

Making sense of knowing: Knowledge creation and translation in student occupational therapy practitioners

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Background. While the body of evidence regarding knowledge translation (KT) has surged in the past decade, quality information remains largely unknown, especially in occupational therapy (OT). Evidence-based practice within the profession is therefore potentially threatened, necessitating that students are adequately trained and able to translate research into practice when entering the profession.

Objective. To explore how OT student practitioners create and translate knowledge in their clinical practice settings.

Methods. An open-ended questionnaire was administered to all final-year OT students ($N=24$) enrolled at the University of KwaZulu-Natal, Durban, South Africa, in 2016, with a response rate of 71% ($n=17$). Data were analysed thematically using an inductive-deductive approach.

Results. Strategies used by students in knowledge creation included inquiry through discussions with peers and interactions with stakeholders (lecturers, mentors and clinicians); synthesis by hands-on practice and in the application of knowledge in research projects; and use of knowledge tools (e.g. electronic searches for literature, presentations and seminars) and social media (e.g. instant messages, videos and blogs). KT was enacted by educational meetings for peer development – both student and clinician driven, educational materials and dissemination channels, such as workshops, presentations and in developing communities.

Conclusions. This study identified context-specific KT processes and strategies used by OT students. Strategies were simple and accessible within their contexts, and were mainly related to gaining insights geared towards specific OT practice. These findings may assist educators in developing opportunities for students that may enhance their creation and translation of knowledge into practice as clinicians.

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Knowledge translation (KT) in the scientific literature is a relatively new term, first proposed by the Canadian Institutes of Health Research (CIHR).^[1] It describes an issue that has been around for decades. KT is a complex multistep process that is focused on associating the ‘know-do gap’ between knowledge production and its implementation.^[2] In other words, it is considered an active process that facilitates the introduction of evidence into practice to reduce the gap between research and clinical practice. Graham *et al.*^[2] proposed a knowledge-to-action framework with three sections, i.e.: (i) understanding and defining KT; (ii) determining how knowledge is created and used; and (iii) exploring how knowledge is shared.

In the past decade, there has been a surge in the body of evidence regarding KT, with extensive agreement on the importance of transferring knowledge into action. In a scoping review, KT strategies that achieve beneficial outcomes were found to be unknown,^[3] with limited empirical research on how to undertake integrated KT.^[4] Notwithstanding KT being an important competency for occupational therapy (OT),^[5] KT strategies that influence professional practice behaviours in rehabilitation disciplines remain largely unknown.^[6] With the increasing role of inter-professional primary healthcare teams, the scope of rehabilitation practice is expanding and should include KT, which represents knowledge brokerage. However, the amalgamation of KT activities has not yet been fully explored, despite the articulated need for KT strategies to be adopted in rehabilitation practice.^[6] Both contextual and individual factors may influence how

knowledge is translated into practice, thereby adding this variation to the understanding of KT practices. Varied KT approaches may therefore be needed for different rehabilitation disciplines owing to different gaps in evidence and practice,^[6] noting that a one-size-fits-all approach might not necessarily be possible, even in similar settings. This study was therefore positioned to elicit current practices (in terms of creation and application of knowledge) and strategies used by student practitioners to identify the know-do gap^[2] for the development of relevant KT initiatives.

Methods

This pilot study involved an exploration of OT students’ experiences in accessing, implementing and applying current knowledge in their clinical practice as students. In an explorative approach, a self-administered open-ended questionnaire was distributed to all final-year OT students ($N=24$) enrolled at the University of KwaZulu-Natal (UKZN), Durban, SA, in 2016. The final sample comprised 17 students. The sections of the knowledge-to-action framework of Graham *et al.*^[2] guided the survey development and *a priori* codes were included in the analysis. Data were analysed with a hybrid inductive-deductive reasoning approach to thematic analysis.

Quality was ensured by adherence to principles that maintained the truth value of the research, so that constructions by the authors credibly reflect the views of the study participants by the presence of an audit trail and by reflexivity, as well as use of strategies such as member checking and peer debriefing. The authors acknowledge that use of focus group discussions

might have elicited a deeper exposition on student practices; however, a limitation was the timing of the data collection, which occurred during student unrest; hence, it was not possible to access students in groups.

Ethical approval

Approval from the UKZN Human and Social Sciences Ethics Committee (ref. no. HSS/1213/016) was granted, together with gatekeeper permission from the registrar of the institution. Participation was voluntary, informed consent was obtained and participants could withdraw without prejudice.

Results and discussion

A response rate of 71% ($n=17$) was achieved. The mean age of students was 22.9 years, with 94% female respondents.

With regard to KT, the body of scholarship exploring definitions, conceptual and theoretical frameworks, and applications of KT has increased fundamentally over the past decade. It was therefore not surprising that students were generally able to articulate their understanding of the concept as it related to research:

‘My understanding of research utilisation is retrieving research regarding different topics within their practice to drive their intervention and keep up with latest trends.’ (Participant 2)

‘... making use of resources of knowledge, especially those that are evidence-based ...’ (Participant 6)

‘... process of understanding and integrating research in our professions.’ (Participant 7)

‘Research allows for updating and improving information to inform practice. Therefore, if research is not utilised, the therapist’s knowledge may be limited and outdated.’ (Participant 8)

‘Making sense of information or research being utilised and translating this knowledge into practice.’ (Participant 14)

‘... taking information you have gathered and putting it into practice.’ (Participant 15)

Strategies used by students in this study are highlighted in Fig. 1.

