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Merging Information Literacy and Evidence Based practice for Social Work Students.

Abstract

This paper outlines a teaching and learning collaboration between information literacy professionals and a social work academic at the University of Auckland. The collaboration was developed for the purpose of introducing evidence-based practice (EBP) and related information literacy (IL) skills to a third year social work cohort preparing for their first practicum. Embedding the research–practice connection in the minds of students at this level of study is essential as using evidence in practice is considered to be a fundamental professional objective. Despite this perspective, it is not uncommon for research to be viewed as an ancillary, if not discretionary skill in social work, with the research practice gap well recognised in the social work literature. EBP offers students a clearly defined, systematic research framework imminently suited to the novice learner which emphasizes the importance of research for practice. Research skills, in particular information literacy and the ability to find, evaluate, and apply information, are essential to the development of effective evidence based practice. Apart from the practical skills of being able to find evidence, critical thinking and reflective skills are key skills also inherent to IL processes and practice and mastery of the evidence based approach is impossible without mastery of these key IL competencies. Taking a solution focussed frame, theoretically underpinned by a constructivist teaching philosophy, we detail specific EBP and IL teaching practices, challenges, and the remedies applied. The paper concludes with key lessons learned and future directions for teaching EBP and IL skills to social work students at the University of Auckland.

Introduction

Using evidence in practice is a critical professional social work skill, but student exposure to a formal research curriculum in the social work programme at the University of Auckland occurs after the first practicum.

This gap may unwittingly reinforce a well-known social work perception around research, namely that it is an ancillary skill to practice (Bellamy *et al.*, 2008, Herie and Martin, 2002, Lewig *et al.*, 2006). EBP is seen by many as a way to address this gap. Roberts-DeGennaro (2008a, 2008b) for example, highlight the importance of EBP to foster lifelong inquiry based learning or research mindedness in practice. Along similar lines, Jones and Sherr (2014) believe the EBP model, if taught and applied correctly, can merge what are often seen as disparate researcher and practitioner roles.

Information literacy (IL) skills are fundamental to the development of research capacity and an integral part of the EBP process. In particular, IL skills are essential so that practitioners can effectively locate, evaluate, use and apply the “best evidence” required for evidence-based practice (Boruff & Thomas, 2011). The intersection of EBP and IL processes provides a good opportunity for academic and library staff to collaborate to teach these skills.

This paper outlines a teaching and learning collaboration implemented in an undergraduate course which aimed to cultivate third year social work students’ understanding of the

research – practice nexus by actively inducting them into the use of EBP and relevant IL skills prior to their first practicum. Two librarians and the course instructor partnered at the University of Auckland to teach evidence-based practice (EBP) and associated IL skills to the designated student group.

The paper commences with a brief literature review followed by a description of the course and existing IL initiatives and approaches at the University of Auckland. Some of the key challenges and solutions associated with teaching EBP and associated IL skills are addressed in the discussion section. The paper concludes with key lessons learned and suggested future directions for forging research mindedness in students through strategic integration of Information literacy skills throughout the degree program.

Literature Review

Research –Practice Gap

The research-practice gap is well recognised in social work literature. As far back as 1996, Epstein recognised that while the reporting of research in social work literature and the teaching of research skills to social work students was increasing, very little was being done to highlight the meaningful connections between research and practitioner knowledge and practice. This trend has continued. Practitioners rarely apply clinical research to practice (Gilgun, 2005, Powell et al., 2013). When they do they are ill equipped to evaluate its usefulness (Herie and Martin, 2002). Researchers and social work practitioners may also prefer different research approaches, with practitioners tending to lean more towards qualitative methodologies as these more easily align with the multifaceted complexities of social work practice (Petrucci and Quinlan, 2007).

Evidence based Social Work Practice

EBP can be described as the integration of: high quality evidence from the literature, social work expertise and experience and clients' situations, environment and preferences (Sackett et al., 1997, Gilgun, 2005, Social Work Policy Institute, 2010). EBP claims that in order for social workers to make decisions about best practice, they need to engage with the best evidence about practice interventions. This approach encourages the maintenance of professional knowledge, allows for high quality, cost effective interventions in times of economic and budgetary constraint, justifies decision making to clients and managers, avoids variations in practice which may disadvantage some clients over others (Adams et al., 2009, Mirabito, 2012, Plath, 2006, Young et al., 2002). It involves clients actively in decision making about their care and allows focussed systematic retrieval of information for client needs (Adams et al., 2009, Mirabito, 2012, Plath, 2006, Young et al., 2002).

