

## Undergraduate occupational therapy students' engagement in qualitative research: identifying research problems and questions through reflection while in a community fieldwork setting

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### ABSTRACT

As part of the occupational therapy undergraduate programme at the University of the Western Cape (UWC), students carry out group research projects while in their fieldwork placements. The purpose of the Research module is to introduce them to basic qualitative research methods. Following the progress of a group of students in a community fieldwork setting as an example, this article is a commentary on how they use the steps of the community process as a guideline to identify possible research questions. The author will highlight the process that students follow to refine their research questions, the support they require to identify priority problems, the barriers that students face while conducting research in fieldwork, and the positive outcomes for students and the community. In conclusion the community process provided the students with a theoretical guideline, specifically the needs assessment and analysis steps of the process in order for them to conceptualise a research question within a community fieldwork setting.

**Key words:** occupational therapy, undergraduate research, qualitative research, community process, fieldwork, culture, reflection

### Introduction

Teaching research methods to undergraduate students is challenging for educators and a study has shown that a gap exists between research theory and practice<sup>1</sup>. Billings and Kowalski<sup>2</sup> are of the opinion that evidence-based practice has the potential to reduce the existence of a gap between research and fieldwork practice. Therefore, research should be an integral part of health care so that practitioners including occupational therapists find it natural to rely on the results of research in their day-to-day decision making and longer term strategic planning<sup>3</sup>. Research output is experienced as the foundation for evidence-based practice<sup>4</sup>. Furthermore occupational therapists need to inform their practice through a clearer more sensitive understanding of their clients' perspectives, which are viewed as inseparable from their contexts.

Qualitative research in occupational therapy is often initiated in response to clinical experiences that have arisen during fieldwork practice. Within qualitative research a different type of question is addressed, and in doing qualitative research the researcher needs to answer clearly stated and relevant research questions<sup>5</sup>. The question: 'Why do occupational therapists choose to conduct qualitative naturalistic research?' can be answered by asking the questions, 'What is worth knowing in our profession?' and 'Which research tools are most appropriate?' Occupational therapists working within a qualitative paradigm explore the complex phenomena of health and illness, and examine assumptions related to class, race, gender and ethnicity<sup>6</sup>. Research has further suggested that qualitative research in occupational therapy promotes an understanding of the everyday occupations of individuals embedded in the context of their lives<sup>6</sup>. Students engaging in qualitative research at undergraduate level also provide a valuable source of evidence to enhance occupational therapy practice<sup>7</sup>. Integrating research learning into fieldwork practice could be a useful strategy to encourage students to see the relevance of research to practice<sup>1</sup>. However, there appears to be uncertainty among students about how to apply and refine their research findings to their practice.

### Background of the undergraduate research module

Occupational therapy students at the University of the Western Cape (UWC) register for a Research module in their fourth (and final) year of study. The purpose of the Research module is to give students an introduction to qualitative methods. The specific outcomes of the Research module require that the students:

- ❖ Are able to differentiate between qualitative and quantitative research methods;
- ❖ Are able to describe selected methods when using qualitative research;
- ❖ Produce a research proposal;
- ❖ Conduct a group research project while in fieldwork practice;
- ❖ Produce a mini written research report that fulfils standard research requirements; and
- ❖ Verbally present a summary of their research project.

For many students, an undergraduate research module is their first encounter with the concepts of academic research<sup>8</sup>. Adam and Du Toit<sup>9,319</sup> state: "Fostering a research culture at the earliest possible opportunity for future practitioners could be promoted by engagement in research during clinical training placements". Occupational therapy students at UWC are placed in small groups in different fieldwork settings as part of their fieldwork practice from Mondays to Thursdays throughout the year. While the students are in fieldwork they are expected to identify possible research questions based on their experiences within the fieldwork context. The benefits of doing research in small groups in fieldwork practice are that the students gain an understanding and appreciation of the research process as it relates to practice and they acquire team, communication, problem-solving and higher-level thinking skills<sup>10</sup>.

The theoretical content of the undergraduate research module is covered during the first two terms of the year in two one-week blocks and on Friday mornings. In term one the students get an overview of the research process, an introduction to qualitative and quantitative research paradigms, ethical considerations to be taken into account in research, an introduction to different styles of referencing, and how to do a literature search.

