

---

# **A History of *The Journal of Chiropractic Education***

## ***Twenty-Five Years of Service, 1987–2011***

---

**Bart N. Green**, DC, MEd, National University of Health Sciences, **Grace E. Jacobs**, DA, **Claire D. Johnson**, DC, MEd, National University of Health Sciences, and **Reed B. Phillips**, DC, PhD, NCMIC Foundation and Durban University of Technology

**Purpose:** *The Journal of Chiropractic Education* celebrates its 25th anniversary in the year 2011. The purpose of this article is to chronicle the history of the journal, which is unreported at this time. **Methods:** The entire collection of the journal was reviewed and information pertaining to important events and changes in the format, personnel, and processes of the journal were extracted. This information was used to create a chronology of the journal. The chronology was complemented with information obtained from people who were involved in the evolution of the journal and the Association of Chiropractic Colleges Educational Conferences. **Results:** Starting as a humble newsletter in 1987 and produced for a small cadre of readers primarily from the United States, the journal is now a full-sized and bound peer-reviewed international journal. Initially cataloged by the Index to Chiropractic Literature and MANTIS, the indexing expanded to interdisciplinary indexing systems such as CINAHL and ultimately PubMed. The journal has grown to serve the needs of chiropractic educators from around the world with representatives on the editorial board from 39 colleges and universities from 15 different countries. The journal has grown in tandem with the profession's leading education and research conference and has been the primary repository for the scholarship of chiropractic education. **Conclusion:** The history of the journal represents a significant milestone in the development of the chiropractic profession, particularly the discipline of chiropractic education. The journal has had an interesting history and the future promises to bring more opportunities and challenges to the field of chiropractic education and to the journal. (*J Chiropr Educ* 2011;25(2):169–181)

**Key Indexing Terms:** Chiropractic; Education; History

### INTRODUCTION

One of the harbingers that defines a profession is the development of a systematic body of knowledge.<sup>1</sup> Gathering information, testing theories, and improving processes are core actions of a profession's development. However, without a place for scholarly publication and dialogue about this knowledge, the profession would be adrift. Until relatively recently in its development, chiropractic education did not have a coherent body of knowledge or a peer-reviewed journal in which to publish educational research.

Although calls for improved standards in chiropractic education were heard throughout the first 80 years of the chiropractic profession, it was not until 1974 that the Council on Chiropractic Education (CCE) became the official chiropractic accrediting agency under the US Department of Education.<sup>2</sup> Before this time, there was no vetted accrediting agency for chiropractic education and no centralized means of improving education on a professionwide level. Establishing the CCE as the recognized body began processes to improve standards. With this came the need for a published body of educational research.

Beginning in the late 1970s, the chiropractic profession witnessed the emergence of several scholarly chiropractic periodicals as it recognized the impor-

---

**The Journal of Chiropractic Education**  
Copyright © 2011 Association of Chiropractic Colleges  
Vol. 25, No. 2. Printed in U.S.A.  
1042-5055/\$22.00

tance to publish credible scientific and scholarly papers in its development as a legitimate profession.<sup>3</sup> Although several journals started, not all survived. Ten or more peer-reviewed scholarly chiropractic journals that started between 1980 and 2000 perished by 2003.<sup>4</sup> These journals were primarily focused on clinical research; none were dedicated to the scholarship of education in the profession. Despite this relatively tumultuous environment for disseminating chiropractic scholarship, *The Journal of Chiropractic Education* (JCE) was founded in 1987. Today, JCE is robust and fulfilling its mission. The purpose of this article is to chronicle the history of the JCE, previously unreported, in celebration of its 25th anniversary in 2011.

## METHODS

The authors performed a retrospective analysis of the literature to research the history of JCE. The entire collection beginning with volume 1, number 1, of the journal was reviewed. Information pertaining to important events and changes in the format, personnel, and processes of the journal was extracted. This information created a chronology of the development of the journal. To identify other important information influencing the growth of the journal, the authors corresponded with key people who were involved in the evolution of the journal and events (eg, the Association of Chiropractic Colleges Educational Conference). The historical details were reviewed by all past and present editors for accuracy and were assembled into this historical review.

## THE FOUNDING EDITOR: GRACE E. JACOBS

At the start of her career in education, the founding editor likely did not know the impact she would have on the future of the chiropractic profession. Grace E. Jacobs was born in 1931 in Barnstable, Massachusetts. She graduated from Hartford College for Women in 1950 and began teaching at the William Bachus School of Nursing in 1953. In 1967, the Carnegie Mellon Foundation began awarding doctoral scholarships to individuals qualified in research to support the expansion of their discipline-specific knowledge and to improve teaching in higher education, resulting in a Doctor of Arts (DA) degree program. The DA program emphasized work in the

scholarship of teaching and education and challenged participants to develop into change agents in higher education.<sup>5</sup> Grace E. Jacobs, DA, was an early Carnegie Mellon fellow and graduated with a DA from Idaho State University in 1974 (Fig. 1). It was Dr. Jacobs' doctoral training and experience in chiropractic education that prepared her to initiate the future JCE and become its founding editor.

Dr. Jacobs joined the faculty of Northwestern College of Chiropractic (NWCC) in 1974. She assisted in research and the development of an integrated basic science curriculum and in moving the college to a larger facility. As a chiropractic college faculty member, Dr. Jacobs noticed that new faculty members were often hired because of their excellent clinical skills. However, many lacked preparation for nonclinical educational duties, such as course design, test construction, authorship, and presentation of papers at conventions. Some had training in these skills before entering the field of chiropractic education; however,



*Figure 1. Grace E. Jacobs, DA, the founding editor of The Journal of Chiropractic Education, which began publication in 1987.*

many did not. Thus, Dr. Jacobs pondered how knowledge and skills in teaching could be disseminated by experienced faculty members and how authorship skills could be developed in new faculty members. Sensing this fundamental need should be addressed, Dr. Jacobs started a newsletter to help faculty members develop their nonclinical, educational skills.

