

Research Orientation of South African occupational therapists

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ABSTRACT

The value placed on and the extent of involvement of occupational therapists in research is unknown. This article reports on the quantitative part of a mixed methods study conducted to establish the multi-dimensional factors that influence Research Orientation. A cross-sectional descriptive design was employed. Data were collected through the use of a previously validated instrument, the Edmonton Research Orientation Survey (EROS). The survey was posted to all occupational therapists on the HPCSA register (2279 occupational therapists) in August 2007. A thirteen percent response rate (298 of 2279) was achieved. Most respondents (177/275, 67%) had high overall EROS scores (mean = 133.6 and median = 136.) indicating a strong research orientation. With further analyses it became clear that these occupational therapists valued research (195 / 290, 67%) and saw themselves at the leading edge of the profession (214 / 291, 73%) yet evidence based practice (149 / 285, 52%) and involvement in research was limited (76 / 275, 28%).

The results suggest that although occupational therapists value research they do not engage in applying research in practice or participate in the execution of research. The positive research orientation provides an opportunity for the profession to use the available potential to increase research output.

Key words: Research orientation, evidence-based practice, research involvement

INTRODUCTION

“Research is frequently seen as the life blood, hallmark or cornerstone in the development of a profession”^{1:116} in that it forms its scientific basis². In fact, lack of research could lead to the demise of the profession as a viable discipline¹. Every occupational therapist can and should play a role in research in order to contribute to the scientific knowledge base or to apply research findings to practise (evidence based practice). As Eakin³ indicated, the majority of the members of the occupational therapy profession are likely to be research consumers (use research to inform their practice), some will conduct research and a few will be research leaders. It is argued that all occupational therapists need to understand research, be able to critically appraise it and know how to apply it in their practices.

The concept of ‘research orientation’ (RO) incorporates four components, namely: ‘valuing research’, ‘involvement in research’, ‘evidence-based practice’ and ‘being at the leading edge of the profession’⁴. These components were identified in a study by Pain et al.⁴ who investigated the RO of Canadian occupational therapists. ‘Valuing research’ relates to attitudes towards it, for example perceptions about the usefulness of research publications and the desire to use research to change clinical practice. ‘Involvement in research’ is the behavioural aspect which relates to scientific practice, professionalism, research utilisation found in other studies, participation in research execution and research output. ‘Evidence-based practice’ refers to methods and the mindset of integrating research findings into the clinical reasoning process⁵ to ensure that effective interventions are provided. ‘Being at the leading edge of the profession’ relates to implementing new information in practice and keeping up to date with new knowledge and information.

Conceptualising ‘research orientation (RO)’ as consisting of these four components indicates that it encompasses far more than merely conducting research. RO embraces the belief in the importance of research, through incorporating research into practice, and using research to grow the profession and the professional³ are equally important. As previously mentioned, research benefits the profession in developing a scientific foundation. While benefits for the professional include the development of a critical mind set, fostering life-long and self-directed learning and understanding research literature and research results⁶.

A country such as South Africa (SA), with such diverse health challenges, requires research evidence to inform the provision of relevant and effective services that meet the needs of the population. According to Dawes et al.⁷ evidence based practice (EBP) requires the application of research that is the ‘best available, current,

valid and relevant’. Because of the burden of disease, the health system and the living conditions of the people differ greatly from those of other countries in which much of the occupational therapy research has been conducted, evidence on which to base South African occupational therapy practice needs to be created. According to the code of ethics of the World Federation of Occupational Therapists (WFOT)⁸ and the Occupational Therapy Association of South Africa (OTASA)⁹, occupational therapists have an obligation to be involved in collecting the evidence required for practice by conducting quality research and publishing it so that it can guide practice. According to Joubert, South African occupational therapists are “particularly bad at producing research”^{9:9} even though there are multiple areas for South African occupational therapists in which research can be conducted. Crouch affirmed this position in stating that “...because of the desperate need for occupational therapy services in Africa, research is likely to be the last priority. It should actually be the first, but we know from experience that this is seldom the case?”^{11:139}.

