Productivity in Thanatology: An International Analysis

Kenneth J. Doka¹, Robert A. Neimeyer², Joachim Wittkowski³, Michael Vallerga⁴, and Lorraine Currelley⁵

Abstract
To provide a systematic view of the development of scholarly productivity in thanatology, we coded over 1,550 articles published in the field’s leading journals, Omega and Death Studies, for the 20-year period from 1991 to 2010. Tracing trends in the authorship of this evolving literature, we report evidence for (a) the increasing feminization of the field, reflected in the elimination of the gender imbalance in authorship that previously favored male scholars, (b) the emergence of larger and more cohesive networks of collaboration in the production of research, and (c) the diversification in nationality of authorship, signaled by a substantial surge in both the number of countries producing such research and in the percentage of the overall literature arising outside the traditionally American “home base” of the field. Taken together, these trends suggest maturation of thanatology as a scientific area, as well as the productivity of the individual scholars who jointly comprise this interdisciplinary specialty.

Keywords
scholarly productivity, thanatology research

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In an increasingly competitive academic field, nearly all universities, colleges, medical schools, and research hospitals adhere to an ethos of “publish or perish” or even “publish and prosper”—that is, tying academic rank, and typically tenure, to the individual’s publication record. It is little wonder that scholarly productivity has been, in itself, a topic of study. Such research has noted both individual and institutional factors that are associated with high levels of publication, as well variations in productivity between disciplines. Other research has explored strategies to enhance scholarly yield. Yet, little of this research has focused on thanatological literature and productivity within this field.

This study was designed to address that gap. It asks two basic questions—what factors are associated with higher levels of output in thanatology, and where is such research being done? Secondarily, we are interested in changing patterns of publication in thanatology over time, both in terms of characteristics of the researchers (e.g., gender, participation in collaborative research networks) and their countries of origin. Thus, beyond addressing familiar questions in the domain of social studies of science, we are interested in characterizing contemporary thanatology, with a particular view as to the source of contributions to its published literature, allowing us to document global participation in the network of peer-reviewed exchanges of research. To do so, we examine two decades of research published in the two leading and oldest journals in thanatology—*Omega: Journal of Death and Dying* and *Death Studies* (originally *Death Education*). On the basis of that analysis, we offer some recommendations to guide future research. We begin with a review of the literature on scholarly productivity as a topic of research, and then introduce the methods, results, and conclusions of the current analysis.

**Scholarly Productivity**

Unsurprisingly, given its importance, a vigorous field of social studies of science has held the mirror of empirical scrutiny to the factors associated with the output of science itself, including especially individual attributes associated with high levels of scientific output. Studies have found, for example, that male scholars tend to publish more than their female counterparts (Grapin, Kranzler, & Daley, 2013; Potter, Higgins, & Gabbidon, 2011). However, other studies have qualified such gender effects (McNally, 2010). Joy’s research (2006) indicated that men had higher publication rates early in their careers as they pushed for tenure while women tended to become more productive as they aged. In addition, Suitor, Mecom, and Feld (2001) hypothesized that gender discrepancies in scholarly publication were likely influenced by an uneven distribution of household labor—a relationship that they noted existed only among tenure-track faculty with children in the home.
Joy (2006) noted that predoctoral publications were a poor predictor of postdoctoral activity. Potter et al. (2011) also studied the relationship between output and race. In that study, Whites had greater scholarly productivity than other ethnic groups.

Other studies have examined the relationship of academic rank to scholarly productivity. Here, the results were again mixed. Grapin et al. (2013) found no significant differences between academic output and rank, while McNally’s (2010) research showed that volume of publications increased with rank. However, this could be explained by shifts in work responsibilities, if as rank increases, teaching load declines, or if established professors are better able to carve out a research niche.

