Barriers and strategies to increase research involvement of South African occupational therapists

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Limited involvement in conducting and publishing research constitutes a threat to the occupational therapy profession. This article reports on the qualitative phase of a mixed methods study that aimed to explore the barriers to, and support for, South African occupational therapy research. Purposive sampling was used to identify 26 occupational therapists, with varying levels of research involvement, to participate in focus groups. A further 12 individual, semi-structured interviews were conducted with participants with research publishing experience. Inductive reasoning identified four main themes: 1) challenges to research; 2) research education and motivation; 3) research process; and 4) research output. Factors influencing research involvement could be viewed either as a barrier or a support depending on an individual’s view and circumstances. A need for both academic and clinical research, an occupational therapy research database, scientific evidence, more knowledge, evidence based practice, more research skills development, streamlining the process, and more collaborative research was identified. South African occupational therapists should contribute to evidence creation through coordinated research participation and publication. A national research strategy is needed to address the identified barriers.

Key words: Research evidence based practice, research barriers

Introduction
Research evolves around the need for scientific evidence on which to base clinical practice, ownership of the knowledge base, raising the professional status, evidence-based practice (EBP) and keeping up with changes in practice3. Competence in the role of the researcher is necessary because it contributes to the development of the individual therapist, the profession, and the organisation in which the therapist functions3,25. These developmental benefits can be derived from involvement in research through conducting a research project or using research findings for implementation of changes in clinical practice. Every occupational therapist needs to play a role in research4, whether it is applying research to practice (research consumer) or generating new knowledge through research (researcher or research leader). “Occupational Therapy is one profession where implementing research into practice to demonstrate its contribution to society is crucial for survival, yet the history of research within the profession might still be said to be in its infancy”4,25.

A review of the literature related to factors influencing research involvement, identified that lack of research involvement is a cause of concern in many professions and in many countries5-9. Studies have been conducted in the United States of America (USA)6,Australia7, United Kingdom8,9, Sweden10 and Canada11,12. The identified barriers in professions like medicine, psychology and nursing are similar to occupational therapy’s, even though their professions are much older and the barriers included lack of time, funding and recognition8.

A national research strategy has been identified as important in support of research involvement. Countries that have played an important role in the development of the occupational therapy profession through substantial research outputs, such as the United Kingdom8,9, the USA6, Canada12 and Australia7, have national research strategies that involve occupational therapists directly. A national research strategy entails a coordinated effort to develop the infrastructure to support researchers, identify strategic priority research areas and make optimum use of the research initiatives that already exist5. Currently there is no national occupational therapy research strategy for South Africa. Although a national research strategy for health care in South Africa exists, it is more medically research strategy for South Africa. Although a national research strategy for South Africa exists, it is more medically

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Method was used to code data as a way of indexing and sorting the data. Themes and categories were identified through iterative (thematic) analysis.

Credibility and transferability were ensured by triangulation of findings from different sources, namely results of phase one and two of the study, literature, and peer review. Reflexivity was applied by the researcher noting her own perspective, position and assumptions. Dependability was ensured by using multiple persons and different groups, across situations (questionnaires, interviews and focus groups) over a six month period in 2009. The variety of participants contributed to the credibility as a range of perspectives from research experts to those with limited research involvement was obtained. Transferability was addressed further through thick descriptions with direct quotes illustrating conclusions and triangulation of data sources.

Ethical clearance was obtained from the Medunsa Research and Ethics Committee. Participation was voluntarily and informed consent was obtained. Confidentiality was ensured by keeping consent forms and identifying data separately and giving respondents’ pseudonyms during the analyses and recording.

The Occupational Therapy Association of South Africa (OTASA) plays an active role in research through its publications (SAJOT and the Focus newsletter) and bi-annual congresses that provide opportunities to present research. Study participants provided

### Table I: Focus group participants

<table>
<thead>
<tr>
<th>Group no.</th>
<th>No. of participants (N)</th>
<th>Qualification</th>
<th>Involved in research after basic degree</th>
<th>Work category</th>
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<tr>
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### Table II Individual participants

<table>
<thead>
<tr>
<th>No. of participants</th>
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<td>Masters</td>
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### Table III Scheme for analysis

<table>
<thead>
<tr>
<th>THEME</th>
<th>CATEGORY</th>
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<tr>
<td>1. Research in the profession</td>
<td>Academic versus clinical research</td>
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<td></td>
<td>The need for a research data base</td>
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<td></td>
<td>The vast need for evidence</td>
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<td>Current knowledge and use of EBP</td>
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<td>OTASA’s role in research</td>
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<tr>
<td>2. Research education and motivation</td>
<td>Undergraduate and post graduate research skills development</td>
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<td></td>
<td>Personal attributes, knowledge and skills</td>
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<tr>
<td>3. Research process</td>
<td>Barriers encountered in the process</td>
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<tr>
<td></td>
<td>Collaborative research</td>
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<tr>
<td>4. Research output</td>
<td>Publication of research results</td>
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<td>Oral presentation of research results</td>
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**FINDINGS AND DISCUSSION**

The profile of the 26 focus group participants and 12 individual participants is shown in Table I and II respectively.

