

Analysis of scientific production on consumption of addictive substances and road safety

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Introduction

The intake of psychoactive substances causes cognitive, behavioral and physiological changes that lead some people to develop lost of control with significant impact on their daily lives (Becoña and Cortes, 2011). The drugs cause important effects on psychomotor performance, which in the case of driving vehicles constitutes a risk factor for involvement in a traffic accident. The intervention in the field of drugs and driving is considered a priority in order to reduce road traffic accidents (Álvarez and González-Luque, 2014).

Objective

The purpose of this study is to analyze the scientific production on consumption of addictive substances in the context of traffic, vehicle traffic and road safety in the journals included in the database Web of Science.

Method

Science Citation Index-Expanded and Social Science Citation Index were the queried indexes using a search profile which retrieved all documents that had in the "Title", a term related to

the consumption of addictive substances (like alcohol, tobacco, cocaine, amphetamines or cannabis) and a term associated with traffic, vehicle traffic and road safety (among them, driver, motorist or seatbelt). Subsequently, the documents which content was not about the topics under study were discarded, such as studies focusing on fuel or animals, among others.

Results

In the last 88 years 1,872 documents have been identified, increasing from 4 documents published in 1927 to 114 published in 2014 (Figure 1). The original articles were 69.02%, conference presentations were 14.1% and the remaining 16.88% were letters, reviews and editorial material. 22,694 citations were counted of which the 21.17% were self-citations. The number of citations per year increase significantly since 1973 (Figure 2). The main fields of research were Substance Abuse and Public Health, Environmental & Occupational, each with 443 documents (23.66%), followed by Medicine, General & Internal (15.71%), Transport (14%), Psychiatry (13.35%) and Ergonomics (11.54%). Of the 437 journals identified, *Accident Analysis and Prevention* (n=163), *Alcoholism: Clinical and Experimental Research* (n=90),

Forensic Science International (n=82), *Addiction* (n=58), *British Medical Journal* (n=50), *Journal of Studies on Alcohol* (n=50) and *Traffic Injury Prevention* (n=48) have published the higher number of articles on the subject studied. The most productive countries have been USA (n=758; 40.49%), Canada (7.05%), Australia (9.94%), Netherlands (3.85%), UK (3.58), Germany (3.58%) and Sweden (3.42%). Pacific Institute for Research Evaluation (n=55), University of Toronto (n=44), Centers for Disease Control and Prevention from USA (n=40) and Centre for Addiction and Mental Health from Canada (n=39) have been the institutions which have participated in a larger number of works. The most productive authors have been Jones AW (n=38) affiliated to Linköpings Universitet from Sweden, Voas RB (n=34) enrolled in Pacific Institute for Research and Evaluation from USA, Verster JC (n=25) attached to Universiteit Utrecht from Netherlands and Morland J (n=23) affiliated to Norwegian Institute of Public Health from Norway.

Conclusions

During the study period there has been an increase in productivity and citation in relation to addictive

substances and road safety, with a large number of original researches and a low percentage of self-citations. Both universities and specialized research centres most productive are from countries with high gross domestic product and extensive research in the study of addictive substances.

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References

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Figure 1. Number of works published per year (articles, conference presentations, letters, reviews and editorial material) and number of journals per year (exponential line)

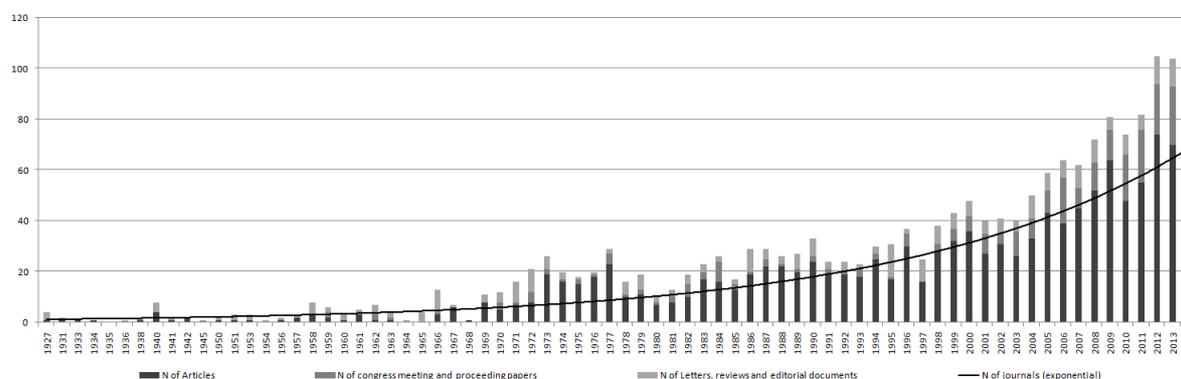


Figure 2. Number of citations per year