## THE FIRST DECADE: BIRTH AND DEVELOPMENT OF THE JOURNAL

JCE was introduced to the chiropractic profession in June 1987. Starting as a humble newsletter, its initial mission statement was as follows:

*The Journal of Chiropractic Education* is a forum for the open and responsible discussion of the topics relevant to chiropractic education. Its mission is to inform its readers of progress in both educational methodologies and the content relevant to the discipline of chiropractic.<sup>6</sup>

Gathering and disseminating topics relevant to chiropractic education was a substantial challenge. At this time, there were feuds between chiropractic regulatory bodies, resulting in a lack of focus.<sup>3</sup> There was a lack of interest and understanding of science and scholarship in the profession.<sup>7</sup> There was no agenda for chiropractic educational research and there were no meetings or scholarly venues where chiropractic educators could meet to present information about developing programs or any scholarship they might have produced. Thus, there was no demand and little to no production of educational scholarship.

Also, there were very few articles about education published in peer-reviewed journals at that time to justify creating a new journal in the field of education. For example, at the time JCE was being introduced, the *Journal of Manipulative and Physiological Therapeutics* (JMPT), the chiropractic profession's flagship journal established in 1978 and the only one included in MEDLINE, had published approximately five papers that could remotely be considered content pertinent for JCE. Although articles on chiropractic education before JMPT could be found in the scientific literature, these were not based on educational research. Instead, these articles typically were derogatory and used as propaganda written by the American Medical Association to damage chiropractic's reputation.<sup>8</sup> Therefore, to start a journal without a demand, no clear publishing need, and a lack of an educational forum was a great leap of faith.

While preparing the first issue, Editor-in-Chief Jacobs had the encouragement and contribution<sup>9</sup> from historian Joseph Keating, Jr., PhD, Research Director at NWCC. The initial title that she chose for the publication was *The Chiropractic Educator*. However, Palmer College of Chiropractic informed her that this title had been used by one of Palmer's early publications for the laity and was unavailable. She decided to give the periodical a name it could grow into: *The Journal of Chiropractic Education* (Fig. 2).

The first issue carried an editorial that explained the rationale for creating JCE and a plea to the chiropractic college faculty to support this new effort.

For some time faculty members at chiropractic colleges have expressed a desire to have their counterparts share ideas relevant to the teaching of chiropractic. A second desire is for teaching materials addressing the needs of chiropractic students. Many are writing special texts/handouts, and much duplication of effort is occurring.

There is a lack of a professional society which actively provides a vehicle for exchange of such information. Any travel funds available are used to keep current in specific disciplines. However a Journal could provide a means of communication between the faculties of the various schools at a reasonable cost.

This is the first, and hopefully not the last, issue of a journal designed to the special needs of chiropractic education. It will publish articles on relevant topics. All major articles will be submitted to reviewers before publication. It will concentrate in instructional methodology and content, reviews of supporting materials, meeting notices, etc. It will not enter the fields of politics or philosophy.

Like other journals this one will be dependent upon its professional audience. The next issue will be forthcoming as soon as sufficient quality material has been submitted to fill the pages. It is hoped that this will be by August and that there will be four issues a year to start. Your response and active support is essential for this fledgling journal to continue. Help it serve your needs.<sup>10</sup>

At the time, very few faculty members were producing scholarly publications<sup>3</sup> so there was yet to be a culture of publication and contribution to scientific clinical journals, let alone an educational research journal. This made it challenging to fill the journal



Figure 2. The evolution of the image of *The Journal of Chiropractic Education*. On the top row, volume 1, number 1, 1987 is on the far left in newsletter format. The first bound issue of *The Journal of Chiropractic Education* (top row, second from left) was printed in the colors forest green and silver to reflect the color of the ribbons on the hoods of commencement regalia for chiropractic degrees. The logo for the Association of Chiropractic Colleges was prominent on the 1989 cover since the association had assumed ownership of the journal that year. In 1995, the year of the chiropractic centennial, the journal was wrapped in a new cover (top row, third from left). The year 1997 brought Dr. Jacobs's final new cover design before her retirement that same year (top row, right). A new cover design and format for the journal came in 1999 (bottom left), the first year of publication under a new editorship. The format was changed to a full paper size in 1999, which has remained to the present day. The Fall 2006 cover announced that *JCE* was available online with a banner at the top of the journal. Volume 23 (2009) started with another new cover design, this one containing an image of a chiropractic teaching moment and announcing the inclusion of the journal in PubMed (bottom row, third from left). The logo for the 2011 silver anniversary celebration of *JCE* is present on both issues for volume 25.

with quality content. Dr. Jacobs was aware that a critical mass of authors and subscribers was required as she noted that, "at least 200 authors and 1000 subscribers were needed..." for a journal to succeed.<sup>11</sup> Much of the content, such as test preparation and teaching skills, published in early *JCE* issues was derived from notes taken by Dr. Jacobs in her DA courses and from materials provided to her in her early teaching career.

Dr. Jacobs recruited colleagues to submit what they could with their limited resources; sometimes the content was a commentary, a letter, or a crossword

puzzle. Some of the early content was not referenced or formatted, as one would expect of an educational research journal by today's standards. It is apparent by reviewing the early issues that heavy encouragement and recruitment by the editor-in-chief was needed to get the journal off the ground and to fill its pages. Many of the early journal issues were filled with content from teachers at the locations where Dr. Jacobs worked at the time. When she was at NWCC, much of the content was from the NWCC faculty. Later, when she was a faculty member at Cleveland Chiropractic College in Los Angeles, the journal had many contri-

butions from that faculty.

Over the next couple of years, the journal circulation grew to about 100, which was short of the 1000 that the editor had originally desired. To ensure acceptance across the wide range of chiropractic educational institutions, she clearly stated that no one college was affiliated with or owned the journal so as to avoid "... parochialism and politics, which have stunted the growth of so many good ideas in chiropractic."<sup>11</sup> She wanted the message to be clear that the journal was a separate and independent entity that was receiving no external support. Dr Jacobs privately paid all expenses not covered by subscription fees and managed the editing, publication, and mailing. Other volunteers were duly recruited as peer reviewers for the fledgling journal.

