



# Thirty Years of the Journal of Cancer Education: a Review

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## Abstract

Since its foundation in 1986, the *Journal of Cancer Education* (JCE) has served as an important outlet for myriad aspects of cancer education and currently serves as the official journal of the American and European Associations for Cancer Education. During its history, the JCE has been under the auspices of five publishers, with its first full year under the current publisher, Springer, in 2010. Print and distribution metrics from 2010 to present were obtained from Springer. These were compared to historical data including the first 10 years of the JCE, published by Dr. Bakemeier in 1995. Since its beginning, the JCE has consisted of four issues per year. The original contract for 256 pages per year has increased to an average of 858 pages from 2010 to 2014. In 2015, the JCE received a total of 344 submissions, up from 339 in 2014, and 262 the year before. This is a stark contrast to the roughly 44 submission received in 1994. Over this same period, the overall rejection rate has increased from 30% in 2010 to 45% in 2015. The number of online deals has increased from 347 in 2014 to 361 in 2015 and has been accompanied by a steady increase in the number of full-text article downloads: 19,000 in 2010 to 58,923 in 2015. Accordingly, the JCE has seen a pronounced and steady increase in impact factor, rising from 0.52 in 2009 to 1.368 in 2015. Since moving to Springer, the JCE has seen unprecedented growth, receiving increasing submissions yearly, an increasing number of subscription deals and online full-text downloads, and a corresponding increase in impact factor.

**Keywords** Impact factor · Journal metrics · Cancer education

## Introduction

Since its foundation in 1986, the *Journal of Cancer Education* (JCE) has served as an important platform for multiple specialty disciplines in cancer education to report work, discuss challenges, identify opportunities, and collaborate. It currently serves as the official journal of the American and European Associations for Cancer Education (AACE and EACE). Now is a great time to reflect on the JCE's development, as it recently celebrated 30 years of circulation.

The JCE was created in response to several barriers and needs. These included difficulty getting educational articles published in either clinical or basic science journals, the lack of a forum to publish manuscripts from work presented at the annual AACE meetings, and the need for a venue to publish valuable reports prepared by the AACE. These issues were largely due to education articles having a lower priority in clinical oncology and basic research journals [1].

In order to understand the origin of the journal, it is important to reflect on the origins of the AACE. The AACE was founded in 1947 as the Cancer Coordinators, which was formed by the principal investigators of cancer education grants provided by the National Cancer Institute (NCI) and awarded to cancer educators at medical schools around the country. Called together by Margaret Hay Edwards, the first Executive Secretary of the NCI's Clinical Cancer Training Committee, these individuals met annually and in 1967 renamed their group the American Association for Cancer Education. This organization continues to hold annual meetings and recently reached the 50-year milestone with 2016's conference in Bethesda, Maryland, where this work was presented. The AACE's mission is to champion the highest standards for cancer education through evidence-based practices

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to achieve quality outcomes [2]. This mission is partially achieved through the JCE.

It was clear that there was a distinct need for a dedicated journal focused on cancer education and after much discussion, the decision was made to create the *Journal of Cancer Education*. One formidable barrier to this was funding. When Pergamon Press, based in Oxford, offered to underwrite the first 3 years of expenses, the opportunity was seized and an 8-year contract was signed for four issues a year. The first issues of the JCE were published in 1986.

In 1993, Elsevier acquired Pergamon Press and expressed minimal interest in publishing professional journals with smaller circulation. Thus, another publisher was sought out. Later that year, a 5-year contract was signed with Hanley and Belfus (Philadelphia, PA). Through their encouragement there was a cover redesign in 1994 (Fig. 1a). The cover was again redesigned in the early 2000s; the purpose of which was to better reflect the international flavor of the journal (Fig. 1b); by this point the JCE was the official journal of the AACE and the EACE. In 2002, Elsevier purchased Hanley and Belfus and again were not interested in publishing specialty journals with lower circulation. Thus, yet again, another publisher was sought out. This time, a contract was signed with Lawrence Erlbaum Associates (Mahwah, NJ). Shortly thereafter, Erlbaum was acquired by Taylor and Francis (Abingdon, UK), who remained the publisher of the JCE until 2009.

A contract was signed with Springer later in 2009 and the first full year under this publisher was 2010. Since then, the JCE has seen unprecedented success. Throughout the remainder of this paper, we will outline areas of growth and success that the journal has seen since this transition.

