Abstract

It is widely accepted that the occupational therapy profession needs to incorporate research findings into clinical practice so as to improve client outcomes. The purpose of this study was to investigate the knowledge and attitudes toward evidence-based practice (EBP) of occupational therapy students in the Republic of Ireland. A validated questionnaire was used to survey the population of final-year students from the four universities in Ireland in 2008. There was a response rate of 77% (n = 86) to the Knowledge, Attitude and Behaviour Questionnaire. All students reported that they had a clear understanding of EBP and were willing to practice EBP in the future. The majority (85%, n = 73) reported accessing evidence weekly or more often. Lack of time and fieldwork educators not practising EBP were important barriers for 31% (n = 27) and 27% (n = 23), respectively. Over half (55%, n = 47) reported difficulty in finding evidence. The internet (28%, n = 24) and textbooks (27%, n = 23) were the most popular sources of evidence. Limitations include the self-report, cross-sectional design. Future research could include longitudinal studies to understand the transfer of learning into clinical practice. Copyright © 2011 John Wiley & Sons, Ltd.

Keywords

evidence-based practice; occupational therapy students; survey; academic programmes

Introduction

Evidence-based practice (EBP) was first introduced in the 20th century by the medical profession (Sackett et al., 1996) and has since been adopted by allied health professions including occupational therapy (Bennett and Townsend, 2006). EBP is defined as practice that “requires that decisions about health and social care are based on the best available, current, valid and relevant evidence. These decisions should be made by those receiving care, informed by the tacit and explicit knowledge of those providing care, within the context of available resources” (Dawes et al., 2005, p. 4).

In recent years, EBP has become an expectation of all healthcare professionals. It is considered an essential vehicle to advance the profession (AOTA, 2007) and to ensure that occupational therapists deliver quality services to their clients (Crist, 2010). It has been driven by the profession’s concerns about the effectiveness of occupational therapy practice (McCluskey, 2003), legal and ethical duties of care from regulatory authorities (Stube and Jedlicka, 2007) and external pressures from
The concept of EBP in occupational therapy tended to focus on three main areas: (1) occupational therapists’ perceptions, knowledge and utilization of EBP skills; (2) barriers to implementing EBP; and (3) educational interventions with qualified therapists which address some of the barriers identified. Curtin and Jaramazovic (2001) explored perceptions of EBP amongst occupational therapists based in the UK. They found that they were positive but identified lack of time, high staff turnover and access to resources as barriers to EBP. Bennett et al. (2003) examined attitudes and barriers amongst Australian occupational therapists. They also found that the majority were positive about EBP, although they relied on clinical experience, their colleagues and continuing education to make clinical decisions rather than on research. Cameron et al. (2005) examined the use of EBP by occupational therapists in the USA and found that only a small number of registered therapists used EBP when planning interventions.

Barriers to EBP include lack of time, large caseloads, limited searching and appraisal skills, difficulty accessing journals and a perceived lack of evidence to support specific interventions (Bennett et al., 2003; McCluskey, 2003). According to McCluskey (2003), occupational therapists report low levels of knowledge and skills in relation to EBP. Education-focused interventions have been shown to improve therapists’ knowledge and skills, although the impact on behaviour change was minimal (McCluskey and Lavarini, 2005). Notwithstanding the challenges to implementing EBP, it remains pivotal to modern health care and the occupational therapy profession (Reagon et al., 2010). Changing behaviours and increasing knowledge are significant challenges for educators (McCluskey and Lavarini, 2005). Yet few studies have addressed the levels of knowledge skills and the use of evidence in student occupational therapists.

In contrast, attitudes to EBP have been examined in medical (Lai and Nalliah, 2010) and nursing students (Brown et al., 2010). The impact of an evidence-based training programme on final-year medical students’ information-seeking practices were examined by Lai and Nalliah (2010). The study concluded that whereas students’ confidence in evidence-based medicine increased, there were no changes in the students’ information-seeking behaviours. Brown et al. (2010) used the Knowledge, Attitude and Behaviour (KAB) Questionnaire (Johnston et al., 2003) to identify self-reported knowledge, attitudes, use and future use of EBP amongst 436 baccalaureate nursing students at two universities. They found that knowledge, attitudes, use and future use of EBP were generally found to increase with advancing academic level.