Table III indicates the themes and categories that were identified. The findings are discussed in more detail under each theme and their categories, in the following section.

**Theme 1: Challenges to research in the profession**

Currently, research in South Africa is mainly done by academics and students (undergraduate and post graduate) and only rarely by clinicians. Although participants realised the need for research they experienced a discrepancy between research conducted by academics and clinicians’ needs for evidence to inform their clinical practice. Three participants commented on the fact that academics and clinicians have a different understanding and needs with regard to research. Participants felt that

“Research done by academics lacks clinical application”.

One explanation for the difference of opinion of research is the so-called “theory-practice divide” because clinicians see the theory that academics value, as inappropriate to practice, while academics experience clinician as ignorant or resistant to theory. Clinicians often abdicate their responsibility for research because they believe that someone else will do it, for example the academics, while they only need to be concerned with the treatment of clients. In the profession we need both theoretical research to increase the scientific knowledge base of the profession and clinical research to improve intervention.

Optimising research capacity is hindered by the lack of an accessible, centralised data base with information on completed studies, studies in process and needs for further research. A database can help aspirant researchers to identify topics that have been researched already, and help prevent unnecessary duplication of research studies, as one participant explained:

“…research is scarce and the need for evidence is vast…”.

The database will further contribute to the ability to do EBP as data from South African research studies would in many instances provide the best evidence for local clinicians. EBP is still relatively unknown worldwide and not easy for all clinicians to implement. The database will further contribute to the ability to do EBP as data from South African research studies would in many instances provide the best evidence for local clinicians. EBP is still relatively unknown worldwide and not easy for all clinicians to implement.

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African occupational therapists obtained postgraduate qualifications and have become involved in research, with an ongoing development of research abilities for independent research.

Postgraduate studies, for example at one local University, have resulted in an increase in the number of younger therapists registering for research degrees. Three participants indicated that recently there has been a desire to become researchers when you get into the field. "Doing post grad research is an enormous challenge and is different from undergrad. I don't think undergrad prepares you to do research properly." Postgraduate research does not come close to what you learned as an undergrad. Participants expressed the view that knowledge is not enough, and research after graduation is insufficient.

Most clinician-participants expressed the view that undergraduate research training is insufficient, and lacks the necessary skills to prepare them for conducting research. Participants agreed that a passion for and appreciation of the topic is the main drive for successful completion of the research project. One participant however indicated that in retrospect she believed "Post graduate research does not come close to what you learned as undergrad. I don't think undergrad prepares you to do research properly when you get into the field. Doing post grad research is an enormous challenge and is different from undergrad training.

Theme 2: Research education and motivation
Research education occurs mainly during undergraduate studies when students conduct their final year research project, which is a requirement stipulated in the Minimum standards of the World Federation of Occupational Therapy (WFOT)17. Effective methods of research education are widely discussed in international literature in both occupational therapy and other health disciplines12,13,14,15,24,25,26,27,28,29,32. Education can include formal research short courses, mentorship, in-service training through participation in a research project.

Participants agreed that a passion for and appreciation of the importance of research needs to be fostered at an undergraduate level:

"A positive experience during the undergraduate research project will be sowing seeds for pursuing research after qualification".

Providing students with the opportunity to present their research and share their information was highlighted as a method to acknowledge, recognise and encourage students’ research efforts.

Participants had conflicting opinions on the adequacy of their undergraduate research training to prepare them for conducting research after graduation. Participants who were experienced lecturers felt that knowledge was adequate, while lecturers with less experience, who had started their own post graduate research, viewed their undergraduate level research education as ‘insufficient’. Most clinician-participants expressed the view that "Post graduate research does not come close to what you learned as undergrad. I don't think undergrad prepares you to do research properly when you get into the field. Doing post grad research is an enormous challenge and is different from undergrad training."

