Are final year occupational therapy students adequately prepared for clinical practice? A case study in KwaZulu-Natal

Deshini Naidoo B OccTh (UDW), M OccTh (UKZN)
Lecturer, Discipline of Occupational Therapy, School of Health Sciences, University of Kwa-Zulu Natal

Jacqueline Van Wyk BSc (Ed) (UWC), B Ed (Natal University), M Ed (Natal University), PhD (UKZN)
Education Consultant, School of Clinical Medicine, University of KwaZulu-Natal

Robin Joubert Nat Dip OT (PTA), BA (UNISA), M OccTh (UDW), D Ed (UKZN)
Associate Professor, Discipline of Occupational Therapy, School of Health Sciences, University of Kwa-Zulu Natal

ABSTRACT

This study explores the perceptions of final year occupational therapy students at the University of KwaZulu Natal and their supervisors, regarding their preparedness to practice as well as their views about the efficacy of the undergraduate curriculum in accomplishing adequate levels of preparedness.

Method: *A qualitative design using focus groups and semi-structured interviews with students and clinical supervisors to obtain their views and backed up by an analysis of relevant documents of the Health Professions Council of SA and the World Federation of Occupational Therapists, the outcome of which formed the conceptual framework guiding analysis of the data from the interviews and focus groups.*

Results/findings: *Both students and their supervisors felt they possessed adequate graduate competencies to prepare them for practice. Some concerns related to curriculum content, teaching methods, and relationships with lecturers and clinical supervisors emerged. Students' level of professional confidence was directly influenced by their degree of enjoyment of the fieldwork practical and positive experiences related to this. Supervisors also reported that students display high levels of ethical awareness.*

Conclusions: *the findings provide insights into understanding the relevance of current occupational therapy training specifically at UKZN but also of relevance to the rest of South Africa.*

Keywords: Clinical competence, clinical supervisors, occupational therapy students

INTRODUCTION:

The national shortage of trained health professionals in South Africa (SA), including occupational therapists, has led to higher educational institutions being challenged to increase the intake and throughput of students[1]. A further challenge is to ensure that occupational therapy students are competent and oriented to serve the diverse needs of the South African population. The Department of Health, the first employer of graduate health professionals who need to complete community service in the public health sector before finalising registration, assumes that they are competent, based on the fact that they have graduated from an accredited undergraduate programme[2].

Anecdotal evidence suggests that the curricula of health professional educational institutions have become fragmented, static and slow to respond to the health needs of the South African communities which are to be served by their graduates. Higher education institutions are expected to respond to the demands of educating responsible, accountable graduates who are sensitive to the needs of the communities they serve. In their capacity of health providers then need to be change agents, and to think creatively to solve the problems that they face upon graduation[3]. In the absence of their being adequately trained to fill this role, a review of educational programmes and methods is needed for healthcare professionals, including occupational therapists. Research into occupational therapy education and practice is emerging as a strong field of enquiry in the discipline[4,5,6]. Emerging themes in the literature around education suggest a need to clarify the philosophical underpinnings of occupational therapy education and its application to practise[5,6,7,8].

The decentralisation of health services, the anticipated introduction of the National Health Insurance Scheme and the renewed emphasis on primary health care has highlighted the need to review the curricula outcomes of occupational therapy education programmes. This is necessary to ensure improved alignment of these programmes in meeting the needs of graduates and consumers in SA. Socially responsive curricula will enable students' to reach a larger population through their fieldwork, and to become agents of change in communities by enabling engagement in occupation in the community[9,2,7].

Fieldwork is essential for developing students' professional behaviour and preparing them for work, yet little is known about how they view these experiences and to what extent it prepares them for the realities of their occupation in South Africa[10,11,12,13]. Recent occupational therapy research has raised the debate around the effectiveness of assessing students' skills during fieldwork, clinicians' abilities to develop guidelines that adequately reflect the complexity of competencies required, and accurately identifying those factors that contribute towards therapists being confident[4,5,6].

While these studies contribute toward understanding the factors that promote effective fieldwork and student supervision; there is limited published literature in the South African context that explores students' perception on the extent to which the undergraduate education programmes are preparing them for their profession. Research exploring the views of physiotherapy students' towards their curriculum revealed the need to interrogate educational practices and curriculum outcomes[15,16]. Exploring students' undergraduate experiences is important educational research, as new graduates are often required to work autonomously and in a self–directed manner during their community service year. Depending on their placements, many therapists will not have the luxury of working under discipline specific mentorship or in

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collaboration with peers, as access to these depends upon their placements[16]. These students will then have to make the substantial adjustment from being a supervised student in a controlled environment to practicing independently as a qualified therapist, often in resource constraint settings[11,13,16,17].

