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Re-conceptualising the link between research and practice in social work: A literature review on knowledge utilisation

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Despite the recent movement towards greater research use in many areas of social work, criticisms persist that decision making in practice is seldom informed by sound research evidence. Discourse about the research-to-practice gap in social work has tended to focus on the feasibility of evidence-based practice for the profession, but has rarely drawn from the broader knowledge utilisation literature. There are important understandings to be gained from the knowledge utilisation field, which spans more than six decades of interdisciplinary research. This article introduces the wider knowledge utilisation literature to a social work audience. It considers the potential of this body of literature to facilitate research use in social work, as well as conceptual issues that may be hindering it from informing improvements to research utilisation in practice.

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In 2003, Butler (2003, p. 19) claimed ‘it is difficult to remember a time when interest in social work research was so widespread, so urgent and so apparently full of possibilities’. Despite this apparent interest, research use in social work practice remains low (Bellamy, Bledsoe, & Traube, 2006). For the most part, in social work, discourse surrounding research use originates from evidence-based practice (EBP) and less from the related body of literature known as knowledge utilisation (Backer, 1991; Chagnon, Pouliot, Malo, Gervais, & Pigeon, 2010; Estabrooks, Wallin, & Milner, 2004; Marsh, 2002). Although the influence of EBP in social work is growing, the feasibility and relevance of this model for social work practice continue to be highly contested and the subject of ongoing debate. One reason for this may be that EBP connotes a particular philosophical position on what knowledge is and how this knowledge impacts on practice (Gray, Plath, & Webb, 2009; Greenhalgh & Wieringa, 2011; Webb, 2001). Traditionally, the field of EBP reflected an assumption that: (i) knowledge (or evidence) is objective, impersonal and context free; (ii) science and practice are two separate spheres between which knowledge is transferred or translated; and (iii) practice is more or less a process of rational decision making upon which scientific findings can be brought to bear (Greenhalgh & Wieringa, 2011). These underlying assumptions have

been argued to be unsatisfactory for the indeterminate and reflexive nature of decision making in social work (Gray et al., 2009; Satterfield et al., 2009). However, conventional perspectives in the EBP field have begun to relax, reflecting a more inclusive approach to the nature of knowledge and evidence, and an acceptance that much high-quality research evidence is based on subjective testimonies gathered, analysed and represented in a rigorous way (Satterfield et al., 2009). This shift is also reflected in a preference for the term ‘translation’ – which implies more active engagement between research and practice – over the term ‘transfer’. Despite these changes, EBP has retained a somewhat linear perspective whereby evidence is moved from the context of production to the context of application via a process of implementation. Greenhalgh and Wieringa (2011) suggested that perspectives from non-medical disciplines such as philosophy and sociology might be useful in conceptualising the link between knowledge and practice. In particular, they emphasised the importance of recognising the ‘fundamentally social ways in which knowledge emerges, circulates and gets applied in practice’ (p. 502). The social and relational nature of knowledge and its use has begun to gain strong recognition in the field of knowledge utilisation, resulting in the emergence of models of interaction and co-production, and the blurring, and even

dissolving, of boundaries between research and practice. This article presents the findings of a comprehensive literature review of contemporary developments in the knowledge utilisation field. It argues that this field holds promise for enhancing research use in social work by enabling the link between research and practice to be made in more engaged ways which may be more suitable to social work's preference for socially and relationally derived knowledge. However, the literature review also highlights conceptual problems in this field which may be hindering the potential of this body of literature to inform practice. In order for knowledge utilisation to inform and enhance social work, it is important to clarify conceptualisations and empirical assumptions in this field. This is the broad territory with which this article deals. It begins with an outline of the methodology used and then discusses the main themes emerging from the literature: (i) definitions and terminology, (ii) origins and development of the knowledge utilisation field, (iii) the crossover between EBP and knowledge utilisation, (iv) theories and models of knowledge utilisation, (v) the interaction model of research use, and (vi) and implications for social work. In this article, the term knowledge utilisation is used as an overarching term to describe the broad body of literature which this article examines. The terms research use and research utilisation are used interchangeably and refer to a complex process by which research-based knowledge comes to be applied in practice.

