

Bibliometric analysis of alcohol and substance use prevention research in Africa.

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Background

Alcohol and substance use is an escalating public health problem across Africa. The emerging drug problem has forced African countries to develop their own drug control policy¹. In response to international efforts to prevent alcohol and substance use we designed this study to give a bibliometric overview of research productivity in alcohol and substance use prevention in Africa². Bibliometric analysis is important because it allows researchers to identify both the prominent, as well as emerging, areas of research within a field and the researchers working in those areas^{3,4}.

Methods

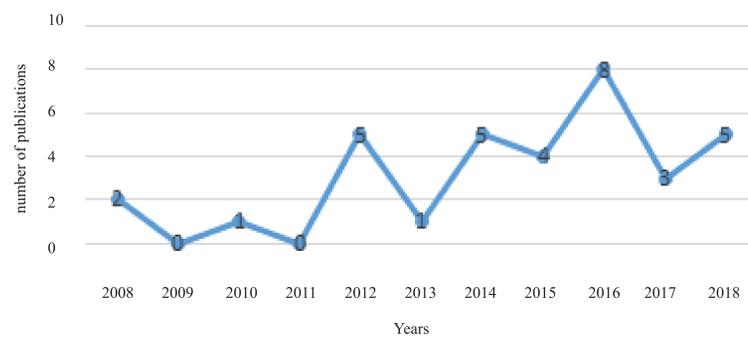
Review of original research articles authored or co-authored by investigators from African countries about substance use prevention during the period 2008-2018 were done through retrieving them from Web of Science (WoS), Ebscohost and PubMed (The National Library of Medicine). Key words related to alcohol and substance use were used to retrieve relevant literature from WoS, Ebscohost and Pubmed. We specifically analysed the annual research productivity, contribution of each African country, collaborations, citations, and prevention research strategies.

Results

Annual research productivity:

In total 34 Journal articles from 2008 to 2018 were retrieved from (WoS), Ebscohost and Pubmed. The annual research productivity was very low but showed a slight increase in the last few years preceding 2018 as is shown in Figure 1.

Figure 1: Number of Published articles with time



Research productivity by country and collaborations

In terms of quantity and absolute figures, South Africa had the highest number of publications during the study period 9 (26.5%) followed by Kenya 4 (11.9%) see Table 1. Takahashi Risa from Kenya and Hakima Himmich from Morocco were the most prolific authors. Medical Research Council of South Africa, Stellenbosch University and Moi University were the most active institutions in alcohol and drug use prevention research. Collaborations appeared more frequently between high-income countries and low / medium income countries (LMICs) with fewer collaborations among LMICs.

Table 1. Number of publication by country

Region	Country	Frequency	Percent
East Africa	Kenya	4	1.9
	Ethiopia	2	5.9
	Tanzania	1	2.9
	Uganda	2	5.9
Southern Africa	South Africa	9	26.5
	Zimbabwe	1	2.9
	Zambia	1	2.9
North Africa	Morocco	2	5.9
	Egypt & Morocco	1	2.9
	North Africa region	3	8.9
West Africa	Senegal	1	2.9
	Ghana	1	2.9
Africa	Country collaboration research	6	17.6
Total		34	100

Most productive Journals

Publications were primarily from specialty journals which focused on alcohol and substance use as indicated in (Figure: 2). International Journal of drug policy was the journal with the most published articles and had the highest impact factor

Figure 2 Top 4 Journals publishing articles on alcohol and substance use prevention

Name of Journal	Number of Articles	2017, 5-year Impact factor
International Journal of drug policy	4	4.244
Journal of alcohol and alcoholism	2	2.724
Drug and Alcohol Dependency Journal	2	3.989
Biomedical Central (BMC) Public Health	2	2.42

Most cited authors

Citations of the 34 articles published in African countries were 509 including self-citations. The average citation per document was 14.9 and an h index of 16.9. Table 2 shows the ten most cited authors in alcohol and substance use prevention.

Table 2. Ten most cited authors in alcohol and substance use prevention in Africa

Country	Name of author	Citation	Rank
South Africa	Wendee M. Wechsberg et al., 2008	105	1
Zambia	Jennifer Beard et al., 2010	44	2
South Africa	Christina S Meade et al., 2015	36	3
Zimbabwe	Lisa A Cubbins et al., 2012	6	4
Kenya	Lonnie Embleton et al., 2013	26	5
South Africa	Hans Onya et al., 2016	21	6
Kenya	Rebecca K Papas et al., 2012	16	7
South Africa	Fred A Kooman et al., 2008	13	8
South Africa	Melissa H Watt et al., 2017	10	9
Tanzania	Eric A Ratliff et al., 2016	9	10

Prevention research strategies

The demographic groups specific prevention interventions at both individual and community level were identified across African countries.

Discussion and Conclusions

This is the first bibliometric approach to examine research related to alcohol and substance use prevention across Africa. The past decade has seen a low productivity in alcohol and substance use prevention research across Africa. South Africa takes the lead in as far as published literature is concerned, h-index, as well as international collaborations. There were few collaborations among Africans themselves yet these collaborations would enhance the future alcohol and substance use prevention research productivity. No articles from Central Africa were identified and this could be because most of the countries are French speaking which was our exclusion criteria. Currently, a wide spectrum of substance use prevention interventions have been implemented throughout the African continent, ranging from individual to community based interventions.

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