WAYS TO IMPROVE RESEARCH OUTPUTS OF NURSE ACADEMICS IN SUB-SAHARAN AFRICA

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ABSTRACT

In academia, evidence of scholarship, e.g. published articles, is required for career progression. A consensus-seeking design was used to identify ways in which nurse academics in sub-Saharan Africa could be mentored to increase their publications. Convenient sampling was done and data were gathered through two nominal groups. Only 9 of the 24 participants who had at least a master's degree have had an article published. Nurses in sub-Saharan Africa who acquire master's and doctoral degrees should be mentored to get their findings published in journals. Developmental network mentoring appeared to be more appropriate for mentoring nurse academia over geographical distances than individual dyad mentoring relationships.

Keywords: mentoring, scholarship, publications.

1.   INTRODUCTION AND PROBLEM STATEMENT

Nursing research outputs, as measured by publications in officially accredited journals in sub-Saharan African (SSA) countries, are limited because only a few SSA countries offer postgraduate nursing programmes. The lack of postgraduate nursing programmes in sub-Saharan Africa means that there are insufficient mentors who can guide students towards scholarship of discovery. Traditionally, research was emphasised in scholarship and doing research was seen as the only proof of scholarship (Nora et al., 2000:193). Contrary to this viewpoint, Boyer and Rice (as cited in Glassick, 2000:877), define scholarship as "not only research (the scholarship of discovery) but also the scholarship of integration, the scholarship of application, and the scholarship of teaching. The meanings of these four forms of scholarship are separate yet overlapping." Research outputs might be the most important criterion against which academic career progression is measured, because publications in accredited academic journals imply that independent reviewers/scientists approved the academic merit of the publication. Research and publication competencies are essential accomplishments for nurses in academic institutions and for those in leadership positions in service-related institutions.

The scholarship of discovery can be fostered through mentoring, which has been defined by Bozeman and Feeney (2007:719) as:

> …a process for the informal transmission of knowledge, social capital, and psychosocial support perceived by the recipient as relevant to work, career, or professional development; mentoring

entails informal communication, usually face-to-face and during a sustained period of time, between a person who is perceived to have greater relevant knowledge, wisdom, or experience (the mentor) and a person who is perceived to have less (the protégé).

Higgins and Kram (2001:264) believe that individuals receive mentoring assistance from many sources simultaneously, including senior colleagues, peers, and family and community members. Individuals rely on multiple individuals for developmental support and mentoring. For success, both the mentor and mentee must be interested in and committed to the process. A conflict of interest might arise when the mentor is promoting his/her own research for obtaining funding allocations or career advancements at the cost of the mentee's progress (Bettmann, 2009:1832).

The need to develop the scholarship of discovery through mentoring was identified during a survey conducted by the research committee of the Tau Lambda-at-Large Chapter in sub-Saharan Africa. Respondents of this survey came from eight different countries, contexts and cultures (Wright, 2010:16).

2.   PURPOSE OF THE STUDY

The purpose of this study on which this article is based was to identify ways in which nurse academics in sub-Saharan Africa could be mentored to conduct research and publish their findings.

3.   METHODS

A qualitative, descriptive study was conducted to identify ways of mentoring nurse academics in SSA countries. The nominal group technique (NGT) was used, because it is a consensus method and the participants had to agree on how mentoring should occur (Botma et al., 2010:251). The trustworthiness of research results refers to the degree of confidence that qualitative researchers have in their data. The group facilitators (authors) are both experienced qualitative researchers and had used this data gathering technique successfully during previous studies, thus contributing to the trustworthiness of the study. Rigour was further enhanced through comprehensive and vivid recording of participants' contributions. Furthermore, the participants participated in data analysis by prioritising their contributions. An audit trail is available and a co-coder assisted with the thematic analysis (Botma et al., 2010:232).

The study was approved by the Ethics Committee of the University of the Free State. The information in the informed consent letter was explained to the potential participants and the necessary signatures were obtained before they took part in the study. The letter clearly outlined the expectations of the researchers who gave participants the opportunity to withdraw from the study if they felt so.