This paper reports on a study that sought the opinions of final year students about their preparedness for clinical practice. It also explored the factors that impacted on their learning in the undergraduate occupational therapy programme at the University of KwaZulu-Natal.

METHODOLOGY

A qualitative approach and a case study methodology was used to conduct this study.

Ethical clearance was obtained from the University of KwaZulu-Natal's Health and Social Sciences Ethics Committee.

Data in the form of participants' perceptions were collected from nineteen final year students who were in their final semester of their undergraduate programme and seven of their clinical supervisors. This was done by two research assistants, both practising occupational therapists, who conducted the three focus groups with the students and three semi- structured follow up interviews with the students. This allowed for student anonymity and provided greater reliability by reducing potential research bias, as the principal investigator was a member of the academic staff in the Occupational Therapy Discipline at the University of KwaZulu-Natal, and her presence within the process could have impacted on the veracity and integrity of feedback. A focus group facilitated by the principal investigator was used to collect data from the clinical supervisors.

In addition, a document analysis was used to explore the current teaching and assessment practices in the discipline. The Health Professions Council of South Africa's (HPCSA) minimum standards of training and the World Federation of Occupational Therapists (WFOT) minimum standards of training were used to guide the questions for the semi-structured interviews, focus groups and the document analysis. Triangulation of data sources (namely the students, the clinical supervisors and the documents) and data collection methods (focus groups, semi-structured interviews and data analysis) were used to improve the trustworthiness of the data.

A conceptual framework was created using the WFOT and the HPCSA's minimum standards for education and training. The categories in this framework were used to create a codebook to enable deductive data analysis by the researcher and the research assistant[18]. The researcher and the research assistant analysed the data separately thereafter discussed the themes that emerged to reach a consensus. This was done to reduce potential bias as the researcher was employed by the university.

Findings

In this section we present the findings in answer to each of the research questions namely, "Do students feel prepared for clinical practice?" and "What factors impact on students' learning".

1. Do the students feel prepared for clinical practice?

A number of themes emerged when the students were questioned regarding their preparedness for the community year of practice, these related to client evaluation, client intervention strategies and outcomes.

Overall, the students felt only partially prepared for clinical practice, this being linked to their perceived ability to adequately apply the occupational therapy process, and their confidence in applying their newly developed professional skills.

Example: *"I don't think you'll ever feel fully prepared like but I feel that I could go into a hospital next year and still be able to find my way …"* (Student focus group 1).

Client Evaluation

Overall, the students felt they had the basic ability to assess their clients and were able to construct a problem list. Although this view was supported by the clinical supervisors, they also observed students having some difficulty when the client presented with more complex multiple trauma or pathology.

"there's so many…. definite assessments that need to be conducted and done and… by the time you get to fourth year, most of us did screening and it was okay, you could see what the problem was" (Student Semi-structured interview 1)

"I found that in a physical setting they (the students) omit the psych (aspect) even if the patient was an alcoholic and that really impacts on his life… and progress and prognosis" (Clinical supervisor focus group 1)

Client Intervention strategies

Students' perception about their ability to plan and implement appropriate treatment or other occupational therapy interventions ranged from being confident to apprehensive about how to prioritise and sequence intervention sessions. They linked their ability in this regard to the amount of exposure they had had to the various diagnostic categories commonly referred to occupational therapy, and the variety of fieldwork placement contexts during their training e.g. acute versus chronic practice, institutional versus community or education placements. Most of the students felt that they had the ability required to implement basic therapy. The issue of having sufficient skills was raised, and the students' sense of competence and confidence in treatment / intervention was linked to the fields within occupational therapy (e.g. physical / psychiatry / paediatrics), and the fieldwork experiences that they preferred most or had the most positive experiences or were exposure to.

"I guess that would depend on the field that I'm in. If it was Psychiatric…I'd feel much more prepared than being in Physical " (Student Semi-structured interview 2) *"…like physical splinting is difficult and we didn't have enough practice"* (Student focus group 2).

Most clinical supervisors reported that the students have difficulty with grading activities and modifying/adapting their intervention sessions. Some felt that students' difficulty stemmed from an inability to use theory to guide their intervention planning process. This was thought to be more obvious with their ability to use models of practice and choose appropriate specific intervention principles.