As with any publication, a central office is required to process incoming and outgoing materials. The initial journal office was located in Dr. Jacobs' home, where manuscripts were received, sent for peer review, and returned for revision. All journal formatting, staging, and preparation for the printer were also done here. A local print shop printed the journal and the copies were brought back to the house and prepared for shipping. To save on mailing costs, all copies for a college were put in a single carton; 17 separate boxes were then transported by Dr. Jacobs to the shipping store for distribution. Individual subscriptions from overseas faculty were sent through the postal service. Because she personally was responsible for transporting the journal materials, it became a requirement that each new car at the Jacobs' household had a trunk large enough to carry all of the journal boxes on shipping day. When the owner of the printing shop discovered that the packing and shipping of JCE was done on Dr. Jacobs' dining room table, he graciously offered space in the facility for the task. When Dr. Jacobs transferred as a faculty member to Cleveland Chiropractic College of Los Angeles and later retired in Minnesota, the journal office and publication processes traveled with her wherever she went.

The second issue of JCE was printed in September 1987. Behind the scenes, Editor-in-Chief Jacobs was busy assembling an editorial board, identifying peer reviewers, establishing a peer-review system, and continuing to manage subscriptions. The third issue, published in December 1987, announced that subscribers included most of the chiropractic colleges (at that time the majority of chiropractic educational institutions were located in North America) and more

than 100 individual subscribers. The cost per issue was initially set at \$2 each in volume 1, number 1.<sup>10</sup> However, in the third issue, the subscription was set at \$12 per year.<sup>11</sup> The December 1987 issue also carried the first call for papers and list of editorial board members.

The Index to Chiropractic Literature (ICL) was the first indexing system to catalog JCE, beginning in 1988, as announced in volume 2, issue 1. The ICL was initially published in hard copy and was a system formed by the Chiropractic Library Consortium in 1982. Its purpose was to catalog the chiropractic literature.<sup>12</sup> The first year of the journal was also included retroactively in the ICL. By March 1989, JCE first listed its International Standard Serial Number (ISSN 1042-5055), which is the recognized identification number for serial publications, thus taking another step in its evolution toward accepted scholarly publication practices.

Over the following year, the editorial board steadily expanded. Dr. Jacobs focused on a new goal to broaden the reach of the journal by including at least one member of every chiropractic college on the editorial board.<sup>13</sup> The board grew quickly from no members to 22 members in only 2 years. Through its distribution to all of the colleges, the journal was reaching out to faculty members who were working in isolation at each of their respective colleges. Through the dissemination of educational papers, greater interest in faculty dialogue and representation was brewing. In 1988, quietly tucked away on the back page of volume 2, issue 1, was a foreshadowing of things to come:

Our students have followed the example of our presidents and found a way to communicate and cooperate through the World Council of Chiropractic Students. Our Presidents have their group. Our researchers have FCER and the Pacific Consortium. Our librarians have Clibcon. What have we educators, those of us who specialize in classroom and clinical teaching, done to foster communication among ourselves?

Shortly thereafter, R. Douglas Baker, DC, vice president of academic affairs of Palmer College of Chiropractic, asked Alana Ferguson, MSLS (now Alana Callender, EdD) to organize a number of faculty education initiatives. Of significance was the First Congress of Chiropractic Educators (April 7-9, 1988), held at Palmer's Davenport, Iowa, campus. Faculty members from all chiropractic colleges were invited to participate. More than 200 faculty and

administrative members attended this inaugural meeting. The program included invited and submitted papers, workshops, and round table sessions relevant to the education of chiropractic students. The congress was the first of its kind in chiropractic education and provided a means for participants to develop collaborations, network, and present their scholarly work in chiropractic education.<sup>14</sup> Interestingly, the proceedings of the First Annual Congress of Chiropractic Educators were not published in JCE, but in volume 4, number 4 of one of the journal casualties of the late 1980s, *Research Forum: the Research Journal of Palmer College of Chiropractic*,<sup>14</sup> a periodical that began in 1984 and ended only 4 years later in 1988.

The 1988 educational congress stimulated JCE to transition from a newsletter format and in 1989 JCE was converted to a bound journal with a forest green and silver cover (Fig. 2). The colors selected for the cover represented the colors found on the hoods of graduation regalia of doctors of chiropractic.<sup>15</sup> Further developments accompanied the new cover design and binding. An increase in pages needed to accommodate journal contents, the new publication format, and other pragmatic issues made it necessary to increase the subscription rate for the journal from \$12 to \$25 for individual subscribers and \$110 for institutional libraries. Volume 3, issue 1 also carried the first statement of editorial policies regarding blinded peer review and provided the first published manuscript preparation instructions for the journal.

An important transition occurred in 1989 between the first and second issue of volume 3 that helped secure the journal's future by transforming it from an independent operation to one that was institutionalized. Recognizing that JCE was gaining interest among chiropractic college faculty and was becoming increasingly more complex to administer and costly to finance, Dr. Jacobs approached the presidents of the chiropractic colleges for assistance at the 1989 Association of Chiropractic Colleges (ACC) meeting. To the ACC, Dr. Jacobs proposed that JCE be distributed to all ACC faculty members in the interest of faculty development. The chiropractic college presidents of the ACC agreed with her proposal and that it would pay all journal expenses and compensate Dr. Jacobs for her editorial work. Each ACC college not already represented on the editorial board recruited a member to serve on the board to help with peer reviewing manuscripts. With this new structure, the journal's mission statement was formalized and updated to its current form:

The mission of *The Journal of Chiropractic Education* (JCE) is to promote excellence in chiropractic education through the publication of research and scholarly articles concerned with educational theory, methods, and content relevant to the practice of chiropractic; to encourage and contribute to the professional development of chiropractic educators; and to recognize their achievements.

Thus, beginning in 1989, JCE became the official scholarly publication of the ACC and was no longer a private endeavor. Circulation increased nearly 10-fold from approximately 100 to about 1000, reaching a target set earlier by Dr. Jacobs. Dr. Jacobs remained the editor-in-chief and primary driving force for 8 more years.