A review of the literature related to RO and the factors influencing research, identified that RO is of concern in many disciplines and many countries such as Britain, Canada, Australia and the United States of America^{12,13,14,15,16,17}. A search for literature on the RO of South African occupational therapists in the South African Journal of Occupational Therapy (SAJOT), identified four articles, of which one was a scientific article⁹ and three were opinion pieces rather than research articles^{10,18,19}. The study by Du Toit and Wilkinson in 2009⁹ investigated the factors hindering the development of a research culture among clinicians and academics in the Free State. They suggested knowledge-creating partnerships between clinicians and students with academic support to enhance research and publication. The remaining publications included two articles on EBP and its usefulness for OT in SA which critically discussed the importance of having evidence and being involved in EBP in the SA context^{10,8}, and an opinion piece which emphasised the difficulty of getting research published¹⁹. While Leishman acknowledged that the publication process is daunting, she encouraged publication as a way to ensure that SA occupational therapy is seen as a leader in the profession¹⁹.

Through contacting South African Universities where occupational therapists are educated, a further two related research studies were found. The first was an unpublished content analysis of SAJOT from 1999 and 2000 by OT students at the University of Durban Westville which aimed at determining the readers’ perceptions, attitudes and opinions in respect to the South African Journal of Occupational Therapy (SAJOT)²⁰. Results indicated a generally



high level of satisfaction with the journal's publishing strategy and its layout at the time. A need for articles with a more general practice orientation and clinical relevance was identified. The results confirmed that clinicians have a limited publication record and that the journal was largely viewed as a tool for disseminating information rather than a flagship of SA Occupational Therapy. The second study was conducted by fourth year occupational therapy students in 2008, at the University of the Witwatersrand, again unpublished²¹ on SA occupational therapists' attitudes, intentions, activities and perceived ability in research. The study established that occupational therapists have a positive attitude towards research activities but that lack of time, finances and skills interfered most with research. Respondents expressed their willingness to work on research projects with experienced researchers.

Due to the paucity of articles about the RO of occupational therapists in South Africa identified in the literature search, an investigation was undertaken to establish the factors influencing the RO of SA occupational therapists. The purpose of the study was to determine the current RO of SA occupational therapists and to identify barriers and support for RO so that specific strategies could be developed to increase research production, publication and EBP.

METHODOLOGY

This study formed the first part of a larger mixed methods study. A cross-sectional descriptive survey was conducted between July and October 2007 with all occupational therapists registered with the Health Professions Council of South Africa (HPCSA) in 2007 (N=2279). The questionnaire consisted of two sections:

- **Section 1** contained questions pertaining to demographics (for example, age, gender and qualification) and practice characteristics (such as workplace and job responsibilities), and questions on previous research involvement including participation and research output.
- **Section 2** consisted of the Edmonton Research Orientation Survey (EROS) which was developed in Canada⁴ to measure RO. The EROS contains 43 statements rated on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). There are four categories, one for each component and another category for the barriers and support for research. The components are 'valuing research', 'involvement in research', 'evidence-based practice' and 'being at the leading edge of the profession'⁴. The maximum score is 215; the higher the overall score, the stronger the RO. Scores are categorised into high (between 143 and 215 points), medium (73 -142 points) and low (0 – 72 points). The EROS has been shown to have good content, criterion, construct and face validity⁴. A principal component analysis with oblimin rotation identified the four components. Scores for items loading on each component were added to create four subscales with an explanation of each component. Internal consistency is strong with a Cronbach's alpha of 0.93 indicating that the scale is highly homogenous⁴.

Questionnaires were posted with an option provided in the questionnaire to request an electronic copy via email. An information sheet that explained the purpose of the study and requested permission to use the data was included. Completed questionnaires could be returned by mail or email. In an attempt to overcome the low response rate, reminders were sent out via the provincial representatives of the National Forum for Occupational Therapists in the Public Sector, to occupational therapists on their databases.

Confidentiality and anonymity were ensured by numbering the questionnaires as they were received instead of using a name

or the HPCSA number for identification. The HPCSA numbers, were, however used to ensure that duplication was avoided.