Additionally, Waters et al. (2009) in an Australian study examined knowledge and attitudes towards EBP in final-year nursing students and post-registration nurses. They found that student nurses were more confident in their searching skills than the registered nurses but that in both groups the level of knowledge was low to moderate. Interestingly these aspects of EBP have not been examined within the literature to date in relation to occupational therapy students.

Occupational therapy programmes are required to incorporate effective teaching strategies about EBP into the curriculum so as to prepare students with the appropriate knowledge, skills and attitudes (Reynolds, 2010). Stube and Jedlicka (2007) suggest that educators have a role in assisting students to become scholarly consumers of evidence. If academic and fieldwork educators understand the students’ preferred sources, level, use of and perceived barriers, this may contribute toward more effective teaching strategies in academic and fieldwork settings.

Educational methods for teaching EBP in occupational therapy programmes have been the focus of some literature. For example, Tickle-Degnen (2000) described a research methods course which was permeated with EBP content, whereas Cope (2001) detailed an EBP review project in which students completed a specific clinical issue. A holistic approach to the teaching of EBP was advocated by Stern (2005) following her description of a specific course for Master students. Stube and Jedlicka (2007), in a study also conducted in America, explored students’ perspectives of the acquisition and integration of EBP concepts in one academic curriculum using qualitative methodology. The study concluded that students learn about EBP through opportunities in the academic programme and, even more so, in their clinical fieldwork experiences where students value sharing their knowledge of EBP with their supervisors during clinical fieldwork (Stube and Jedlicka, 2007). The study suggested that students, by sharing their energies and skills, have the potential to create a culture...
of lifelong learning in clinical environments. As such, students may be well placed to support EBP within occupational therapy.

**Occupational therapy education in Ireland**

Four universities offer Occupational Therapy programmes in the Republic of Ireland (see Table I). All are accredited by the World Federation of Occupational Therapists (WFOT) and by the Association of Occupational Therapists Ireland, the national association. One of the aims of each programme is to educate students who have the ability to adopt an evidence-based approach to practice upon graduation. To achieve this aim, curricula are influenced by the Revised Minimum Standards for the Education of Occupational Therapists (Hocking and Ness, 2002) and the Evidence-based Competency Standards for Occupational Therapists (WFOT, 2006). All programmes progressively expose students to EBP in academic and fieldwork modules. A minimum of 1000 fieldwork hours are required where students link theory to practice, become competent in the ability to appraise evidence and are expected to demonstrate an understanding of the implementation of evidence-based occupational therapy in practice settings.

To date, there have been no published cross-sectional surveys of the population of occupational therapy students in Ireland with regard to EBP. This study sought to fill the gap by inviting all final-year students to participate in the study to investigate their self-reported knowledge, skills and attitudes toward EBP. It is hoped that having a better understanding of EBP from the students’ perspective could inform teaching strategies within academic curricula and also highlight the knowledge, skill and attitudes that final-year students have towards EBP. This information could help students maintain EBPs into their career and thus influence the future implementation of research within the profession.

**Methods**

A descriptive survey was used to explore the perceived knowledge, attitudes and use of EBP by final-year Irish students. A validated tool, the KAB Questionnaire (Johnston et al., 2003), was deemed the most appropriate method to gather data to meet the study aims, taking into account the sample size and the financial and time resources available.

**Participants**

Participants were the population of final-year occupational therapy students in Ireland in 2008. All 111 students from the four universities were included in the study.

**Procedures**

Ethical approval was obtained from the University of Limerick Ethics Committee prior to commencement of the study. The principal researcher also sought permission from the head of each occupational therapy programme. On receipt of permission, arrangements were made to carry out the survey in the four universities. The questionnaires were distributed by the researcher at the end of a lecture in the final semester of the final year (between March and April 2008). The students were informed about the purpose of the study prior to completing the questionnaire. They were told that participation was voluntary and assured about anonymity and confidentiality. Informed consent was implied from completing the questionnaire. Each student was given a questionnaire and an information leaflet. The questionnaire took approximately 10 min to complete. They were returned in a sealed envelope to ensure anonymity and to

