

Journal of Biomedical Practitioners

JBP

Periodico per le professioni biomediche a carattere tecnico - scientifico - professionale

Titolo articolo / Article title:

**Open Science and Open Access Scientific Publishing:
an essential combination. An analysis of the first 4
years of JBP activity.**

Autori / Authors: **Editorial team of Journal of Biomedical
Practitioners**

(Francesco Paolo Sellitti, Antonio Alemanno, Luca Camoni, Mario Coriasco, Luciana Gennari, Manuela Giacomelli, Patrizia Gnagnarella, Alessandro Piedimonte, Sergio Rabellino, Annamaria Vernone, Simone Urietti)

Pagine / Pages: **11-20, N.2, Vol.5 - 2021**

Submitted: **29 September** – *Released:* **23 December 2021** – *Published:*
31 December 2021

Contatto autori / Corresponding author: **Comitato di redazione JBP**

JBP@unito.it



Opera distribuita con Licenza Creative Commons.

Attribuzione – Condividi allo stesso modo 4.0 Internazionale.

Open Access journal – www.ojs.unito.it/index.php/jbp – ISSN 2532-7925

Questa Rivista utilizza il [Font EasyReading®](https://www.easyreading.com/), carattere ad alta leggibilità, anche per i dislessici.

Periodico per le professioni biomediche a carattere tecnico - scientifico - professionale

Direttore responsabile/Editor in chief: Francesco Paolo SELLITTI

Direttore di redazione/Editorial manager: Antonio ALEMANNI, Luca CAMONI, Simone URIETTI

Comitato di redazione/Editorial team:

Antonio ALEMANNI, Simone URIETTI, Mario CORIASCO, Annamaria VERNONE, Sergio RABELLINO, Luciana GENNARI, Patrizia GNAGNARELLA, Alessandro PIEDIMONTE, Luca CAMONI, Manuela GIACOMELLI

Journal manager e ICT Admin: Simone URIETTI, Annamaria VERNONE

Book manager: Francesco P. SELLITTI

Graphic Design Editor: Mario CORIASCO, Sergio RABELLINO, Francesco P. SELLITTI

Comitato scientifico/Scientific board:

Dott. Anna Rosa Accornero	Dott. Mario Gino CORIASCO	Dott. Sergio MODONI
Prof. Roberto ALBERA	Dott. Laura DE MARCO	Dott. Alfredo MUNI
Dott. Massimo BACCEGA	Dott. Patrizio DI DENIA	Dott. Grazia Anna NARDELLA
Dott. Alberto BALDO	Dott. Chiara FERRARI	Dott. Salvatore PIAZZA
Prof. Nello BALOSSINO	Prof. Diego GARBOSSA	Prof. Lorenzo PRIANO
Prof. Paolo BENNA	Dott. Luciana GENNARI	Dott. Sergio RABELLINO
Prof. Mauro BERGUI	Dott. Ramon GIMENEZ	Dott. Fabio ROCCIA
Dott. Salvatore BONANNO	Dott. Gianfranco GRIPPI	Dott. Saverio STANZIALE
Prof. Ezio BOTTARELLI	Prof. Caterina GUIOT	Dott. Lorenzo TACCHINI
Prof. Gianni Boris BRADAC	Prof. Leonardo LOPIANO	Prof. Silvia TAVAZZI
Dott. Gianfranco BRUSADIN	Prof. Alessandro MAURO	Dott. Ersilia TROIANO
Dott. Luca CAMONI	Prof. Aristide MEROLA	Dott. Irene VERNERO
Prof. Alessandro CICOLIN	Prof. Daniela MESSINEO	

Periodico per le professioni biomedico-sanitarie a carattere tecnico - scientifico – professionale