In term two students receive input on the different data-gathering methods used in qualitative research with specific emphasis on focus groups, interviews and participant observation. Students are also given the opportunity to critically analyse articles. Furthermore, students start to brainstorm possible research problems which they have identified while in fieldwork practice. By the end of term two, the students have to submit their written research proposals. They also finalise their permission and consent letters with their supervisors before sending these to the respective stakeholders in their fieldwork practice where they intend doing their research.

During term three the focus is on the practical implementation of their research project over a period of six weeks. Students collect their data and engage in a workshop to learn how to analyse the data. By the end of term three, the students have executed their



research projects in the fieldwork setting and submit a written research report. They also present their research at a Research Presentation Day attended by other students and clinicians.

## Contextualising the study

The purpose of this article is to present a commentary, using one particular group of students in a community fieldwork setting as an example, of the factors they considered in identifying possible research problems and questions while in fieldwork practice and the support they received from their supervisors and lecturing staff in the process.

The particular group of students that this article reports on (Table 1) was placed in an urban community as part of their fieldwork practice. These students followed the steps of the Community Process as a conceptual framework to guide them in their fieldwork practice<sup>11</sup>. The Community Process focuses on the understanding of all aspects of a community, and intervention is based on the appropriate needs which have been highlighted through a needs assessment. A needs assessment is a description of those factors which must be addressed in order to improve the health of the population<sup>12</sup>.

Table 1: Profile of the undergraduate student research group

STUDENT	AGE	GENDER	RACE	RELIGION
N = 6	21-32	Females = 6	Coloured = 3	Christian = 4
			Black = 2	Muslim = 2
			White = 1	

Assessment involves gathering information about the community, compiling a profile of the specific community in which they are working, which includes information on the infrastructure, services, facilities etc. and how all of these link with relevant policies. Students then analyse the information to identify the most prevalent and realistic needs considering resources and time. From the needs assessment and analysis the students identify possible research problems and questions and decide on a specific research project.

The role of the supervisor throughout this process is to provide continuous input and guidance to the students in terms of what is feasible and realistic to address from their needs analysis in the six weeks period of doing their research in fieldwork practice. Millner and Bossers<sup>13</sup> are of the opinion that supervision involves a relationship in which the supervisor is usually more experienced, works closely with a student for the purpose of teaching, guiding, supporting and facilitating professional growth and development. The students see the role of the supervisor as a facilitator of their learning<sup>13</sup>.

## Process of refining the research question

The remainder of the article focuses on a case study of one specific group of students as they went through the process of identifying their research problems and question. The students were placed in a community in Cape Town. As a result of the needs analysis conducted by the group of students in the community fieldwork setting, the following priority needs were highlighted:

- ❖ Residents residing at a Frail Care Centre within this community had minimal meaningful occupational engagement;
- ❖ There were a large number of vagrants in the community leading to increases in crime with regards to drug and alcohol abuse, theft and physical assaults;
- ❖ A lack of education about HIV and TB among the vagrants; and
- ❖ Large numbers of drop-outs amongst high school pupils.

At this point the students in this study decided to focus their research on the Frail Care Centre which is a predominantly Muslim (faith-based) Care Centre. Although the residents were predominantly Muslim and Coloured people, the residents came from various social backgrounds and sub-cultures. The centre is a non-profit organisation that houses 81 adults (30 of these were male and 51

were female) ranging from middle to older adulthood. Of the 81 residents, 18 were restricted to wheelchairs. The residents were diagnosed with a range of pathologies that included Dementia, Alzheimer's, Schizophrenia (chronic), Mood Disorders, Huntington's disease, Intellectual Impairment and the after-effects of Cerebral Vascular Accident.

From the students' first interview with the care manager at the Frail Care Centre it was found that none of the residents had vocational roles due to their age and/or pathology. Leisure activities were very limited at the Centre. Smoking was a very popular leisure activity and the predominant problem highlighted was that the residents were bored and did not participate in any leisure activities. Leisure is an important element in the lives of the elderly because, once retired, people worldwide often find themselves with a sudden abundance of free time<sup>14</sup>. For occupational therapists human occupation is the unique focus and method of intervention. There is a need for elderly people, such as these, to engage in purposeful and meaningful occupations on a daily basis that relates to their health, quality of life and survival<sup>15</sup>. Lloyd et al<sup>16</sup> are of the opinion that leisure is the engagement in non-obligatory activities that create enjoyment and a sense of achievement and meaning. Taylor<sup>17</sup> agrees that leisure activities are necessary for physical, social and psychological well-being.