Knowledge creation was possible by means of knowledge inquiry, synthesis and using knowledge tools (Fig. 1). The process of inquiry allowed for synthesis and aggregation of existing knowledge. These opportunities were cited as valuable to synthesise OTs’ knowledge of discipline-specific aspects during fieldwork or service-learning placements, where they felt

learning occurred and application of theory into practice aided their understanding of core content:

‘Experience and feedback from others who are more knowledgeable on topics help to identify gaps within one’s own knowledge.’ (Participant 1)

‘Decisions are made based on experiences within practice ...’ (Participant 1)

Knowledge tools used in knowledge creation included electronic searches for literature, presentations and seminars and use of social media, such as instant messages, videos and blogs (Fig. 1):

‘Internet access is important, as it is often shared via email, blogs, WhatsApp and Google Drive(s). Knowledge is also shared by lending books.’ (Participant 1)

‘We currently have a Google Drive account for our class and we add information and articles that can help one another. We also have a WhatsApp group where we constantly share information, such as pictures or links to articles.’ (Participant 14)

Enactment of KT is also described in Fig. 1. It included educational meetings for peer development, both student and clinician driven, educational materials and dissemination channels, such as workshops and presentations, and development of communities of practice. These strategies enabled students to examine knowledge and challenge each other, correct misunderstandings, learn and relearn, as well as provide the opportunity for sharing and pooling of knowledge and resources:

‘Organise regular meetings and discuss the topic – communication is vital and so is each member’s contribution.’ (Participant 7)

‘Through peer study groups and explanations.’ (Participant 8)

‘Sharing information via email or social media, and presenting research through case studies and presentations.’ (Participant 14)

In terms of the creation of knowledge, Salter and Kothari^[7] postulated that knowledge used in practice is collaboratively constructed, drawing on information from a variety of sources, as seen in the findings of this study. Moreover, these findings are aligned with those of Wimpenny,^[8] who argues that differing forms of knowledge required by healthcare practitioners need not be mutually exclusive, but should rather integrate a range of knowledge in a broader context that reflects the contribution and translation of professional craft knowledge alongside other intellectual constructs. The findings are further supported by those of Jones *et al.*,^[6] whose study

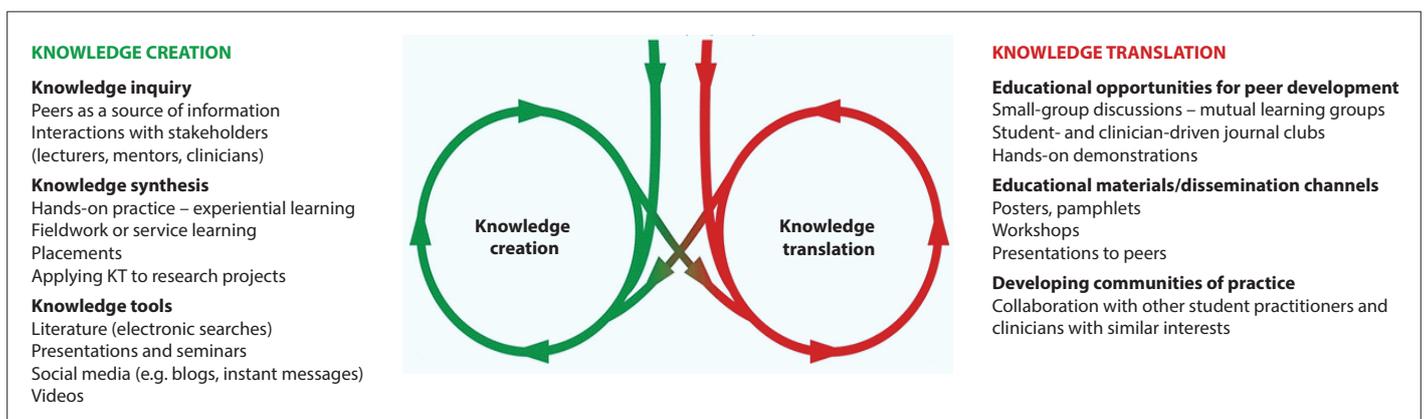


Fig. 1. Knowledge creation and translation strategies employed by student practitioners in this study ($n=17$). (KT = knowledge translation.)

supports professional education as a common intervention in addition to educational meetings and materials. In the OT and physiotherapy literature, professional interventions, such as clinical guidelines, were also described as a further source of evidence.^[6]

Conclusions

This study forms part of a larger study that aims to investigate KT priorities for rehabilitation in the local context of KwaZulu-Natal Province. The findings of this study assisted in identifying context-specific processes and strategies used specifically by OT students in KT. Students seemed to have a general understanding of KT and initiated strategies that are simple and accessible, most of which related to gaining insight in specific intervention in OT practice. Interestingly, students revealed a sense of sharing, which demonstrated student-initiated altruistic strategies that would inevitably assist students from disadvantaged backgrounds who may be reticent to reveal their deficits regarding KT. This study contributed essential insights into rehabilitation student practitioners' efforts at implementing knowledge, and would inform endeavours to assist in more effective KT application in the clinical context. While these findings might assist academics in developing opportunities for student practitioners to enhance their creation and translation of knowledge into practice as clinicians, potential barriers to the implementation of such strategies also require further exploration so that the most appropriate ones are selected for this context.

Declaration. None.

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