Data were entered into Epi Info™, version 3.5.3 and exported into Excel 2007 for further analysis. Frequencies and proportions were calculated for categorical variables. Numerical data were checked for normality and the appropriate descriptive statistics were used. The overall EROS score was established for each respondent and scores were categorised into high, medium and low, based on the criteria outlined by Pain *et al.*⁴ The researcher however, wanted to further analyse the data to establish if there were differences in response to the components similar to what was reported in the second study using the EROS by Waive *et al.*²³. One of the developers of the EROS (Dr K Pain) was contacted to obtain more information on how the classification used by Waive *et al.* was done to differentiate the components reported in their study. Dr Pain indicated that the statements relating to each component were determined through focus group discussions and content analysis of the statements by the three researchers. This classification of statements was then used to calculate scores for each of the EROS components⁴. During this analysis of the statements made in the focus groups, additional barriers, namely lack of skills to conduct research, no time for research, lack of peer support and resources) were identified and added to the results under barriers.

RESULTS

A total of 298 of the 2279 occupational therapists registered with the HPCSA returned completed questionnaires representing a response rate of 13%.

Respondents' demographic and practice characteristics

The demographic and practice profile of the respondents is shown in Table 1 on page 7. Comparison with data from the OTASA census that was conducted at the same time²² showed that the sample reflected the national profile of occupational therapists in terms of gender, age and work setting. The census revealed that 97% of occupational therapists were female compared to 90% in this study. Similar to the census the majority fell into the first two age group categories, i.e. below 40 years of age. Details of the age groupings could not be directly compared, as the same age categories were not used. The work setting of the respondents in the two data sets was similar with the majority working in public hospitals followed by private practice.

Research orientation

The mean overall EROS score was 133.6 (SD=22.7) of a possible total of 215. Most respondents (177/276, 64%) achieved a high overall EROS score, while 35% (97/276) obtained a medium and less than 1% (2/276) a low EROS score. According to Pain *et al.* this indicates a high RO (between 143 and 215 points)⁴.

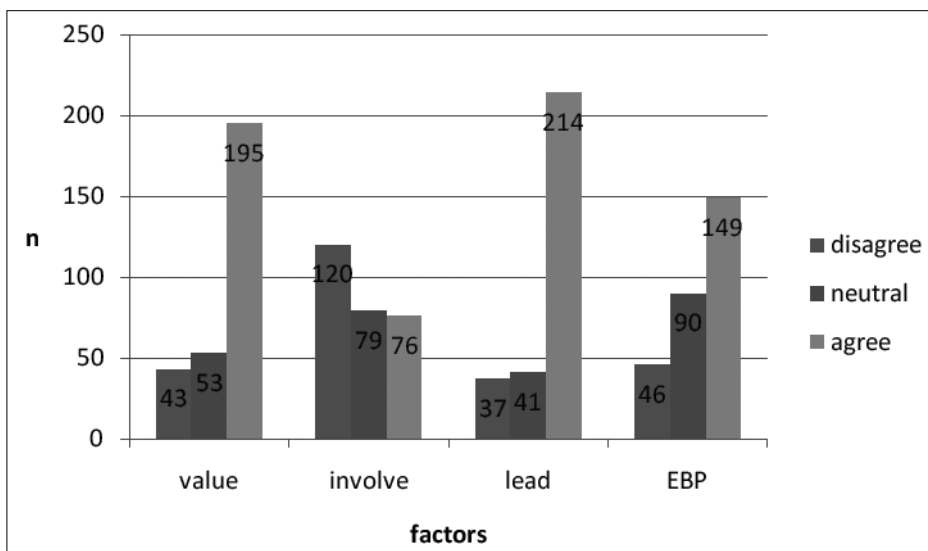


Figure 1: Comparison of RO components (N = 298)

Table I: Demographic and practice characteristics of respondents (N=298)

DESCRIPTION	N	%
GENDER		
Females	270	90.6
Males	28	9.3
Total	298	100.0
AGE		
21-30	108	36.2
31-40	92	30.8
41-50	64	21.4
51-60	28	9.3
60+	6	2.0
Total	298	100.0
JOB RESPONSIBILITY		
Clinician	192	64.4
Manager	36	12
Clinician Manager (both simultaneously)	22	7.4
Academic	20	6.7
Other	28	9.4
Total	298	100
PROVINCE		
Gauteng	124	42.7
Western Cape	79	27.2
Kwa Zulu	26	8.9
Free State	22	7.5
Mpumalanga	12	4.1
North West	8	2.7
Eastern Cape	8	2.7
Limpopo	7	2.4
Northern Cape	4	1.4
Total	290	100
EMPLOYMENT SECTOR		
Health	122	40.9
Private	113	37.9
University	27	9.0
Education	24	8.0
Insurance	6	2.0
Welfare	3	1.0
Other	3	1.0
Total	298	100.0
SETTING		
City with Occupational Therapy educational institution	188	63.0
City without Occupational Therapy educational institution	23	7.7
Outside city	87	29.1
Total	298	100.0