The first educational congress was a success and the momentum to have educators meet annually continued. In 1990, the Second Congress of Chiropractic Educators, co-chaired by Alana Ferguson, MSLS, and Dr. Bernard Coyle, was held at the campus of Palmer College of Chiropractic West in Sunnysvale, California. For this congress, the proceedings and abstracts were published in JCE (volume 4, number 2), a process followed for future meetings. Congress presenters were encouraged to reach a larger audience by preparing their conference presentations for publication in JCE. A review of the conference proceedings and later issues of the journal shows that several conference presenters later submitted articles for publication and took advantage of using the feedback from the peer-review process to sharpen their writing skills and polish their papers. Over the years, this strategy of presentation, peer review, and publication offered a new form of faculty development for chiropractic educators. These efforts were aimed at increasing the number of submissions to JCE while enhancing the maturity of the pool of authors submitting to chiropractic conferences and journals.

To improve the quality of its contents, JCE relied heavily on the formative feedback from the editor-in-chief. Struggles inevitably occurred between the editor-in-chief and authors while assisting them to submit acceptable quality works. Although the standards in biomedical publications were established by the International Committee of Medical Journal Editors in 1978, before 1990 there was no standardization of chiropractic periodicals. Thus, chiropractic authors, who had little to no training in writing scholarly manuscripts, were not aware of the standards needed to publish quality scholarly works. Some assistance was forthcoming, however, when the Foundation for

Chiropractic Education and Research invited all chiropractic journal editors to participate in the formation of the Chiropractic Research Journal Editors Council in 1990. The purpose of this meeting was to establish common standards among the publications and to encourage the editors to adopt the use of the Uniform Requirements for Manuscripts Submitted to Biomedical Journals.<sup>16</sup> Dr. Jacobs was included on the Chiropractic Research Journal Editors Council and JCE adopted these requirements. Volume 5, number 1 (June 1991) carried the first full instructions for authors and volume 5, number 2 (September 1991) included the first assignment of copyright form.

In 1991, the Chiropractic Literature Analysis and Retrieval System (CHIROLARS) began indexing JCE. CHIROLARS was an indexing system developed in the private sector and offered literature retrieval technology different from the ICL and other biomedical retrieval systems.<sup>17</sup> Today, CHIROLARS is known as the MANTIS database.

The third meeting of the Congress of Chiropractic Educators, organized by Eileen Shull of Palmer College of Chiropractic, was held in March 1992 at Life Chiropractic College in Georgia. Faculty members from the University of Texas Health Sciences Center had developed faculty workshops that took the place of chiropractic college faculty presentations. Thus, no scholarly works presented; no abstracts were published for this event in the journal.

In 1994, the first Association of Chiropractic Colleges Educational Conference was held in Las Vegas, Nevada. This new ACC Educational Conference brought together the various working groups of the ACC and allowed for larger general sessions addressing mutual concerns. The former Congress of Chiropractic Educators was incorporated into the ACC Educational Conference. At this and subsequent ACC Educational Conferences, following the tradition established by the Congress, Dr. Jacobs continued the annual publication of the proceedings and abstracts of the faculty scholarly presentations in the March issue of JCE. Dr. Jacobs also managed all submissions for the conference and sent them out for blinded peer review, tallied the results, and notified authors of their fate, a role she would occupy for another 3 years.

With the ACC assuming fiduciary responsibility of the journal, inclusion of JCE into the ACC Educational Conference by publishing its abstracts, indexing by two different systems, and distribution to all ACC faculties, the journal reached the early goals

regarding the number of authors and subscribers set by Dr. Jacobs in 1987. Thus, it would seem that Dr. Jacobs' work was accomplished. She decided to retire from her position of dean of academic affairs at Cleveland Chiropractic College Los Angeles in May 1994 and moved back to Minnesota. However, she continued her work on JCE for 3 additional years. The chiropractic centennial occurred in 1995 and volume 9, number 1 of that year brought forth another new cover design for the journal. It had been 6 years since the design had changed (Fig. 2). In 1997, the Cumulative Index to Nursing and Allied Health Literature (CINAHL) began indexing JCE and the journal donned another new cover that same year (Fig. 2). With the bulk of the subscriptions being ACC faculty, the subscriptions remained fairly level, even though the mailing list took on a more international flavor as new colleges began in Quebec and Denmark and JCE was sent to these new institutions. The journal had reached the goals that were originally established, so Dr. Jacobs submitted her resignation as editor-in-chief to the ACC in 1997. The time for the journal to be turned over to the next generation had arrived.

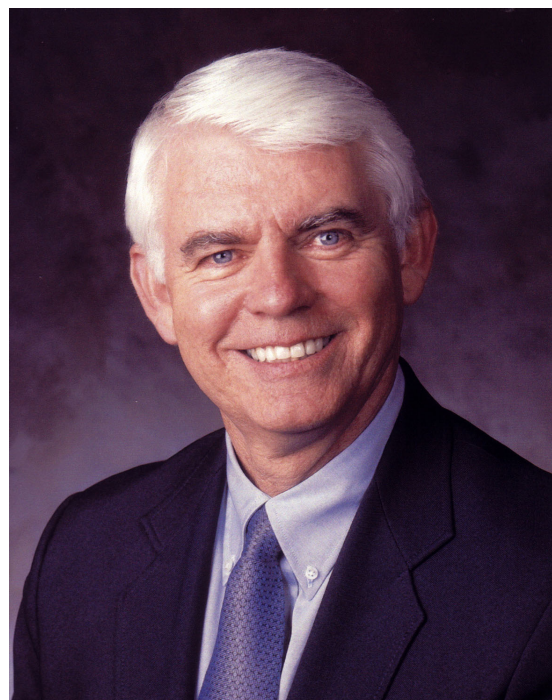
## NEW EDITORS, NEW CONFERENCE, AND REORGANIZATION

In 1997, no one had been designated to replace Dr. Jacobs in the role of editor-in-chief. With no editor to watch over the journal, 1998 was a very lean year for publication. Only one issue, volume 11, number 4, was published and it contained only the proceedings of the annual ACC Educational Conference. No original manuscripts were published. Papers for the ACC Educational Conference were submitted to a new selection committee, but no formal system was in place to supplant the one established by Dr. Jacobs. The conference selection committee was chaired by Ron Bulbulian, PhD, and Lana Feldman, DC, both from the New York Chiropractic College, who did their best to fill in for Dr. Jacobs. After the selection of presentations was made, the abstracts were published by a printer near the ACC offices and wrapped in a cover that still listed Dr. Jacobs as the editor-in-chief of the journal, even though she had not been involved in preparing the issue. Review of this lone issue for 1998 revealed that the journal was not performing as it had in the past, the quality of printing was poor, and the need for a new editor was painfully clear. The many years of effort by Dr. Jacobs and the journal were at risk of being lost.