Methodology

Information on knowledge utilisation was initially obtained by searching the journal and bibliographic reference databases held by the University of Newcastle in Australia. The following were searched: EBSCO MegaFile Premier, Informit Social Sciences, Proquest, Scopus Health Sciences and Social Sciences, Web of Science, Wiley InterScience, the Library of Congress, the National Library of Australia, Austrom, Expanded Academic Index and JSTOR, and Social Work Abstracts. A further search was conducted using Google and Google Scholar. Keywords entered were knowledge utilisation and its synonyms and relatives knowledge transfer, translation, utilisation, use, exchange, sharing, flow, EBP, dissemination, innovation and absorption. Some references were obtained from the literature review of the broader research project within which this study was situated. A final search involved the identification of additional material from the reference lists of articles previously located. To obtain the most up-to-date information, the literature included in the review was limited to articles published after 2000, although some seminal works published outside this time period were included (see

Backer, 1991; Weiss, 1979). Given the breadth of the literature on knowledge utilisation, a decision was made not to include literature on service-user engagement as this area, while relevant, arguably moves beyond the scope of this review.

Conceptualisations and terminology

There is a remarkable amount of multidisciplinary in the knowledge utilisation field, ranging from studies in agricultural innovation to sociology and information science (Estabrooks et al., 2008). Past reviews of this field highlighted the difficulty of synthesising this extensive literature (Backer, 1991; Nutley, Walter, & Davies, 2003). In 1991, Backer identified approximately 10,000 citations on knowledge utilisation, concluding 'the field is hardly immune from its own problems of information overload!' (p. 232). Identified more than two decades ago, the diversity and abundance of literature in this area, in part, have contributed to its conceptual disarray (Watkins, 1994/95; Weiss, 1979), which continues to account for conceptual confusion and variation in research outcomes in the field today (Estabrooks, Thompson, Lovely, & Hofmeyer, 2006).

The present review identified a range of terms used to describe all or part of the knowledge utilisation process, including transfer, EBP, translation, diffusion, transmission, absorption, implementation, exchange, sharing, flow and dissemination. According to Estabrooks et al. (2008), these terms signify different disciplines and research domains. Although they all address the knowledge utilisation process in some way, they often infer different meanings, paradigms and assumptions about knowledge use. For example, researchers and practitioners in Bowen and Martens's (2005) study differentiated between knowledge transfer – 'which can be a one-way process' – and knowledge exchange – 'the process by which researchers and decision makers share expertise and knowledge for a specific purpose' (p. 207). The present review also found that the use of terminology in the knowledge utilisation literature was often inconsistent. At times, different terms were used across different disciplines to refer to the same phenomenon; for example, knowledge 'management' tended to be used in business, while 'translation' was used in health (Cooper & Levin, 2010). At other times, the same term was used to refer to different things; for example, 'translation' was used to discuss both expanded views of research use and more conventional linear processes (Reimer-Kirkham et al., 2009).

Likewise, the term 'knowledge utilisation' was frequently viewed differently by different authors. Some authors conceptualised it as a broad, overarching domain (Estabrooks et al., 2008), while among others it denoted sub-domains, such as technology transfer and innovation diffusion, within the field of knowledge

production (Backer, 1991; Estabrooks et al., 2008). According to Backer (1991), because the various sub-domains overlap, an ‘umbrella definition of the field is necessarily imprecise’ (p. 226). To add to the complexity, for some, knowledge utilisation was a discrete event, taking place at a particular point in time (Pregernig, 2006), while for others it encompassed multiple stages. For example, Landry, Amara, and Lamari (2001) suggested a six-stage cumulative model of knowledge utilisation. Yet other authors viewed it as one stage within a larger process (Graham et al., 2006) involving, for example, ‘knowledge generation, exchange, and utilisation’ (Beal, Havelock, & Rogers, cited in Estabrooks et al., 2008, p. 2).