Scores for the four RO components are shown in *Figure 1* on page 6. The component *valuing research* and *being at the leading edge* had the strongest agreement from respondents with 73% (214/291) and 67% (195/290) respectively. Involvement in research was the one component with which most respondents (120/275, 43%) disagreed.

Each component is now described in more detail:

1. Value research

This component consisted of eight statements. The majority of respondents obtained a high score (67%, 195/290) while 18% (53/290) responded neutrally and 15% (43/290) had low scores. Statements under this component that elicited strong positive re-

sponses included 'research can improve patient care' (84%, 246/293) and 'research improves cost effective patient care'. (82%, 238/294). Refer to *Table 2* on page 8 for more detail on the statements and the response rate.

2. Research involvement

This component consisted of seven statements. Scores indicated that 28% (76/275) agreed with statements on involvement in research, while 43% (120/275) disagreed. Two statements (items 19 and 38) that referred to participation in research were left unanswered by 17 and 10 respondents respectively. (See *Table 3* on page 8).

In support of this finding on research involvement, only 32% (94/275) indicated in section I that they had participated in research since qualifying. Of those that participated, 51% (48/94) had published and 64% (60/94) had given oral presentations of their research. Of those who had published, 56% (27/48) had published only once. The majority (46%, 22/48) had published in the SAJOT although 54% (26/48) indicated that they would prefer to publish in other journals, especially international journals that are read by a wider population. Of the 36 respondents with post graduate degrees (12%, n=298), half had never published.

3. Use of evidence to inform practice

Just over half the respondents (52%, 149/285) agreed with the ten statements in this component and 32% (90/285) were neutral i.e. they neither agreed nor disagreed with the statements. (See *Table 4* on page 8).

4. Leading edge of the profession

Being at the leading edge of the profession elicited the most positive response of the four components, with the majority (73%, 214/291) indicating that they agreed with the six statements. It appears that although respondents looked for new information as indicated in statements 12 and 18, they did not seem to be equally confident in using it in their clinical settings as seen in their responses to statement 30. (See *Table 5* on page 9).

Barriers and supports for research

Barriers and support for research were identified by analysing the relevant EROS statements in the sections on barriers and support and the qualitative data supplied by respondents as part of the questionnaires.

Barriers to research

Barriers to research included three items on the EROS. The barriers' statements in contrast to all other statements are formulated in a negative direction to reduce the chance of a response set T. The barrier's scores were converted to a positive direction during data capturing to follow the format of the rest of the questionnaire and thereby prevent false interpretation of the overall score, as suggested by the original authors.

For all three items about one third (30%) of respondents were neutral in response to the barriers indicating that the barrier did not have an effect on them. (See *Table 6* on page 9).

Qualitative data were listed and then combined to identify specific barriers. An additional barrier not included in the statements but indicated under the comments from the respondents was lack of skills e.g. skill to understand research literature.

Support for research

Support for research included two statements. (See *Table 7* on page 9).

DISCUSSION

The high scores in terms of overall RO indicate a positive response to RO. The scores were higher than those obtained for occupational therapists in the original studies where the EROS was used^{4,23}. A possible reason for this difference may be that firstly, in the Pain et al⁴ and Waive et al²³ studies smaller samples were used but the samples included all therapists who worked in a specific place in



Table 2: Valuing research (n= 294)

