

Self-medication in fitness centers

Leclercq V¹, Dellatte J^{2,3}, Bruyère O¹, Martens G^{2,3}, Kaux JF^{2,3}

1. WHO Collaborating Center for Public Health Aspects of Musculoskeletal Health and Ageing, Division of Public Health, Epidemiology and Health Economics, University of Liège, Belgium.
2. Department of Physical Medicine and Sports Traumatology, SportS², FIFA Medical Centre of Excellence, FIMS Collaborating Centre of Sports Medicine, University and University Hospital of Liège, Liège, Belgium.
3. ReFORM, IOC Research Centre for Prevention of Injury and Protection of Athlete Health.

Email: jfkaux@chuliege.be

Background:

Self-administration of medicines or dietary supplements without any physician's advice appears to be more frequently practiced by amateur athletes. Self-administration of products like drugs or dietary supplements without medical supervision is a common practice being used world-wide and refers to the concept of "self-medication". In general population, self-medication is a widely practiced behavior for many reasons: desire to take care of oneself; lack of health service; financial constraints; ignorance; misunderstandings; abundant publicity and availability drugs other than in pharmacies. More specifically, self-medication in sportive amateur population is also a common practice. The issue, in terms of public health, of this consumption is even more important. Indeed, in order to avoid problems of injury, pain, stress, tiredness or recovery difficulties, improve performance in their sport practice, amateur athletes may be tempted to resort to self-medication. This behavior could be compounded by a loss of control over the use of medication, which could lead to doping behavior. Indeed, remedies self-administered in order to treat common health problems may contain substances prohibited by the World Anti-Doping Code and lead to inadvertent doping and potential unexpected penalties.

Objective:

The aim is to assess the prevalence of self-medication among amateur athletes who visit fitness centers and to identify the main factors influencing the self-medication. We postulate that the practice of self-medication among athletes attending fitness centers is high.

Material and Methods:

Design: We have conducted a cross-sectional study. Data was collected by an anonymous self-administrated questionnaire.

Setting: The study was made in collaboration with 11 fitness centers in Liège (Belgium).

Patients (or Participants): Our final sample was composed of 338 amateur athletes.

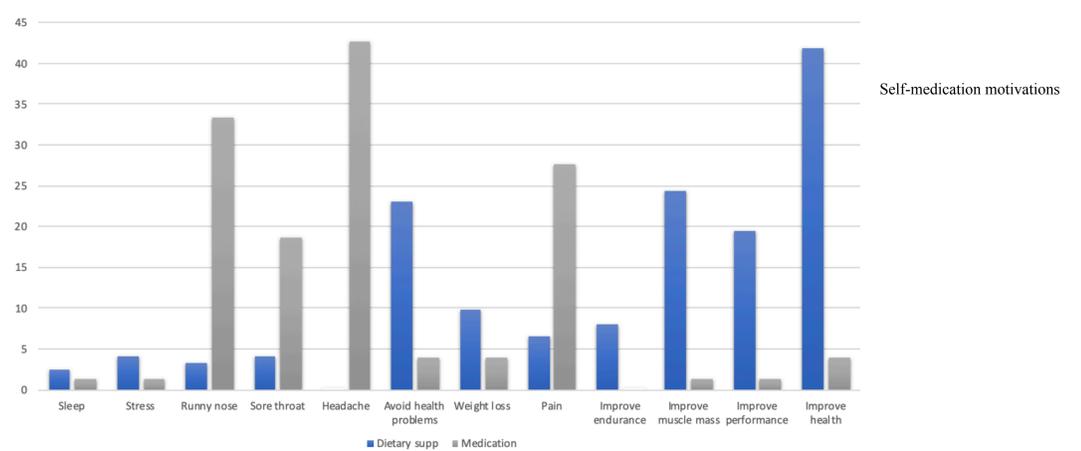
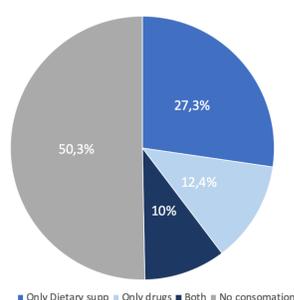
Interventions (or Assessment of Risk Factors): We assessed the prevalence of self-medication based on the sex, age, BMI, socioeconomic status, health status, duration of club membership, hours spent at the club, number of sports activities at the club, types of activities practiced at the club.

Main Outcome Measurements: The main measurement is the self-medication.

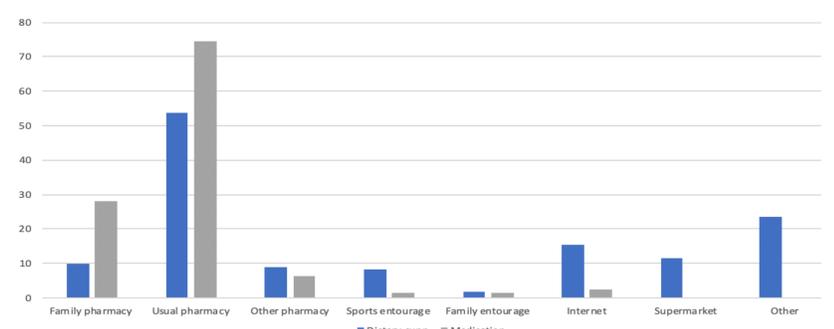
Results

Almost half of our 338 amateurs (49.7%) visiting fitness centers admitted to self-medicate in the context of sport practice. Among them 36.4% take dietary complements and 22.5% used drugs. The probability of self-medication increases significantly with the number of hours of sports practice, with the participation to body-building group lessons and with the consumption of sports drinks. Furthermore, 20% of the substances consumed, whether self-medicated or not, contained potentially doping substances.

Prevalence of self-medication



Source of self-medication



Conclusions:

We could highlight a significant prevalence of self-medication among amateur athletes visiting fitness centers. The intensity and frequency of sports practice seems to play a key-role regarding the decision to self-medication. Given the health risks entailed by these practices it seems crucial to implement information and prevention measures regarding self-medication. Moreover, it would be interesting to lead further research assessing the adverse consequences of self-medication among this specific population.