The urgent need for a new editor was brought before the ACC presidents. Dr. Reed B. Phillips, DC, PhD (Fig. 3) volunteered to assume the role of JCE editor-in-chief and the ACC board voted to affirm his appointment midyear 1998. Dr. Phillips brought much experience to the journal, having served in private chiropractic practice, being trained as a chiropractic radiologist, and having earned a PhD in medical sociology from the University of Utah. He had also served as the director of research at the Los Angeles College of Chiropractic and was widely published.<sup>18</sup> At the time of his appointment as editor-in-chief, Dr. Phillips was the president of the Los Angeles College of Chiropractic and was extensively involved in professional activities, serving on the advisory committees deliberating the inclusion of chiropractic in both the Military Health System and the Veterans Health Administration. Needless to say, Dr. Phillips was quite busy with administrative work and needed help managing the journal.

Dr. Phillips duly recruited a faculty member from his institution to assist in the management of the journal, securing Robert Ward, DC, in the autumn of 1998. Dr. Ward (Fig. 4) served in the diagnosis department of the university and his full-time teaching job focused on educating chiropractic students. Dr. Ward also practiced part time and conducted qualified medical examinations and was well versed in the realities of both chiropractic education and practice. Before his chiropractic training, he had also worked in pharmaceutical research and brought his research and publishing experience to the journal. Dr. Ward was named as the journal editor and, in addition to his full-time teaching duties, was responsible for managing the day-to-day tasks of the journal while Dr. Phillips continued in the role of editor-in-chief.<sup>19</sup>

Under the new editorial team, JCE underwent changes to improve its quality. Data Trace Publishing Company became the publisher of JCE, bringing onboard a copy editor and team of experts to produce the journal. The journal experienced a facelift with a new cover and format (Fig. 2). The new cover retained the silver and green tradition of JCE while providing a more modern and enhanced appearance in four-color print. The size of the journal was increased to standard paper size, comparable with most other academic journals. With the new editorship, the editorial board was renewed, and the frequency of publication was decreased from four issues to two issues per year, which was appropriate for the number of submissions it was receiving at that time.<sup>19</sup>



*Figure 3. Reed Phillips, DC, PhD, became the second editor-in-chief of The Journal of Chiropractic Education.*



*Figure 4. Robert Ward, DC, became the journal editor late in 1998 and it was his role to provide the daily editorial management of the journal.*



With a new semiannual publishing schedule, the first issue of each year became the repository of the ACC Educational Conference proceedings, which was growing. The ACC Educational Conference also changed through the addition of a new formalized peer-review system involving dozens of peer reviewers from across the profession. This process was developed and managed by Claire Johnson, DC, who fashioned the process after other large educational conferences such as the American Educational Research Association and the Research in Medical Education conferences. This process was double-blinded to reduce bias, drew upon a large number of reviewers, offered standardized feedback, and provided the feedback to the authors from multiple reviewers after being reviewed by the peer review chair. At this time, Dr. Johnson was working at Palmer College of Chiropractic West in the Research and Clinical Sciences Departments.<sup>20</sup> For the first time in the history of the journal and the conference, the names of the conference submission peer reviewers were divulged and acknowledged in 1999, a tradition that continues to this day. Clearly, faculty members have found value in participating in the review of conference proposals, as the number of peer reviewers grew from 52 in 1999<sup>21</sup> to more than 125 in 2011.<sup>22</sup> Drs. Ward and Johnson worked collaboratively over the next 7 years to streamline and enhance the conference peer-review process, publication of abstracts as proceedings in JCE, and overall quality of the conference.

Commensurate with increased faculty participation in the ACC Educational Conference, the proceedings began taking up a greater number of pages in JCE. The journal also saw fewer manuscripts submitted for peer review and potential publication as full papers and some works that may have been considered acceptable a decade earlier at the start of the journal were no longer of sufficient quality. Similar to the first decade of the journal, few high-quality manuscripts on educational research were being submitted. This primarily was a result of the culture at the colleges, as most faculty members were assigned to teach and had no assigned research time, no training, and no resources. As Marchiori et al reported in 1998,<sup>23</sup> the majority of faculty members had not published a peer-reviewed article on any topic in the 3 years before a survey that they had conducted at all chiropractic colleges. This low level of scholarly output created additional strain for educational research content for the journal, as the field of educational research was

still emerging. With limited page space available and a decrease in the quality and number of incoming manuscripts, few, if any, original research papers were published in the first issue of each volume over the next decade. Most original papers were published in the second issue per volume. Starting with volume 13, the publication path of each original paper included the dates of submission, revision, and acceptance at the end of each published manuscript.

The tone of the journal also was changing. In years past, Dr. Jacobs published a number of editorials making gentle recommendations about what chiropractic educators should be doing or considering and summarized some of the content of JCE. Editorials under the watch of Drs. Phillips and Ward were different. Their articles often tackled pressing issues facing the discipline and encouraged the profession to consider such topics as

- The relevance of teaching of diagnostic tests for vertebral artery dissection in the absence of evidence for sensitivity or specificity for these tests,<sup>24</sup>
- The difficulties in being a teacher,<sup>25</sup>
- The relevance of curricular content to the practice of chiropractic,<sup>26</sup> and
- The importance of seeing through the completion of research from presentation to publication and the professional duty of publishing one's research.<sup>27</sup>

In 2005, the ACC Educational Conference combined with another popular chiropractic conference, the Research Agenda Conference (RAC), to become the ACC-RAC. The RAC grew out of an initiative from the US Health Resources and Service Administration (HRSA). In 1995, a HRSA contract was awarded to provide a meeting to improve the emerging research capacity, knowledge, and productivity of chiropractic. Much of the work generated from the RAC meetings has been published in journals, such as the position papers published in the *Journal of Manipulative and Physiological Therapeutics*.<sup>28-38</sup> The RAC focused on research training for chiropractic college faculty, students, practitioners, and professional staff and primarily consisted of invited papers and hands-on training workshops, but offered no peer-reviewed, contributed sessions. Thus, the ACC-RAC merger brought together the most productive scholars in all areas of research in chiropractic, provided multiple opportunities for faculty development and presentation, and made this

one of the more prestigious conferences in the profession internationally.