Conducting EBP can be challenging because of the multi-faceted nature of problems social workers encounter in practice (Plath, 2006). In many cases practice-based interventions tend to be comprised of numbers of elements that are not easily measurable (Morago, 2006). In

some studies exclusion criteria for trials means clients with multiple profiles are often excluded in key research studies (Adams *et al.*, 2009). Additionally, organisational or government funding priorities tend to exert a strong influence over social work research agendas (Corvo *et al.*, 2011). This means that there is a lack of traditional “gold standard” research such as systematic reviews and RCTs conducted within the discipline (Gambrill, 2012, Walker *et al.*, 2007). Where EBP literature does exist it often does not match all key elements identified in a research question, e.g. A comparison intervention may be lacking, or the population group may be different (Adams *et al.*, 2009, Webb, 2001).

That said, repositories for social work (SW) research are growing, e.g. the Campbell Collaboration (n.d.). However, the reviews tend to be small in number, and specific population groups, particularly ethnic minorities and marginalised groups tend not to be represented (Adams *et al.*, 2009, Edmond *et al.*, 2006). Finally, the majority of social work EBP repositories are not the type of subscription databases purchased by tertiary libraries or larger institutions, thus proving challenging for practitioners to find online (Centre for Evidence Based Medicine, 2009).

Recognition of the changing nature and value of various evidence types means that a number of social work authors believe that strict EBP may not be the best model for social work practice and that an “evidence-informed” or practice based research model may be more appropriate (Smith, 2009). As Haight (2010) indicates: “best practice for any complex social work intervention or policy will require attention to different kinds of evidence obtained through diverse social science traditions.” (p.102). This includes evidence obtained from a variety of research methodologies, including those considered not the traditional “gold standard” ie. meta analyses, systematic reviews and randomised controlled trials. Her approach suggests an “evidence-informed” model rather than a strictly evidence based one. Epstein (2011) endorses this view and goes as far to suggest that Practice Based Research (PBR), which acknowledges practice informed by “less than perfect, non “gold standard” studies” (p. 286) may be more compatible with the realities and values of social work practice.

Addressing the Research Practice Gap in Social Work with EBP

EBP is a particularly relevant model for social work education and practice, as it emphasises the use of clinical judgement and reflection on the evidence obtained to decide, in conjunction with their client or client group, the best course of action going forward. Decision making in social work is predicated on the capacity to gather and judiciously consider the merits of the available information toward addressing a particular social issue, in the conjunction with the people it affects (Gambrill, 2012, Gilgun, 2005).

According to Grady (2010) schools of social work should play a pivotal role in introducing future practitioners to the content and processes involved in EBP. Traube *et al.* (2012) extend this idea, emphasising that EBP training is most effective when integrated into a practice-based course. Gambrill (2012) also endorses this stance. She asserts that problem based learning approaches to teaching EBP enable students to see the relevance of what they are learning, as it relates to real life situations and their own experience. It encourages them to appreciate the usefulness of research through the use of authentic, contextualised examples they are likely to encounter in practice (Howard *et al.*, 2007, Gambrill, 2012).

Information Literacy and EBP

Information literacy skills are essential in order to instil research-mindedness. They not only enhance students' tertiary education experience but also provide a basis for life-long learning, equipping students with key skills to assist them in accessing, analysing, evaluating and applying information in their educational, professional and personal lives beyond university study (Association of College and Research Libraries 2001).

The key components of information literacy (the ability to locate, evaluate, and apply information) are key tenets of evidence based practice and intrinsically linked to them (Pravikoff 2006). Information literacy also provides important conceptual self-analytical skills and judicious use of self which allow students to critically reflect on information and transfer it into serviceable knowledge which allows students to engage more fully in their world (Vezzosi n.d.). Whether identifying an information need, searching for information, evaluating information, synthesising information or applying information, students must constantly reflect on the process, self-evaluate and if required re-plan and re-engage with the information.

These reflective and critical thinking skills are in turn essential to EBP. Being able to think critically means practitioners are able to think outside traditional guidelines and protocols to assess or identify a situation, seek and evaluate appropriate evidence and make appropriate clinical decisions based on that evidence (Profetto-McGrath 2005).

Official guidelines

The importance of information literacy to research competence is endorsed by a range of documents both at the University of Auckland and from the Aotearoa New Zealand Association of Social Workers and the New Zealand Social Work Registration Board. These documents recognise the importance of information literacy and research skills not only as key graduate competencies in their own right but also as essential contributors to effective practice and knowledge development.