Research also has focused on institutional factors that promote faculty productivity. There have been debates, for example, as to whether volume of publication should be the primary criterion for tenure or merely one factor—along with service and teaching (Marsh, 1992; Weick, 1992). In addition, the relationship between scholarly output and departmental prestige rankings has been examined. Again, there was no consensus. Both Joy’s (2006) and Keith’s (1998) research indicated that there was no significant relationship between the two factors, whereas Stewart, Roberts, and Roy (2007) found a moderate association. There has also been research as to whether larger departments generated greater per faculty productivity. Stewart, Roberts, and Roy indicated that although larger programs generally produced more research, this did not correlate with higher rates per individual faculty members. Here a number of highly productive faculty members tended to skew the average. Similarly, and unsurprisingly, institutional culture has been identified as an important factor, with faculty at research universities publishing the most (Joy, 2006). However, as Joy notes, this finding may simply reflect that research universities tend to recruit academics with an already strong publication record. In other academic cultures, such as accredited seminaries, peer-reviewed publications were not viewed as critically important (Bell, 2005). Finally, satisfaction with the organizational culture did not seem related to scholarly output (McNeal, 2003).

Other research has investigated productivity across academic disciplines. Wanner, Lewis, and Gregorio (1981) explored publication patterns across the physical and biological sciences, the social sciences, and humanities. In reviewing the literature, they found considerable variation in how productivity was measured in each of the disciplines. They also suggested that both the nature of the work and the disciplinary milieu of physical and biological scientists account for their greater productivity when compared with counterparts in the humanities and social sciences. In general, volume of publication can be taken as one index of the scientific productivity of a field.

Finally, there has been research on strategies to enhance scientific yield. Both Worley (2011) and Martinez, Floyd, and Erichsen (2011) examined the strategies
of highly productive scholars. While noting individual factors such as commitment to do research, these productive researchers also noted the role of collaboration and mentoring. However, Griffin’s (2012) research indicated that sometimes mentoring may, if not carefully focused, actually detract from productivity by adding additional responsibilities inherent in the mentoring relationship. For example, compiling materials to be reviewed by the mentor may place time demands on the junior person, just as reviewing and offering feedback on them may consume time for the mentor. Nelson, Cates, and Woolley (2008) examined the value of professional seminar classes for doctoral students that served to encourage scholarly productivity. Santo, Engstrom, Reetz, Schweinle, and Reed (2009) identified both barriers such as multiple organizational demands for time and supports for scholarly productivity such as varied forms of organizational rewards and tangible support.

**Scholarly Productivity in Thanatology**

While influential theorizing about death and grief (Freud, 1917; Lindemann, 1944) was published in the first half of the 20th century, Feifel’s 1959 seminar at the American Psychological Association and the subsequent publication of *The Meaning of Death* (1959), marked the beginning of the modern death awareness movement (Doka, 2003; Doka, Heflin-Wells, Martin, Redmond, & Schachter, 2011; Pine, 1977, 1986). As Pine (1977) noted, there was increased academic interest and research in the now emerging field of thanatology. In that era, two additional events took place that increased both academic interest and public awareness of death. First, the modern hospice movement developed in England and rapidly spread to the United States and other nations (Saunders & Kastenbaum, 1997). Second, the 1969 publication of Kübler-Ross’ *On Death and Dying* caught the public’s imagination. Thus, the next decade initiated a period of increased academic study of death and grief buttressed by the emergence of two journals1—*Omega: The Journal of Death and Dying* in 1970 and *Death Education* (now *Death Studies*) in 1976, which provided a published forum for the emerging research in thanatology.

The relative lack of research on publication in thanatology could reflect the multidisciplinary nature of the field, which spans a number of disciplines including sociology, psychology, social work, medicine, nursing, health education, philosophy, anthropology, religious studies, and more. The diffuseness of this interdisciplinary matrix complicates research on scholarly productivity, as there are myriad journals in which such literature is published. However, the emergence of field-specific journals such as *Omega* and *Death Studies* suggests the value of analyzing the work published in these two established peer-reviewed outlets for a number of reasons. First, both are official journals of the primary professional organization in thanatology, the Association for Death Education and Counseling and are peer-reviewed by scholars who have established
reputations in the field. They, therefore, represent the cutting-edge of thanatology research. Second, these journals are the primary vehicles where researchers in the field communicate with each other, whereas publication in other outlets could function to introduce a broader range of scholars to research and theoretical development in thanatology. By definition, then, work published in these journals fits within the scope of this interdisciplinary specialty, whereas various other disciplinary journals publish occasional thanatology content alongside a great number of other content areas.