<table>
<thead>
<tr>
<th>University name</th>
<th>Year degree established</th>
<th>Course duration (years)</th>
<th>Qualification offered</th>
<th>Annual intake</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trinity College, Dublin</td>
<td>1986</td>
<td>4</td>
<td>Bachelor of Science (Honours) in Occupational Therapy</td>
<td>40</td>
</tr>
<tr>
<td>National University of Ireland, Galway</td>
<td>2003</td>
<td>4</td>
<td>Bachelor of Science (Honours degree) in Occupational Therapy</td>
<td>25–30</td>
</tr>
<tr>
<td>University College, Cork</td>
<td>2003</td>
<td>4</td>
<td>Bachelor of Science (Honours degree) in Occupational Therapy</td>
<td>25–30</td>
</tr>
<tr>
<td>University of Limerick, Limerick</td>
<td>2003</td>
<td>2</td>
<td>Master of Science in Occupational Therapy (Professional Qualification)</td>
<td>25–30</td>
</tr>
</tbody>
</table>

强格和凯尔 Evidence-based Practice, Irish OT students

facilitate the voluntary process. The questionnaires were kept in a locked filing cabinet to which only the researcher had access.

**Instrument**

The KAB Questionnaire (Johnston et al., 2003) was chosen because it addresses knowledge, attitude and behaviour from a student’s perspective. It was developed by Johnston et al. (2003) to explore the knowledge, attitude and behaviour of medical students towards EBP.

The self-rated questionnaire has four subscales: knowledge which contains five items, attitudes with six items, use of EBP including personal application which consists of six items and future use of EBP with nine items. The remaining 17 items include questions about sources of evidence and the demographic characteristics of the participants (Brown et al., 2010). Each subscale uses a Likert scale. Knowledge and attitudes toward EBP are rated on a six-point scale from 1 (strongly disagree) to 6 (strongly disagree). The EBP use subscale is rated on a five-point scale from 1 (never) to 5 (every day). The future use of EBP subscale ranges from 1 (not at all) to 6 (completely).

Permission was obtained from the authors to use and slightly modify the wording of some items on the instrument. Minor modifications were made to the KAB questionnaire to make it more suitable for use with occupational therapy students in the Republic of Ireland. Modifications included replacing terms such as “medical” with “occupational therapy” and changing “consultant” to “therapist” or “educator”. Care was taken not to change the meaning of the questions.

The instrument has internal reliability with Cronbach’s alpha of 0.71–0.88. Construct validity was measured by correlating the factors with other measures of EBP. Responsiveness of the questionnaire was examined through paired *t*-tests of the pre-factor and post-factor mean scores (Johnston et al., 2003; Brown et al., 2010). Responsiveness was reported to be reliable and valid (Johnston et al., 2003).

**Data analysis**

The Statistical Packages for Social Science version 15.0 (SPSS Inc., Chicago, USA, 2007) was used for data analysis. Descriptive statistics including frequency and percentages were calculated, and Chi-squared cross-tabulations were used to examine if there was any correlation between how the four university groups, the age or having a previous academic qualification impacted on the participants’ response to questions.

**Results**

A response rate of 77% was achieved, with 86 questionnaires returned from the population of 111 final-year occupational therapy students in Ireland.

Some demographic details, including the age, previous degree qualification and university were collected (see Table II). Just over half (54%, *n* = 46) were aged between 22 and 25 years. A third (34%, *n* = 29) possessed a previous degree. Twenty-four students respond (86% response rate) from university 1, 15 students (79% response rate) from university 2, 23 students (82% response rate) from university 3 and 24 students responded (response rate of 67%) from university 4.