Although undergraduate research provides a starting point for research involvement, on-going development of research abilities need to occur after qualification through attending CPD activities and in-service training of novice researchers through collaborative research with an experienced researcher.

Participants highlighted that in previous years, very few South African occupational therapists obtained post graduate qualifications. Three participants indicated that recently there has been an increase in the number of younger therapists registering for post graduate studies e.g. at one local University they now have 90 post graduate students of whom almost half are doing research by dissertation and the others through a combination of research and coursework. This could mean as one participant explained that "they have been successfully inducted into an academic culture".

An academic culture would include being inquisitive and knowledgeable about a subject area and interested in pursuing research. Other participants however interpreted the increase in post graduate registration as a symptom that "Courses fail to provide sufficient training in undergraduate courses".

Participants indicated that for many occupational therapists the motive for doing post graduate degrees is to increase clinical knowledge rather than to do research. An increase in post graduate registration and qualification might increase research output. Obtaining a post graduate degree however does not translate into publishing the research as there is a tendency to ‘down tools’, meaning they do not continue with scholarly activities once the research study has been submitted for a degree and no publication of the study is attempted8. At some universities/institutions publication of research is not a prerequisite for obtaining a post graduate degree.

Intrinsic personal attributes that discern researchers include self-motivation, goal directedness, task orientation, perseverance, turning negative experiences into learning opportunities, a positive mindset and attitude towards research, ability to identify and access support, self-awareness associated with research and gratification from the research process.1,2,7,22,23 Participants expressed disparate views about the compatibility of occupational therapists’ personality with that of a researcher. For example, some felt that the important rigour necessary for research may be lacking. The impact of fear as a barrier2,26,27 to research should not be underestimated and it becomes important to be able to weather criticism.

Theme 3: Research process
The research process has some unique challenges including topic selection, time allocation, support and access to funding.

The difficulty in identifying an appropriate, researchable topic was highlighted. To refine an idea to a researchable topic requires, as one participant summarised:

"The topic must not be so big that you get de-motivated or overwhelmed by it and gain nothing, but also not too small that it becomes nonsensical".

There was controversy amongst participants regarding the best approach to topic selection. Some participants felt strongly that an individual must select their own topics, as "Passion for the topic is the main drive for successful completion of the project".

One participant however indicated that in retrospect she believed "with the funding and support embedded in receiving a topic for which funding has been allocated, I could develop passion for that topic".

Researchers often do not have sufficient knowledge and skills to understand the implications of topic selection. "One of the problems at the moment is that everyone is working on their own little research topic which does not contribute significantly to the overall progress in the profession".

Identifying and building Universities’ research focus areas (niche) and informing potential researchers about it can contribute to topic selection and help to strengthen research capacity.

Lack of time could limit research output11,14,29,30. All professionals face many competing claims to their time and when there are personnel shortages and high patient workloads, personal priorities and the priorities of the employer will most likely determine where time will be spent31,32. In the Australian study of Cusick33, clinician-researchers in contrast to non-researcher clinicians, saw time for research as support and a privilege afforded to them. For occupational therapists in private practice time is directly linked to their income or as they indicated.

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<th>Table IV: Suggestions to increase OTASA’s contribution to research</th>
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“I think in the private sector where people are very aware of time is money, if you don’t see a client that costs money”. and “It has been a bread and butter reality that I have had to put my time into billable hours”.

Clinicians in the public sector also do research as an after-hours activity as they do not have time while handling their full workload. The benefit of research may be promotions e.g. at Universities, or be of benefit in applying for a new job, but is rarely linked to monetary gains. Other participants though, pointed out that the doctors with whom they work, “earn money for data collection which is paid to them over and above their salaries”. Monetary gains create a whole new perspective on research involvement and the time available for research, because a monetary reward occupational therapists may be more amenable to become involved in research.

Often lack of funding is blamed for limiting research involvement. One participant argued that there are many research projects that can be executed with limited funding. Occupational therapists may investigate possibilities to link their research topics to a funded research project. In the research process the availability of adequate support, research supervision and mentorship is important14,35. Research support groups have several benefits including providing mentors, peer support, accountability, provision of information and ideas, discussion about issues and problems and provision of opportunities for increased knowledge and personal development36. Employers in clinical services tend not to be interested in research and do not provide any support or incentives for research and clinicians who pursue post graduate studies. The sad reality for a clinician trying to do research is “…you receive almost no support from colleagues where you need support, or at least not to be negative, from management in clinical setting. Also need support from peers, and OTA’s that must do work. You also need financial support, allowed time that can be used for research”.