Crase (1986) analyzed gender differences in authorship in the same two leading journals. For the period 1976 through 1984, the percentage of women authors in *Death Education/Death Studies* was 45%, and in *Omega* for a similar period (1975–1983), it was 28%. Combined, women accounted for 35% of the authors of these journals. In a second analysis, Crase (1992) determined various features of authors who had published articles in *Death Education/Death Studies* from 1977 through 1990, that is, under the editorship of Hannelore Wass. The material of analysis consisted of 405 articles by 670 authors. Single authorship comprised 60%, double authorship 23%, and multiple authorships 17%. The comparison of the first half of the articles (Volumes 1–7) with the second half (Volumes 8–14) revealed an increase of double authorship of 10%. Within single authorship (*n* = 244), men made up to 62.5% of contributors. The proportion of males in all the authors was 60.5%. Overall, the author–article ratio was 1.65. The overwhelming majority of articles (88%) were written by authors from the United States. Contributions from other countries came from Canada (22), Israel (11), Australia (5), England (5), Sweden (2), West-Germany (2), Japan (1), and Scotland (1). Crase (1992) also concluded that “articles published in the journal during the first 14 volumes emanated from a healthy mix of experiential, theoretical, and research-based activities” (p. 208).

The aim of the present study is to explore the general productivity in the field as well as features of authors over two decades, namely from 1991 through 2010, in the leading and oldest international journals in thanatology, *Death Studies* and *Omega*. While both are English-language journals, both are international in readership and publication. Choosing this database seemed reasonable in view of the function professional journals fulfil in an emerging field, namely “helping shape the very standards and directions that the field evolves” (Neimeyer, 1991, p. iv). This article, therefore, reviews trends and publication patterns in thanatology within the past two decades. As a companion piece to a parallel article on the content focus (e.g., bereavement and death attitudes), category of article (e.g., theory and empirical research), and methodology (e.g., quantitative and qualitative) of published work in the field (Wittkowski, Doka, Neimeyer, & Vallerga, 2015), it seeks to ascertain who is contributing to the body of knowledge in thanatology in the past few decades as well as the nations in which the centers of such research are located.
Method

Material of Analysis

The present analysis comprises all peer-reviewed articles of Death Studies (Volumes 15–34) and Omega (Volumes 23–61) within the period 1991 through 2010. In Death Studies, Brief Reports and Practice Reports are included. A total of $N$ of 1,554 articles were classified.

Coding Procedure

Coding was performed on the basis of the articles’ abstracts, with occasional consultation of the full publication when clarification was required. The coding procedure was guided by a detailed manual. Authors’ sex or gender was determined from their given names. In unclear or doubtful cases, we explored the corresponding gender via the Internet and, if this was not successful, asked colleagues from the respective countries. If two raters were unable to determine a category, gender was recorded as “undetermined” (as when the use of author initials for unfamiliar authors could not be resolved by consultation with colleagues or Internet searches). Number of authors and their nationality were also coded, with the latter being determined according to their respective institution. For example, an author holding a Chinese passport who at the time of the submission of the article was employed at a university in Massachusetts was coded as “United States.” Coding was also performed for article type, content, and methodology for a separate report (see Wittkowski et al., 2015). For a subsample of 150 articles, coding was performed by two raters. As expected, given the straightforward nature of the coding system, interrater agreement was high (97%). Codes were entered into an Excel database template and analyzed by means of this software.

Results

In examining research productivity, we decided to build on Crase’s (1986, 1992) earlier research on publication trends in thanatology, reviewing trends in author gender, single versus multiple authorship, and nationality of authors. Here we revisit his conclusions with the current data set, comprising 1,554 articles contributed by some 3,425 authors from 40 different countries, providing a unique vantage point on the origins of work in contemporary thanatology.

Gender of Authors

Interestingly and perhaps unsurprisingly given the time period, Crase (1986) reported a substantial gender difference in journal authorship, with nearly twice as many male as female authors. In our more recent analysis, such
gender differences disappeared. As evidenced in the two decades (1991–2000) encompassed by this study, there was virtual gender parity in productivity. In *Omega*, 52.2% of first authors were women, while in *Death Studies*, the percentage of women first authors was 48.6. Combined, women comprised 50.6% of first authors, while men accounted for 49.4%—an obviously insignificant difference.