SOMMARIO / TABLE OF CONTENTS Numero 2, Volume 5 – 2021

1	<i>Open Science ed editoria scientifica Open Access: un binomio ormai inderogabile. Analisi dei primi 4 anni di attività di JBP</i>
	Comitato di redazione di Journal of Biomedical Practitioners - JBP
11	<i>Open Science and Open Access Scientific Publishing: an essential combination. An analysis of the first 4 years of JBP activity</i>
	Editorial team of Journal of Biomedical Practitioners - JBP
21	<i>Indicatori di qualità quantitativi e percorsi di cura automatizzati in radioterapia</i>
	Luca Capone, Debora Di Minico, Ashley Pluchinsky, Federica Lusini, Leonardo Nicolini, Giulia Triscari, Francesca Cavallo, Velia Forte, Natascia Gennuso, Martha Mychkovsky, James Sinicki, Piercarlo Gentile
34	<i>Quantitative quality indicators and automated radiotherapy care paths</i>
	Luca Capone, Debora Di Minico, Ashley Pluchinsky, Federica Lusini, Leonardo Nicolini, Giulia Triscari, Francesca Cavallo, Velia Forte, Natascia Gennuso, Martha Mychkovsky, James Sinicki, Piercarlo Gentile
46	<i>Impatto della pandemia da SARS-CoV-2 sui workload di due centri UPMC di radioterapia ad alta specializzazione in Italia</i>
	Velia Forte, Debora Di Minico, Francesca Cavallo, Natascia Gennuso, Stefania Caponigro, Simona Borrelli, Leonardo Nicolini, Federica Lusini, Giulia Triscari, Claudia Canino, Luca Capone, Sara Allegretta, Ivana Russo, Gessica Abate, Piercarlo Gentile

Periodico per le professioni biomedico-sanitarie a carattere tecnico - scientifico – professionale

SOMMARIO / TABLE OF CONTENTS Numero 2, Volume 5 – 2021

58	<i>The impact of the SARS-COV-2 pandemic on the workloads of UPMC Advanced Radiotherapy Centers in Italy</i>	Velia Forte, Debora Di Minico, Francesca Cavallo, Natascia Gennuso, Stefania Caponigro, Simona Borrelli, Leonardo Nicolini, Federica Lusini, Giulia Triscari, Claudia Canino, Luca Capone, Sara Allegretta, Ivana Russo, Gessica Abate, Piercarlo Gentile
70	<i>Raggiungimento dei crediti formativi nell'era della DaD: il caso del corso di Statistica Medica</i>	Ilaria Stura, Alessandra Alemanni, Giuseppe Migliaretti
77	<i>Credit achievement ability during distance learning era: the case of Statistics in Medicine course</i>	Ilaria Stura, Alessandra Alemanni, Giuseppe Migliaretti
84	<i>Studio della mammella con protesi in tomosintesi</i> <i>Study of the breast with implants in tomosynthesis</i>	Enrico Pofi, Rosella Stella, Roberta Fedele, Sara Vecchio, Domenica D'Ottavio, Ilaria Valenti

OPEN ACCESS JOURNAL

<http://www.ojs.unito.it/index.php/jbp>

ISSN 2532-7925



A Scientific, Technical and Professional Practice Journal for Biomedical Practitioners

Open Science and Open Access Scientific Publishing: an essential combination. An analysis of the first 4 years of JBP activity.

Editorial board of Journal of Biomedical Practitioners - JBP

Correspondant author: Editorial Board - jbp@unito.it

Submitted: 29 september 2021, Released: 23 December 2021, Published: 31 December 2021

ABSTRACT

In July 2017, the Journal of Biomedical Practitioner (JBP) starts publications with its first number. Since its debut JBP would offer itself as a meeting place to health professionals, free to all and Open Access, without prejudices for experience exchanging between people that work in Biomedical Sciences with various purposes from welfare, diagnostic-therapeutic, rehabilitation and prevention, to the fields of basic and clinical research.

JBP it's a six-monthly publication, with double-blind peer review, written in Italian and English language.

This editorial aims to analyze in deep the journal path in these 4 years, reporting the poster contents shown at 2° Congresso Nazionale della Federazione Nazionale Ordini dei Tecnici Sanitari Radiologia Medica e delle Professioni Sanitarie Tecniche, della Riabilitazione e della Prevenzione (FNO TSRM e PSTRP) that took place in Rimini on 19-21 november 2021.

