

## Evidence from Analyses of Cancer / Oncology Journals: A Point of View

**Nisha Rani Jamwal<sup>1</sup>, Senthil P Kumar<sup>2</sup>**

**Author's Affiliation:** <sup>1</sup>Post-graduate student, <sup>2</sup>Professor & Principal, Maharishi Markandeshwar Institute of Physiotherapy and Rehabilitation (MMIPR), Maharishi Markandeshwar University (MMU), Mullana University Road, Mullana, Ambala, Haryana- 133 207.

**Corresponding Author: Senthil P. Kumar**, Professor & Principal, Maharishi Markandeshwar Institute of Physiotherapy and Rehabilitation (MMIPR), Maharishi Markandeshwar University (MMU), Mullana University Road, Mullana, Ambala, Haryana- 133 207

E-mail: [senthilparamasivamkumar@gmail.com](mailto:senthilparamasivamkumar@gmail.com)

---

### Abstract

This short communication provided the descriptive summary of studies on analyses of cancer/oncology journals found in PubMed database. There were total 10 studies which included analyses on multiple authorship, religious and spiritual variables (chaplain and clergy), gastric cancer, statistical methods (designs, techniques, survival analysis), errata publications and quality of randomized controlled trials in cancer/oncology journals. The few studies found in this article provided a summary of studies on analysis of cancer/oncology journals, but the evidence presented is too insufficient to allow informed decision making towards interpretation of publishing policies or editorial process among the journals.

**Keywords:** Cancer Journals; Oncology Journals; Publication Analysis; Trend Analysis.

### Multiples authorship

Halperin et al [1] studied multiple authorship trends in the International Journal of Radiation Oncology, Biology, and Physics (IJROBP) and Radiotherapy and Oncology (RO) and examined 1,908 papers and letters from 1983–87, and found no substantial increase in number of authors over the period, with variations in number of authors depending upon type of article, by country and by the authors' institution. The authors' number was independent of first authors' gender and proportion of articles with male as first author varied between countries and institutions.

---

### Religious and spiritual variables

Flannelly et al [2] reviewed all studies published in Oncology Nursing Forum, Cancer Nursing, and the Journal of Pediatric Oncology Nursing, for qualitative and quantitative articles measuring religious and spiritual variables and found that there were more qualitative than quantitative studies, with the former emphasizing religious variables in 14% and the latter only 10%.

### Chaplains and community-based clergy

Weaver et al [3] reviewed 3 primary oncology nursing journals to identify quantitative studies about chaplains and community-based clergy published between 1990 and 1999 and found a total of seven studies at a very low rate of reporting, only 1 in 123 studies which exceeded the rate found in psychology journals (1 in 600 studies).

### Gastric cancer

Lunet et al [4] reviewed The British Journal of Cancer, Cancer Research, the International Journal of Cancer and the Journal of the National Cancer Institute found that stomach cancer was addressed in 2.9% of the articles in 1982–1984 and 3.3% in 2000–2002. Whilst Asia's contribution improved, US' declined and etiologic studies were more frequent with increasing trend for genetic factor evaluation studies.

## Statistical methods

### *Statistical designs*

Thezenas et al [5] studied 393 phase II cancer clinical trials in six following leading journals: American Journal of Clinical Oncology, Annals of Oncology, British Journal of Cancer, European Journal of Cancer and Journal of Clinical Oncology, for their statistical design reporting. 157 articles did not specify sample size or design parameters in 1995 and 113 papers in the year 2000 respectively. There was improving trend to report (15% to 46%) statistical designs: Gehan (4.3% and 3.3%), Fleming (2.2% and 4.3%), and Simon (2.7% and 11.0%); and increasing use of Ad hoc, non-referenced methods were also noted. The use of referenced methods was still short and inadequate among the analyzed studies.

### *Statistical techniques*

Hokanson et al [6] studied 5,000 articles published in five major American oncology journals during 1983 and 1984 for their reporting of various statistical techniques, and found that majority of reports used twelve or more methods, and readers could understand only 90% of the quantitative concepts cited in these journals. Other than survival analyses, most of the methods used common and basic techniques, and in four of the five journals reviewed, failure to identify the statistical methodology was among the ten most commonly encountered “techniques.”

### *Survival analyses*

Altman et al [7] reviewed 132 papers from five clinical oncology journals for articles on survival analyses and found that half of the papers did not provide details on length of follow-up; 62% of papers did not define at least one end point; and that both log rank and multivariate analyses were frequently misreported at most only as P-values. Only 16% of papers explained procedure for categorization of continuous variables in log rank analyses, and of 37% which had poor quality graphs of survival curves and estimates.