This may well reflect the general trends toward gender equality—particularly within Western societies. As women advance in academia, it would seem unsurprising that academic productivity among women would also increase. Indeed, to the extent that many of the fields comprising the interdisciplinary matrix of thanatology—psychology, counseling, social work, and nursing—have rapidly become feminized, we might predict that women will play an increasingly prominent if not dominant role in the published literature in the future.

**Type of Authorship**

Classically, research on theory groups in both sociology (Mullins, 1973) and psychology (Neimeyer, 1985) suggest that as fields mature, the work of solitary scholars in an area begin to yield to denser patterns of collaboration and coauthorship, as like-minded investigators develop a shared theoretical and methodological vocabulary and common scientific concerns. In light of this, it is interesting to note the clear trend toward an increase in multiple authorship of articles in both *Omega* and *Death Studies* over the 20-year interval studied (see Figure 1). Indeed, in the most recent time period, the single most common type of publication is authored by three to five collaborators, with those written by two coauthors next most common, and single-authored articles coming in third, a sharp departure from the predominance of single authorship in the earliest period studied.

Although this pattern provides evidence for the growing maturation of thanatology as an interdisciplinary specialty, it also could reflect a number of larger trends. Certainly increasing pressures to publish can facilitate the development of collaborative research teams as such efforts can yield greater research productivity in the form of longer lists of publications for the scholars involved. Technological factors, and especially the advent of efficient sharing of data sets and exchange of manuscripts through the Internet, also greatly facilitate mutual research across sites. Yet, the collaborative trend also demonstrates the increasing institutionalization of thanatology. Once the purview of individual scholars, more and more academics seem to be studying death and bereavement, allowing for more interdisciplinary collaboration. In addition, the increasing organizational development of thanatology evident in the growth of professional organizations such as the International Work Group for Death, Dying, and Bereavement and the Association for Death Education and Counseling offers...
enhanced opportunities for collaborative work (Doka et al., 2011), just as conferences hosted by numerous organizations provide a venue for its presentation. Ultimately, the increasingly collaborative research published in these two leading journals is the result of these trends.

**Nationality**

We also examined the nationality of authors published in *Death Studies* and *Omega*. In 1992, Crase found that the overwhelming majority of articles (88%) in *Death Studies* were written by authors from the United States. The handful of international contributions came from just eight countries—Canada, Israel, Australia, United Kingdom, Sweden, West-Germany, Scotland, and Japan.
Table 1. Publications by Country of First Author in Death Studies and Omega Published 1991 to 2010.

<table>
<thead>
<tr>
<th>Country of first author</th>
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<tr>
<td>United States</td>
<td>1,025</td>
<td>71.5</td>
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<tr>
<td>Canada</td>
<td>83</td>
<td>5.8</td>
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<td>Israel</td>
<td>56</td>
<td>3.9</td>
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<tr>
<td>Australia</td>
<td>44</td>
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<tr>
<td>United Kingdom</td>
<td>38</td>
<td>2.6</td>
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<tr>
<td>The Netherlands</td>
<td>30</td>
<td>2.1</td>
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<tr>
<td>Kuwait</td>
<td>20</td>
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<tr>
<td>China</td>
<td>18</td>
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<tr>
<td>Norway</td>
<td>12</td>
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<tr>
<td>Germany</td>
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<td>Turkey</td>
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<td>Sweden</td>
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<td>India</td>
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<td>Hong Kong</td>
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<td>Taiwan</td>
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<td>Greece</td>
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<td>Nigeria</td>
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<td>Switzerland</td>
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<td>Japan</td>
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<td>New Zealand</td>
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<td>Scotland</td>
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<td>Slovenia</td>
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<tr>
<td>Bangladesh</td>
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<td>Finland</td>
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<td>Iran</td>
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<td>Macao</td>
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<td>Malaysia</td>
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(continued)
several of which contributed only one or two papers each. There were no comparable data for Omega.