JCE continued to publish abstracts on all topics from this meeting. While in the early years submissions to the ACC Educational Conference included clinical and basic science research, in addition to education research, this new merger enhanced the submission of presentations of all types of research. Acceptance became more competitive, and presentations submitted to the conference had to be of the highest quality in order to be considered. Educators soon discovered that if they wanted to have their work accepted to the conference, they would have to submit proposals as rigorous as the clinical and bench researchers. In the short term, it seemed educational research had less representation at the ACC-RAC meetings; however, this was only a proportional change since the number of clinical and basic science papers were growing. Over time, the quality and rigor of the educational research presentations reached the level of the other studies presented at the conference.

Dr. Ward continued as journal editor until 2006, tendering his resignation<sup>39</sup> when teaching obligations reached a zenith. Dr. Phillips stayed on as editor-in-chief, but JCE found itself again in search of an editor to manage its daily activities. The first half of the 2000–2010 decade had been productive for the journal. New publication processes were in place, a firm relationship had been forged with the ACC-RAC meeting, and the profession's scholars generally felt that the journal was an acceptable repository for the scholarly activity presented at the annual meeting. However, more work needed to be done to bring JCE up to the standards of the mainstream scientific and educational communities. The journal critically needed to be brought into the digital age and more accessible to online readers with inclusion in PubMed, electronic processing systems, a website, and more papers published in both issues of the journal each year.

## A PERIOD OF FREQUENT CHANGE

Following Dr. Ward, the ACC confirmed Bart Green, DC, MEd, as the new managing editor (Fig. 5). Dr. Green, a practicing chiropractor working at Naval Medical Center San Diego, also possessed a Masters in Science in health professions education. He had previously served as a faculty member at the Los Angeles College of Chiropractic and Palmer College of Chiropractic West. He also had administrative

experience as the associate dean of curriculum at Palmer College of Chiropractic West and as a curriculum designer for Palmer College of Chiropractic Florida. Dr. Green brought editing skills to the job, having served as the editor-in-chief of the *Journal of Sports Chiropractic and Rehabilitation* and serving as the associate editor for the Publications Department of the National University of Health Sciences. For the next 2 years, Dr. Phillips continued as the editor-in-chief of JCE.

Volume 20, number 2 was the first issue that Dr. Green edited. His appointment as managing editor began a period of editorship focused on advancing the journal in a progressive manner and expanding its international presence while honoring the history of the journal. The masthead duly indicated new arrivals to the editorial board and the editorial in volume 20, number 2 announced new changes. Having attended the ACC Educational Conferences since 1994, he was familiar with the tradition and evolution of the journal and the conference. This assisted him in managing the pressures and politics experienced in the educational environment and in building bridges that would support the journal.



Figure 5. Bart Green, MEd, DC, assumed the journal editor role from Dr. Ward in 2006 and was affirmed as editor-in-chief in 2008.

Up through 2005, the journal and its contents were not accessible through the Internet. With assistance from Dr. Claire Johnson during the summer of 2006, a website was created for JCE. Thus, for the first time, the journal had a presence on the World Wide Web, containing back issues of the journal to the year 1999, which were available on an open access basis.<sup>39</sup> Also in 2006, JCE moved to an entirely electronic submission and review system,<sup>39</sup> done by e-mail and fax correspondence. This helped accelerate publication time and provided better service to both authors and peer reviewers and was an improvement over the previously used paper-and-mail approach. By 2007, the journal was made available in full text through EBSCO Publishing, making the journal more accessible.<sup>40</sup> By volume 21, number 1 JCE had a full complement of original papers and carried the proceedings of the ACC-RAC meeting.<sup>41</sup> It had been 8 years since the spring issue had contained any full-length manuscript content.

To provide a greater outreach for the journal, an international presence was needed. When JCE was founded, the majority of chiropractic educational institutions were located in North America and the journal reflected this “American-centric” perspective. A 2008 content analysis of JCE found that 80% of the papers published in the journal during its first 20 years (1987 through 2006) were from authors in the United States, with the remaining submissions hailing from Canada, England, and Australia.<sup>42</sup> However, by the early 2000s, with more chiropractic education programs functioning outside the United States than within, the time had come to make the journal inclusive of chiropractic education internationally. In 2007, Dr. Green presented a proposal that was approved by the ACC, allowing him to recruit editorial board members from every country with a chiropractic education program.<sup>40</sup> Programs from Australia and New Zealand were the first to have representatives added to the editorial board. In 2006, the editorial board contained 15 members from the United States, 2 from Canada, and 1 from the United Kingdom. Presently, JCE is represented by 39 colleges or universities from 15 countries.

In 2007, Dr. Reed Phillips announced his retirement as president of the Southern California University of Health Sciences and editorial duties were shifted completely over to Dr. Green as he assumed the role of editor-in-chief. With a need to create more administrative efficiencies, the journal submission and review process was improved to a web-based program using eJournal Press. This new format provided better

efficiency and faster submission to publication times through enhancements that allowed authors and reviewers to perform their duties no matter where they were located.<sup>43</sup>

One of the most important changes making JCE accessible internationally and increasing its quality and stature among chiropractic scholarly periodicals was the inclusion of the journal in PubMed. PubMed indexing enhanced visibility and prestige of the journal and provided more enticement for authors to submit their scholarly work. Over the previous 2 years, Dr. Green had prepared the journal to meet the PubMed inclusion requirements and submitted the application to the National Library of Medicine, and in May 2008 recognition was granted. All articles published in JCE beginning with volume 20, number 2 became indexed in PubMed.<sup>44</sup>