Demographic questionnaires were completed anonymously and all data were reviewed to make sure that no personal details had been specified. Participants consented to the publication of the study results.

3.1 Population and sample

A convenient sample was selected from the nurse academia who attended a nursing conference that is held annually in the sub-Saharan African region. Only those members who attended the workshop on the nominal group technique and who were willing to participate in the research were included in the study. All 28 people who attended the workshop participated in the research. As 28 people are quite a large group to manage, the researchers asked the participants who were willing to mentor people to indicate this by a show of hands. Thus, the group was divided into two: those who were willing to mentor and those who were in need of mentoring. Inadvertently, the two groups were the same size. An additional bonus was that the research question was answered from two different perspectives.

3.2 Data collection

Nominal group technique (NGT) means that, although participants are in a group setting, they are not allowed to interact directly with one another. The groups were therefore nominal in name only (Macphail, 2001:161). The NGT allows structured group work to take place while obtaining inputs from several people about a particular problem or issue. Participants work in each other's presence, but write down their own ideas independently, as opposed to verbalising those ideas to the whole group. This idea-generating strategy is a consensus-planning tool that helped to prioritise strategies for mentoring as all the participants voted to reach consensus on the most important ideas (Potter, Gordon & Hamer, 2004:126). Both groups were seated in U-shapes. Flip charts and pens were provided. A demographic questionnaire was handed to participants. By completing it, they consented to voluntary participation.

The nominal groups were then conducted according to the guidelines described by Dunham (2006). Each participant received a sheet with the following question: "How do you suggest nurse academics should be mentored to publish their results?" Participants were asked to silently generate ideas and to write brief statements. They were requested to put their pens down when they had finished.

During the round-robin phase, the participants were asked to present one idea per participant at a time. They could pass when no further items could be added, but that they could "re-enter" with a new idea at a subsequent occasion. Participants were encouraged to "hitch-hike" new ideas, even if these were not on the participant's own original list of ideas.

No discussion of ideas was allowed prior to completion of the round-robin listing, including questions for clarification. The listing continued until all ideas had been exhausted. All statements were recorded on a flip chart, using the words generated by the participants. The statements that were available to all participants enabled a productive discussion of the ideas, and provided opportunities to clarify ideas. The facilitator also emphasised that final judgments would be expressed by voting and that the merit of any individual's ideas was not debatable.

Five blank cards were handed to each participant. They were requested to select five priority items from the entire list on the flip charts and write each priority item on a separate card. These five items were then rank-ordered according to priority. A score of five was allocated to the item with the highest priority and this was noted in the upper right-hand corner of the card. A score of one was allocated to the item with the lowest priority etc. All the scores were noted in the upper right-hand corner of the cards. The facilitator collected the cards and shuffled them to retain confidentiality. Scores, as indicated on the upper right-hand corner of the cards, were recorded for each statement and the total was calculated. Statements were prioritised in descending order according to their calculated final score. The voting and recording of results were done with the assistance of the participants.

3.3 Data analysis

The results of the demographic questionnaire are described as frequencies and percentages. Data generated through the two NGTs were combined and qualitatively categorised into themes, which were then quantitatively ranked according to the steps described by Van Breda (2005:1–14).

4. RESULTS

Pertinent information about the participants is described in the next section and only the findings of the combined data will be discussed.

4.1 Demographic data (N=28)

Nursing is a predominantly female profession in sub-Saharan Africa (Pudney & Shields, 2000) and this was reflected in the gender distribution of the participants, as 75% (n=21) were females. The average age of the participants was 47,18 years and ages ranged from 26 to 61 years. Ageing of professional nurses is a global challenge and Kline (2003:111) predicts a further decline in the nursing workforce when those who are currently in the profession, retire. The participants came from South Africa, Malawi, Kenya, Swaziland and Botswana. One participant was a citizen of the United States of America who was working in Malawi at that stage. Of the participants, 50.0% (n=14) had high-profile jobs such as deans, heads of schools, vice-principals and heads of university departments of nursing.