The benefits of collaboration in research were stressed by the participants and are supported by literature20,36,37,38,39. Benefits include access to resources, support34, sharing of ideas and using each collaborator’s skills and strengths36. Participants mentioned their positive experiences in terms of collaboration with researchers outside the occupational therapy department. They indicated that their “input was welcomed and they were praised for their research knowledge and skills”.

One respondent cautioned that a partner for collaboration needs to be selected with care as “a non-committed collaborator can cause loss of professional regard of those involved”.

Collaboration between academics and clinicians can be used to assist clinicians to incorporate research into practice36,37,38,39. Through collaborative research academics can assist clinicians with access to ethical committees, literature resources, statisticians and even in-service training in research while academics will benefit from researching topics that are clinically relevant and gain easier access to clients.

Theme 4: Research output
Oral presentation may be easier than publication and could even be the first step towards publication. The majority of participants found oral presentation less threatening than publication.

Participants saw the publication process as one for which few occupational therapists seem to be prepared. The participants appreciated the importance of publishing their research.

“If research is not published it is a wasted effort”.
Lack of writing skills and language abilities as well as not being a first language English speaker, are barriers that may make the publication process more daunting with “scientific writing almost another foreign language altogether”.

Although occupational therapists may publish in any national or international journal, SAJOT is the only accredited (recognised by the Department of Education) journal specifically for occupational therapists in South Africa. Publishing of the journal and the various tasks leading to publication are dependent on volunteers who are ‘thinnly stretched’. A journal editor, one of the individual participants, indicated that often occupational therapists give up when an article is returned.

“The road to publication is long and winding…but we need to disseminate the valuable information we possess to other occupational therapists and other disciplines”16,1.

RECOMMENDATIONS FOR INDIVIDUALS, THE PROFESSION AND PRACTICE
At an individual level, occupational therapists need to be made aware of the different levels of research involvement (research consumer, researcher and research leader) and challenge themselves to reach their own highest level of functioning in this regard16,18. Should this be on the level of consumer they need to use research to incorporate best evidence into their clinical practice through EBP. More workshops on EBP may equip more therapists to incorporate EBP in their day-to-day functioning. Individuals with an interest in research could be recruited by researchers to collect data as part of an in-service training in research. Researchers with experience could be recruited, perhaps through OTASA, to become national research leaders who can lead large research projects that could provide significant results for the knowledge base of the profession.

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“The road to publication is long and winding…but we need to disseminate the valuable information we possess to other occupational therapists and other disciplines”16,1.

CONCLUSION
The need for local/South African research to supply evidence that can be used in occupational therapy practice is vast. All SA occupational therapists receive research education and most have the personal attributes to be a researcher. The research process and research publication were identified as challenges and strategies by the profession to address these barriers need to be investigated.

ACKNOWLEDGEMENTS
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Appendix I

Interview schedule for focus groups

1. Introduction to research topic and preliminary results.
2. Focus group members share their own experiences of research: These serve as an ice breaker and also yield information on the crucial aspects that influence research orientation. This may also serve as a link to the following questions.
3. There seems to be a difference between what OT’s belief about research and what they do. Most agree that research is important yet only a few do it. What is your explanation for this?
4. What do you see as the value of research for occupational therapists?
5. Can occupational therapists in South Africa do evidence-based practice?
6. Most of the respondents indicated that they did the research in collaboration. Would you say that this is also true from your experience?
7. In my analysis of the results of the first part of the study I found that research is conducted but not published? Why?
8. Can you please explain to me how you have been involved in publishing OT research?
9. Do you have any suggestions for improving research participation amongst OT’s in South Africa?
10. Do you have any suggestions for improving publication amongst OT in South Africa?

Interview schedule for individual interviews

1. Can you please explain to me how you have been involved in publishing OT research?
2. Can you please explain to me over what period you have been involved in publishing OT research?
3. In my analysis of the results of the first part of the study I found that 80% of respondents have not published research even though 73% participated in research. Do you think that it is a common occurrence that research is conducted but not published?
4. What can be the reasons for the above mentioned?
5. The respondents indicated that they prefer to publish in the SAJOT. Is this also your experience?
6. Most of the respondents indicated that they did the research in collaboration. Would you say that this is also true from your experience?
7. Most of the respondents seem to have published only once. What do you think is the reason for this?
8. Do you have any suggestions for improving research participation amongst OT’s in South Africa?
9. Do you have any suggestions for improving publication amongst OT in South Africa?