These issues highlight the difficulties involved in finding a definition of knowledge utilisation that fully encompasses the breadth and complexity of the process while, at the same time, maintaining clarity and consistency. The lack of definitional and conceptual clarity in the knowledge utilisation field might be an obstacle to its capacity to inform changes in practice. A failure to clarify terms and concepts can lead to ambiguities in reported research utilisation outcomes (Kothari, Birth & Charles, 2005), and may, in part, account for the ‘considerable variation both within and between studies’ (Hanney, Gonzalez-Block, Buxton, & Kogan, 2003, p. 13). According to Weiss (1979, p. 427), ‘much of the ambiguity in the discussion of “research utilisation” – and conflicting interpretations of its prevalence and the routes by which it occurs – derives from conceptual confusion’. Although a universally applicable definition of knowledge utilisation might not be possible, clarification of terms and conceptualisations of research use are essential in order to minimise misunderstandings and allow comparisons across studies (Weiss, 1979). This, in turn, will enable the knowledge utilisation field to inform more meaningful improvements to research use in practice.

Origins and development of the knowledge utilisation field

The study of knowledge utilisation is not new. Beginning in the 1940s in the field of rural sociology, it soon expanded into a multidisciplinary field that included wide-ranging studies from agricultural innovation to sociology, geography, management and information science (Estabrooks et al., 2008). By 1979, the field of knowledge utilisation had become unified enough to justify the development of a specialist journal, *Knowledge: Creation, Diffusion, Utilisation*, which later became *Science Communication*. From the mid-1980s, a new domain – evidence-based medicine (EBM) – appeared and began to grow rapidly (Estabrooks et al., 2008). Simultaneously, the *Journal of the American Medical Association* emerged as a core

journal. The prolific growth of health journals between 1995 and 2004 attested to the growing influence of EBM in the knowledge utilisation field (Estabrooks et al., 2008).

The emergence of EBM – and its permutations, including evidence-based policy, EBP, evidence-based guidelines, and evidence-informed, evidence-aware and evidence-influenced policy and practice, to name but a few – fitted well with the new public management embraced by neoliberal governments with their focus on accountability, efficiency, cost-effectiveness (Estabrooks et al., 2008) or ‘the three e’s’ – economy, efficiency and effectiveness – to which Trinder and Reynolds (2000) referred. EBM was made possible by, and drew effectively from, the sub-domains of knowledge utilisation, technology transfer and innovation diffusion (Estabrooks et al., 2008), though it added its own unique emphasis on knowledge hierarchies to determine the quality of research knowledge intended for use, and active dissemination ‘in which spread occurs purposefully through centralised and formal efforts’ (Yuan et al., 2010, p. 2).

EBM, in turn, spawned EBP in other disciplines and professions, such as social work where its highly prescriptive orientation represented ‘a new epistemic culture of knowledge production’ (Gray et al., 2009, p. 17), one standing in stark contrast to the ‘postmodern “anything goes” narrative and the “anti-science” onslaught of critical theory’ (Gray et al., 2009, p. xv). In EBP, research is traditionally ranked according to hierarchies of evidence, with the core focus being intervention effectiveness. Consequently, systematic reviews at the top of the hierarchy, followed next by randomised controlled trials (RCTs), are viewed as providing the highest levels or gold standard of evidence (Evans, 2003; Sackett, Rosenberg, Gray, Haynes, & Richardson, 1996), while qualitative participatory action research resides at the bottom (Glasby & Beresford, 2006). In a strict application of this evidence hierarchy, studies with ‘greater potential internal validity’ (Thyer & Myers, 2010, p. 12) – systematic reviews and RCTs – are considered to be ‘higher forms of evidence [and] are accorded greater weight’ (Thyer & Myers, 2010, p. 12). However, with the expansion of the evidence-based movement into different disciplines, perspectives on EBP began to shift (Gray et al., 2009). Taking a social work perspective, Rubin and Bellamy (2012) argued that different types of research questions demand more than one evidence hierarchy. They observed that the EBP literature tends to focus on experiments because much of this literature pertains to questions of effectiveness. However, where research questions are exploratory in nature, qualitative approaches should be placed at the top of the hierarchy (Rubin & Bellamy, 2012). Trinder and Reynolds (2000) usefully distinguished between *experimental* and