With treatment planning….*"it's everything, it's the condition, it's the Creative Ability(CA) level it's,…. there's so many things you have to consider when you* (are) *formulating principles for a patient for a treatment session. But you'll find they probably only focus on the activity and forget about the CA level of the patient or the condition of the patient"* (Clinical supervisor focus group 1).

Outcomes

Supervisors reported students having good handling skills and interpersonal relationships with their clients.

"Some of them have some really nice handling skills; they are able talk to their patients. The patients have a good relationship with them and some of them do really nice, use the right amount of assistance needed" (Clinical supervisor focus group 1)

Students reported that the fieldwork in the community helped orientate them to develop skills related to supporting health of clients in the community.

"Positively, what's helped is the Community Based Rehabilitation lectures for community, so it's almost given us that… opening on how to go into the community and do home visits, and what to expect when you need to start up and campaign stuff within the community" (Semi-structured interview 1).

2. Factors impacting on students' learning

Factors impacting on the students' learning included: confidence and autonomy; alignment of the curriculum; previous experience during fieldwork, educational methods, institutional culture and

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insufficient time for clinical supervision.

Confidence and Autonomy

Students' feelings of confidence were reported to be linked to attaining satisfactory clinical performance marks; being more autonomous during fieldwork; and the type of fieldwork placement they were engaged in. Participation in the community rehabilitation block was found to be particularly beneficial.

*"I feel confident in the blocks that I've done well in. Like I understand marks don't really mean that much,   if you get a good clinical performance mark, I generally feel more confident because then I know where I'm going" (*Student focus group 2)

Previous experience during fieldwork

Students remarked that previous fieldwork experiences impacted on their confidence and ability to learn in the following year.

"…if you have a bad prac previously and then you get to fourth year and you are like, OK, no…It's going to be bad again" (Student focus group 2)

Educational methods

Students valued the use of more interactive educational teaching methods such as the use of demonstration or discussions to illustrate the professional reasoning during an intervention session. They believed that these strategies assisted them to integrate theoretical knowledge into practical applications. The clinical supervisors supported this, stating that students' appear to learn better through the use of interactive methods and peer-learning.

"Practical demonstrations… they seem to be able to pick that up more and it flows through their treatment after that" (Clinical supervisor Focus Group 1)

"I also found that getting them to sit in on each other's sessions helps" (Clinical supervisor Focus Group 1)

The students' valued feedback that highlighted their progress on tasks completed, and reported that feedback that balanced both positive and negative comments were one of the most important factors that impacted on their learning. The students acknowledged that negative feedback was valuable in creating insight, however felt this should be a balanced with positive feedback.

"…if somebody just gives you only negative feedback it… impacts negatively on your self-esteem because you think, 'Oh my God, I'm not doing anything right.' I'll also think …having positive feedback so that you know OK, at least I am doing something right" (Student Semi-structured interview 3)

Institutional culture

The students noted that other factors that influenced their learning such as: adjusting to the demands of learning and socialising in a tertiary institution; feeling workload stress; and being able to think critically and laterally. Students also reported that the cohort formed racially segregated groups that did not share information readily or integrate which impacted on students' ability to share information and negatively impacted on learning during the programme.

"One of the biggest things that we felt in our class is lots of separation…separation on race, separation on knowledge" (Student Semi-structured interview 4)

Insufficient time for Clinical Supervision

Students expressed concern about the clinical supervisors in the hospitals having to supervise their fieldwork in addition to having their own case loads. This was seen to negatively impact on the students' level of supervision due to the clinicians having limited time to spend with the students.

"Here in Durban and the clinicians…have a lot of.. um.. workload on their own. So it's,… it ends up becoming problematic to the students as well because they never get time to be supervised" (Student focus group 2)

DISCUSSION

Students appear to feel confident to cope with basic occupational therapy practice upon qualification from the course. However, their responses suggest that there are aspects of the educational programme that could be improved to ensure that graduates gain more confidence and competence and are better equipped to cope with their first job. Educating students to be competent and to embody professional ethics and values is a complex task. The transition from student to independent practitioner is difficult and encompasses an evolving process that occurs well into the working life of the therapist[13,17,19]. It should thus not be considered unusual for the new graduate to feel that their undergraduate programme did not equip them with sufficient knowledge and technical skill for efficient occupational therapy practice[10,11,19]. No training, however close to perfection, can expect to fully equip a student to deal with the enormity of expectations awaiting them in public and private health services. The authors are of the opinion that educators should emphasise that the undergraduate programme should equip students with the most important skills and competencies, positive attitudes and an enquiring mind that knows how and where to access resources.