This study uncovered a number of interesting trends (see Table 1). First, publications from the United States still constituted a majority of articles in both journals. However, the percentage had declined to approximately 70%. Given that both journals are published in the United States and publication alternatives exist such as Mortality and Bereavement Care in the United Kingdom and Grief Matters in Australia, it may be unsurprising that U.S. authors are so predominate—especially in view of the great size of the American social science community. Furthermore, given that both Death Studies and Omega are English-language journals, it is equally expected that the US, the United Kingdom, Canada, and Australia would account for around 80% of all articles published.

However, what is impressive is the increasing range of authors from non-English speaking countries. In Crase’s (1992) study, research was published from just four countries (Japan, Israel, Sweden, and West-Germany) in which English was not the native language. This current study found publications in Omega and Death Studies that represented work not only from the United States, United Kingdom, Canada, and Australia but also an additional 36 countries from all over the world including Europe, Asia, Africa, and the Middle East, with a pronounced acceleration of such work over time (see Figure 2). Indeed, for the most recent 5-year interval studied, fully 40% of the content of the two major journals in the field come from outside the United States, with European and Asian contributions being particularly notable. Clearly one major trend is the increasing internationalization of thanatology (Saunders & Kastenbaum, 1997) as well as perhaps increased pressure worldwide throughout academia for publication. A further technological factor supporting this development, as noted above, is the emergence of the Internet and the ease with which it facilitates international collaboration and publication. Indeed, this very article exemplifies this trend, with authors situated on the west coast, center, and east coast of the United States, as well as in Germany.

Table 1. Continued

<table>
<thead>
<tr>
<th>Country of first author</th>
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<th>%</th>
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<tbody>
<tr>
<td>Pakistan</td>
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<td>0.1</td>
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<tr>
<td>Poland</td>
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<td>South Africa</td>
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<td>South Korea</td>
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<tr>
<td>Trinidad</td>
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<td>0.1</td>
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<tr>
<td><strong>Total</strong></td>
<td>1,434</td>
<td>100</td>
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10 OMEGA—Journal of Death and Dying 0(0)
Conclusion

This study evidences three significant changes in thanatological research. These include the increased academic productivity of women scholars, the intensification of collaborative research, and the growth in death studies throughout the world. Each of these trends deserves brief commentary.

First, it is clear that thanatology has closed the “gender gap” in productivity of the scholars constituting the field, at least at a collective level. Viewed in a disciplinary perspective, this suggests both the “feminization” of thanatology—like many of the social sciences—and greater institutional support for women scholars. However, by its nature, this study cannot illuminate the individual, organizational, or cultural factors (such as motivation, structures of reward, or
changes in family roles) that make this possible. Whatever the explanation, it is
evident that women are playing an ever-larger role in the field, in ways that could
ultimately shape its content.

Second, the character of publication in thanatology is becoming more col-
laborative, as greater density of research networks yields publications charac-
terized by greater coauthorship. Although this is likely to reflect increasing
pressure in academia for publication, it is also likely to stem from the emer-
gence of more ambitious and programmatic research as the field has matured
as an empirical science. Once the province of relatively solitary theorists and
pioneers, thanatology has grown to include highly cohesive networks of inves-
tigators animated by newer models and methods, producing progressive and
often well-funded research that consolidates and extends its body of
knowledge.

Finally, and perhaps most intriguingly, thanatology has broadened its scope
to include an increasingly international perspective, with a three-fold increase in
authors outside the United States, since the time of Crase’s (1992) study.
Particularly impressive is the upsurge in research produced in Europe and
Asia, which holds the promise that the universality of death and loss across
cultures will ultimately be matched by the cultural diversity of those scholars
and scientists seeking to understand these ineluctable features of the human
condition.

In summary, we have tried to provide an analysis of significant trends in
contemporary thanatology viewed through the lens of scholarly productivity.
We hope that the image that emerges, in combination with that offered by our
companion article on the content and methodology featured in this literature
(Wittkowski et al., 2015), offers a useful view of the on-going maturation of the
study of dying, death, and bereavement.

Notes
1. Another journal, the Journal of Thanatology, published through the Foundation of
Thanatology, also was published at this time but did not survive.
2. Originally titled Death Education, in 1986, the journal’s name was changed to Death
Studies to reflect its wider mission to disseminate research in thanatology beyond its
initial focus on pedagogy.

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