The other 50% were lecturers. Eleven participants (39.3%) had doctoral degrees while 46.4% (n=13) had master's degrees. Of the participants, 67.9% (n=19) were willing to act as research mentors and nine (32.1%) wanted to be mentored. The most pressing mentoring need was for the publication of research articles in accredited journals because 64.3% (n=18) requested this. Four participants, although they were willing to mentor, indicated that they also wanted to be mentored. Although 86% (n=24) had obtained at least a master's degree, 62.5% (n=15) of these 24 had never published an article.

4.2   Findings

The themes in Table 1 are presented in descending order of importance. The right hand column in Table 1 is verbatim reflections of the responses. The ranking of the themes, as calculated by following Van Breda's (2005:1–14) seven-step method of analysing multiple nominal groups, is indicated in brackets. Skills development was the most important theme with a ranking of 17. In addition to skills development, expertise (14), journal clubs (11.5), communication (9), and support (5.5) were the five priority themes.

Theme	Verbatim response
Skills development (17)	Grant proposal writing
	Academic writing
	Improve English language proficiency
	Include mentee in the mentor's research
	Part of publication process and not only fieldworker
	Collaborate with other researchers
	Knowledge about research methodology
	Assist with journal identification
	Presentation and public speaking skills
Expertise (14)	Training of mentors
	Mentee identifies mentor
	Matching of mentors and mentees
	Moving from dependent to independent relationship(s)
	Create database of mentors
	Opportunity to be supervised by experienced researchers
Journal clubs (11.5)	Discourse on research reports
	Stimulating material
	Chat rooms and discussion forums
Communication (9)	Keep to deadline
	Frequent regular contacts and open communication
	Face-to-face meetings
	Contract between mentor and mentees
	Positive relationship between mentor and mentee(s)

Theme	Verbatim response
Support (5.5)	Support from line supervisor
	Share all available literature
	Access to resources such as bursaries for studies and funding for research projects
	Support to attend conferences
Workshops and conferences (5)	Limited number of participants per workshop
	Active participation in workshops
Assessment	Clarify topic of research project and/or article
	Determine the mentee's level of knowledge and skill
Monitoring	Monitor mentoring process

5.   DISCUSSION

Despite having conducted research independently and having written an academic report on their research, participants still requested skills training in research methodology and identifying professional journals. This high need for skills development rather questions the appropriateness of the master's degrees offered in this region. Furthermore, Hale (2000:223) suggests that mentoring should focus on developing insight, which is more than just the transfer of skills or knowledge. Mentoring also addresses certain abilities, affects employee retention and enhances diversity (Ebay & Lockwood, 2005:441). Participants suggested that skills in research and writing could be developed by participating in the mentor's research and by becoming a co-author in publications initiated by the mentor. Katerndahl, Longo and Griswold (2011:193) view this approach as collaboration and not mentoring. According to these authors, mentors should help their protégés to identify long-term goals and to strategise to meet them. Furthermore, mentors could provide expertise and encouragement but the mentee should work to attain the desired outcome. Based on the contradictory information, it is evident that the roles and tasks of the mentor and mentee should be clearly outlined. Collaboration and mentoring should also be clearly distinguished from each other.

The expertise of a potential mentor should be known because this is of importance for a correct match between the mentor and mentee. Mentees should know their own goals, strengths and weaknesses to enable them to select an appropriate mentor. Culture, educational level, professional seniority, personality and expertise in the relevant areas of mentoring are aspects that should be considered when a mentee chooses a mentor. It might be necessary to identify more than one mentor because one mentor might be unable to mentor the mentee in technology, scientific writing, methodology, statistical analysis as well as publishing.

Mentoring could be regarded as being a reciprocal developmental network where all members within the relationship could benefit from one another (Higgins, Dobrow & Roloff, 2010:749; Kram & Higgins, 2008).

A reciprocal developmental network could be established through journal clubs. Fink, Thomson and Bonnes (2005:121) found that journal club participation was one of the key strategies that facilitated the process of research utilisation. Therefore, journal clubs may be an effective mentoring tool that can be done electronically across countries and continents.