Apart from the need for ongoing practice to develop and hone their skills and competencies, there will always be a need for further continued professional development to learn new skills, to improve professional specific skills such a splinting or vocational rehabilitation and to specialise in unique areas such as paediatric, neurology or psychiatric areas. This research appears to have affirmatively answered the question as to whether students perceive themselves and are perceived by clinicians as being adequately competent to deal with the basic demands that will be made upon them on qualification. There are however aspects that require attention.

Students in this research were able to evaluate clients but lacked experience in applying effective clinical reasoning to more complex cases. Many students in the health professions frequently face extremely complicated cases during their training such as a client with multiple traumas as a result of gunshot wounds, resulting in a pneumothorax, right hand radial nerve injury and spinal cord injury as well as being HIV compromised. It is therefore not surprising that students feel threatened and incompetent in dealing with clients such as these. Even seasoned practitioners find such cases challenging. But they are a reality of the South African health scenario and often, such complex cases are further compounded in that they may come from a context of poverty and social disintegration to which they have to be returned after discharge.

Students follow rule-based procedural reasoning to guide their actions with implementation of intervention[20]. Both Sinclair's matrix of clinical reasoning[21] and Unsworth's stages and key characteristic of skills[22], suggest that students straddle the levels of novice to advanced beginner in clinical reasoning. This is appropriate for therapists who are only beginning their career. Therefore clinical supervisors need to verbalise the clinical reasoning required in treating complex cases to model more advanced clinical reasoning skills to students. This would help students learn from expert clinical reasoning which is characterised by the ability to approach therapy from client generated cues, the ability to anticipate and recognise client strengths and weaknesses based on the experience of other clients and to be flexible to alter and adapt their intervention plans[21,22,24]. In this way the students would have scenarios that they could use as examples to draw from when they are faced with similar issues[22,23,24]. The implication of this finding suggests that clinical supervisors need to be aware of techniques that they could use to highlight their clinical reasoning. Furthermore, educational institutions need to clarify and create greater awareness around graduate attributes needed by novice SA occupational therapy graduates. These attributes can then be used to guide educators and clinical supervisors in teaching students clinical practice skills.

Clinical supervisors play an integral role in preparing students for clinical practice. However research has highlighted that supervisors may not always be clear about the level of skill that students are required to possess at undergraduate level. Duke's study[20] reported

that clinical supervisors have difficulty in defining competence which may hinder the supervisor's ability to assess and improve the competence of students[19]. Similarly, Snyman[6] found a lack of consensus around concept and assessment methods for professional behaviour. Likewise, Emslie[4] discovered that clinical supervisors' difficulty with rating students' performances was attributed to perceived insufficient collaboration between clinical supervisors and the university and the influences of the clinical supervisors' personal belief about assessment[4]. Findings from this research study further highlighted that clinical supervisors have difficulty with deciding on level of competence required for a novice therapists and the inconsistencies noted in assessment of students' competence. In other words there is need for greater clarification about the skills, knowledge and attitudes required by SA occupational therapy graduates that are realistic as opposed to the attributes expected from experienced clinicians and it is essential to have greater consensus on assessment of students. Assessment of students has implications for preparedness for practice due to the students' confidence in their ability being linked to achievements or marks. Consequently, educational intuitions need more effective strategies to coach clinical supervisors to ensure their assessments of student competence are valid, ensure improved congruency between the educational institution and the clinical supervisor expectations.

Indisputably, fieldwork placements assist students in development of their professional identity; professional behaviours and the clinical reasoning skills[4,25,26,27]. But what makes a fieldwork placement successful? In this study students linked their level of confidence to positive experiences during fieldwork. Feedback, being mentored by a good supervisor and being given some autonomy during therapy was seen to contribute toward a successful fieldwork experience. Feedback from supervisors has been acknowledged to be crucial in facilitating and guiding students' professional development and creative thinking skills[11,26,2,28]. Correspondingly, the final year students reported that feedback greatly impacted on their formative learning experiences and sense of achievement. Issues raised in this research were around the balance between positive and negative comments which was found to influence students' confidence and autonomy in practice and link with related research findings[10,27,29].

The students in this study valued supervisors who have good communication and interpersonal skills; their ability to model professional behaviour; and the adequacy with which they could demonstrate treatment. They also valued supervisors who were constructively critical but who reinforced the strengths observed in the students. Therefore, it is important that educational institutions ensure that clinical and academic supervisors on the fieldwork placement become aware of their supervision styles and that training centres prepare supervisors adequately for this tasks[10,26,27]. It follows that the preparation of supervisors and consensus on expectations will promote relevant positive student learning experiences during fieldwork and in this way will improve their ability to perform without conflicting views as to whether they are meeting the expectations specific to seal with the unique demands of student supervisors.