The "University of Auckland: Information literacy: Guidelines and Principles" list the following two objectives "to emphasise the importance of information literacy capabilities for lifelong learning" and "to ensure that graduates enter the workforce information literate (University of Auckland, Teaching and Learning Quality Committee 2011, p. 2). The guidelines go further to describe the information literate person as someone who:

recognises the need for information and determines the nature and extent of the information needed, finds needed information effectively and efficiently, critically evaluates information and the information seeking process [and] uses information with understanding and acknowledges cultural, ethical, economic, legal, and social issues surrounding the use of information (University of Auckland, Teaching and Learning Quality Committee 2011, p. 2)

The importance of IL and research skills is also supported by elements of the "University of Auckland Graduate profile" including:

a mastery of a body of knowledge, including an understanding of broad conceptual and theoretical elements, in the major fields of study, a capacity for critical, conceptual and reflective thinking, an ability to recognise when information is needed and a capacity to locate, evaluate and use this information effectively. (University of Auckland 2003, sec. I & II)

Both the Information Literacy guidelines and graduate profile recognise that information literacy is not just about finding information. IL involves a process of transforming information into knowledge which can be actively applied to real life situations. Information needs to be contextualised, synthesised, transmitted, and then applied in meaningful ways (Association of College and Research Libraries 2001, Grafstein 2002).

The Aotearoa New Zealand Association of Social Workers (ANZASW) also affirms the importance of information literacy and core research competencies for practitioners. This is evident in the Code of Ethics and Competency Handbook. The ANZASW describes one of their objects is “to encourage and promote research on all materials relating to social work” (2008, p. 7) and states that practitioners are required to keep up to date with current research and acquire and maintain knowledge and skills relevant to their field of practice. (2013, p. 15). Part of the role of educators is to “assist students... to develop high standards of ethical behaviour, methods of learning, analytical ability, knowledge and skills” (Aotearoa New Zealand Association of Social Workers 2013, p. 13).

Background

The University of Auckland Information Literacy Strategy

While academic staff in the School of Counselling, Human Services and Social work at the University of Auckland recognise the benefits of information literacy skills for their students and are supportive of the Library, historically, information literacy at the University of Auckland was taught using a “bolt on” approach. Students were taught generic library skills as an optional one-off session at the beginning of Semester. The workshop was essentially removed from the actual context and assessments of the course both in terms of timing and content. The disadvantage of this approach was that students could not see the benefits of the session, were less likely to attend and more importantly retain the necessary information when they actually needed to use it.

Information Literacy skills training works best when it is discipline based, closely aligned with a programme curriculum and provides key skills at point of need. This ensures students can see the relevance to their course of study and enables the systematic and sustainable introduction of contextualised information at the level required (Grafstein 2002). With this in mind, over recent years moves have been made to more closely align information literacy workshops to specific assignment tasks and activities. This has resulted in increased attendance at information literacy sessions as well as increased engagement by students as they can see the benefit of particular information literacy skills.

Course description and EBP component

The EBP and IL teaching component, focussed on in this paper, is delivered in a professional process and practice course that prepares third year social work students for their first practicum. The course is block taught over a six week period and is presented immediately prior to the practicum. The curriculum is comprised of essential professional knowledge for social work practice, e.g. assessment, exposure to practice-based methodologies, use of self, reflective practice and self-care. Students in the course do not receive formal tuition in research until after their first practicum. It is not uncommon for the following comment: “we came into social work to become practitioners not researchers” to be found in post course evaluation which illustrates how strongly students are already socialised into this view by the third year of study.

EBP has been instituted as a key element of the professional process and practice course since 2008. EBP provides a clearly delineated step by step framework of the research process which is ideally suited to a cohort yet to receive formal tuition in research (Gibbs *et al.*, 2007). In addition it is an approach which can be directly applied in the students’ first practicum.

Emphasis is placed on competency in the first four steps of EBP aligned with the core IL skills required to complete each step. These comprise the capacity to:

1. Identify an information need
2. Translate the information need into a well- designed research question
3. Track down the evidence to answer the question
4. Apply critical appraisal skills

The teaching is presented in the second week of this intensive six week course. Students are actively supported to forge a connection between research and practice by applying the EBP and IL knowledge learnt from this teaching segment in an assignment that directly draws on the information presented.