The improvement of quality standards offered will be highlighted, noting the fundamental role of the contribution of the auditors. The metadata analysis on the OJS/PKP platform, which is used by the journal and in turn it's hosted by Sistema di Riviste Open Access (SIRIO@Unito) of the University of Turin, shows much interesting information about the article submitted: we received 90 article proposals and the 57% was published, of which the 16% was written in the two languages. The mean time needed was 62 days for the revision process and 110 days to get the article published. In each year were published a mean of 13 papers and 60% of them were written by authors from different professional areas.



Distributed under a Creative Commons License. Attribution - Share 4.0 International

The fast access to the contents and the indexing of JPB on the main directories of Open Access Journals are the best reasons to choose this journal for publishing in the Biomedical Science areas.

Keywords: Open Access, scientific publications, peer review, Open Science, auditors, editors.

THE OPEN SCIENCE

The healthcare emergency resulting from the Covid-19 pandemic has changed the way of working and communicating, highlighting the need for a better collaboration globally. The urgent need for finding quick and effective solutions to the pandemic underlined the importance of sharing data, publications, software, and other types of scientific results in the most open way possible, as well as the need to accelerate the biomedical research, that was driven by the pandemic experience, has found a good outcome by applying Open Science methods. This movement seeks to extend and share the principle of Open Science at every step of the research process, from data, protocols, and software to the final results. The final purpose is to share information in the fastest, broadest and most effective way possible in the context of improved sustainability, rigour and responsibility of research.

Scientific progress can be faster if the available data is shared as soon as possible (not only the final summary of the research), by making all the results accessible and collaborating in an open way.

These benefits are manifested on several fronts: for science itself, becoming more transparent, verifiable and reproducible, as well as more efficient in contributing to the process of creating the knowledge; for companies, which can take advantage of the research results and offer more innovative products combining them with their specific skills and resources; for the whole society, for the population, for the administrators whose decisions deriving from such data are more objective, for teachers and professionals who benefit from such updates, and also to healthcare professionals and doctors who work to look after population health in the best way possible.

One of the key points of the Open Science is the Open Access, that allows free and unrestricted access to the knowledge produced by research (image 1).

The fundamental elements that a journal must guarantee in order to declare itself Open Access are:

Free, irrevocable, global, continuous access to the work must be guaranteed, granting the license to: copy, distribute, transmit, view the work publicly and distribute derivative works through any digital way for any responsible purpose, without prejudice to attribution to the author.

Digital archiving of the work immediately after its initial publication, by filing a complete version of it in an appropriate standard electronic format, with all additional data related to it,

together with a copy of the authorisation indicated above, in at least one online archive supported by an institution or academic company, governmental agency or other established organisation that ensures its unlimited distribution, interoperability and long-term archiving.

United Nations, UNESCO, OECD and World Health Organization have embraced the Open Science as a key element to achieve goals of development by 2030. For everyone's benefit, the European Commission has worked for years attempting to ensure the publicly funded research availability. In the programme Horizon2020 there was already an obligation to make available all research results and data in the form of Open Access. The project must include the Open Science measures adopted in the presentation of the research methodology, in addition to the public obligations of projects approved for public fundings.

In line with these trends and adhering to the Open Science movement, in July 2017 the first issue of the Journal of Biomedical Practitioners has been published to offer healthcare professionals a free and unprejudiced meeting place.

This editorial explores the course of the JBP magazine on the basis of the contents presented on the occasion of the 2nd National Congress of Medical Radiology Technicians and Technical Healthcare Professions, Rehabilitation and Preventions Orders, held in Rimini from 19th – 21st November 2021.



Figure 1: Open Science components, image from UNESCO recommendations.

THE JBP JOURNAL

JBP' primary objective is to act as a forum for exchanging experiences between professionals of Biomedical Sciences, regardless of the charitable, diagnostic-therapeutic, rehabilitative or preventive purposes of their work, carried out in the field of basic research or in the clinical setting.

The journal is scheduled to be published every six months, with double-blind peer review, admitting contributions in both Italian and English languages, trying to fill an editorial gap in the Italian context on these themes.

JBP is hosted on the Sirio@unito (Open Access Magazine System) of the University of Turin, based on the open-source software OJS (Open Journal Systems); it provides quality requirements, immediate and free access and it is present on the main Open Access Databases, such as Directory of Open Access Journal (DOAJ), Bielefeld Academic Search Engine (BASE), Open Access Infrastructure for Research in Europe (Openaire), Google Scholar and Directory of Open Access (ROAD). For these reasons, it may be a preferential means of publication for obtaining funding under Horizon Europe.