pragmatic approaches to EBP. Proponents of the pragmatic approach argued that the strict adoption of RCTs as the gold standard for EBP was inappropriate to the kinds of social and emotional problems faced by social work (Webb, 2001, 2002). Thus, within the EBP movement, an inclusive view of evidence which takes into account contextual factors, patients' preferences, evidence and expertise (Satterfield et al., 2009) is increasingly advocated. In the UK, The Social Care Institute for Excellence (SCIE) has developed a standpoint on including diverse types of knowledge in its reviews of the evidence base (Marsh & Fisher, 2005).

The increased legitimacy given to a wide range of evidence sources may create particular challenges for the critical appraisal of evidence by practitioners. Critical appraisal is one of the cornerstones of the original model of EBP (Sackett et al., 1996). Sackett, Richardson, Rosenberg and Haynes (1997) described two important steps in critical appraisal as: (i) deciding whether the information is valid, and (ii) deciding whether the information is clinically significant. In order to engage in critical appraisal, a basic understanding of scientific and statistical methods, together with the adoption of an inquisitive and sceptical approach, is required (Parkes, Hyde, Deeks, & Milne, 2001). This in itself is problematic as many practitioners still lack the expertise required to access and critically assess research evidence (Booth, Booth, & Falzon, 2003; Pope et al., 2011). As the boundaries of EBP are relaxed, critical appraisal may become even more challenging because individual practitioners are left to assess the quality of a range of additional evidence sources. This highlights an emerging challenge for the field of EBP as it continues to expand its boundaries. Although highly contested and the subject of ongoing debate, EBM and its offspring, including EBP, have become the dominant discourse within the knowledge utilisation field (Estabrooks et al., 2008).

Crossover between EBP and knowledge utilisation

A review of the literature shows that EBP and knowledge utilisation are often viewed as synonymous. This may be because both are essentially concerned with linking research with practice. EBP's central focus on research methodology is closely associated with the engineering model of knowledge utilisation (also called the science-push, technology-pull or demand-pull models) which views the methodological quality of research as pivotal to utilisation and emphasises the objective value of scientific research (Gano, Crowley, & Guston, 2006). This significant, if not exclusive, focus on methodological rigour and accuracy has been referred to as 'inner-science' (Shaw & Norton, 2008, p. 961), which can be differently appraised in terms of varying paradigms. It is distinct from 'outer-science'

(p. 961) which focuses on research utility and its value to the communities it is intended to serve – the perceived public good.

In recent years, knowledge utilisation has moved away from engineering or inner science to the interaction model, following limited evidence of uptake arising from the methodological characteristics of research (Oh, 1997). Rather, knowledge utilisation is increasingly seen to depend on the relationships and interaction between researchers and users, and this collaborative or cooperative research is assumed to be more likely to lead to the production of relevant, useable knowledge. Ergo, co-produced knowledge, which 'places more of an emphasis on professional knowledge and action occurring in the real world' (Gredig & Sommerfeld, 2008, p. 292), is believed to result in a greater likelihood of use or application. EBP, too, has begun to focus concertedly on more engaged forms of implementation. Rather than assuming that research will be taken up in practice by virtue of its technical merits, 'implementation science' explores the processes that hinder or facilitate the uptake of research into practice, including social and behavioural factors (Michie, van Stralen, & West, 2011), and recognises that effective implementation requires collaboration between researchers and users.

