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Editorial

The five top bad reasons nurses don't publish in impactful journals

Researchers can change the world in many ways. The science of bibliometrics allows scientific influence to be measured (Smith & Hazelton 2011a, 2011b, Oermann 2012), for example by the number of times a particular article is cited by other articles (the citation count) or via overall measures of the influence of journals, such as the impact factor (IF) (Ironside 2007). This has led to debate over whether nurses should be publishing in 'impactful' journals (Johnstone 2007), whether the discipline is disadvantaged by this (Crookes *et al.* 2010), and the overall concept of 'impact' (Ketefian & Freda 2009).

Bibliometrics, proponents suggest, yields objective criteria for assessing the value of published research and is increasingly used as an academic evaluation tool in universities and disciplines (Thompson & Watson 2009). The most well-known measure of 'impact' – the IF – is a journal-level measure defined as the number of citations in a given year made to all content that a journal has published in the previous 2 years, divided by the total number of citable items published in the journal in the previous 2 years (Jones *et al.* 2011). Importantly, because of the differences in citation behaviour in different subject areas, the IF should only be used to compare journals that publish material on the same subject and it should be recognized that the IF is potentially susceptible to manipulation (Jones *et al.* 2011). This can occur when editors encourage authors to cite articles in their own journal or restrict the numbers of articles that they publish that are officially counted as being 'content' (Kleinhart & Wager 2011). The median IF score for nursing journals (1·00 in 2010), is said to be similar to that for other healthcare categories (Polit & Northam 2011), but significantly lower than that for medicine.

In certain research fields, because a large fraction of citations are to articles published more than 2 years before the citation is given, the 5-year IF gives a better reflection of journal impact and is more resistant to distortion resulting from single articles receiving an unusually large number of citations (Jones *et al.* 2011).

The IF is not the only measure of impact. The Source Normalized Impact per Paper (SNIP) is a relatively new measure that unlike the IF corrects for variation in citation behaviours and database coverage across disciplines. This allows relative comparisons of journals in a particular discipline and removes the need to assign journals to subject categories. It uses a 3-year publication window and only counts citations made to peer-reviewed articles (Jones *et al.* 2011).

The h-index (Hirsch 2005) quantifies the cumulative impact and relevance of an individual's scientific research output. It essentially counts the maximum number of publications that have each been cited an equal or greater number of times. Although originally intended for authors, the h-index can be calculated for any set of documents, e.g. the publication output of a country, a university or a journal (Jones *et al.* 2011).

As a part of the contemporary university, practices and issues around scientific impact are relevant to nursing. Measures of impact have been used to evaluate contributions of nursing academics in Canada (Hack *et al.* 2010), the UK (Thompson & Watson 2010) and Australia (Hunt *et al.* 2011), and nursing journals (Smith 2010, Polit & Northam 2011), including specialty (Jackson *et al.* 2009, Cleary & Hunt 2010) and general (Hunt *et al.* 2012) ones. Nearly 90 nursing journals – a tiny fraction of the total number of nursing journals worldwide – are now included in the propriety Thomson database and are assigned IFs.

It is against this large and complex backdrop that criticisms and even dismissal have occurred in nursing not only of particular measures of impact (notably IFs) but also of the concept of scientific impact altogether. Here, we analyse the merits of five of the most common arguments made in the discipline against impact:

I care most about the science

We agree that nurses engage in more debate than other disciplines about IFs, and how they affect scholarly pursuits and publication decisions (Polit & Northam 2011). Claims are made that nursing has not yet focused sufficiently on the

detrimental effects of the emphasis on bibliometrics on nursing knowledge development in various countries (Ketefian & Freda 2009). Curiously, this scepticism is often extended in the claim that nurses who care about science should not care about the impact of that science. This argument is based on the creation of a false dichotomy between scientific quality and scientific impact. Seemingly unable to focus on both, the assumption appears to be that one has to be sacrificed to satisfy the other. Furthermore, the outright dismissal of impact in this way does little to increase the credibility of nursing across the modern university. Claims are made, on the one hand, that nursing is a knowledge-driven discipline that has a rightful place in the modern university because entry to the discipline requires an extensive period of preparation, practice and reflection. Yet, this discipline seemingly, somehow exists, outside the practices of the science and scientific peer review in the modern academe. Nursing and nurses appear, simultaneously, to claim the status of an academic discipline in the academe while arbitrarily rejecting the norms now associated with accountability in that academe.

