

Identifying strategies to improve research publication output in health and rehabilitation sciences: a review of the literature

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Abstract

The health research community in South Africa annually produces a fair number of research papers in national and international health and related journals. Unfortunately, the proportion of papers produced by authors in health and rehabilitation sciences is insignificant compared with other disciplines. To identify strategies to increase the number of publications in South Africa, this article reports on a review of published papers into the effectiveness of interventions designed to promote research publications among academics and clinicians in health and rehabilitation sciences programmes. Seven of the papers reported on interventions for academics, and six reported on the inter-

ventions for academics in the nursing profession. The most common interventions were 'writing support groups', 'writing retreats', and 'writing courses' that lasted from 3 days to 5 years. The interventions were designed to meet the needs of the participants for structured time, motivation, improved writing skills and peer support. All the interventions produced significant research output relating to submission or publication of academic papers. The implementation of these interventions by South African tertiary institutions where health and rehabilitation sciences are offered may improve the number of papers published by the health research community.

Introduction

The measurement of research output is common practice among public institutions internationally. Although controversial and often contested, such measurement is regarded as the most important indication of research productivity by academic staff.¹ Producing adequate research outputs is influenced by various personal and institutional factors which include finding time to write,² lack of skills in identifying appropriate journals,³ and fear and anxiety in sharing ideas with others.⁴ Institutional inhibiting factors include limited research funding support and increased workload.⁵ Because of these inhibiting factors, various support strategies for academics have been attempted and documented in the literature. The support strategies can take various forms, ranging from providing academics with time off from job responsibilities, to access to staff in senior mentoring, peer mentoring or writing support groups.

In most countries, the higher education institutions produce the bulk of health research in terms of publications. A decade ago, the health research community in South Africa was producing approximately 3 000 publications in national and international health and related publications annually, of which about 1 500 were peer-reviewed, index-linked publications.⁶ Less than 5 years ago it was still reported that the proportion of publications by authors in health and rehabilitation sciences was assumed to be insignificant.⁷ For the purpose of this article, health and rehabilitation sciences include all health care professions except medicine. There are currently 22 tertiary institutions in South Africa, consisting of 11 traditional universities, 6 comprehensive universities and 6 universities of technology.⁸ Ten of the traditional universities, 3 of the comprehensive universities and 1 of the universities of technology have courses in health and rehabilitation sciences. There are multiple opportunities for academic staff in these institutions to be involved in research activities. Based on the opinion of Ncayiyana,⁷ it seems there is little evidence of

the research engagements of these academic staff in terms of publication output. In medical and nursing education, these publications are clearly documented and the dearth of information in the area of health and rehabilitation sciences needs to be addressed. Therefore, the aim of this paper was to review published literature reporting on strategies designed to promote research publication among academics and clinicians in health and rehabilitation sciences programmes to inform strategies to increase the proportion of publications in health and rehabilitation sciences in the health research community in South Africa.

Methods

Literature search strategy

A systematic search of electronic databases such as Medline, CINAHL, and Ebscohost from 2000 to 2010 was performed. The criteria for inclusion of articles into the study were: (i) publication in the English language; (ii) access to full text publication data between 2000 and 2010; (iii) target population included academics and/or clinicians; and (iv) publication writing interventions. Search terms were constructed after some review of the relevant literature. Combinations of the following terms were used in all databases: publication, writing, intervention, support, clinicians and academics. The reference lists of all retrieved articles were examined to identify additional relevant studies.

The initial search yielded titles and abstracts, which were then reviewed by the two reviewers for: sample population (academics, clinicians, and postgraduate students), type of intervention (e.g. courses, support groups, mentoring, workshops) and outcome (improved publication rate). A total of 481 published articles were identified based on our search criteria.

Table I. Summary of the studies included for review

No.	Author(s) and titles	Intervention	Duration and programme components	Targeted population	Outcome
1	Mentoring and coaching for publication ¹⁰	Writing for publication support group	10 weeks	9 physiotherapy academics in South Africa	All participants submitted a paper for publication. 4 were published and 2 were asked to revise, with 1 rejected
2	Mentored residential retreats: a leadership strategy to develop skills and generate outcomes in writing for publication ¹¹	Writing retreats	3 days and 2 nights – scheduled work time from 07h00 to 21h00, with two 1-hour breaks	2005: 20 nursing participants 2007: 15 nursing participants 2007: 14 nursing participants, Australia	2005: 16 papers submitted, 15 published and 1 in revision 2007: 12 papers submitted, 10 currently under review and 2 published 2007: 9 papers submitted and currently under review
3	Building research capacity: through a hospital-based clinical school of nursing ¹²	Clinical school	3-year period <ul style="list-style-type: none"> • joint research • development of clinicians and academics 	Nursing clinicians and academics, Australia	11 articles published Additional research projects
4	Facilitating writing for publication ¹³	Writing course	6-month course <ul style="list-style-type: none"> • six 3-hour meetings • programme included writing, discussion and planning time 	14 health and rehabilitation sciences professionals, Glasgow. 6 physiotherapists 2 occupational therapists 3 speech and language therapists 3 podiatrists	7 submitted articles, of which 6 were accepted for publication 2 had submitted and received reviewer feedback
5	Supporting academic publication: evaluation of a writing course combined with writers' support group ¹⁴	Writing for publication course and support group	5-day writing for publication course <ul style="list-style-type: none"> • how to write for publication • group discussions • editing guidance <p>Writing support was provided over a 2-year period</p>	8 academics from disciplines such as nursing, social science, science and humanities, Australia	Publication increased to 33 articles in a period of 2 years
6	Conquering the publishing silences of black academic women ¹⁵	Support group	Monthly meetings over 1 year <ul style="list-style-type: none"> • 1-hour session • support and encouragement 	4 academics, in South Africa: 2 physiotherapists, 1 educationalist, 1 human ecologist	2 group articles published
7	Writing for publication: a new skill for nurses ¹⁶	Writing course	4 separate half-day workshops over a 6-month period <ul style="list-style-type: none"> • 2-hour sessions • strategies for successful writing • structuring a paper 	17 nurses participated, UK	14 articles submitted 11 articles published
8	Peer mentoring for tenure-track faculty ¹⁷	Support group	2 years <ul style="list-style-type: none"> • meetings every second week • discussions 	4 nursing academics, USA	10 articles submitted and 5 accepted
9	Improving faculty publication output: the role of a writing coach ¹⁸	Writing coach	13 months <ul style="list-style-type: none"> • part-time hired coach • 21 hours/month for academic support 	16 nursing academics, USA	21 articles submitted, 5 rejected, 1 under review and 15 published