A copyright license CC-BY-SA 4.0 is adopted for the contents and therefore respondent to the criteria of Open Science. To date, among the 57 national journals in the DOAJ database, JBP is the only one that publishes using this kind of license.

The type of license that has been released by the Creative Commons project, allows the distribution, modification and creation of derivative works from the original; this includes commercial purposes, so far as the sources are clearly cited and the authorship recognised; this new work must be subject to the same license, a choice that favours the open access licences. It is fair to point out the activity carried out by the reviewers, as well as all the JBP authors, Editorial Committee, and Scientific Committee, are made free of charge, for the committed support to the cultural and scientific development of the sector.

Availability and contribution of the reviewers have often improved the editorial proposals that have been received, in accordance with JBP's main objective of contributing to the cultural and professional growth of the authors therefore improving their performance for the benefit of the community. Sincere thanks are addressed to them for the time dedicated to the journal.

CONTRIBUTIONS

After 4 years, we resume below what has been done; through the metadata and workflow present in the platform database it was possible to extract the data relating to the editorial proposals submitted to JBP in the period July 2017 – December 2021. It has emerged that of the 90 proposals received by the editorial staff, just over half (57%) were published (Figure 2). Of these, 16% were published in English (and Italian), and 10% came from a dissertation.

It is evident that the difficulty in proposing scientific contributions in English limits the international diffusion and citation of work that has been published in the journal: consequently, the editorial line of the journal aims to encourage the publication of scientific contributions in English, therefore increasing the translation support and language verification.

In addition to a new strategy for the English language, the aim will be to reduce the number of rejected articles, to facilitate and promote the culture of research and its dissemination and helping those who are not particularly familiar with methods of structuring scientific contributions. Some articles on how to draft a scientific contribution have already been published in the past, in order to fill the gaps in the areas where the knowledge about scientific documentation is lacking.

Figure 3 shows the average time required for the revision of an article (62 days) and the total time required for its publication (110 days), which is shorter than the average times required for other journals in the same field.

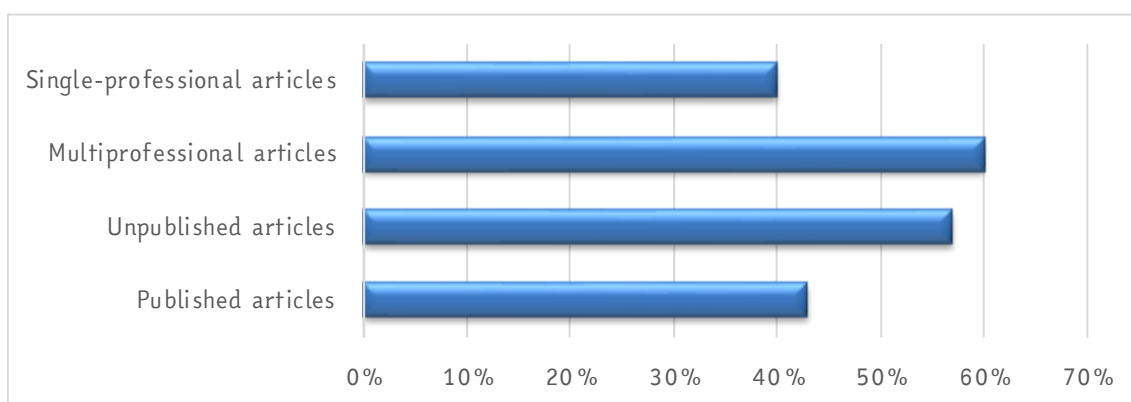


Figure 2: percentages of articles received, published and unpublished, their multi/mono professionalism (between July 2017 and December 2021).