### *Confidence intervals and survival estimates*

Urbanic and Lee [8] searched 313 articles from 35 issues of three journals: Journal of Clinical Oncology (JCO), Cancer, and International Journal of Radiation Oncology Biology, and Physics (IJROBP) to analyze the reporting of confidence interval (CI) around

survival estimates. Only 31% of articles reported CI and the likelihood of reporting CI was associated with study type (prospective versus retrospective), use of chemotherapy, journal, and year of publication.

## Publication of errata

Molckovsky et al [9] reviewed 10 major oncology journals for online presentation of errata and found that 9 journals presented links from the original article to the erratum; but in 4 of those 9 journals, at least 1 link was missing. Their survey of oncologists indicated that 33% do not read errata, and 45% have read only the abstract when referencing an article. 59% of oncologists had noticed errors in cancer publications, but only 13% reported the error. Error rates in high-impact oncology journals averaged 4%, which was an underestimation since errors noticed by readers are not consistently reported.

## Quality of randomized controlled trials

Süt et al [10] studied 33 RCTs published between 2002 and 2004 in two leading non-CONSORT-endorsing cancer journals and found 79.3% adherence to the 19 methodological items of the CONSORT statement. Inadequate reporting was seen in items of sequence generation, allocation concealment, implementation, blinding and sample size, which suggested that key methodological items of the CONSORT statement seem poorly addressed in RCTs from these leading cancer journals.

There were total 10 studies which included analyses on multiple authorship, religious and spiritual variables (chaplain and clergy), gastric cancer, statistical methods (designs, techniques, survival analysis), errata publications and quality of randomized controlled trials in cancer/oncology journals. The few studies found in this article provided a summary of studies on analysis of cancer/oncology journals, but the evidence presented is too insufficient to allow informed decision making towards interpretation of publishing policies or editorial process among the journals. With widespread prevalence of under-reporting of cancer in other specialty (palliative care) journals, [11] cancer/oncology journals need to foster a collective responsibility to establish a strong multidisciplinary platform for evidence-based oncological palliative care.

## References

1. Halperin EC, Scott J, George SL. Multiple authorship in two English-language journals in radiation oncology. *Acad Med.* 1992; 67 (12): 850–6.
2. Flannelly LT, Flannelly KJ, Weaver AJ. Religious and spiritual variables in three major oncology nursing journals: 1990-1999. *OncolNurs Forum.* 2002; 29 (4): 679–85.
3. Weaver AJ, Flannelly LT, Flannelly KJ, VandeCreek L, Koenig HG, Handzo G. A 10-year review of research on chaplains and community-based clergy in 3 primary oncology nursing journals: 1990-1999. *Cancer Nurs.* 2001; 24 (5): 335–40.
4. Lunet N, Carvalho R, Barros H. An appraisal of gastric cancer research in cancer journals. *Gastric Cancer.* 2004; 7 (3): 172–5.
5. Thezenas S, Duffour J, Culine S, Kramar A. Five-year change in statistical designs of phase II trials published in leading cancer journals. *Eur J Cancer.* 2004; 40 (8): 1244–9.
6. Hokanson JA, Luttman DJ, Weiss GB. Frequency and diversity of use of statistical techniques in oncology journals. *Cancer Treat Rep.* 1986; 70 (5): 589–94.
7. Altman DG, De Stavola BL, Love SB, Stepniowska KA. Review of survival analyses published in cancer journals. *Br J Cancer.* 1995; 72 (2): 511–8.
8. Urbanic JJ, Lee WR. Confidence intervals and survival estimates: a systematic review of 3 oncology journals. *Am J Clin Oncol.* 2006; 29 (4): 405–7.
9. Molckovsky A, Vickers MM, Tang PA. Characterization of published errors in high-impact oncology journals. *Curr Oncol.* 2011; 18 (1): 26–32.
10. Süt N, Senocak M, Uysal O, Köksalan H. Assessing the quality of randomized controlled trials from two leading cancer journals using the CONSORT statement. *Hematol Oncol Stem Cell Ther.* 2008; 1(1): 38–43.
11. Kumar SP. Reporting characteristics of cancer pain: a systematic review and quantitative analysis of research publications in palliative care journals. *Indian J Palliat Care.* 2011; 17(1): 57–66.