**Table II.** Demographic characteristics of participants

<table>
<thead>
<tr>
<th>Age group (years)</th>
<th><em>n</em> (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>18–21</td>
<td>20 (23)</td>
</tr>
<tr>
<td>22–25</td>
<td>46 (54)</td>
</tr>
<tr>
<td>26–29</td>
<td>12 (14)</td>
</tr>
<tr>
<td>≥30</td>
<td>8 (9)</td>
</tr>
<tr>
<td>University of attendance</td>
<td></td>
</tr>
<tr>
<td>University 1</td>
<td>24 (28)</td>
</tr>
<tr>
<td>University 2</td>
<td>15 (17)</td>
</tr>
<tr>
<td>University 3</td>
<td>23 (27)</td>
</tr>
<tr>
<td>University 4</td>
<td>24 (28)</td>
</tr>
<tr>
<td>Any previous degree qualification</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>29 (34)</td>
</tr>
<tr>
<td>No</td>
<td>57 (66)</td>
</tr>
</tbody>
</table>

All the students agreed that to practice in an evidence-based manner means incorporating experience and clinical judgement with evidence; that evidence alone does not constitute EBP. Almost all (97%, *n* = 83) were aware that critical appraisal skills are needed to evaluate the quality of research papers. Most (94%, *n* = 81) agreed that the EBP process requires the identification and formulation of a clinical question. All reported that they clearly understood what EBP entails, and 99% (*n* = 85) agreed that effective searching skills and access to databases and sources of evidence are essential to evidence-based occupational therapy. Seventy-two percent reported that clinical trials are more reliable than observational methods.
Paired t-tests were carried out on the data according to the university attended and answers given. A statistical significance was found between the university attended and the percentage who disagreed with this statement (p value = 0.006). A lower percentage 48% (n = 41) from university 2 agreed with the statement compared with the other three universities: 86% (n = 74) from university 1, 80% (n = 69) from university 3 and 87% (n = 75) from university 4. This was the only statistically significant finding when analysing the data according to the university. No statistically significant differences were found linked to the student’s age or previous qualification.

Attitudes and behaviour towards evidence-based practice

The majority (80%, n = 69) considered themselves to be evidence-based practitioners. The other 20% (n = 17) did not feel they were, either in university or whilst on fieldwork. The two most common reasons for not engaging in EBP was “because I don’t have time” stated by almost a third (31%, n = 27) followed by “because my educators/other therapists don’t” noted by just over a quarter of the students (27%, n = 23). Other reasons were “because I don’t know how”, reported by 15% (n = 13); “procrastination and old habits” (15%, n = 13); “because my colleagues/classmates don’t”, reported by three students (4%); and “because I don’t believe in it” (4%, n = 3), and three (4%) noted “non-specified other reasons”.

Most students reported feeling prepared with evidence when participating in fieldwork placements (87%, n = 75). Only 6% (n = 5) expressed a lot of confidence in their clinical decision-making ability, and 6% (n = 5) reported little or no confidence. The majority fell between these two extremes. Almost all (98%, n = 84) appreciated the advantages of EBP, and 98% (n = 84) agreed that EBP should be an integral part of the occupational therapy curriculum. Table III outlines a summary of the students reactions to other attitudinal questions asked.

Students were asked questions about their self-reported behaviour, but they were not asked to describe how they used EBP in their fieldwork experience. Instead, they noted how frequently they accessed evidence, estimated the time spent gathering evidence and reported the role of current best evidence in fieldwork settings. All agreed that EBP could influence client outcomes such as quality of life. The majority 85% (n = 73) reported accessing occupational therapy evidence weekly or more often. When asked how frequently they engaged in evidence-based occupational therapy (on clinical placements/in university), most (96%, n = 83) gave frequencies from every day, every other day, every week and every month. Only 4% (n = 3) reported never engaging with EBP.

Just over half (55%, n = 47) reported that they found it difficult to find relevant research evidence. Twenty-six percent (n = 22) agreed that evidence-based occupational therapy takes too much time for busy students. When asked specifically how long they spent looking up evidence related to the most recent client they had seen, 37% (n = 32) gave between 0 and 30 min, 28% (n = 24) reported 31–60 min and 33% (n = 28) stated over 60 min. They were asked to estimate the percentage they felt that this evidence increased their understanding of the client’s condition. Thirty percent (n = 20) reported that the evidence increased their knowledge by over 80%; 44% (n = 38) noted an increase of between 61% and 80%, and 24% (n = 21) stated an increase of between 41% and 60%. Only one student (1%) reported a 21–40% increase in understanding. Table IV highlights the students preferred sources of evidence.