Wilcock<sup>18</sup> maintains that the conception, expression and execution of occupation is unique and motivated by socio-cultural values and beliefs. Hocking and Whiteford<sup>19</sup> maintain that multi-cultural societies acknowledge and value the identity of cultural groups and recognise the culturally different contributions each cultural group makes to society. South Africa's cultural diversity generates substantial challenges and implications for students and health care professionals.

Understanding culture and its influences in shaping all aspects of occupational therapy allows for the incorporation of culturally sensitive practices into occupational therapy services. With guidance from their supervisor the students decided to focus on culture for their research project. They then formulated their initial research question as follows: **What are the effects of culture in the Muslim community on the role performance of older adults at a Frail Care Centre in the community?**

From the students' anecdotal evidence obtained through their observations at the Frail Care Centre, they concluded that a possible reason for the residents not wanting to participate in leisure activities might have been because of the physical environment of the centre which students described as "very depressing, cold and grey". This also could have been one reason why the residents were bored as the bleakness of their environment did not provide any incentive to want to participate in any meaningful occupations. The students did not realise the full extent of the way in which the environment could have an impact on the emotions of the residents. As part of the fieldwork expectations, students were working with a small group of four residents which they interviewed. The demographic profile of this group of residents is presented in Table 2 on page 37. During the interviews one of the residents told the students that she "just sits around all day, waiting to die". Other observations made by the students were that the furniture was very old, no music was playing and there were no colourful furnishings or paintings, with no plants inside the centre. The result of this was an environment that provided very little sensory stimulation. Moniz-Cook et al<sup>20</sup> agree that an individual's behaviour is affected by the building design and living arrangements. Thus the students' second draft of their research question was as follows: **What are the effects of the physical environment on the occupational performance of older adults at the Frail Care Centre in the community?**

Students presented the second draft of their research question in the research tutorial and through discussions and questions with lecturing staff, their supervisors and peers, reflected on whether only the physical environment had an impact on the residents being bored and not participating in any leisure activities. The students



Table 2: Profile of the residents at the frail care centre who participated in the research

AGE	GENDER	MARITAL STATUS	CHILDREN	DISABILITY	RACE	RELIGION	YEARS AT CENTRE
72	Male	Separated	5	BLL amputation CVA	Coloured	Christian	4
81	Female	Divorced	0	ULL amputation Partially sighted	Coloured	Christian	2
65	Male	Widower	1	Angina Hypertension	Coloured	Muslim	5
64	Female	Spinster	0	Cancer	Coloured	Muslim	6

Note: BLL: Bilateral lower limb  
CVA: Cardio-vascular accident  
ULL: Unilateral lower limb

were guided by the staff to look at the environment holistically as even in the most restricted and severe environments humans strive to make sense of their experiences through involvement in occupation<sup>21</sup>. The students were asked to consider whether other factors such as culture and the residents' various age-related pathologies should not be included when holistically evaluating an environment such as this. According to Pedretti and Early<sup>22</sup> the environment consists of physical, social and cultural elements. With regards to the elderly, culture is very important because of the great variation that occurs across cultures with reference to the definition of basic concepts such as person, age and life course<sup>23</sup>. Occupational therapy education has the responsibility to prepare graduates to become competent in working with diverse client groups in diverse practice settings<sup>24</sup>. Virtually in all areas of occupational therapy practice in South Africa and indeed globally, the client population served by the profession of occupational therapy is becoming increasingly diverse.

Only after the students engaged in this discussion about considering factors such as culture and the social environment did the students realise the full extent of the problem. The students had to rely on their learning experiences gained from the context in which they were doing their community fieldwork practice. Mackenzie<sup>25</sup> talks about the significance of the briefing and debriefing process for students to learn from their fieldwork experiences. She is of the opinion that when students debrief, they take a step back and critique and reflect on their experiences and feedback from supervisors, and develop new strategies as a result of their experiences. For the students to acquire knowledge they had to be aware of what was happening from their experiences of working in the community fieldwork setting. Gola<sup>26</sup> felt that knowledge comes from experience and takes shape through the intervention of reflective reasoning and thought. Informal learning is often experiential learning, which occurs in a particular context. It often produces change and positive development, which results from reflection and awareness<sup>26</sup>. It is of fundamental importance to teach students to respond to clients as individuals whose needs embrace not only ethnicity, but also other influences such as their gender, their diverse social backgrounds and their education<sup>27</sup>. The students should be able to reflect on their own cultural influences as health professionals and have confidence to explore the clients' perspectives when there is uncertainty.