With a greater international presence, increased online visibility, and a decade having passed since the journal had received a makeover, a new cover and page layout greeted readers with volume 23 (Fig. 2). The new cover image placed chiropractic education squarely in the middle, showing a teaching moment in a spinal palpation laboratory. The new cover also proudly announced the inclusion of the journal in PubMed and reinstated the logo of the ACC on the front cover, which had not been featured for a decade. More change came in 2010 with the addition of a new assistant editor, Julie Nyquist, PhD, a professor in the Division of Medical Education at the University of Southern California. In addition to bringing a rich career in medical education to the journal, Dr. Nyquist assumed the duties associated with managing the book review section of JCE. She revamped the process entirely and focused book reviews on those topics most closely associated with education in the health professions.<sup>45</sup>

An important stimulation to encourage authors to convert an ACC-RAC conference presentation to a full scholarly paper was realized in 2009 when the National Board of Chiropractic Examiners provided three \$1000 prizes for education research papers and six \$1000 awards for clinical papers presented at the conference.<sup>45</sup> The caveat was that the paper had to pass peer review at the designated journal and be accepted for publication before the prize money would be awarded. Education papers were encouraged to be published in JCE and it seems that the quality of scholarship has continued to improve since this partnership occurred. The first education research award papers were published in volume 24, number 1 and included a randomized education trial<sup>46</sup> (the first

time a randomized trial had been published in the journal), a paper on the use of collaborative testing using MANOVA and MANCOVA statistics<sup>47</sup> (another first for the journal), and a correlation of pre-chiropractic college academic performance with outcomes in a chiropractic program.<sup>48</sup> The National Board of Chiropractic Examiners continues to provide these awards and the quality of submissions seems to continue to improve as authors elect to participate in this competition.

Aside from a handful of examples, the chiropractic education literature is only as old as JCE itself. Thus, when one pages through the issues of the journal, the history of the scholarship of chiropractic education unfolds. Today's chiropractic faculty have more choices than ever to which they can submit their scholarly works, but despite a number of journals starting and dying since 1978, only one journal has stood the test of time as the repository of chiropractic education discourse, *The Journal of Chiropractic Education*. New practices in publishing, financially viable business practices, increased demands for open access electronic content, providing enhanced services to nonnative English authors, and heightened concerns about citation rates comprise the modern-day concerns of JCE. What JCE of the future will confront remains to be experienced, but it has a rich and proud heritage and a solid footing in current publication customs with which to work.

## CONCLUSION

The year 2011 represents the silver anniversary of JCE. The journal has accomplished much in its first 25 years thanks to the help and dedication of countless people. Looking back on the environment in which the journal was first introduced, it reinforces the importance of perseverance and teamwork. These accomplishments are indeed worthy of celebrating. The journal has grown from the vision of one educator to the realization of many, published more than 200 peer-reviewed papers on chiropractic education to date, and developed into a truly international peer reviewed scholarly journal. It is hoped that 25 years from now the journal will celebrate a golden anniversary and the Editor-in-Chief will update the history of the journal in a manner in which all can be proud.

## CONFLICTS OF INTEREST

Grace Jacobs has no conflicts of interest to declare. Bart Green receives a stipend from the Asso-

ciation of Chiropractic Colleges as editor-in-chief of *The Journal of Chiropractic Education*. Claire Johnson receives a stipend from the Association of Chiropractic Colleges as peer review chair for the ACC-RAC meeting and serves on the ACC-RAC Planning Committee. Reed Phillips has no conflicts of interest to declare.

## ACKNOWLEDGMENTS

The authors thank Peggy Carey and Russell Iwami of the National University of Health Sciences Learning Resource Center for their assistance in retrieving important source materials for this paper and Alana Callender, EdD, for assisting us with information on the Congress of Chiropractic Educators.

---

### About the Authors

Bart Green is the editor-in-chief of *The Journal of Chiropractic Education* and the associate editor in the Publications Department of the National University of Health Sciences. Grace Jacobs is the founding editor of *The Journal of Chiropractic Education*. Claire Johnson is a professor at the National University of Health Sciences and peer review chair for the Association of Chiropractic Educational Conference. Reed Phillips is a former editor-in-chief of *The Journal of Chiropractic Education* and now serves as the executive director of the NCMIC Foundation and as scientist at the Durban University of Technology in the Chiropractic Program. Address correspondence to Bart Green, Journal of Chiropractic Education, 711 Mission Ave #336, Oceanside, CA 92145 (e-mail: JChiroEd@aol.com).

## REFERENCES

1. Greenwood E. Attributes of a profession. *Soc Work* 1957;2:45-55.
2. Keating JC, Jr. C.O. Watkins, D.C., grandfather of the Council on Chiropractic Education. *J Chiropr Educ* 1988;2(3):1-9.
3. Keating JC, Jr. The emerging science of chiropractic. In: Keating JC, Callender AK, Cleveland CS (eds). A history of chiropractic education in North America. Phoenix, AZ: Council on Chiropractic Education; 1998, pp. 201-14.
4. Johnson C. Editorial: a brief review of the evolution of the Journal of Chiropractic Humanities: a journey beginning in 1991. *J Chiropr Human* 2009;16:1-4.
5. White SR, McBeth MK. A history of the doctor of arts tradition in American higher education. *Education* 2003;123(4):770-6.
6. Jacobs G. Purpose statement. *J Chiropr Educ* 1987;1(1):2.