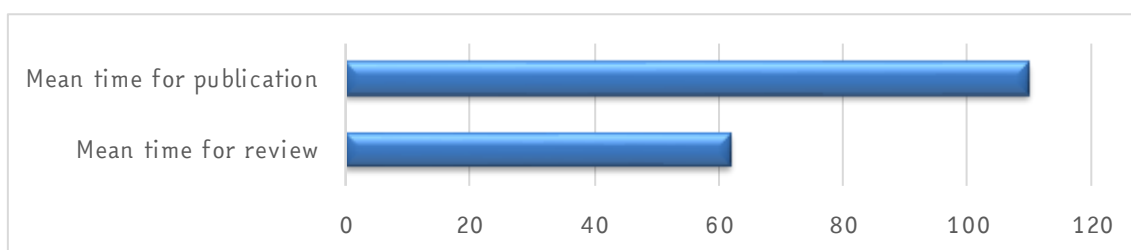


Figure 3: average review and publication times (in days) between July 2017 and December 2021.

In the period under review, an average of 13 articles per year were published: in 60% of cases the authors belonged to a different profession (Fig. 2), highlighting the reality of transversal collaboration, in some cases belonging to contexts that are external to bio-healthcare professions, this latter element is of great interest.

Out of 21 health professions involved, it emerges that the most numerically represented are the Radiology Technicians, followed by Doctors in second place and Physicists in third place (Fig.5). The numerical prevalence of Radiology Technicians can be led to the fact that membership in this profession is significant among the journal's founders: consequently, the circulation of the journal was faster among the Radiology Technicians and initially received a great number of editorial proposals. This percentage is expected to decrease gradually, assuming a progressive enlargement of the journal to a wider and more varied professional participation.

Figure 5 represents the geographical distribution of the articles published according to the origin of the first author. Out of 11 regions, Piedmont is the most represented with 12 published works, followed by Tuscany and Lombardy with 7 articles each and by Lazio with 6 articles. These data confirm the national character assumed by the journal.

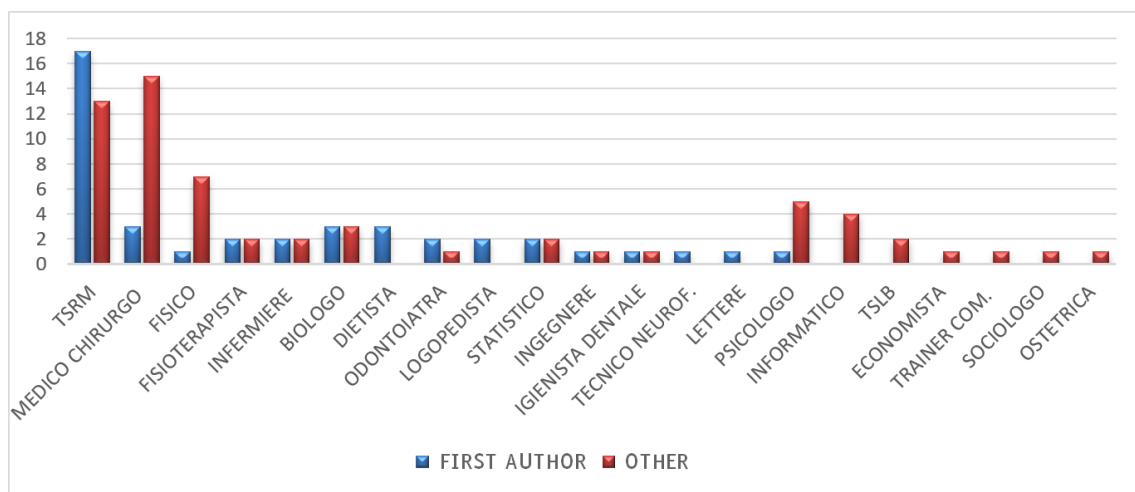


Figure 4: profession of the authors who submitted works on JBP.