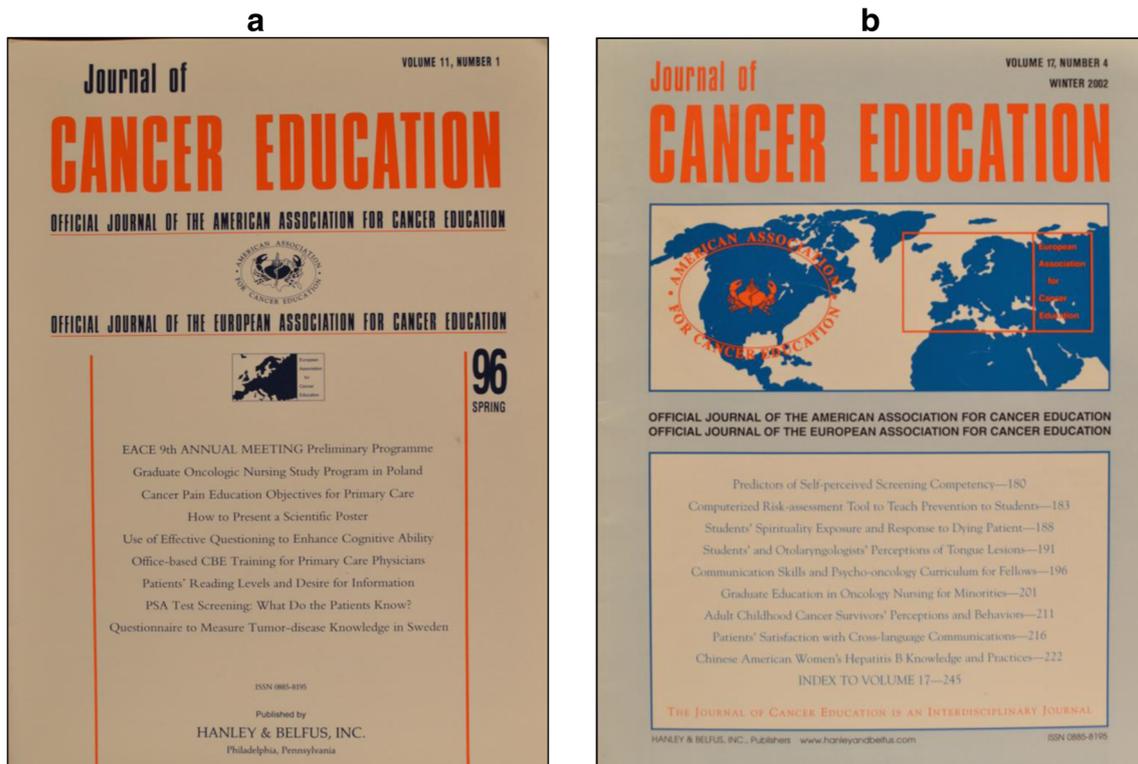
## Methods

Print and distribution metrics from 2010 through 2015 were obtained from Springer. These were compared to historical data from the first 10 years of the JCE, published in 1995 by the JCE's founding Editor-in-Chief, Dr. Richard Bakemeier [1] (Fig. 2).

## Results

### Impact Factor

Despite its well-documented issues and limitations, impact factor (IF) is a widely used index of the average number of citations of a given journal and is frequently considered to be a proxy for both the relative importance of a journal within its field and its research quality [3–5]. The IF is calculated by dividing the total number of citations of articles published during the two preceding years by the total number of articles



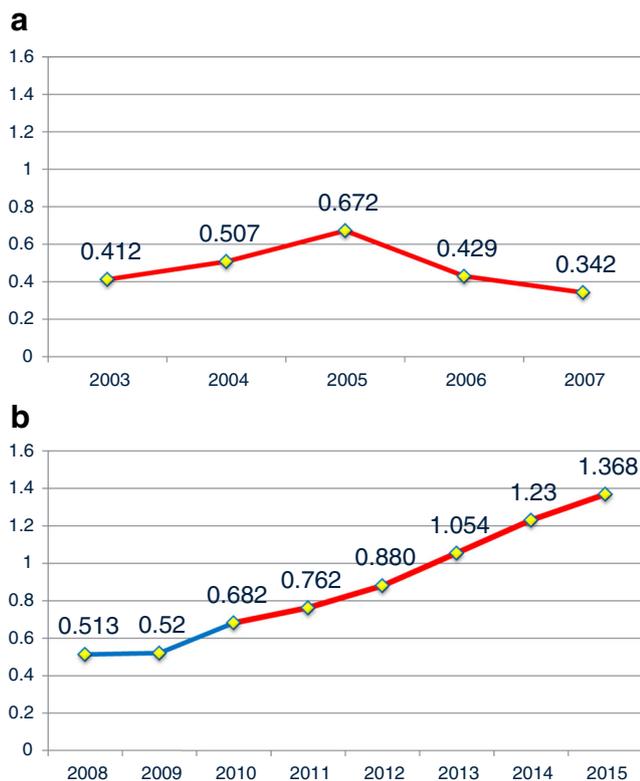
**Fig. 1** a 1994 cover redesign. This particular issue is from the spring of 1996. b 2000 cover redesign reflects the international flavor of the journal



**Fig. 2** Dr. Richard Bakemeier, founding Editor-in-Chief of the Journal of Cancer Education

published during that time [6]. For example, an IF of two in 2012 indicates that on average, each manuscript published in 2010 and 2011 was cited two times. The impact factor of the JCE from 2002 to 2007 (pre-Springer) peaked in 2005 at 0.672 before tapering off again (Fig. 3a).

