

# *Evidence-Based Practice as a Component of Student Learning During Fieldwork*

Debra Hanson

**A**re students ready to apply research evidence to their clients during fieldwork... and how often do they do so? A survey of final year occupational therapy students in Ireland (N=86) revealed that almost all of the students (98%) reported being well-prepared to use evidence during their fieldwork placement and 80% considered themselves to be grounded in evidence-based practice (EBP), even though more than half indicated that they had difficulty finding evidence.<sup>1</sup> Reasons given for not engaging in EBP were time constraints (31%) and "because my (fieldwork) educator/other therapists don't" (27%). Sixty percent of the respondents reported that EBP was reflected in their fieldwork environment; 40% thought it was not. Twenty-three percent of respondents indicated that EBP was discussed "a lot," whereas more than half (56%) felt it was somewhat discussed, and 17% felt it was discussed little or not at all. Similarly, only about a quarter (27%) of students reported often taking the initiative to discuss current best evidence, 53% reported occasionally initiating EBP discussions, and 17% rarely did so. This may be because of the value placed on the use of research in practice—42% of respondents believed that previous work experience was more important than research findings. Although the research took place in a country whose reimbursement and documentation systems are different than the United States, the findings suggest that students are heavily influenced

by the value placed on EBP in their fieldwork setting, and that they will follow the lead of their fieldwork educators in regard to using research evidence to inform clinical decision making.

## **REINFORCING EBP**

What specific role can fieldwork educators take in reinforcing students' use of evidence in practice? Thomas, Saroyan, and Snider used a case vignette to identify differences between experienced practicing clinicians and students in applying the five steps for EBP, which are (1) identify a clinical question (in the form of a PICO: population, intervention, comparison, and outcome) about a treatment being considered or an outcome of interest; (2) search the literature to identify the best research evidence to address the question; (3) appraise the evidence for its rigor and relevance, and extract clinical information of value; (4) use the evidence for clinical decision making and intervention; and (5) evaluate the effectiveness of the intervention in relation to client-identified needs.<sup>2</sup> Student participants were recruited from three different academic cohort groups of a master's degree occupational therapy program. Fifteen were first-year students, 20 were in the middle stage of occupational therapy education, and 18 had completed more than 600 hours of fieldwork. Nine clinicians with 10 years of experience working with older adults also participated in the study. Participants were given 2 hours to complete the five EBP steps, and their responses for each step were coded by three independent judges in regard

to the extent to which their decisions were consistent with those of expert clinicians.

Comparisons between groups revealed significant differences on the performance of EBP steps 1 and 2, with students in the middle and fieldwork stages of education outperforming the first-year students and the clinicians. Although it was expected that fieldwork students would outperform clinicians in research appraisal (step 3), there was no significant difference between the performance of middle year, fieldwork students, and clinicians. The clinicians fell short in articulating a clinical question and in searching for and appraising the literature, but they had the most correct decisions in regard to EBP steps 4 and 5. Although the differences were not statistically significant, the fieldwork group outperformed the other two student groups in relation to EBP steps 4 and 5, even though the middle group had recently received formal instruction on these steps. The authors suggested that occupational therapy students acquire knowledge and skill in EBP steps 1 to 3 in the academic program, but that competence in steps 4 and 5 appears to be a function of experience and sustained practice in a specific clinical area.

The findings point to the value of authentic client situations for practicing the steps of the EBP process and the expertise of fieldwork educators as essential in guiding student reasoning toward applying research evidence to practice. Students and fieldwork educators can benefit from targeted collaboration in the EBP process, with students taking the lead in posing a

PICO question, and searching for and appraising the literature, and with clinicians applying their clinical knowledge and experience to maximize and apply evidence-based services to clients.

## PRACTICING EBP

How important is it for students to practice EBP during their fieldwork experiences? Thirty students enrolled in an entry-level EBP course in a master's of science program completed the Adapted Fresno Test (AFT) of EBP (a test including seven short-answer questions reflecting clinical scenarios common to occupational therapy practice) before and after completing a 16-week, 45-hour EBP course and again (N=26) after completing an 8-week fieldwork experience.<sup>3</sup> There was a significant increase in the EBP knowledge and skills between the pre- and post-course scores ( $p < .001$ ) on questions asking for process and search strategies related to EBP, but there was not a significant increase in appraisal skills determining relevance and validity of study results relative to a clinical

situation. Significant differences were noted between the scores of the post-course and fieldwork students ( $p < .001$ ). Declines in the scores of fieldwork students were noted in all questions except for knowledge of how to write a PICO question. Significant decreases were evident in appraisal skills ( $p = .003$ ); in fact, post-fieldwork scores did not differ significantly from initial baseline measurements.

The authors hypothesized that students did not apply the skills and knowledge they had acquired in class during their fieldwork experiences and suggested that students need to practice skills for overcoming EBP barriers in the "real world" context of practice. They suggested role-playing scenarios to practice negotiating for time and other forms of management support for EBP, and discussion of practical steps for initiating EBP program incentives (such as journal clubs or online searching strategies). Recommendations were made for practitioners and students to work together to identify research questions and apply the

results in both clinical and scholarship contexts. ■

## References

1. Stronge, M., & Cahill, M. (2012). Self-reported knowledge, attitudes, and behavior towards evidence-based practice of occupational therapy students in Ireland. *Occupational Therapy International*, 19, 7-16.
2. Thomas, A., Saroyan, A., & Snider, L. (2012). Evidence-based practice behaviours: A comparison amongst occupational therapy students and clinicians. *Canadian Journal of Occupational Therapy*, 79(2), 96-107.
3. Crabtree, J., Justiss, M., & Swinehart, S. (2012). Occupational therapy master-level students' evidence-based practice knowledge and skills before and after fieldwork. *Occupational Therapy in Health Care*, 26(2-3), 138-149. doi:10.3109/07380577.2012.694584

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