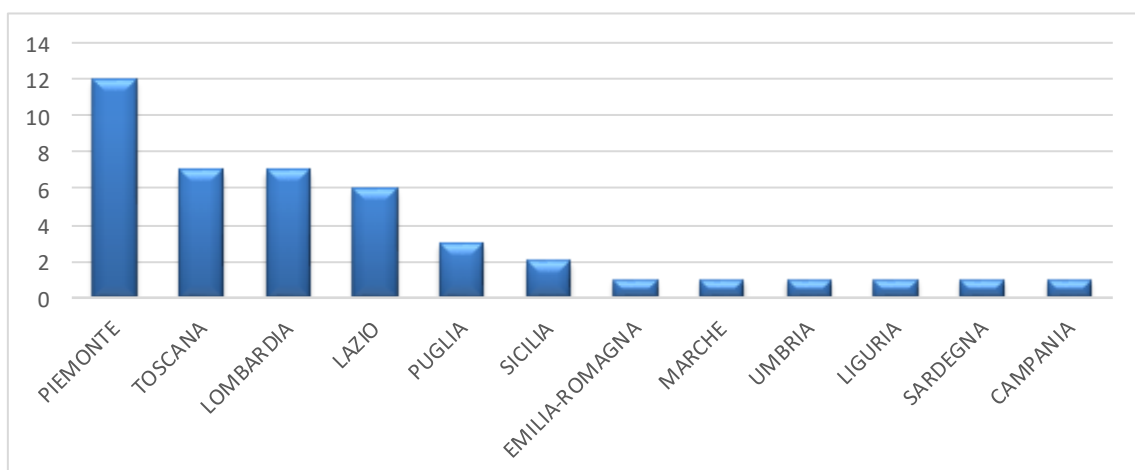


Figura 5: Region of origin of the articles published on JBP (first author).

Analysing the reasons of the refusal to publish the submitted works, the most common are the failure to comply with the editorial guidelines (59%) and failure to respond to the reviewers' comments (36%). This is probably linked to the authors difficulties in editing, integrating and completing the work as requested.

Only 3% of editorial proposals did not pass the plagiarism test (Turnitin), and a small percentage of authors decided to withdraw the work (2%)(Fig.6).

Another relevant aspect are the origin sectors of the research that worked on the published articles (Fig.7). 65% of the published works come from the public sector, with an interesting 19% of virtuous cooperation between public and private.

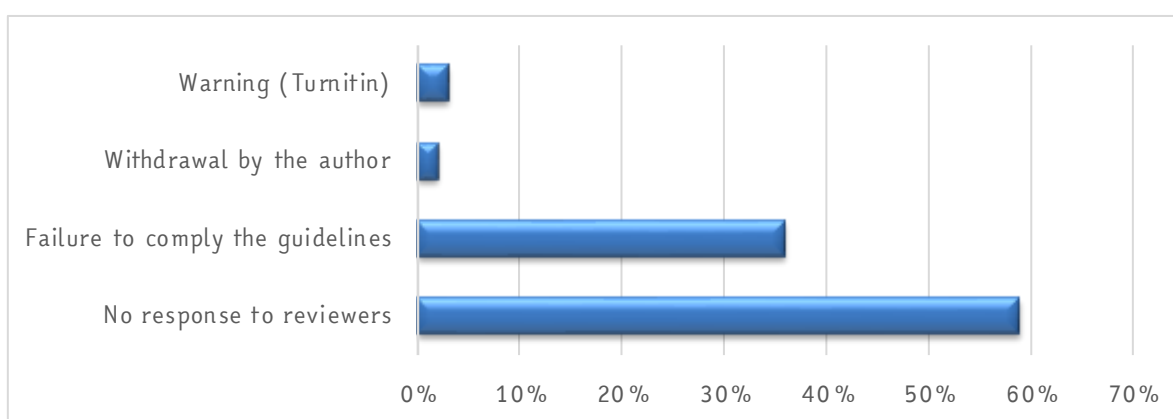


Figure 6: causes of non-publication on JBP

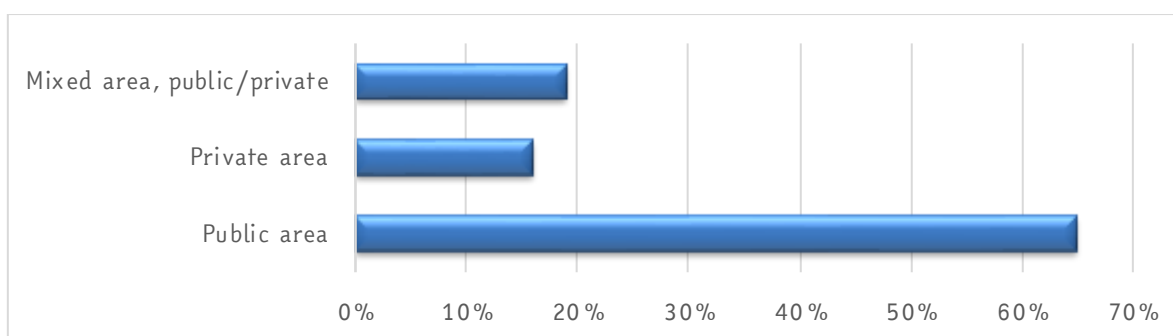


Figure 7: sectors of origin of the articles published on JBP.