There was a slight increase in impact factor in 2008 and 2009 and then in 2010, the first full year under Springer, the IF of the JCE began to increase significantly, rising from 0.68 in 2010 to almost 1.4 in 2015 (Fig. 3b). Among journals under the category of “Education, Scientific Disciplines,” the JCE currently ranks 16th [7].



**Fig. 3** **a** Impact factor pre-Springer. **b** Impact factor post-Springer. 2010 was the first full year under the current publisher, Springer

## Page Numbers, Submissions, and Acceptance Rates

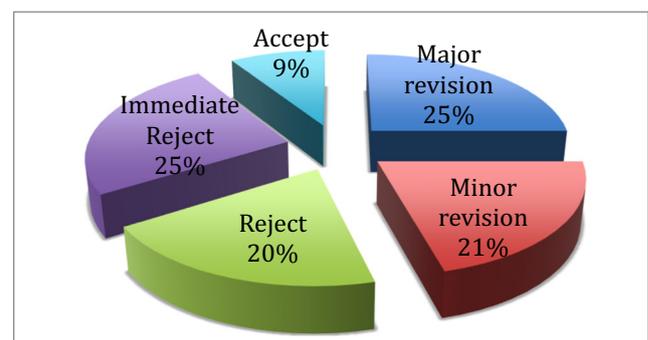
The original contract signed with Pergamon Press in 1986 was for 256 pages per year. The average number of submissions received per year during the first 10 years of the journal was 42. The acceptance rate was generally fairly high, peaking at 92% in 1991 and averaging 69% over that 10-year span. In contrast from 2010 to 2014, the journal averaged 858 pages per year. From 2010 to 2015, the average number of submissions was 234, with 344 manuscripts submitted in 2015. During this 6-year span, there has been a steady decrease in acceptance rate, which has gone from 70% in 2010 to an average of 55% from 2013 to 2015. Of the submissions received in 2015, 9% were accepted after first review, 21% accepted after minor revision, and 25% after major revision. Twenty-five percent were rejected immediately based on the editor’s decision and were not sent to reviewers, usually due to a misplaced submission (Fig. 4).

## Online Deals

Over the last several years, the number of online deals has increased. There were 285 in 2013, 347 in 2014, and 361 in 2015. This has been accompanied by a steady increase in the number of full-text article downloads, rising from 19,000 in 2010 to almost 42,000 in 2013, to 59,000 in 2015.

## Discussion

Since moving to Springer in 2009, the JCE has seen unprecedented growth, receiving increasing submissions yearly, an increasing number of subscription deals and online full-text downloads, and a corresponding increase in impact factor. There are several factors that likely play into this success. One of the main advantages to partnering with Springer is the inclusion of the JCE in “bundles.” “Bundling” journals means that an institution subscribes to a particular bundle of journals published by Springer and gains access to the JCE as



**Fig. 4** Editorial decision summary. Accept: decision at first review. Reject: decision at first review. Immediate reject: editor’s decision—*not* sent out for review

part of the bundle. Through this venue, the JCE then becomes available to all the employees and students of that institution, which was not previously possible with smaller publishers that could not offer bundles or online access. Additionally, previous publishers of the JCE were very small establishments without the ability to truly promote or make widely available a journal with a niche market. For example, only in 2007 did the JCE become available online. Indeed, in an article published in 2009 by Satcher et al., broader access mechanisms, increased exposure, and improved dissemination were identified as potential avenues of growth for the JCE [8]. Springer has the experience and ability to promote smaller journals with a focused, specialty circulation, like the JCE.

With increased visibility come increased submissions. This in turn has allowed the editorial staff to be more selective with which manuscripts to accept, which has likely contributed to the rising impact factor of the journal.

## Conclusion

The JCE continues to be a much-needed outlet for publishing educational research for the many specialties related to cancer

education. As a result of this important mission, and in conjunction with the move to Springer, the JCE is experiencing unparalleled success.

## References

1. Bakemeier RF (1995) Ten years of the Journal of Cancer Education. *J Cancer Educ* 10(4):187–190. <https://doi.org/10.1080/08858199509528369>
2. American Association for Cancer Education. <https://www.aaceonline.com/>. Accessed February 12, 2017
3. Time to remodel the journal impact factor. *Nature*. 2016;535:466
4. Adam D (2002) The counting house. *Nature* 415(6873):726–729. <https://doi.org/10.1038/415726a>
5. Garfield E (2006) The history and meaning of the journal impact factor. *JAMA* 295(1):90–93. <https://doi.org/10.1001/jama.295.1.90>
6. Impact factor. Available from: [http://admin-apps.webofknowledge.com/JCR/help/h\\_impfact.htm](http://admin-apps.webofknowledge.com/JCR/help/h_impfact.htm). Accessed on February 22, 2017
7. Thomson ISI Web of Knowledge. Available at: <http://www.isiwebofknowledge.com>
8. Satcher MJ, Litton AG, Waterbor JW, Brooks CM (2009) The Journal of Cancer Education: a retrospective review of quality indicators. *J Cancer Educ* 24(1):16–21. <https://doi.org/10.1080/08858190802665153>