Following the presentation of the second draft of their research question, the students then interviewed the group of residents regarding their interests and hobbies, their participation in any activities or groups, and gathered information about their culture and traditions. It was only at this stage that the students got a deeper understanding of the context and the extent of the residents' age-related pathologies and the effect this had on residents' ability to participate in leisure activities. From their interviews the students realised that the residents did not want to take part in arts and crafts because they felt as if they were being treated like children. According to Hammell<sup>28</sup> occupations are meaningful to

people when they fulfill a goal or purpose that is personally or culturally important.

The students went back to the care manager who informed them that the residents used to join a senior social group in the community once a week, but that the residents from the Centre were not involved in this group anymore. The residents were no longer interested in joining any of the planned social excursions or activities. Students then went to see what the social group was all about and came to the conclusion that the seniors who were living with their families met once a week to socialise and because of this, the residents from the Centre felt isolated from their own families. In the Islamic culture, caring for one's parents is considered an honour, a blessing and an opportunity for great spiritual growth; therefore, there are only a few retirement homes. Furthermore, serving one's parents is a duty second to prayer and it is the parents' right to expect it from their children. The residents felt that they were isolated from their families by being placed at the Centre. This could be understood as occupational alienation<sup>29</sup> which is a socially constructed occurrence that involves the alienation or isolation of an individual from purposeful activities that are essential for their well-being. Therefore, daily activities that individuals perceive as stressful, meaningless or boring may lead to occupational alienation<sup>29</sup>.

After all the visits to the Centre and social groups, and the interviews with the group of residents, the students felt that they had all the facts about why the residents were not participating in leisure activities at the Centre. The students' third draft of their research question was thus changed to the following: **What are the effects of the client's contexts, specifically the physical environment, on the social components (role performance, social conduct, interpersonal skills and self-expression) of older adults at the Frail Care Centre in the community?**

During the initial interview, the residents showed interest in initiating a gardening project at the centre. There was some misunderstanding by the management committee of the Frail Care Centre as they thought that the students would run the project even though the focus of undergraduate student research is to only initiate and guide the implementation of a research project based on the priority needs of a community. The community members are still responsible to run and sustain their own projects. Health promotion is a process of integration and partnership between individuals and communities<sup>30</sup>. Students used the Health promotion principles to guide the residents at the centre to ensure sustainability of the project through networking with local schools and Non Government Organisations to assist them with the gardening project<sup>30</sup>. A person from a school was identified to liaise with the Frail Care Centre to assist the centre with running the gardening project. The students' final research question that was framed within the qualitative paradigm was as follows: **What were the perceptions that older adults at the Frail Care Centre have on how their leisure performance is affected by their physical, social and cultural environment?**



## Integrating research and practice in the fieldwork setting

During the process of refining their research question, the students had to review what they had learnt in research theory in terms one and two as well as the feedback they had received from the lecturing staff and their supervisors. According to Roche and Coote<sup>31:1064</sup> critical self appraisal through reflection involves engaging in activities during which practitioners "...critically analyze and evaluate their experiences in order to lead to new understandings of the way they think and operate in the clinical setting". The students had to review literature about occupational therapy theories and models that could be used as a theoretical framework to support their research. In term one the students identified the Kawa (river) Model<sup>32</sup> to be applied to their research question. The Kawa (river) Model offers a framework that affirms and brings forward the importance of the clients' world of meaning and shows occupational therapists the need to recognise and respond to cultural differences<sup>32</sup>. The success of the Kawa (river) Model is reliant on clients' understanding of the model and their ability to apply the river concept to their lives. However, as most of the residents experienced age-related mental pathologies, they were unable to give a true reflection of their life flow. Students went back to their notes and read up more about the different pathologies of the residents. The students then realised that the Kawa (river) Model could not be applied in this specific context.