7. Keating JC, Jr., Green BN, Johnson CD. "Research" and "science" in the first half of the chiropractic century. *J Manipulative Physiol Ther* [Historical Article Portraits Research Support, Non-U.S. Gov't]. 1995;18(6):357-78.
8. Brennan MJ. Perspectives on chiropractic education in medical literature, 1910-1933. *Chiropr Hist.* [Historical Article]. 1983;3(1):25-30.
9. Keating JC. The value of quantitative assessment of patient progress. *J Chiropr Educ* 1987;1(1):11-13.
10. Jacobs GE. Editorial. *J Chiropr Educ* 1987;1(1):2.
11. Jacobs G. Editorial. *J Chiropr Educ* 1987;1(3):2.
12. Whitehead JE. CLIBCON: the Chiropractic Library Consortium. Who are we? *J Chiropr Educ* 1990;3(4):18-21.
13. Jacobs G. Editorial board. *J Chiropr Educ* 1988;2(1):9.
14. Jacobs G. Palmer Colleges to host 2nd annual Congress of Chiropractic Educators. *J Chiropr Educ* 1989;3(2):22.
15. Jacobs G. Cover colors. *J Chiropr Educ* 1989;3(1):i.
16. Jacobs GE. Editorial: beginning a new volume. *J Chiropr Educ* 1991;5(1):2.
17. Rupert RL. CHIROLARS: a modern tool for chiropractic education. *J Chiropr Educ* 1990;3(4):22-24.
18. Keating JC, Jr., Phillips RB. A history of Los Angeles College of Chiropractic. Whittier: Southern California University of Health Sciences; 2001.
19. Phillips RB. Editorial: a new look for a new century. *J Chiropr Educ* 1999;13(1):ix.
20. Ward RW. Editorial. *J Chiropr Educ* 1999;13(2):v.
21. Johnson CD. Peer review information and acknowledgments. *J Chiropr Educ* 1999;13(1):x.
22. Johnson CD. Peer review information and acknowledgments for ACC-RAC 2011. *J Chiropr Educ* 2011;25(1):69-71.
23. Marchiori DM, Meeker W, Hawk C, Long CR. Research productivity of chiropractic college faculty. *J Manipulative Physiol Ther* 1998;21(1):8-13.
24. Ward RW. Editorial: an appeal for a rational approach to strokes and cervical manipulation. *J Chiropr Educ* 2002;16(1):xi-xii.
25. Phillips RB. Editorial: on teaching. *J Chiropr Educ* 2001;15(2):iv-vi.
26. Ward RW. Editorial: is the tail wagging the dog. *J Chiropr Educ* 2000;14(1):vii-viii.
27. Ward RW. Editorial: if it is in this issue, it is still unpublished. *J Chiropr Educ* 2006;20(1):xi-xii.
28. Hawk C, Meeker W, Hansen D. The National Workshop to Develop the Chiropractic Research Agenda. *J Manipulative Physiol Ther* 1997;20(3):147-9.
29. Adams AH, Gatterman M. The state of the art of research on chiropractic education. *J Manipulative Physiol Ther* 1997;20(3):179-84.
30. Brennan PC, Cramer GD, Kirstukas SJ, Cullum ME. Basic science research in chiropractic: the state of the art and recommendations for a research agenda. *J Manipulative Physiol Ther* [Research Support, Non-U.S. Gov't Research Support, U.S. Gov't, P.H.S. Review] 1997;20(3):150-68.
31. Mootz RD, Hansen DT, Breen A, Killinger LZ, Nelson C. Health services research related to chiropractic: review and recommendations for research prioritization by the chiropractic profession. *J Manipulative Physiol Ther* [Research Support, U.S. Gov't, P.H.S.] 2006;29(9):707-25.
32. Mootz RD, Coulter ID, Hansen DT. Health services research related to chiropractic: review and recommendations for research prioritization by the chiropractic profession. *J Manipulative Physiol Ther* [Research Support, U.S. Gov't, P.H.S. Review] 1997;20(3):201-17.
33. Nyiendo J, Haas M, Hondras MA. Outcomes research in chiropractic: the state of the art and recommendations for the chiropractic research agenda. *J Manipulative Physiol Ther* [Review] 1997;20(3):185-200.
34. Sawyer C, Haas M, Nelson C, Elkington W. Clinical research within the chiropractic profession: status, needs and recommendations. *J Manipulative Physiol Ther* 1997;20(3):169-78.
35. Cramer G, Budgell B, Henderson C, Khalsa P, Pickar J. Basic science research related to chiropractic spinal adjusting: the state of the art and recommendations revisited. *J Manipulative Physiol Ther* [Research Support, U.S. Gov't, P.H.S. Review] 2006;29(9):726-61.
36. Haas M, Bronfort G, Evans RL. Chiropractic clinical research: progress and recommendations. *J Manipulative Physiol Ther* [Research Support, U.S. Gov't, P.H.S.] 2006;29(9):695-706.
37. Lawrence DJ, Meeker WC. Commentary: the National Workshop to Develop the Chiropractic Research Agenda: 10 years on, a new set of white papers. *J Manipulative Physiol Ther* [Comment] 2006;29(9):690-4.
38. Mrozek JP, Till H, Taylor-Vaisey AL, Wickes D. Research in chiropractic education: an update. *J Manipulative Physiol Ther* [Research Support, U.S. Gov't, P.H.S. Review] 2006;29(9):762-73.
39. Green B. Editorial from the managing editor. *J Chiropr Educ* 2006;20(2):vii-viii.
40. Green B. Editorial: globalization of the journal of chiropractic education. *J Chiropr Educ* 2007;21(2):v-vi.
41. Green B. Editorial. *J Chiropr Educ* 2007;21(1):v.
42. Johnson CD, Green BN. Trends in articles published over the past 20 years in the journal of chiropractic education: country of origin, academic affiliation, and data versus nondata studies. *J Chiropr Educ* 2008;22(1):4-11.
43. Green B. Editorial. *J Chiropr Educ* 2008;22(1):1.
44. Green B. Editorial: new horizons and new responsibilities: PubMed Central indexes the JCE. *J Chiropr Educ* 2008;22(2):125-6.
45. Green BN. Editorial. *J Chiropr Educ* 2010;24(1):1.
46. Bussieres AE, Laurencelle L, Peterson C. Diagnostic imaging guidelines implementation study for spinal disorders: a randomized trial with postal follow-ups. *J Chiropr Educ* 2010;24(1):2-18.
47. Meseke CA, Nafziger R, Meseke JK. Student attitudes, satisfaction, and learning in a collaborative testing environment. *J Chiropr Educ* 2010;24(1):19-29.
48. McRae MP. Correlation of preadmission organic chemistry courses and academic performance in biochemistry at a midwest chiropractic doctoral program. *J Chiropr Educ* 2010;24(1):30-34.