While both knowledge utilisation and EBP advocate collaboration between researchers and practitioners, EBP continues to view research and practice as essentially separate domains between which research products must be translated. Although knowledge utilisation's 'two communities' model depicts a similar divide between research and practice (Thompson, Estabrooks, & Degner, 2006), utilisation scholars are beginning to move beyond the two communities perspective to explore the possibility of dissolving the boundaries between science and practice. Gredig and Sommerfeld (2008, p. 295) described a process of *hybridisation*, which 'takes place in the context of action'. In this process, different forms of knowledge combine to produce a third sphere, and an endless cycle of knowledge production and utilisation ensues as the process of using research leads to the creation of new knowledge, and so on. Trevithick (2008), too, believed that it is difficult to separate knowledge use from knowledge creation. She drew on Eraut's (1994) idea that the 'interpretive use of an idea in a new context is in itself a minor act of knowledge creation' (Trevithick, 2008, p. 1230). Davies, Nutley and Walter (2005) viewed research use as 'a transformation process' rather than a simple 'transfer of pre-packaged research findings to passive and accepting user audiences' (p. 2).

It is this development in the knowledge utilisation field which is perhaps most promising for enhancing research use in social work, where research has been found to be absorbed into, and emulsified with, other

knowledge sources, such as practice wisdom, experience and lay knowledge (Davies et al., 2005). It is important to note that even the strictest proponents of EBP acknowledge reliance on the best available evidence and emphasise research knowledge as just one of the many knowledges that inform evidence-based clinical judgement and decision making (Thyer & Myers, 2010). However, the notions of knowledge ‘amalgamation’, ‘transformation’, ‘co-creation’ and ‘hybridisation’ remain far removed from the ‘translation’ metaphor which, as Greenhalgh and Wieringa (2011) noted, has led to particular difficulties in the field of EBP ‘where it seems that knowledge obstinately refuses to be driven unproblematically into practice’ (p. 501). They propose that applying a wider range of metaphors and models would enable the link between knowledge and practice to be made in more creative and critical ways. Thus, EBP and the related field of knowledge utilisation are both developing in a similar direction, with notions of knowledge and its use expanding and the importance of alternative forms of knowledge being increasingly recognised. However, beneath this apparent crossover lie different assumptions about knowledge and its use which, if unacknowledged, may serve to obscure broader conceptualisations of knowledge from view as the assumptions behind the concept of knowledge translation become uncritically accepted and entrenched.

Theories and models of knowledge utilisation

A range of theories and models has been developed in the knowledge utilisation field to explain the process of research use. A review of the knowledge transfer literature identified 28 models that explained all or part of the knowledge transfer process (Ward, House, & Hamer, 2009). However, despite concerted efforts by researchers to build conceptual models of utilisation, no overarching theory has yet been developed (Belkhdja, Amara, Landry, & Ouimet, 2007; Estabrooks et al., 2006). This atheoreticism has led to a technical rather than a critically reflective or creative approach to dealing with complex problems related to knowledge utilisation. Attempts to solve the utilisation problem through technical means have resulted in the identification of an extensive array of variables for effective knowledge use (Chagnon et al., 2010). Rather than formal heuristic devices, these variables have more of a list (Landry, Lamari, & Amara, 2003) or ‘cookbook-like’ content and form (Jacobson, 2007, p. 119). Landry et al. (2003) attempted to make sense of the abundance of factors affecting research use by grouping them into two overarching models: (i) the technical science-push, or technology-push, engineering model which depicts a linear movement of research to practice; and (ii) the socio-organisational model

where linkages and interactions between researchers and users are seen as important factors influencing knowledge utilisation. This model comprises interaction, two communities, and organisational learning models (Landry et al., 2001). It should be noted that these models and theories remain untested and there is an urgent need to establish their effectiveness in practice (Armstrong, Waters, Roberts, Oliver, & Popay, 2006; Ward et al., 2009).