Statement	Disagree		Neutral		Agree		Total	
	n	%	n	%	n	%	n	%
2: Improve cost effectiveness of patient care	26	9.8	30	10.2	238	80.9	294	100
4: Staff need to have enough research skills to understand research articles	43	14.6	44	14.9	207	70.4	294	98.8
5: It would be enjoyable to work as part of a research team	47	16.2	65	22.3	179	61.5	291	98.9
8: I consider going back to University for research training	98	33.8	69	23.8	123	42.4	290	98.6
22: Even when funds are limited it is important to support research activities	39	13.5	81	27.9	167	57.5	287	97.6
26: Senior Administrators should support clinicians' involvement in research activities	28	9.7	32	11.2	226	79.0	286	97.2
31: Research can improve patient care	27	9.2	20	6.8	246	83.9	293	99.6
36: Staff should be involved in research projects so they can learn more about the research process	34	11.7	79	27.2	177	61.0	290	98.6
Total response rate	342	14.5	420	17.8	1563	66.5	2325 2352	98.8

Table 3: Involvement in research (n= 294)

Statement	Disagree		Neutral		Agree		Total	
	n	%	n	%	n	%	n	%
11: I feel I am a leader in my professional field	60	20.4	115	39.1	119	40.5	294	100
19: Carrying out a research project has changed the way I do my work	75	30.4	83	33.6	89	36.0	247	84
21: I am actively involved in doing clinical research	182	65.9	36	13.0	58	21.0	276	93.8
27: I am an excellent researcher	143	51.4	85	30.6	50	18	278	93
29: I have examined my clinical practice for research needs /possibilities	105	37.5	70	25	105	37.5	280	94
37: My job satisfaction is related to my ability to do research	138	48	94	33	53	19	285	96
38: I share my innovations in treatment or diagnosis through presentations and written articles	135	50	71	27	61	23	267	90
Total response rate	838	43	554	29	535	28	1927	100

Table 4: EBP (n= 294)

Statement	Disagree		Neutral		Agree		Total	
	n	%	N	%	n	%	n	%
1: When there is information available, clinical practice should be based on research findings	34	12	31	11	229	78	294	99
3: Research articles provide information that helps me in day to day work	7	13	87	30	164	57	288	97
13: Clinicians should rely more on research findings than on clinical experience	89	30	134	45	72	24	295	99
15: When I read the research literature, I realise that others have similar questions and concerns	6	3	77	7	173	0	286	96
17: Hearing research presentations have changed the way I practice	46	16	111	39	130	45	287	96
24: Reading the research literature makes me aware of the complexity of different issues	26	9	61	21	204	70	291	98
25: I recommend equipment/ materials based on research results	51	18	102	37	125	45	278	93
28: Reading the research literature helps to define the areas in which I am competent to practice	46	17	107	38	125	45	278	93
32: I have changed my clinical treatment after discussing research with colleagues	52	19	96	35	128	46	276	93
35: Reading the research literature has changed the way I practice	45	16	97	35	136	49	278	93
Total response rate	462	16	903	32	1486	52	2851	100



Table 5: Being at the leading edge of the profession (n=295)

Statement	Disagree		Neutral		Agree		Total	
	N	%	n	%	n	%	n	%
12: I am willing to use my own money to attend a conference that interests me	40	14	42	14	211	72	293	98
14: New ideas about the clinical practice are exciting	30	10	20	7	243	83	293	98
18: I am constantly looking for new information to help my work	31	11	55	18	209	71	295	99
23: Keeping up with new information to help my work	33	11	21	7	241	82	295	99
30: I am capable of developing new or revised treatments which helps clients	59	21	80	28	143	51	282	95
33: I like to incorporate new ways of doing things into my clinical practice	28	10	26	9	234	81	288	97
Total response rate	221	13	244	14	1281	73	1746	100

Table 6: Barriers to research (n = 290)

Statement	Disagree		Neutral		Agree		Total	
	N	%	N	%	n	%	n	%
4: I do not have time to conduct or be involved in research	71	26	80	29	125	45	276	92
41: I do not have skills to conduct research	94	33	85	30	105	37	286	96
42: There is a lack of peer group support for research activity	55	19	91	31	142	49	290	97
Total response rate	225	26	257	30	375	44	863	100

Table 7: Support for research (n=289)

Statement	Disagree		Neutral		Agree		Total	
	N	%	N	%	n	%	n	%
39: I would like to do more clinical research	87	30	52	18	148	51	289	97
43: Resources necessary to conduct research are available	117	41	92	32	74	26	285	96
Total response rate	202	35	144	25	222	39	574	100

one city. Even therapists not interested in research would have returned the questionnaires. The data in the current research study may have been skewed by only therapists who are interested in research returning the questionnaires. Respondents in the original studies received the questionnaires by hand as opposed to targeting the population as a whole in the current study. It is, therefore, likely that respondents who returned the questionnaires for this study were those already interested in research, therefore inflating the results. The fact that the HPCSA address list was used could have influenced the data collection as not all occupational therapists update their contact details regularly. The HPCSA list is, however, the most reliable source of addresses for the members of the profession.