Finally, we wondered how much the journal has circulated and, referring to the official data of the platform, there are over 6000 downloads of full text articles (Fig.8), with a good, positive trend (as of 18/11/2021).

This is obviously only a partial indicator, because it is easy to expect an exchange of both digital and independently printed version between colleagues, which is not directly recordable.

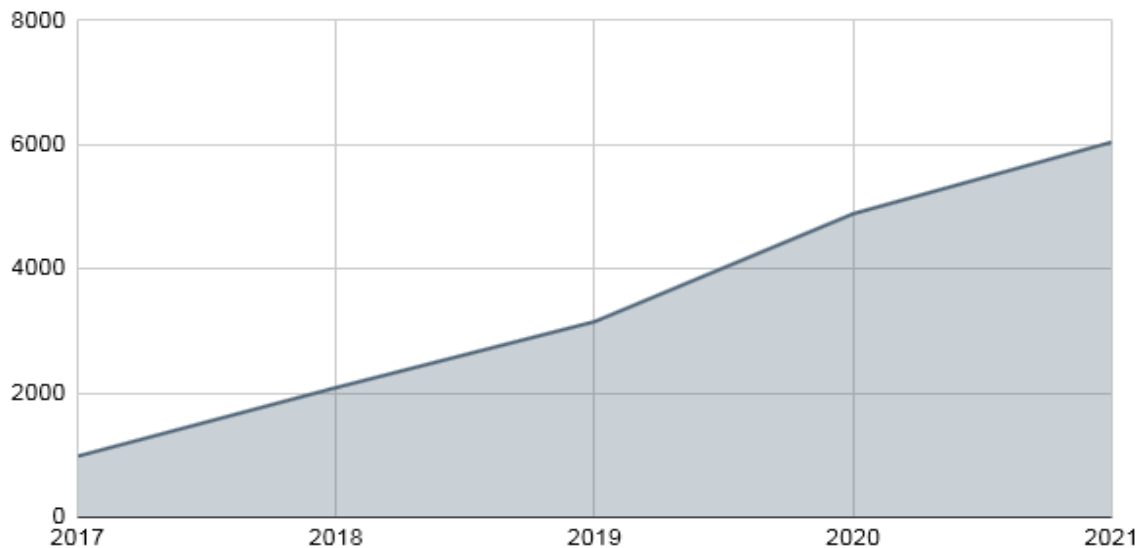


Figure 8: downloads trend (from July 2017 to November 2021)

THE FUTURE OF JBP

The availability and competence of the reviewers, combined with the considerable time they dedicated to the quality and care of the published works, made JBP a unique editorial proposal in the Italian context, flexible and open to a large public of professionals.

The amount of downloads and its trend (which grows by about a thousand units a year) appear to demonstrate a keen interest in the scientific community, which makes us feel all the responsibility connected with this result.

In view of a growth path in the open science context, the next goal is to adopt the 'open review' model, that is a standard peer review, where the identities of reviewers and authors are made open by publishing reports of the review to allow for bigger participation in the review process.

With the spirit of an even larger sharing of knowledge, we are also preparing a new editorial project: the publication in digital format of contests such as monographic e-books, manuals and conference proceedings. This will be inserted in the section dedicated to the Series of the JBP-Library, following the Open Access rules, intended as a valid and effective tool for disseminating knowledge.

The JBP editorial board

Francesco Paolo Sellitti (Direttore Responsabile), Antonio Alemanno, Luca Camoni, Mario Coriasco, Luciana Gennari, Manuela Giacomelli, Patrizia Gnagnarella, Alessandro Piedimonte, Sergio Rabellino, Annamaria Vernone, Simone Urietti.