The interaction model of research use

The central focus of the interaction model is on the various disorderly interactions between researchers and practitioners at different stages of knowledge production, dissemination and utilisation (Belkhdja et al., 2007), rather than on a linear movement of research from the context of production to the field of application (Hanney et al., 2003). The interaction model was developed in response to criticisms of previous science-push and demand-pull models which: (i) do not involve users in the production of research results, (ii) do not assume responsibility for the transfer of research, or (iii) focus only on instrumental use of research findings (Belkhdja et al., 2007). According to Landry et al. (2001, p. 335), the interaction model incorporates all of the explanatory factors identified in prior models: ‘types of research and scientific disciplines, needs and organisational interests of users [and] dissemination . . . mechanisms’. The crucial new variable contributed by the interaction model is linkage. According to this model, the more resources invested in linkages between researchers and practitioners, the higher the use of research. In focusing on linkages between researchers and users, the interaction model draws a stronger connection between the processes of knowledge production and utilisation. This is based on the belief that interaction between researchers and practitioners during the research production phase makes the resulting knowledge more relevant and useable. As noted earlier, some have taken the interaction model beyond its original focus on simply linking researchers and practitioners, to dissolving boundaries between research and practice altogether (see e.g., Gredig & Sommerfeld, 2008). These emerging conceptualisations of knowledge utilisation are underpinned by a wider range of metaphors of knowledge as ‘collectively negotiated’ and ‘transformed’, which enable a move beyond the narrow ‘know-do gap’ to explore the link between research and practice in more creative ways (Greenhalgh & Wieringa, 2011).

Implications for social work

Could contemporary developments in the knowledge utilisation field offer a possibility for enhancing research use in social work? The Code of Ethics of the

Australian Association of Social Workers (2010) affirms social work's commitment to 'collaboration [as] the cornerstone of effective practice' (p. 9). Trevithick (2008, p. 1229), too, held that, in their use of knowledge, practitioners tend to favour 'accessible and immediate knowledge sources and more personal and interactive points of contact'. Relational sources of knowledge, such as workshops on practice issues and consultations with supervisors and colleagues, are highly valued, whereas textual resources, while not considered irrelevant, are less preferred (Marsh, 2002). Cha, Kuo and Marsh (2006) also found that practitioners preferred face-to-face exchanges. Chagnon et al.'s (2010) Canadian study of child protection organisations found that interaction between researchers and practitioners was strongly associated with knowledge utilisation. Similarly, Haug (1997) found that practitioners frequently rely on indirect sources of information about research findings, such as discussions with colleagues. These findings support the interaction model, which depicts knowledge use as a social process, suggesting that interactive approaches may be appropriate and effective in enhancing research use in social work. It should be noted that despite practitioner preferences for interactive modes of knowledge utilisation, the interaction between researchers and users is not well supported in the human services or social care environment, and models of interaction which propose to dissolve barriers between research and practice via intensive engagement between researchers and practitioners may not be feasible for application in time-poor and under-resourced social work settings. Many of these models remain untested and their applicability and relevance are therefore largely unknown (Ward et al., 2009), hence the urgent need to establish the effectiveness of knowledge utilisation models in a range of contexts (Armstrong et al., 2006).

However, the metaphors and conceptualisations underpinning contemporary developments in the knowledge utilisation field form a useful starting point for reconceptualising and researching the link between research and practice in social work.

Conclusion

Enhancing research use in social work is an essential undertaking for a profession under pressure to provide evidence of its impact or direct influence on practice. To date, social work discourse on research use has been dominated by the discourse of EBP, which views research as moving from the context of production to the context of application via a process of translation. This is not to say that social work has effectively implemented the EBP model, or indeed, that social workers agree that EBP is a good thing. However, the debate – whether in favour or against – has been mainly framed

within this discourse, rather than engaging with wider knowledge utilisation discourses, and arguably the interaction model in particular, to progress the link between research and practice. The knowledge utilisation field has begun to move beyond notions of collaboration and engagement, to explore the possibility of dissolving the boundaries between science and practice. These developments show promise for enhancing research use in social work, where relational sources of knowledge are favoured and decision making is a complex process involving multiple forms of knowledge. By opening the mind to alternative framings of knowledge and its use emerging in the knowledge utilisation field, it becomes possible to explore the link between research and practice in ways more suitable to decision making in social work. In this way, meaningful enhancements to research use in social work may be achieved.

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