The Client Oriented Practical Evidence Search (COPES) model is followed as this is considered the EBP model most relevant to social work research and practice (Gibbs *et al.*, 2007). This model supports a psychosocial focus and encourages looking at clients in their environment. This orientation aligns with the types of issues social workers are likely to encounter in practice.

The EBP framework and associated information literacy skills are delivered over a three hour block by the course instructor, a social work subject librarian and a learning support services librarian. IL skills are not taught as an adjunct skill but integrated into teaching the EBP process as a whole. Librarians provide general information on COPES, and EBP practices and processes, as well as the IL skills required to effectively locate and evaluate “best evidence.” The lecturer draws parallels between EBP processes, the students’ assignment and applications to practice, thereby providing necessary context.

Teaching method

A constructivist-connectivist teaching method is used in the course. The authors use strategies that actively placed the students at the centre of their own learning. (Atler and Gavin, 2010, Ferrara, 2010, Magnussen *et al.*, 2000). Students are encouraged to construct their own understanding of the EBP process through discussion, reflection and inquiry based scholarship and active use of specialised web based information sources supported by in-class technology (Siemens, 2005). Critical thinking, collaboration and personal inquiry are central goals of a constructivist approach (Rolloff, 2010). e.g. Literature shows that such a teaching methodology can add to fostering critical thinking skills and on some level to reinforcing the relevance of using research in practice (Gambrill, 2012, Allen, 2008, Rolloff, 2010). This teaching approach synergistically aligns with the reflective practice ethos upon which the wider course is based. This means incorporating problem solving exercises which were based on actual client situations and real life needs. These facilitate the transfer of learning between classroom and the field (Allen, 2008, Gambrill, 2012, Rolloff, 2010).

Discussion

A number of challenges have been encountered in the development and delivery of the EBP workshop. The actions taken to address these issues are presented below.

Challenge 1: Preparing for EBP by boosting student IL capabilities

In order to develop research capacity it is preferable for students to have some foundational information literacy competence in readiness for their third year of undergraduate study. In earlier iterations of the course it was apparent that students lacked this expected foundational IL knowledge. Some expressed low confidence in using the skills acquired at earlier levels of their degree programme, while others indicated they had forgotten them entirely. This was particularly challenging when looking at issues such as evaluating the quality of literature, as students had little understanding of research and an even more limited capacity in how to evaluate evidence for application to practice.

Solution 1

The time-limited nature of the course meant that the EBP workshop needed to be oriented to advancing the students' IL skills and not covering old ground. For this reason a *flipped* classroom approach was employed to prepare students for the workshop. In a flipped classroom, instruction or content is delivered outside of the classroom, leaving more time for inquiry based and peer learning activities where students take a more active role in their own learning which is in keeping with the previously described constructivist – connectivist teaching methodology (Keengwe *et al.*, 2014). Students were asked to complete a number of preparatory IL exercises in readiness for the EBP workshop. These tasks included: (1) locating material on their assignment topic through Google Scholar; (2) outlining keywords they had tried; and (3) reflecting on how easy or difficult finding relevant literature had been. They were also asked (4) to consider how useful the information was as an aid to decision making around their particular interest. They were invited to share their reflections in the workshop.

The flipped classroom approach reduced the need to spend in-class time re-teaching foundational IL knowledge. It also actively facilitated students into a “research-mind set” from the outset and served as a revision for using Google Scholar. It got students thinking

about the limitations of commonly used sources when finding literature to support practice and encouraged them to come to the workshop with a list of prepared keywords they could use to start the EBP process and IL initiatives. This initial exercise, although seemingly simple, provided a platform for discussion about EBP ideas and concepts, while reminding them of, and expanding upon the key IL skills expected of learners at this level of study. A supplementary “Finding the Evidence” website, (<http://www.library.auckland.ac.nz/subject-guides/edu/ebp/ebpsocialwork.htm>) was created by one of the authors to augment and consolidate students classroom learning and to enable students access to the available resources while on practicum and beyond. (Bingham, 2013).

Challenge 2: Growing student IL skills

Seven years of teaching EBP in this course shows that finding “gold standard” social work evidence in the literature (eg. meta analyses, systematic reviews, RCTs) is extremely difficult, either because it is non-existent or not focussed enough for specific population situations, conditions and needs, or because potential repositories of “high quality” evidence are disseminated across the web and can be difficult to locate.