I want to reach intended clinical audiences

Nursing research should seek to inform or improve healthcare practice. However, this commendable end is often falsely positioned as being against publishing in journals that are either impactful journals or outside of nursing. Thus, it is often claimed that nurses want to reach a clinical audience and, therefore, must publish in non-academic journals. This reasoning is confused, idiosyncratic, potentially patronizing and incoherent. First, it ignores the science of knowledge translation which suggests that, if practice change is the intended goal, a wide variety of other strategies to foster evidence translation are necessary, including: summaries for clinicians and decision-makers; educational sessions; and harnessing of influential local clinicians. This reasoning is idiosyncratic because as with the arguments above about science, it claims a special status for nursing different to that in other health disciplines – which in this case – commonly view both practice change and scientific credibility as important and seek separate strategies to foster these. Finally, it assumes that clinicians do not and cannot find, read, appraise and apply research findings from journals of higher scientific impact. This both stereotypes clinicians negatively and unfairly demonstrate little faith in the very educational preparation that the organizations and individuals often generating the research are providing. Finally, most proponents use this argument to justify publishing in low or no impact academic journals.

Why can nurses not publish their research findings in impactful journals and also write a summary of the clinical implications for a professional journal? Medical authors often want to reach a clinical audience too but that does not prevent them from publishing in the top clinical medicine journals such as the *New England Journal of Medicine*, the *Journal of the American Medical Association* or the *Lancet*, all with the highest impact factors (currently exceeding 30·00) in the discipline.

I want to reach intended research audiences

It is argued that the pressure to publish in high IF journals distorts publishing practices in nursing and is detrimental to the development of nursing knowledge and, consequently, patient care (Ketefian & Freda 2009). We cannot understand why nurses do not publish in the best journals to reach the widest and influential research audiences internationally. This may include publishing pertinent nursing work in cardiac, wound care, mental health or cancer journals.

Impact factors are flawed

It is important to remember that citation-based metrics are backward-looking and view citations positively, even though citations can sometimes be negative, e.g. an article citing another one that it disputes or may favour particular types of methods or affirmative findings.

This argument raises valid issues about the tricky issue of measuring impact but falsely extrapolates these concerns to question the entire notion of impact. This is the equivalent of dismissing the importance or even existence of a construct because it is difficult to measure – a reasoning that is precarious when applied to other difficult-to-measure phenomena, such as scientific reputation or quality of life. It also dismisses a range of other measures of impact beyond the IF, such as the SNIP or h-index. Problems with particular measures of impact are well known. For example, comparison of the Web of Science, Scopus and Google Scholar databases revealed statistically significant differences in citation counts and hence h-indices (Bar-Ilan 2008). Yet, recognizing the limitations of particular bibliometric measures does not mean that they should all be abolished or have no validity. They give useful information as long as they are used judiciously and with an awareness of what they do and do not indicate (Ironside 2007) and do not distract one from the purpose of the research (Gallagher 2011).

Number of publications is most important

This is untrue and often ill serves both the individual and the discipline. In the modern publishing world, not all publications are considered equal. A plethora of new predatory 'vanity' journals now exist that have very limited credibility and/or peer review but which seek to lure scholars who are eager to publish quickly. A dominant focus on quantity of publications, driven by an overriding expedience to publish more or quickly, does not realize the full potential of scholars, their work or the discipline. Particularly when high quality work is published in journals that lack credibility, the credibility of otherwise strong research can be undermined to peers in nursing and other disciplines. It is competitive to have articles accepted in journals that are more impactful – researchers are likely to receive more rejections if they seek to publish their work in these journals. However, there is much to be gained in terms of reputation because there are strong positive correlations between journal IF, average cites per article and the h-index (Hunt & Cleary 2010). Unfortunately, local working cultures that equate quality with quantity can reward expedience over excellence because quality is more difficult to assess. The history of science suggests, however, that scholars' contributions to their fields depend far less on how much they publish than by what they publish.

Conclusion

What is the way forward for nursing in relation to scientific impact? Can nursing retain and develop its credibility in universities while also claiming special status to pick and choose which aspects of academe, science and impact apply to the discipline and which do not? We do not believe so. Nursing must 'play the games' of the academy with other disciplines, whilst recognizing debate about these games is good and seeking to improve it status and influence. Many of the reasons cited above appear to be manifestations of low confidence, insecurity and positioning that do not develop the reputations of nursing scholars of the discipline. To advance the debate and thinking around the meaning and significance of bibliometrics in nursing, the nursing professoriate must show academic leadership and direction in this matter that is often sadly lacking (Thompson & Watson 2001, 2006, Watson & Thompson 2008, 2010a, 2010b), particularly in the field of research and scholarly publication (Thompson 2003a, 2003b, 2009), where it has too often had little to profess.

David R. Thompson[1] & Alexander M. Clark[2]

[1]*David R. Thompson RN PhD FRCN FAAN*
Professor of Nursing
Faculty of Health Sciences, Australian Catholic University, Melbourne, Victoria, Australia

[2]*Alexander M. Clark RN PhD*
Professor of Nursing
Faculty of Nursing, University of Alberta, Edmonton, Canada
e-mail: david.thompson@acu.edu.au

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