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Research impact beyond academia



KEYWORDS

Altmetrics;
Patents;
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As academics we are constantly making efforts to publish the results of our research in a prestigious journal in hope that our work will be cited by others. However, just as racehorses wear blinders to focus on what is ahead, it seems that we fix our attention on traditional journal metrics such as the journal impact factor and citation rate. Academics and students ought to be aware that their research results may be used as a source of information for other types of documents that are not indexed by the main citation databases, Web of Science and Scopus. Nowadays, with the use of digital tools, new metrics have become available (commonly known as Altmetrics) that track the use of documents that include a scholarly identifier. Since all the documents published by this journal include a DOI (digital object identifier), and to complement the study recently published by Chen et al.,¹ I analyzed the altmetric coverage and impact of the same dataset to determine their impact beyond the academic world. This information was retrieved using Altmetrics Explorer² as the search engine captures real-time mentions.

The initial result of the query showed that 195 documents published by this journal since 2009 have been tracked by Altmetric Explorer. While Altmetric tracks scientific literature mentioned by social media platforms such as Twitter, Facebook and Wikipedia, this analysis focuses on its use by patents and policy making. Regarding patents, nine articles published by this journal have been referenced by 12 patents (Table 1). Furthermore, six other articles have been used for policy making by organizations such as Food and Agriculture Organization of the United Nations, the Association of the Scientific Medical Societies in Germany and the Canadian Agency for Drugs and Technologies in Health.

Table 1 Articles published in Journal of Dental Sciences and used as reference in the generation of patents.

Title	Year/Vol/Page	Patent ID
In vivo evaluation of poorly crystalline hydroxyapatite-based biphasic calcium phosphate bone substitutes for treating dental bony defects	2010/5/100-8	US-11116701-B2, US-10219986-B2, US-9956314-B2
Scope and performance of artificial intelligence technology in orthodontic diagnosis, treatment planning, and clinical decision-making - A systematic review	2021/16/482-92	WO-2022135718-A1, EP-4020399-A1
Platelet rich fibrin as a gingival tissue regeneration enhancer	2021/16/536-9	US-11446488-B2
Odontogenic maxillary sinusitis:	2021/16/474-81	N/A RU-2786750-C1

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Table 1 (continued)

Title	Year/Vol/Page	Patent ID
A comprehensive review		
Effect of restoration material on stress distribution on partial crowns: A 3D finite element analysis	2018/13/311-7	WO-2022065966-A1
Lower dosage of aspirin promotes cell growth and osteogenic differentiation in murine bone marrow stromal cells	2016/11/315-22	EP-3492585-A4
Effects of radiotherapy on salivary gland function in patients with head and neck cancers	2015/10/253-62	US-11191875-B2
Assessment of the cytotoxicity of chlorhexidine by employing an in vitro mammalian test system	2014/9/130-5	US-11266683-B2
Tricalcium silicate induces enamel remineralization in human saliva	2013/8/440-3	WO-2021047971-A1

Just last year the Economic and Social Research Council from UK Research and Innovation defined research impact as “*the demonstrable contribution that excellent research makes to society and the economy*”. Undoubtedly, some of the articles published by this journal have proven its contribution to society and economy.

Declaration of competing interest

The author has no conflicts of interest relevant to this paper.

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NA.

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