3) Finnish Center for Integrity in Sports FINCIS, 4) Dopinglinkki, A-Clinic Foundation

Background

Pharmacists' role in health care has evolved towards a more collaborative practice to combat current public health challenges and to support rational use of medicines. Previous literature also demonstrates pharmacists' emerging role in sports and exercise medicine, including anti-doping and health counselling of athletes. The aim of this study was to assess: 1) What is the pharmacists' self-assessed knowledge about doping and anti-doping activities? 2) How does the pharmacists' and pharmacy characteristics effect on the self-assessed knowledge about doping and anti-doping activities? 3) What educational needs do the pharmacists report about doping and anti-doping activities?

Materials and methods

A cross-sectional online survey was conducted among Finnish pharmacists in 2019. A convenience sampling method was used to reach the target group. The survey consisted of 26 questions considering pharmacists' perceptions about doping, knowledge, and need for education about the pharmacology of doping agents, anti-doping counselling, and information sources. Descriptive statistics and cross-tabulation with Pearson's χ^2 and the Kruskal-Wallis tests were used to analyse the data.

Results

A total of 246 pharmacy professionals completed a national online survey targeted at pharmacists in Finland. The average age of the respondents was 43 years (SD = 10), where 94% were females and 6% males. Pharmacists reported their self-assessed knowledge on anti-doping counselling to be poor or rather poor. Their highest needs for education were related to nutritional supplements' doping risks, substances listed as doping agents, their mechanisms of action and purpose of use, and the adverse effects of doping agents and interactions with other medicines. More information was also needed about prohibited substances and methods in sports and doping in recreational sports.

Conclusion

Pharmacists were willing to participate in anti-doping activities, including counselling athletes. However, many pharmacists perceived their knowledge as insufficient and reported educational needs that could be considered in undergraduate and continuing education of pharmacists. Universities, anti-doping organisations, and other related actors in the pharmacy and anti-doping field have an important role in providing more educational opportunities to pharmacists.