Participants stated that communication could be face to face (electronic or in person), through telephone meetings or through digital photographs. Communication should be frequent and supportive. Ideally, it is the responsibility of the mentee to take ownership and direct the relationship by scheduling appointments with and by requesting feedback from the mentor (Zerzan et al., 2009:140). However, once the relationship has been established the responsibility rests with both the mentor and mentee. Contrary to Zerzan et al. (2009:140), Hale (2000:223) maintains that the senior member of the relationship should take the responsibility to initiate communication.

The mentee's organisation also plays an important supportive role (Ebay & Lockwood, 2005:441). All the countries represented in this study, except South Africa, fall in the low-income category, emphasising the importance of organisational support. In this context, mentoring could therefore be challenged by a lack of resources such as finances, electronic access, electricity, stationary and literature in the preferred language. Both personal (psychological) and professional (financial and career) support should be provided during mentoring (Jackson et al., 2003:372). Career-related sponsorships that support mentoring contribute to a buffered feeling and offers protection from stressors (Higgins et al., 2010:749). Therefore, a mentor should ideally be placed within the mentee's local organisation. The implication is that there should be sponsorship for the mentor and mentee to attend workshops and conferences, and to have access to electronic sources and communication resources. A mentor within the mentee's local organisation might have a significant positive effect on organisational knowledge, job performance and the promotion of the mentee's capabilities (Carraher, Sullivan & Crocitto, 2008:1310).

Monitoring and evaluation of the mentoring process will be ineffective unless the mentee has clearly identified the needs and goals. Therefore, it is important to establish clear guidelines regarding outcomes, concrete measures and mutual expectations (Zerzan et al., 2009:140). The participants suggested that these guidelines should be formalised by means of a contract between the mentor and mentee concerned. The participants mentioned that group mentoring could be interpreted as one mentor with a number of mentees or vice versa.

From the findings of this study it is clear that mentees might benefit from multiple mentors to gain exposure to a variety of styles, opinions, experiences, research and publication expertise (Lankau & Scandura, 2002:779). However, the lack of resources and electronic accessibility could pose major challenges to successful mentoring within this particular context.

6.   CONCLUSION

It became clear that the elite group of nurse researchers in sub-Saharan Africa, who have obtained master's and doctoral degrees, have not published their research results; therefore, they contributed minimally to the scholarship of discovery. Nurse researchers willing to mentor novice researchers however indicated that they themselves wanted to be mentored to publish their own research results. Because they had a master's degree qualification, they had to be mentors to students or colleagues who wanted to conduct research. It seemed as if the biggest need altogether was mentoring with regard to publication of research results. From the findings of the current research it was evident that the lack of fiscal resources makes personal and professional support to the mentee difficult and challenging.

Although the sample might not have represented the nursing population from the whole of sub-Saharan Africa, the dense description of the context and findings could promote transferability. The findings and recommendations discussed in this article may be applicable to disciplines in health care and other sciences.

7.   RECOMMENDATIONS

One mentee could have a number of mentors. This fits the developmental network perspective and addresses some of the mentioned challenges in the sub-Saharan African context. According to Kram and Higgins (2008), developmental networks ensure mentoring in a group and the co-sharing of knowledge, and it could also enhance performances of the individual as well as the organisation. It also enhances innovative thinking and leadership capacity. Adegbola (2011:51) strongly recommends that mentees should network strategically and capitalise on the expertise of other scholars. Furthermore, the scholarly development and professional socialisation of the scholar should start during postgraduate studies.

Due to the lack of fiscal resources available, all organisations involved in the mentoring of nurse academics in sub-Saharan Africa should be committed to support endeavours that would promote research output. Organisations such as the Nurse Educator Association and any other official nursing organisation in sub-Saharan Africa might facilitate and coordinate formal mentoring programmes. Strategies should be devised to obtain resources to enable effective mentoring.

The proposed strategy of mentees to become co-researchers and co-authors in projects of mentors could promote mentoring if the research proposal or grant incorporates fiscal resources for developmental networking. A more comprehensive survey should be done to determine the level of research output by nurse academics in the sub-Saharan African region. Mentoring in sub-Saharan Africa can become a success despite the hindering factors.

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