Students in this study expressed the need for more autonomy in therapy sessions during fieldwork. Likewise clinical supervisors' appear to prefer students who are prepared to work more independently, are well organised and show a willingness to learn[10,27]. Literature indicates fostering self-reliance during fieldwork experience requires setting clear expectations at the start of the placement to promote self-study and "wean" students progressively from their dependencies on supervisory support by providing an environment that mimics the authenticity of the real world[30,31]. The findings of this study suggest the need to place greater emphasis and effort on students' development towards becoming self-reliant. This is of particular importance for the graduate who will be required to work in a setting without the benefit of discipline specific mentorship. Furthermore this will promote the shift in final year from being fully supervised students to more independent clinicians.

Of equal importance are the educational methods used to create a foundation of learning that integrated occupational theory and practice. The views of students' on educational methods in this study suggest that they strongly value the use of interactive teaching methods. A considerable body of knowledge recognises the positive effect of interactive teaching methods such as use of demonstrations, discussion with academic staff, group and peer learning[32,33,34]. Additional methods that are reported to stimulate active learning include the use of case-based discussions, using reflective journaling, educators providing anecdotal examples from their own clinical experience; as well as debriefing after fieldwork[30]. Video recording the student during treatment and then allowing student to critique themselves during playback is also an excellent way of providing students with first-hand insight into their strengths and weaknesses.

Generational differences have also been attributed to influencing student learning, "Generation Y" or millennium students have been defined as students born between 1980 and 1994[35]. Research indicates that "generation Y" have received constant praise and less negative feedback, an explosion of access to technology such as computers, iPods and cell phones and high marks during secondary school for less work[35,36]. Consequently, literature indicates that millennium students tend to be more technologically savvy, have difficulty communicating in traditional formats, prefer working in groups or learning from their peers, are achievement orientated, have a short attention span, easily bored and tend to prioritise studying when marks are involved[37,38]. This is further evidence that students need clear goals and educational outcomes and a rationale for including more learning activities where students can apply their course content and learn through doing[35,36]. This is relevant because students' ability to grasp conceptual knowledge such as theoretical frameworks, theories of practice, principles of intervention and knowledge around diagnosis is vital in creating a base for their clinical reasoning which influences their ability to evaluate clients and implement effective therapy.

Lastly, it is of concern that students felt their final year class was racially segregated because it suggests that if students are having difficulties interacting in this relatively non-threatening environment that they may have many more difficulties when interacting with their multi-racial clients in the wards and or the community settings[39,40]. The authors are of the opinion that sharing cultural and contextual stories and spaces would create greater understanding and insight between students from diverse backgrounds which would enhance their confidence in dealing with these differences when in the fieldwork situation.

CONCLUSION

In summary there was consensus between the clinical supervisors and the students that the new graduates would be able to cope with basic clinical practice. They however, lacked confidence and some technical skills, which is not an unexpected finding in any about - to- graduate cohort of students. Thus aspects of the curriculum could be improved to ensure that the new clinicians have more confidence and are equipped to deliver an occupational therapy service that meets the needs of current healthcare settings. There are areas that need more attention, specifically the preparation of both academic and clinical supervisors to be able to bring out the best in the students, the use of innovative and appropriate diversity of teaching methods to enhance the learning process and the need to make students aware of the benefits of intercultural and inter-racial mixing in order not only to reap the benefits of new found friends but mostly to learn from and become more tolerant of one another which would further enhance their clinical practice.

LIMITATIONS OF THE STUDY AND RECOMMENDATIONS

The study relates directly to the final year occupational therapy students at the University of KwaZulu Natal therefore is not generalisable. However, the issues raised by the study may be applicable to other educational institutions. It was recommended that there be greater collaboration between educators and clinical supervisors. A review of the yearly meeting held with the clinical supervisors should be completed to facilitate greater consensus around rating

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students and a more congruent expectations of students during fieldwork. Furthermore, a discussion of the more effective teaching strategies to illustrate clinical reasoning should be held between clinical supervisors and educators. Further educational research involving other educational institutions as well as a follow-up of new graduates in their first year of work is recommended.

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❏

Corresponding Author

Deshini Naidoo
naidooes@ukzn.ac.za

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