The high scores for the component “valuing research” indicate that occupational therapists believe in the importance of research for the profession and the benefit derived from research in terms of improving care for patients. The respondents also indicated that ‘senior administrators should support clinicians’ involvement in research activity’. Personal and administrative support is important in an organisation to encourage research^{24, 25}. The statement on the EROS relating to going back to the University for additional research training was not strongly supported. In SA it is not common practice and may not be easily achievable in terms of the cost, accessibility to courses offered and the time involved to do a course at a University, to strengthen research knowledge and/or ability to evaluate and apply research. Research preparation is included in undergraduate occupational therapy courses in South Africa research as projects are an HPCSA requirement⁹. Unfortunately this preparation is limited, as research projects are usually done in groups and on a small scale. Lack of expertise in research knowledge can lead to feelings of guilt in occupational therapists if

they are unable to interpret research studies to enable them to apply the findings and provide the best possible interventions for their clients²⁶. Several authors have found that clinicians value methods such as peer consultation, more highly than they value research in clinical decision making^{27,28,29,30}. Cusick saw the value of research for the individual’s personal growth, rather than for the profession or the context and reported that occupational therapists who are clinician-researchers do research mainly “because of earlier life experiences which means that research and scholarship were valued”^{31:10}. Seale and Barnard² on the other hand emphasised the value of research for the profession and explained that benefits included raising the professional status of occupational therapy, ownership of the knowledge base and EBP. Involvement in research had the lowest score of the four components. This could be explained by the Eakin model³ which indicates that the majority of persons in a profession will be consumers of research, with some becoming researchers and only a few research leaders. Research consumers use research to inform their practice but are not involved in research execution. In South Africa there is a lack of recognition of research by the main employers e.g. Department of Health and in general a lack of incentives for occupational therapists to do research.

Lack of research involvement may contribute to a limited knowledge base and lack of evidence, which may threaten the profession³². Christiansen^{1:116} warned in 1981 that “...it is worth noting that our [occupational therapists’] failure to meet the challenge of research may ultimately lead to our demise as a viable discipline”. Occupational therapists prefer “doing” both in their approach and action and they focus on clinical application rather than on working to expand the knowledge base¹⁶. Grimmer et al. warned that “...unless a strong link can be forged between therapist-clinicians and researchers who produce more focused



and applied research, scarce health funding will be directed to other health disciplines that are prepared to provide more overt and appropriate evidence of clinical effectiveness”^{33,90}. The researcher-practice gap is one of the factors that contribute to the lack of applied research. One suggestion is for increased collaboration between researchers and clinicians³⁴. Seale and Barnard² also described occupational therapists’ limited motivation to develop the knowledge base of the profession and indicated that occupational therapists often abdicated their responsibility for research because they believed that someone else would do it and they only needed to be concerned with treating clients. Research is not only about providing the profession with evidence of the effectiveness of interventions; it also informs funders about the services they should support^{35,36}. Andresen *et al.*³⁶ and Watson and Buchanan¹⁸ also warned that occupational therapists would be omitted from current debates on health care delivery if they failed to participate in the debate in health care delivery through publication in accredited journals.

A measure of research involvement is that of research output which consists of publishing research articles and oral presentation of research. The research output analysis revealed that the respondents, who had published, had mostly done research in collaboration with others and most had only published once. Two statements (items 19 and 38) that referred to participation in research were left unanswered by 17 and 10 respondents respectively. The items were possibly left out because the respondents had not undertaken research projects. The fact that many occupational therapists only published once may be associated with the difficulties in the publication process e.g. lack of experience, of time and of language and writing skills¹⁹. The fact that only 50 percent of those with post graduate degrees had published, indicates that increasing post graduate registration may not necessarily result in the necessary increase in research output. One possible solution for increasing research output is for Universities to require a draft research article before a qualification is awarded.