A cumulative Likert score of 60% (n = 52) agreed that from their observations on fieldwork placement, EBP was being practised, although 40% (n = 34) felt it was not. The frequency that EBP was discussed during placements was noted by 23% (n = 20) to be

<table>
<thead>
<tr>
<th>Attitudinal questions</th>
<th>Agree n (%)</th>
<th>Disagree n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evidence-based occupational therapy is a cookbook therapy that disregards clinical experience</td>
<td>16(19)</td>
<td>70 (81)</td>
</tr>
<tr>
<td>Evidence-based occupational therapy is just a fad that will pass with time</td>
<td>2(2)</td>
<td>84 (98)</td>
</tr>
<tr>
<td>If evidence-based occupational therapy is valid, then anyone can do what therapists do</td>
<td>16(19)</td>
<td>70 (81)</td>
</tr>
<tr>
<td>Evidence-based occupational therapy practice ignores the art of therapy</td>
<td>15(18)</td>
<td>68 (79)</td>
</tr>
<tr>
<td>Occupational therapy should not practice EBP as occupational therapy is about people, not statistics</td>
<td>7(8)</td>
<td>78 (91)</td>
</tr>
<tr>
<td>Previous work experience is more important than research</td>
<td>36(42)</td>
<td>50 (58)</td>
</tr>
</tbody>
</table>
completely/a lot; over half (56%, $n = 48$) reported moderately/somewhat, and 17% ($n = 15$) stated a little or not at all. Similar figures were found when students were asked how frequently they raised the role of current best evidence while on fieldwork placement. Just over a quarter (27%, $n = 23$) reported all the time or often; 53% ($n = 46$) reported sometimes/occasionally, and 17% ($n = 15$) reported rarely.

All students were willing to practice evidence-based occupational therapy as therapists. All agreed that evidence-based occupational therapy would be useful in future practice. Most (93%, $n = 80$) agreed with the statement that evidence-based occupational therapy is the future of clinical occupational therapy and will become the standard of care.

**Summary of results**

Overall, Irish students indicated that they were knowledgeable about and had a positive attitude towards EBP. All 86 final-year students reported a willingness to engage in EBP in academic work, on clinical placements and in the future as therapists. Over half reported accessing evidence every day or every other day, and the majority reported spending between 16 and 30 min every day searching for evidence.

The most common barriers to EBP were lack of time and fieldwork educators/therapists not practising EBP. Over half reported difficulties in finding evidence, and 42% ($n = 36$) felt that previous work experience was more important than research findings. The most frequently used sources of evidence were the internet and occupational therapy text books.

**Discussion**

**Perceived knowledge of evidence-based practice**

Knowledge and skill are needed to implement EBP, particularly in the areas of developing a clinical question, searching and critically appraising relevant literature, including research in clinical decision making, and finally evaluating the transferability of research evidence to clinical practice (Edmond et al., 2006). In 2008, students from all four universities in the Republic of Ireland stated that they were knowledgeable about the EBP process. The majority were aware that the process requires the identification and formulation of a clinical question, effective search and critical appraisal skills. This finding is consistent with literature about nursing and medical students, where knowledge about EBP has been shown to increase with academic level (Brown et al., 2010; Lai and Nalliah, 2010).

An item on the knowledge subscale about clinical trials and observational methods yielded an interesting result. Randomized controlled trials are widely considered the “gold standard” in the hierarchy of research evidence (Altman et al., 2002). A significant association ($p$-value = 0.006) was found between the university of attendance and the opinion that clinical trials were more reliable than observational methods with students from university 2. A lower percentage of students from university 2 agreed with this statement than students from the other three universities. This finding may be due to different philosophies, teaching methods, content or delivery of EBP and research within the curricula. Hammon Kellegrew (2005) suggested that increased understanding of EBP is related to the emphasis on and the practical teaching of EBP within the university.