The students went back to the literature and focused more on what the needs of the residents and staff at the Centre were so that they could facilitate positive change. From the literature, students then selected the Person Environment Occupation Model (PEO)<sup>33</sup> in conjunction with aspects from the Ottawa Charter for Health Promotion<sup>30</sup> as these conceptual frameworks assisted them in analysing the needs of the residents and staff at the Frail Care Centre further. The students re-looked at the information gained during the original interviews with the residents when they obtained information about residents' hobbies and their interests, their reasons for participating or not participating in leisure activities, and activities that were culturally appropriate for them. From the students' understanding of the Person Environment Occupation (PEO) model, occupational performance occurs as the result of a transactional relationship between the three elements, person, environment and occupation. The students then realised that engaging in an activity such as gardening would provide residents with the opportunity to assume responsibility over the different tasks and at the same time increase their sense of control and well-being<sup>34</sup>.

Ethically and professionally the students had to follow the protocol as set down by the Frail Care Centre. In addition the students had permission from the Centre to conduct their fieldwork and research in the setting. All information, suggestions and concerns that students received from the care manager had to be handled very confidentially and diplomatically when students were required to approach the Management Board with any ideas for intervention. Students were concerned about how to handle information that came from their interviews with residents that were very negative about their circumstances. Doherty<sup>35</sup> describes ethical distress as a type of problem that occurs when occupational therapists know the right thing to do but cannot achieve it because of external barriers or uncertainty about the outcome. On a daily basis, occupational therapy students encounter ethical dilemmas in their fieldwork practice and consequently develop the ability to make ethically sound decisions. This is a necessary process in students' professional growth and development<sup>36</sup>. The students in the group were themselves from culturally diverse backgrounds which also presented challenges in their group's dynamics and the selection of appropriate interventions that would address the needs of the residents. Watson<sup>37</sup> is of the opinion that culture provides therapists with a lens for perceiving and understanding how people live socially and not simply as individuals. According to Watson, culture constantly changes, and shapes the identity that people assume and informs the worldview they hold<sup>37</sup>.

## Barriers experienced while conducting research in fieldwork

A major barrier that the students faced in conducting the research was language. Apart from Afrikaans and English, the residents used Arabic words in their conversations with students and not all students in the group understood Arabic. The Muslim student group members had to interpret what was being said by the residents. Another challenge for the students was the use of academic research language in the writing up of their research report. The students had to make use of resources available such as the University's Academic Writing Centre to assist them to develop their academic writing skills. Another barrier that the students experienced was transport and the costs of transport for them in the execution of their research project at the Frail Care Centre. Some of the students had to make use of public transport which they found to be very unreliable and costly. Lastly, what students were planning theoretically and the realities of practice did not always go hand in hand and this was very frustrating for them. For example, the research was hindered by the health of the participants' therefore interviews had to be postponed accordingly.

## Positive outcomes for the students

Positive outcomes for the students were that they had learned a great deal from each other in the group. The advantage of placing a group of students in a fieldwork setting allows for peer support and problem-solving<sup>38</sup>. According to Steele-Smith and Armstrong<sup>39</sup> peer learning enables students to focus on learning, without fear of asking questions. Engaging in small-scale research projects during fieldwork practice provide meaningful learning experiences for occupational therapy students<sup>40</sup>. Another advantage of this student group was the cultural diversity within their group because it allowed them to learn from each other. Students also learnt about the specific community they worked in with regards to how to network and how to get the surrounding schools involved in the gardening project at the Frail Care Centre to ensure sustainability<sup>31</sup>.

## Recommendations and conclusion

This process has implications for education and practice which are as follows:

- ❖ Occupational therapists need to consider the influence that cultural diversity has on their research and service delivery;
- ❖ There is a need in the process of undergraduate research training for occupational therapists to explore the clients' perspectives of culturally responsive care;
- ❖ Increased research collaboration between the university staff, students and clinical occupational therapists will assist in promoting development of research skills for clinical occupational therapists;
- ❖ Supervisors and students should be encouraged to disseminate student research via publications and reporting back to clinicians and community fieldwork placements;
- ❖ Educators, supervisors and clinicians should act as role models for students by integrating their teaching, research and practice.

Research done in the health sciences is not an easy undertaking as human behaviour is extremely complex. Using a case study, this article has outlined the process that a group of students went through to refine their research question and the importance of reflection and feedback from supervisors while in fieldwork practice. Engaging students to integrate teaching, research and fieldwork practice remains a challenge. Starting on a small scale with undergraduate students and introducing them to the concepts and role of research in the profession of occupational therapy in fieldwork practice is critical for the ongoing development and delivery of evidence-based occupational therapy practice with a diverse client population.

## Acknowledgements

The author would like to thank the final year occupational therapy students' research group who participated in the re-



search project as part of their undergraduate research training requirements.

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