REFERENCES

- [1] Tse EG, Klug DM, Todd MH. Open Science approaches to COVID-19. *F1000Res*. 2020 Aug25;9:1043. doi: 10.12688/f1000research.26084.1. PMID: 33145011;PMCID: PMC7590891.
- [2] Giglia E, Open Access e Open Science: per una scienza più efficace, *JBP*.2017;1(1):7-28 <https://doi.org/10.13135/2532-7925/2299>
- [3] UNESCO, United Nations Educational, Scientific and Cultural Organization. Towards a UNESCO Recommendation on Open Science 2021. https://en.unesco.org/sites/default/files/open_science_brochure_en.pdf
- [4] Bethesda Statement on Open Access Publishing. Released June 20, 2003 <http://legacy.earlham.edu/~peters/fos/bethesda.htm>
- [5] Callaway E. Will the pandemic permanently alter scientific publishing? *Nature*. 2020 Jun; 582(7811):167-168. doi: 10.1038/d41586-020-01520-4. PMID: 32504015.
- [6] Roorick, J Open Access lessons during Covid-19: No lockdown for research results!, PlanS blog, June 8, 2020 <https://www.coalition-s.org/blog/open-access-lessons-during-covid-19-no-lockdownfor-research-results/>
- [7] Independent Group of Scientists appointed by the Secretary-General. (2019). Global sustainable development report 2019: the future is now—science for achieving sustainable development.
- [8] https://sustainabledevelopment.un.org/content/documents/24797GSDR_report_2019.pdf
- [9] Laura, B., Francesca, B., Migliore, S., Tommaso, P., Cristina, P., Stefania, P., & Maria, S. (2020). Raccomandazione dell'UNESCO sulle risorse educative aperte. Traduzione italiana a cura del Gruppo di Studio AIB sulla Information Literacy.
- [10] https://www.aib.it/attivita/2020/87617-raccomandazione_unesco_oer/
- [11] Organizzazione per la Cooperazione e lo Sviluppo Economico. OECD(2006). Recommendation of the Council concerning Access to Research Data from Public Funding. <https://www.oecd.org/sti/recommendation-access-to-research-data-from-public-funding.htm>
- [12] UNESCO, WHO and the UN High Commissioner for Human Rights call for “Open Science” 27/10/2020 <https://en.unesco.org/news/unesco-who-and-high-commissioner-human-rights-call-open-science>
- [13] Arrizabalaga O, Otaegui D, Vergara I, Arrizabalaga J, Méndez E. Open Access of COVID19-related publications in the first quarter of 2020: a preliminary study based in PubMed. *F1000Res*. 2020 Jun26;9:649. doi:10.12688/f1000research.24136.2. PMID: 32850121; PMCID: PMC7438966.
- [14] The directory of Open Access journals. Find Open Access journals & articles. <https://doaj.org/>
- [15] Camoni, L., Cossandi, M., & Rinaldi, R. (2020). Come scrivere un articolo originale - o una tesi sperimentale - nell'ambito della ricerca scientifica. *Journal of Biomedical Practitioners*, 4(2). <https://doi.org/10.13135/2532-7925/5459>
- [16] Casu, C. (2020). Come scrivere un Case Report nell'ambito medico - sanitario. *Journal of Biomedical Practitioners*, 4(2). <https://doi.org/10.13135/2532-7925/5460>

- [17] Stura, I., Alemanni, A., & Migliaretti, G. (2020). Guida pratica alla stesura di una metanalisi clinica. *Journal of Biomedical Practitioners*, 4(2). <https://doi.org/10.13135/2532-7925/5462>
- [18] Toroser D, Carlson J, Robinson M, Gegner J, Girard V, Smette L, Nilsen J, O'Kelly J. Factors impacting time to acceptance and publication for peer-reviewed publications. *Curr Med Res Opin.* 2017Jul;33(7):1183-1189. doi: 10.1080/03007995.2016.1271778. Epub 2016 Dec 31. PMID: 27977312.
- [19] Ross-Hellauer T. What is open peer review? A systematic review. *F1000Res.* 2017 Apr 27;6:588. doi: 10.12688/f1000research.11369.2. PMID: 28580134; PMCID: PMC5437951.