**Attitudes and behaviours towards evidence-based practice**

The majority of students had positive attitudes toward EBP. They considered themselves to be evidence-based when on clinical placement and agreed that EBP should be an integral part of the occupational therapy curriculum. Both Tickle-Degnen (2000) and Stern (2005) consider that EBP is essential for clinical training and suggest that the key to its success is making it more real by basing it on one’s own practice. The majority of Irish students reported that they were equipped and prepared with evidence when they were out on fieldwork placement. This indicates that the teaching methods within the four universities are effective in promoting understanding and a positive attitude toward EBP. Critics of EBP suggest that it is prescriptive, offering a “cookbook” approach to therapy which

<table>
<thead>
<tr>
<th>Sources</th>
<th>n (%)</th>
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<tbody>
<tr>
<td>From the internet</td>
<td>24 (28)</td>
</tr>
<tr>
<td>From textbooks</td>
<td>23 (27)</td>
</tr>
<tr>
<td>From research papers</td>
<td>13 (15)</td>
</tr>
<tr>
<td>From Cochrane database</td>
<td>12 (14)</td>
</tr>
<tr>
<td>From journal clubs or critically appraised topics</td>
<td>8 (9)</td>
</tr>
<tr>
<td>Other</td>
<td>6 (7)</td>
</tr>
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</table>
leads to mechanistic interventions. Law (2000) rejected this criticism, proposing that if used in a client-centred relationship, EBP could never be prescriptive. Many students seemed to agree with this viewpoint, with 81% (n = 70) declaring a positive attitude towards EBP. However, 20% (n = 17) did not consider themselves to be evidence-based practitioners. For these students, lack of time was the main obstacle. Lack of time has been consistently reported as a barrier to EBP by occupational therapists, nursing and medical students (McCluskey 2003; Brown et al. 2010; Lai and Nalliah, 2010).

Almost all the students 98% (n = 84) reported being well prepared to use evidence on fieldwork placement. Despite this, 20% (n = 17) did not consider themselves to be evidence-based practitioners “because their educators/other therapists don’t” use this approach. This finding is important, showing that students are influenced by what they observe on fieldwork. Questions were asked about how frequently EBP is discussed in fieldwork settings and how often the student raised the role of EBP on placement; interestingly, the results were nearly identical. This may indicate that the students are influenced by the ethos within occupational therapy departments. Students find it difficult to apply EBP when evidence is not valued in clinical settings (Brady and Lewin, 2007).

This finding highlights the important role that fieldwork educators play as role models, demonstrating EBP in action. Fieldwork experience provides students with the opportunity to apply what they have learnt in the classroom to real, clinical situations (Stern 2005). Therefore, it is vital for students to observe fieldwork educators using evidence to inform decision making. McCluskey (2003) suggests that students need to be exposed to role models at university and during fieldwork, recommending that occupational therapists should be routinely engaging in publishing research to inform practice. Experts in adult education assert that experiential learning is most influential for long-term skill and knowledge development (Knight, 2001). Academic programmes could contribute by engaging with fieldwork educators to ensure that EBP is not neglected and to prevent a gap between theory and practice developing.

A small number (15%, n = 13) cited the reason “because I don’t know how” for not considering themselves as evidence-based practitioners. Brown et al. (2010) suggest that to become skilled in EBP, the research skills to produce evidence and also to consume evidence are required. Lack of skills for EBP has been reported by occupational therapists (Bennett et al., 2003; McCluskey, 2003) and by nursing students (Brown et al., 2010), with the latter suggesting that this may be due to lack of critical appraisal skills and advanced literature search skills. This may also be the case for those students who did not consider themselves to be evidence-based practitioners. Academic educators need to address this issue, to ensure that all students have the necessary knowledge and skills, so they can become confident evidence-based occupational therapists. The literature contains suggestions on ways to increase practical skills, including academic educators collaborating with the university librarians to provide literature-searching sessions (Brown et al., 2010) and educators acting as role models by accessing and using databases for searches throughout the curriculum and by incorporating evidence-based synthesis into teaching, learning and assessment (Lin et al., 2010).

**Current and future use of evidence-based practice**

Irish students were committed to EBP. Over half said they accessed evidence every day or every other day. A third reported spending over an hour looking up information for the most recent client they had seen. Internet and textbooks were the most frequently used sources of evidence. This finding is consistent with studies of nursing and medical students (Dee and Stanley, 2005; Brown et al., 2010). Eddy (2005) suggests that training that emphasizes EBP offers skills that support lifelong learning. If students are encouraged to engage in EBP, this may increase the likelihood that they will continue to do so when qualified, something which would benefit the profession and clients. McCluskey (2003) found that recent graduates felt confident and competent to engage in EBP. Conversely, Barnitt and Salmond (2000) disagreed, noting that new graduates often abandon EBP early in their career because the pragmatics of the workplace take over and enquiry is not as highly valued as in an academic setting.