Methods of the review

The search produced 481 hits and, after a review of the abstracts, we retrieved the full text of 30 articles and assessed them for information on writing for publication strategies among academics and clinicians, with specific emphasis on health and rehabilitation sciences professionals. After further review of the 30 articles, 9 were finally selected for inclusion in the current evaluation. The articles were appraised for quality using the Guidelines for Critical Review, developed by the Occupational Therapy Evidence-Based Practice Research Group at McMaster University.⁹ Each article was given a score based on the criteria, e.g. aim of the study, literature, study design, methods. A maximum score of 15 could be achieved. Given the paucity of work in this area, papers were not excluded on the grounds of methodological weakness. Authors also followed up outputs with original authors if outputs were not indicated. Articles were excluded mainly based on the population addressed in the article and when the focus of the research capacity development initiative was not on publications. A data sheet was then designed (Table I) to capture the relevant information, such as author, date, type of intervention, population and outcomes. Major themes were identified in each paper by the authors, a consensus approach was used to identify the relevant quotes, and an analytical framework was developed.

Results

Several interventions were being used to support academics and clinicians within the health and rehabilitation sciences discipline to improve their publication writing. In addition, most of the articles included in the review highlighted academics as participants involved in writing for publication interventions (7/9 studies).

Various terminologies are used to describe interventions with similar goals and outcomes. The most common terminologies used are 'writing support groups', 'writing retreats', and 'writing courses'. Most of the studies were conducted in developed countries such as the USA and Australia. The reasons given by the participants for attending included the need for structured time, to improve writing skills, for motivation, and for peer support. All the interventions produced significant output relating to submission or publication of academic papers. The duration of the interventions ranged from 3 days to 5 years. The duration did not seem to affect the outcomes as all interventions had positive outcomes.

The experiences of the participants in different interventions are similar. They reported that the group format intervention enhanced positive interpersonal relationships and mentoring:

- 'The shared sense of achievement amongst the group was an extremely positive aspect.'¹⁴
- 'I found it useful to be part of a group in which all members submitted themselves to the process of reading, writing and being read.'¹⁰

The participants also reported that they improved their knowledge and skills relating to writing and submitting articles:

- 'I have never before had this sort of attention and I feel privileged and have a real sense of achievement.'¹¹
- 'It's less scary, now I believe I can write.'¹³

The various formats also allowed the participants to appreciate the value of feedback.

- 'It was an opportunity to "try" your writing on others.'¹⁴
- 'I was able to take on board comments from peer review with more understanding.'¹³

Discussion

Much has been said about the need, purpose and benefits of research publication,^{19,20} and about it being the natural conclusion in the research and discovery journey, allowing new findings and ideas to be shared, challenged and verified before adoption. Research and publication are essential factors in the survival of the education of health care professionals. Publications are a major element in the transfer of knowledge from clinicians and academics to potential users that could ultimately assist in saving lives and improve health care and delivery. This review therefore focuses on intervention strategies aimed at improving research publication outcomes. Although there are only a few studies focusing on strategies for health and rehabilitation sciences professionals, the literature suggests positive outcomes relating to publication. The strategies are recommended to improve research publication output in health and rehabilitation sciences in South Africa.

From the review, interventions would obviously vary according to target groups (academics v. clinicians), but the basic framework of interventions should comprise interactive sessions where participants are allowed opportunities to write and receive feedback from others. The sharing and critiquing process in writing for publication interventions allows for participants to bring forward the realisation that there can be many ways of presenting a finding or expressing an idea. It also prepares writers for the process of reviewing, but some are more effective than others. In addition, as in interdisciplinary clinical goal, interdisciplinary research goals and groups can positively impact on health care and delivery among health and rehabilitation sciences professionals.

In addition, it seemed that the outcomes for clinicians¹⁴ and academics¹⁰ can be the same with a structured intervention. Thus we can create synergy between clinicians and academics using structured writing for publication workshops.

Conclusion

The review is encouraging in that the strategies identified in the 9 reviewed articles have resulted in improvement in publication counts among health and rehabilitation sciences professionals. However, studies tended not to report on the status of the participants before the intervention so as to be able to measure whether there had been an increase in publication. If implemented, these strategies may contribute to increasing the research publication output among health and rehabilitation professionals in South Africa.

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