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Bibliometrics as politics: the case of emerging disciplines

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Academic nurses are increasingly turning to bibliometrics to assess the state and status of research publication in nursing in countries around the world. Early bibliometric studies were carried out by Cattell as part of a project to advance research in psychology in the early decades of the 20th century. There are some echoes in nursing's moves to increase its standing over the last 40 years. The interpretation of bibliometric studies can reveal embedded values about academic disciplinary activity and normative views of scientific work. Patterns of publishing by nurse academics appear increasingly to resemble those in biomedicine as a whole.

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Science brings status. Like political parties in opposition, emerging disciplines take great pains to demonstrate their trustworthiness, their importance to society and their respectability.

Although bibliometricians tend to trace their own origins to the 1950s with the work of D.J. Price and others, credible arguments suggest that psychologist James Cattell first systematically collected statistics about the publishing patterns of psychologists in the United States of America in the early decades of the 20th century (Godin 2006). His concern was to display the productivity of psychologists in his country, to compare their outputs with their German or British colleagues and to argue for more resources to be given to strengthen research in his discipline.

Psychologists who spend less than half of their working week in research because they are forced to spend more than half of it teaching, Cattell complained, can justifiably be called amateurs. It was its ability to measure, he argued in 1895, that placed psychology on par with the already established sciences and its entry into the university a sign of its accomplishment. Nearly 100 years later, North American nurses were looking to their own history of intellectual achievement to argue for the discipline's credentials, with the establishment of the journal *Nursing Research* confirming that 'nursing is indeed a scientific discipline and [. . .] its progress will depend on whether or not nurses pursue truth through an avenue that respectable disciplines pursue, namely research' (Meleis 1985, p. 13).

Commentary on: Nursing Research in three regions in China: a bibliometric study. [Peng & Hui 2011, in this issue, 58 (1)].

Nursing as an academic discipline now sits in the universities of many developed countries around the world. As Peng & Hui (2011) inform us, the speed and pattern of this move has been different in the Chinese mainland, in Taiwan and in Hong Kong, for a great many reasons, often well outside the confines of either higher education or nursing. Despite these achievements, nursing still struggles in many countries to exert policy influence and to take a significant share of research funding. Its scientific, cultural and political status is far from established. However, various investigators around the world deserve our great admiration for their concerted efforts in undertaking bibliometric studies of the published outputs of their nursing compatriots in an effort to put down markers of quality and quantity in their countries.

It has been said, probably too many times, that particular models of science have established themselves as the norm in the West. Debates about this have taken place certainly in nursing and also in psychology (how different are social psychology and discursive psychology to experimental work, for example – with discursive psychology a purely qualitative field). For a great many in nursing, a biomedical approach to research – and research publication – is a mark of success and coming of age, a fitting into an established norm. This approach tends to be characterized by research council or government funding to large interdisciplinary teams focusing on clinical questions, giving rise to multi-authored outputs.

Bibliometric work carried out by myself and colleagues 10 years ago (Rafferty et al. 2000; Traynor et al. 2001) detected

that multi-authored papers were gradually replacing the pattern of unfunded, single authors publishing in highly respected nursing journals. With 'scientific' status so highly valued by 19th and early 20th century psychologists, nurses and perhaps many bibliometricians, it is not surprising to find an implicit evaluation of different kinds of academic work embedded in what has become known as Price's index of the currency of research citation, a measure used in many bibliometric studies. With typical male metaphor, Price (1970) takes us down a hierarchy of 'hard' to 'soft' to 'non-science'. The former is the realm of biochemistry and physics, in the middle are the social sciences and the latter he identifies with research in the humanities. With a cash-strapped government in the United Kingdom currently proposing to withdraw university funding from humanities but continuing to support science, technology, engineering and medical subjects, we look set to return to Victorian times where humanities such as English literature take on the character of hobbies for the children of the rich or subjects 'fit for women'. They are neither 'science' (according to Price) nor drivers of the economy.

For me, the designation science is merely descriptive – science is one cultural activity alongside others – but clearly rewards are available to those who can describe their activities in scientific terms. In the competition for scarce resources, we continue to see the advocates of all kinds of academic disciplines arguing for their rigour, the fundamental character of their own knowledge base and their place 'alongside the established sciences'.

Bibliometric studies of published nursing outputs are becoming more popular, and many such studies have appeared in this journal from across countries and regions where nursing enjoys a varied status, from Spain and Turkey among others and in addition to this important paper from Peng & Hui (2011). These studies, as Peng and Hui point out, enable those within the profession to compare nurse academics with others and to detect trends. With cautious reflection we can gain insight into forces and reward structures acting on researchers in this area. Sometimes bibliometry confirms what we already knew – that the English language dominates in academic publishing, for example, and that many non-native English speakers realise, early in their publishing careers, that if they want more than parochial success, they need to write in English. It is possible to see this as a kind of linguistic imperialism but difficult to argue against it now unless we want to return to the use of Latin for international scholarly discourse.

Patterns of funding, publication and citation vary across disciplines – in ways that cannot necessarily be mapped onto any notions of quality – and across regions of the world and within regions as this paper demonstrates. The characteristics of published research in nursing also, to some extent, reflect the place of women in society. The status of nursing, as we all know, varies greatly around the world. In countries where nurses have little educational preparation and their work is of relatively low status, academic nursing is relatively underdeveloped. Nursing research in mainland China is clearly on the rise, and we can only hope that this phenomenon helps to influence the delivery of health care and health promotion in that country in a positive way.

Michael Traynor
PhD, MA (Cantab.), RGN, HV,
Middlesex University, Archway Campus,
London, UK
Email: m.traynor@mdx.ac.uk

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