The use of evidence to inform practice yielded ambiguous results. This may be due to a lack of understanding of how to access and use research findings to inform practice as not all occupational therapists are experienced in EBP. Being a research consumer³ which means the majority of professionals, implies the use of evidence to inform practice. The limitations of this study did not allow investigation into whether evidence was available for the respondents on which to base practice. Therefore, it might be that respondents were not able to implement EBP because they could not access current research findings. Bennett *et al.* established that lack of time; evidence and skills are the main barriers to EBP³⁶.

The fact that the majority of respondents saw themselves at the leading edge of the profession might indicate a strong motivation to access the latest information and implement it in practice. This might again be part of valuing research and being consumers³ of research even though there was limited involvement in research execution. It is of concern though that only half the respondents indicated that they used the results in practice. A possible reason for this might be the way in which research results are reported that made it difficult for clinicians to see a direct link with implementation³⁸. Other reasons could be linked to evidence based practice, for example, although OTs had positive attitudes to research as being valuable for the profession, they did not necessarily attest to the usefulness of research to inform clinical practice and often preferred to use methods other than research, i.e. clinical expertise and opinions of colleagues as a basis for their practice³⁸. Bennett *et al.*³⁷ similarly found that in Australia OTs relied more on clinical experience (95%), information from Continued Professional Development activities (82%) and consultation with colleagues (80%) than on research findings. In their study they found that only 56% of OTs used EBP to make clinical decisions³⁷.

Lack of time was a strong barrier to research in the current study. Time has similarly been indicated as a common reason for limited RO in the literature^{28,39,40,41,42}. Time was closely linked with financial reasons for not conducting research because research

constitutes time away from patient treatment or in Connolly’s^{25,1128} words: “inability to give up revenue producing time”.

The fact that the response rate was only 13% was disappointing. Even though it is well known that mailed questionnaires usually yield a limited response rate, the researcher wished to obtain responses from as wide a variety of participants as possible. Possible reasons for the low response rate include incorrect addresses and perhaps lack of interest in the topic of research. The study results are probably not generalisable to the SA occupational therapy population as respondents with an interest in, and a higher level of RO, are more likely to have completed the questionnaire. According to Asch *et al.* the response rate to a mail survey is at best only an indirect indication of the extent of non-respondent bias⁴³. In accordance with the recommendation of Kanuk and Berenson⁴⁴ each envelope was addressed by hand to make it stand out from other mail received.

CONCLUSION AND RECOMMENDATIONS

It is encouraging that the South African occupational therapists who responded to the questionnaire, value research. This positive response could indicate that the time is right to encourage more research involvement. Some respondents indicated that they would like to become involved in research projects to learn from researchers. One way of harnessing this resource and increasing research involvement is through encouraging collaborative research projects between clinicians and academics. Collaboration provides benefits for both, as academics gain access to clients and clinicians gain access to research support such as statistical services and ethical approval^{30,42,45}. Collaborative research with other departments and professions may also culminate in the development of research skills and outputs.

Current research involvement is limited as shown by the low number of articles in journals such as the SAJOT. There is thus a lack of local evidence on which best practice can be based. To address the challenges of publishing workshops, mentorships in research and publication and writing retreats hosted by the OTASA could contribute to addressing some of the obstacles to publication. This could form part of responsibilities of the newly formed research subcommittee of OTASA.

The results of this study provide an indication of the RO of occupational therapists in SA, but cannot necessarily be generalised to all occupational therapists in SA due to the limited response rate. It can however be used as a starting point in the development of a research strategy for further development of research involvement and implementation of EBP. A national research strategy has been used successfully in several countries to increase research involvement^{16,17,42}. It is, therefore, suggested that a national research strategy for occupational therapy is urgently needed to address the limited coordination of research efforts and lack of research output in the profession.

ETHICAL APPROVAL

Ethical approval to conduct the study was obtained from Medunsa Research and Ethical Committee MCREC/H/08/2007: PG and MREC/H/222/2008). All respondents gave informed consent and anonymity of participants was ensured by keeping consent forms and identifying data separate from data that were analysed.

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