

Current state and evolution of research on the prevention and treatment of addictions through physical activity and sport

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BACKGROUND AND PURPOSE

Sport and physical activity are widely encouraged by their beneficial health effects. Drug dependence is a serious problem in today's society with serious consequences for personal health and public health. Some programs aimed at the prevention and treatment of addictions include sporting activities. The purpose of this work is to know the current state of research in this field by means of a scientometric study.

METHODS

A bibliographic search in PubMed database was performed using a search profile that included the MeSH (medical subject headings) "Substance Related Disorders" with the subheadings "Prevention and control" and "Therapy", and the following sport-related terms: "sport", "exercise" and "physical activity". The records obtained were downloaded to a database in Microsoft Access. Several bibliometric indicators were identified and calculated to assess global research on this topic.

RESULTS

- Since 1965, the year in which the first work was registered in PubMed, 415 papers were published, of which almost 50% were published in the decade 2009-2018.
- The journals that published the greatest number of articles were *Addictive Behaviours* (n=14), *Psychopharmacology* (n=10) and *Addiction* (n=8).
- Most of the journals belong to the thematic areas of drug addiction, sport sciences, public health and multidisciplinary.
- The analysis of keywords shows that the most treated subjects have to do with psychological, epidemiological and physiological aspects, as well as with adolescence, adverse effects, rehabilitation and metabolism.
- The addictions that attracted the most attention were alcoholism, smoking and cocaine. An important group of works have to do with substance withdrawal syndrome and depression.

Figure 1. Chronological distribution of papers and citations

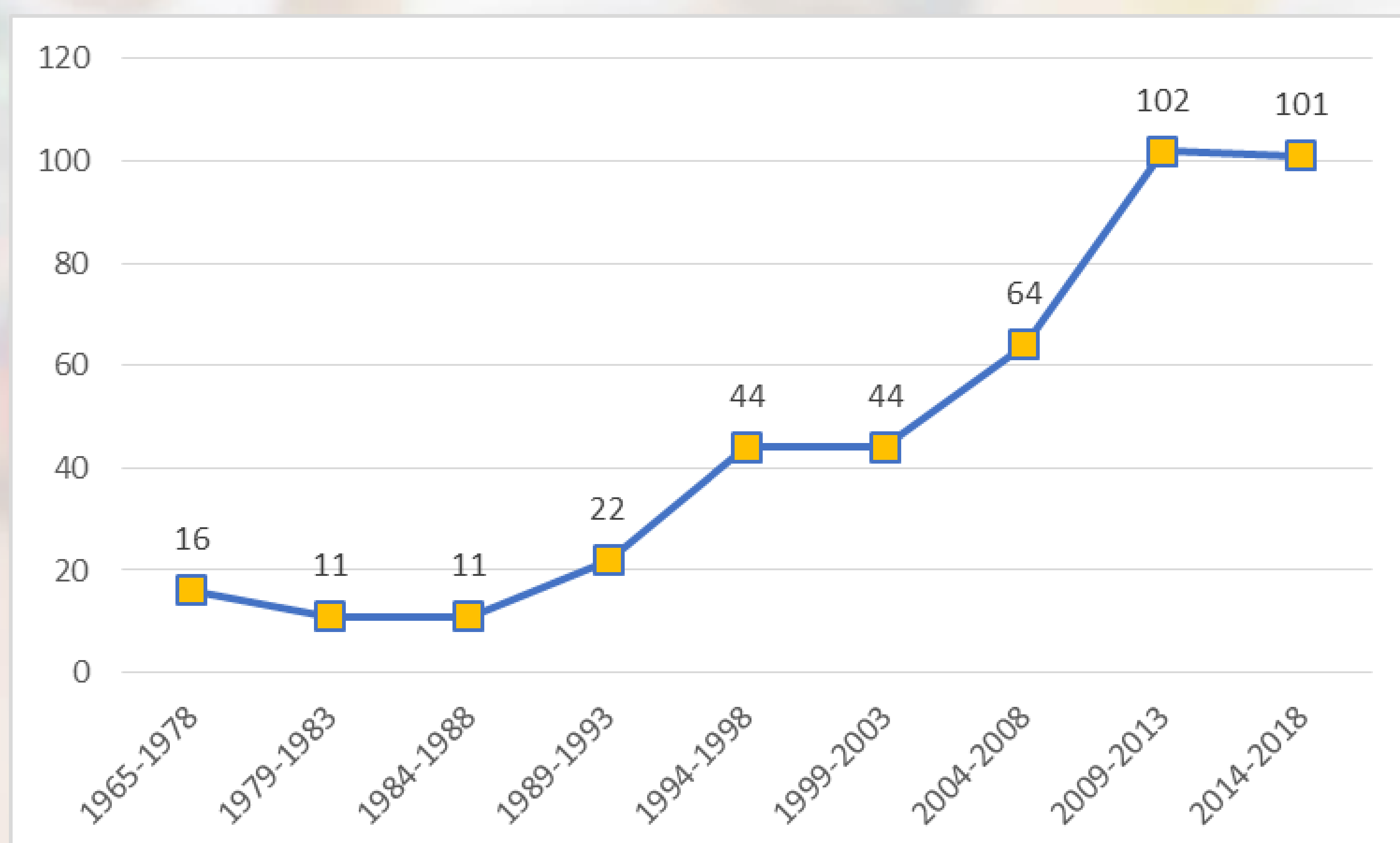


Figure 2. Key words cloud



Table 1. Journals with 5 or more papers

Journal	Papers
Addictive Behaviors	14
Psychopharmacology	10
Addiction (Abingdon, England)	8
Accident; Analysis and Prevention	7
Journal of Drug Education	6
Alcoholism, Clinical and Experimental Research	6
Nicotine & Tobacco Research : Official Journal of the Society for Research on Nicotine and Tobacco	6
Journal of Substance Abuse Treatment	6
Jama	5
Drug and Alcohol Review	5
BMC Public Health	5
Plos One	5
The New Zealand Medical Journal	5
The Journal of School Health	5
Preventive Medicine	5
The American Journal of Drug And Alcohol Abuse	5
The Journal of Adolescent Health : Official Publication of the Society for Adolescent Medicine	5

CONCLUSIONS AND IMPLICATIONS

- ✓ Research was focused in the youth population and on the beneficial aspects of sport in the body.
- ✓ There has been a growing increase in publications on the prevention and treatment of addictions with sport in recent years, especially in addictions such as alcoholism, tobacco and cocaine.

REFERENCES

- Petrides J, Collins P, Kowalski A, Sepede J, Vermeulen M. Lifestyle Changes for Disease Prevention. *Prim Care*. 2019;46(1):1-12.
- Thompson TP, Taylor AH, Wanner A, Husk K, Wei Y, Creanor S, et al. Physical activity and the prevention, reduction, and treatment of alcohol and/or substance use across the lifespan (The PHASE review): protocol for a systematic review. *Syst Rev*. 2018; 22:7(1):9.
- Hallgren M, Vancampfort D, Giesen ES, Lundin A, Stubbs B. Exercise as treatment for alcohol use disorders: systematic review and meta-analysis. *Br J Sports Med*. 2017;51(14):1058-1064.
- Zhou Y, Zhao M, Zhou C, Li R. Sex differences in drug addiction and response to exercise intervention: From human to animal studies. *Front Neuroendocrinol*. 2016; 40:24-41.

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