

# *BDJ Open* (2019–2020) and the advantages of open access publishing

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## Key points

Examines papers published in *BDJ Open* between 2019 and 2020 to highlight which areas researchers felt were important to publish open access.

Discusses the advantages of open access publishing to authors, readers and the scientific community.

Explores how open access publishing has allowed the *BDJ Portfolio* to publish a far wider range of research both geographically and subject-wise.

## Abstract

*BDJ Open* is the open access sister journal to the *British Dental Journal*, and this paper aims to explore the various different articles that *BDJ Open* has published between 2019 and 2020, in order to highlight which areas authors felt were important to publish open access. Furthermore, this article will investigate the advantages of open access publishing to both authors and readers, as well as the scientific community in general, and will examine how open access publishing has allowed the *BDJ Portfolio* to publish a wide range of research, both in terms of topic and geography.

## Introduction

*BDJ Open* is the open access, online-only journal from the British Dental Association (BDA) and Springer Nature. *BDJ Open* ‘opened’ in 2015 and has greatly increased both the scope, and the reach, of the *BDJ Portfolio*. Traditional funding for journals has been through the subscription model, under which institutions (such as universities) pay a subscription to receive the journal. Subscription through a membership organisation, such as the BDA, also allows a further funding source, as does advertising revenue. A mixture of these has traditionally funded the *British Dental Journal (BDJ)* and ensured that authors do not have to pay to have their work published. The disadvantage of this model is that only those who subscribe to the journal can access content. Conversely, open access journals are, as the name suggests, open to anyone provided they have an internet

connection. Authors who wish to publish open access pay an ‘Article Processing Charge’ (or ‘APC’) after acceptance following peer review but before publication and these charges then fund the running costs of the journal. Some subscription journals also offer the opportunity for authors to pay to allow their content to be open access. This is called a ‘hybrid’ journal and the *BDJ* is an example of this.

One of the advantages of open access publishing is that people in lower-income countries are able to view journal content. Subscriptions to journals can be prohibitively expensive to many institutions in Africa, Asia and other parts of the world. However, APCs for authors in these countries are likely to be beyond what they are able to pay. For this reason, *BDJ Open*, along with many other open access journals in the Springer Nature portfolio, offer an ‘APC waiver’ when the first author is from a country that the World Bank has designated as a ‘low-income economy’.<sup>1</sup> A 50% discount is offered to people from countries designated a ‘lower middle-income economy.’ Research from low-income countries is an important addition to the body of scientific knowledge, but if this is not of interest to the main audience of a subscription journal, then this can be difficult

to publish. *BDJ Open* has published a number of articles from low-income countries and these can all be accessed by clinicians and researchers across the globe.

Other benefits of open access publishing include:

- A vastly expanded scope (there are no confines in terms of publishing space);
- Relatively short publication timeframes (no need to wait for space in the print copy); and
- The obvious advantage that anyone can access an open access article without the need for subscriptions, logins or access to the physical journal.

As there are far fewer constraints on space, essentially many more topics within the scope of oral and dental health are potentially publishable. The content is largely driven by what authors and/or their institutions feel should be published. *BDJ Open* therefore gives the opportunity to examine what authors are keen to publish, as well as what editors feel is within scope and of interest to readers. We looked at the papers published from 2019 to 2020 and grouped them into different categories to see which areas authors felt were important to publish open access.

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## Dental professionals

A high number of submissions to clinical journals report early findings of potential new products or technologies proposing that these should be tested clinically (novel additions to toothpastes are a good dental example). These can be termed 'pre-clinical', 'in vitro' or 'ex vivo' studies. Many clinical, open access journals publish a high proportion of these as, although researchers are keen to publish them, they would otherwise be unlikely to be of interest to a more general readership. In *BDJ Open*, however, the largest proportion of published manuscripts in 2019–2020 (n = 10) focused on the experience of dental professionals<sup>2,3,4</sup> and/or dental students.<sup>5,6,7,8</sup> This included manuscripts describing the experience of dentists from Finland<sup>9</sup> to South Africa<sup>10</sup> and Sierra Leone.<sup>11</sup> It might be difficult to argue these would be of sufficient interest to the general *BDJ* readership to justify publication space in the print journal, but the authors of these were keen to publish their work and as *BDJ Open* is open access, the general *BDJ* readership can still access these, providing important extra advantages.