Solution 2

The librarians and the lecturer concerned were clear at the outset of the EBP teaching workshop that students would encounter difficulty locating “gold standard” literature. Students were then encouraged to undertake an “evidence-informed” approach to their searches as outlined in the literature review above (Haight, 2010, Smith, 2009). This approach relies on a variety of research not traditionally associated with the “gold standard” ethos of EBP but which still has relevance to practice (Epstein, 2011).

Librarians introduced the idea of an evidence informed approach through a group activity. A practice-real, but hypothetical, social work case study was provided to the students with a focussed research question around potential interventions for a particular client. In groups students were then asked to rank a number of different pieces of literature in terms of their usefulness for supporting decision making around the case. Literature ranged from systematic reviews, which partially related to the research question, to anecdotal reports which specifically addressed the research question but which are not considered “high quality” in terms of the traditional EBP “hierarchy of evidence” (McNeece and Thyer, 2004). Several different types of research articles were also presented which illustrated varying degrees of rigor in terms of methodology and execution. Students were encouraged to reflect and comment on these.

This activity effectively introduced the idea of the traditional EBP “hierarchy of evidence” but made it clear that type of literature, alone, is not enough to decide on its usefulness for practice (Epstein, 2011, Gilgun, 2005). Students were asked and supported to use the best of what they could find. Students were encouraged to identify which literature, might be relevant to their purpose, what they thought might be good enough and why. Developing students’ capacity for judicious thinking, i.e. being able to analyse and weigh the gathered evidence for its relevancy to a particular practice presentation, is critical to building confidence in their use of clinical judgement and an important part of the EBP process (Gambrill, 2012, Gilgun, 2005).

Because the students, were yet to receive formal research instruction, librarians also provided them with a basic checklist to assist them to evaluate the quality of research studies they gathered. Students were also encouraged to apply traditional IL appraisal skills for determining the usefulness of web-based literature including: considering authority, content, bias, accuracy, currency audience and scope so they were able to find the best of the literature available (Gambrill, 2012). The checklist and evaluation criteria were provided on the "Finding the Evidence" website, along with links to social work EBP repositories. This maximised the chance of students finding good quality literature. The site was used within the workshop to aid students' decision making processes (Bingham, 2013).

Conclusion

Using research in practice is a critical professional social work skill. EBP is well suited for use with novice learners and is a potential remedy to the disjuncture between research and practice which is well known in social work practice. IL skills are the fundamental building blocks upon which effective research is based and a pre-requisite to further developing research capacity.

This paper has discussed the merits and teaching approach used by the authors in relation to growing the IL and EBP skills of third year social work students about to go on practicum. This teaching approach has made a strong contribution to changing the perception of research as an ancillary skill for practice. It has provided core EBP skills and IL competencies which allow students to effectively translate research into practice, aided by the use of authentic examples and practice real scenarios. Challenges around the EBP teaching segment remain however. Although EBP provides a structured, easy to follow framework it still has a high level of complexity for the novice researcher. Bearing in mind the students' phase of development it may be more appropriate to introduce the students to the notion of research mindedness earlier in the curriculum.

Additionally, students' level of self confidence in their IL and research skills could be enhanced by increasing their exposure to these skills much earlier in their professional education. The authors were surprised to find lack of confidence in foundational IL skills in this third year group. Walker *et al.* (2007) suggest that research skills should be introduced early in the social work curriculums to facilitate the research-practice connection from the outset. They also believe that rather than relegating EBP concepts and practices to research courses, they should be integrated throughout the entire curriculum both in course work and field work. This would embed the importance of the research-practice connection across the curriculum more forcefully and facilitate the development of more information literate EBP practitioners.

Integrating Academic and Information Literacy at All Levels of the Bachelor of Social Work

Over the last three years the Library has begun integrating information literacy capabilities within the curriculum and assessments of the undergraduate social work degree programme at all levels. Integration of information literacy is a shared collaborative responsibility between librarians and academic teaching staff and allows for a scaffolded approach across a whole programme.

Scaffolding information literacy training in the Bachelor of Social Work means that key information literacy skills are introduced at stage 1 and stage 2 which specifically related to university study eg. basic search skills related to using the library catalogue, on-line resources and library databases relevant to course assignments. At stage 3 and beyond, students are expected to develop a more systematic approach to their research inquiry and to apply a greater degree of judicious reasoning to the information obtained. This step up in the level of skilled inquiry parallels the aptitudes the students will need once in professional practice. At stage 3 and beyond students are also introduced to resources which will be accessible to them once they leave the University. This curriculum wide scaffolding means that both educators and students will hopefully achieve a certain level of information literacy or “savviness” by the time it is required.

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