Students are potentially receiving contradictory messages from universities and fieldwork educators about the importance and relevance of EBP (Edmond et al., 2006). All the Irish students reported understanding what EBP entails, and the majority (87%, n = 75) stated that they felt prepared with evidence for fieldwork. However, just over a quarter (27%, n = 27) noted that their fieldwork educator/other therapists were not
evidence-based practitioners, and 40% \((n=34)\) did not observe EBP on fieldwork. This finding is concerning. Academics need to take account of students’ fieldwork experience so as to help them prepare for the barriers to incorporating research into decision making in the real world of clinical practice. Stern (2005) suggests that more sophisticated methods of imparting information need to be embraced to ensure that therapists of the future will implement evidence in clinical practice. Also, new graduates could be encouraged by managers and colleagues to seek opportunities to maintain and share their skills. Managers are in a position to promote an evidence-based culture by supporting staff, including recent graduates and students on placement, to engage in continuing professional development through EBP.

According to White (2005), dedicating time for continuing professional development is beneficial to the therapist, the service and clients, contributing to clinical effectiveness and staff morale. Managers need to use research to locate resources and the level of support needed to facilitate EBP in a clinical setting (White 2005). Academics are well placed to offer training to fieldwork educators, experienced clinicians and managers aimed at raising awareness and suggesting strategies to help experienced staff become evidence-based practitioners.

**Limitations**

A major limitation was the reliance on self-report. What the students report and what they actually do may be very different. Survey participants often overestimate or report the “right” answer as opposed to the facts. According to Dempsey and Dempsey (2000), respondents often do not take the time to read the questions fully and may rush through Likert scales, ticking the boxes to finish quickly. The lack of verification from other data sources or time points introduces a bias to the study design (Adams 1999).

The principal researcher was a final-year student at one of the universities. This may have resulted in peers feeling obliged to participate, as there was a slightly higher response rate 86% \((n=24)\) from the university that the researcher attended. This compared with response rates of 79% \((n=15)\), 82% \((n=23)\) and 67% \((n=24)\) from the other universities. Every effort was made to be consistent in the data collection procedure for all the universities involved.

**Future research**

Few studies focus on occupational therapy students’ experience of EBP. Mixed-method studies, using both subjective and objective measures of knowledge and behaviour, would be beneficial to inform curricula development. For example, an activity diary or reflective log could be used to examine how students actually apply EBP in clinical settings, rather than rely on self-report. Assessing whether students can formulate research questions, locate good quality research, critically appraise the evidence and apply it to practice using clinical judgement could enhance research utilization. Longitudinal studies could be used to track the progression of knowledge, attitudes and behaviours at different academic levels. Qualitative methods could be used to explore the transition into practice and any changes in perceptions and behaviour in the real world of clinical practice. Audits of the whole programme using the World Federation of Occupational Therapists standards for EBP (WFOT 2006) could be used to ensure that all the key elements of EBP are covered in the curriculum.

**Conclusions**

Preparing all occupational therapy students to engage in EBP will help towards ensuring that clients receive an effective service. It is also necessary to enable the profession to evolve. The survey offers insights into the knowledge, attitudes and use of EBP of the population of final-year students in the Republic of Ireland in 2008. The results suggest that the majority were knowledgeable about and had positive attitudes towards EBP. Although they appreciated the advantages of EBP, students also understood the barriers, particularly the lack of time, and importantly, the limited knowledge and use of EBP by fieldwork educators. To develop and sustain evidence-based occupational therapy through the world, education institutions need to apply the World Federation standards (WFOT 2006) and prepare students for the challenge of implementation in clinical practice. Fieldwork educators and therapists play a vital role in encouraging and reinforcing EBP. This study indicates that some clinical staff would benefit from academic and management support to tackle the common barriers. Ultimately, students, fieldwork educators and qualified therapists, by engaging in EBP, have the potential to improve the quality of the services provided to clients and enhance the credibility of the profession (Taylor, 2007).
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