One publication also outlined the role pharmacists have in oral healthcare, with respect to management of medication-related osteonecrosis of the jaw.<sup>12</sup>

## Patient experience

Seven papers<sup>13,14,15,16,17,18,19</sup> explored the experiences of patients and the public in oral health and oral healthcare, ranging from the UK<sup>13</sup> to Sweden<sup>14</sup> and Spain.<sup>19</sup> Again, it is encouraging to see that both the authors of such papers, and the institutions which fund them, see the value of open access publishing.

## Pre-clinical/ex vivo

As outlined above, open access journals are usually a very popular choice for authors with papers reporting the category of pre-clinical/ex vivo studies. It is interesting to note that the same number of papers in this category (seven)<sup>20,21,22,23,24,25,26</sup> were published in 2019–2020 as those reporting the results of evaluations/studies into patient experience. *BDJ Open* was able to publish early-stage findings from some well-established research teams. Souror *et al.*'s paper 'Evaluation of a novel fixed-space maintainer made of light-cured acrylic resin: an *in vitro* study'<sup>20</sup> also gave the opportunity to publish a more novel solution to a familiar clinical problem, when the available resources differ from what might be found in a dental clinic or hospital in the

UK. This would have been unlikely to be of interest to UK clinicians, but having an open access journal in the *BDJ* Portfolio enables this knowledge to be shared worldwide.

## Clinical

### Health technology assessment/clinical interventions

Studies which examine the effects on patients (*in vivo*) of clinical procedures are generally more likely to be of interest to the wider clinical community than earlier *in vitro/ex vivo* studies. Yet, for broad appeal to clinicians, they generally have to be conclusive enough to warrant changes in clinical practice, or at least consideration of this. Open access publishing offers a useful way for researchers to share pilot studies and early-phase clinical trials. *BDJ Open* does, however, publish full clinical trials, and again, the results of these can be accessed by anyone with an internet connection which helps with dissemination of new knowledge. There were eight such papers published in *BDJ Open* in 2019–2020,<sup>27,28,29,30,31,32,33,34</sup> on topics including experimental dentine hypersensitivity toothpastes<sup>27</sup> and smartphone applications.<sup>30</sup>

## Epidemiology

Epidemiological research aims to compare different groups (or 'before and after' data in the same group) to examine the incidence, distribution and possible control of diseases and other factors relating to health. There were four papers published in *BDJ Open* reporting the results of such studies.<sup>35,36,37,38</sup> One other paper was also published which highlighted lessons learned from a study which failed to find a statistically significant result.<sup>39</sup> Such papers reporting methodological issues are of more interest to researchers than to the broader clinical community, and open access publishing is the ideal vehicle for the dissemination of this knowledge.

## Broader applications of dentistry

Another advantage of open access publishing is the ability to share new learning around very specific topics. Many subscription journals are so specialised that they reach only a very small audience. Again, open access publishing removes those barriers. There were four such papers published in 2019–2020,<sup>40,41,42,43</sup> including Chetty *et al.*'s 'Dentinogenesis imperfecta in osteogenesis imperfecta type XI in South Africa: a genotype–phenotype correlation'<sup>41</sup> and Khan *et al.*'s 'Analysis of different characteristics of smile'.<sup>43</sup>

## Systematic reviews

Finally, although *BDJ Open* does not currently publish 'narrative' reviews, it does publish systematic reviews which generate new results. The *BDJ* Portfolio has a number of publications which publish systematic reviews and the advantages of open access publishing remain attractive to authors of such articles. Two were published in *BDJ Open* between 2019 and 2020 – one comparing the DMFT index between thalassemia major patients and a control group,<sup>44</sup> and one investigating aerosol, splatter and droplet contamination associated with oral surgery in the context of COVID-19.<sup>45</sup>

## Conclusion

Open access publishing offers many advantages over subscription-only publishing – to authors, readers and to the scientific community in general. A particularly exciting aspect of open access publishing for the *BDJ* Portfolio has been the ability to publish a far wider range of research, both in terms of topic and geography. *BDJ Open* continues to grow and we look forward to providing an update to this paper in the future.

## Ethics declaration

The author declares no conflicts of interest.

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