Clinical Social Work Journal (2023) 51:188–197
https://doi.org/10.1007/s10615-023-00863-5

ORIGINAL PAPER

Moving Beyond Either-or Debates: An Invitation to Reconcile Ideological Divides in Evidence-Based Practice

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Accepted: 20 February 2023 / Published online: 10 March 2023

Abstract

Evidence-based practice (EBP) is one of social work's most prominent attempts to close the research-practice gap. However, EBP's reception in social work has remained tepid. For over 20 years, supporters have defended EBP against skeptics' recurring concerns—a seemingly endless cycle of identical arguments against and counterarguments for EBP. This article argues that a core barrier to the adoption of EBP is the ontological, epistemological, and methodological tensions used to justify EBP's lack of ethical fit with the profession. Existing counterarguments for EBP have failed to address these tensions, instead responding by correcting surface-level misconceptions about the philosophy of science itself. However, such corrections do not satisfactorily demonstrate EBP's reliance upon not just empirical evidence, but also experiential and situated ways of knowing that skeptics believe EBP excludes. This article will meaningfully engage with skeptics' concerns and offer a philosophical dissection of EBP, exploring its multiple sources of evidence and elaborating on how they link to post-positivist, social constructivist, and critical paradigms. Following the tenets of philosophical pragmatism, this argument constitutes a paradigmatic re-conceptualization of EBP toward epistemological plurality. This article is a call to move beyond either-or ideological debates, and re-focus on EBP's still-untapped potential to address research and practice needs.

Keywords Evidence based practice · Clinical practice · Research · Theory · Knowledge

Introduction

First reported more than 100 years ago, the gap between research and practice is a perpetual theme in social work literature (Tsang, 2000). While digits in the decades have often been reported for the duration of this research-practice gap, determining a precise estimate has proven challenging due to methodological variability across the literature on this topic (Brekke et al., 2007; Morris et al., 2011). Nonetheless, the research translation process has been reported to be problematic in social work, as practitioners have been documented to rely primarily on intuition, past experience, and expert opinion to make practice decisions that critically affect clients' lives (Tsang, 2000). Innovations from research that could enhance client outcomes are seldom implemented at the frontline, while research knowledge has been criticized for being irrelevant to the complexities of frontline work (Denvall & Skillmark, 2021; Tsang, 2000). This suggests that a lack of coherence between research and practice communities' priorities may contribute to the reported gap between research findings and their use in direct practice.

Social work has made multiple attempts to resolve this gap through movements such as empirically-based practice, the scientist-practitioner model, and data-driven decision-making (Howard et al., 2003; Sabah et al., 2020). Evidence-based practice (EBP) is a prominent iteration in this series of attempts (Mullen et al., 2005). Its adoption in social work has suffered from recurrent criticisms regarding its 'fit' for the profession—from practical implementation challenges such as lack of practitioner time (Rubin & Parrish, 2007), to attitudinal barriers stemming from fears that EBP will lead to rigid 'cookbook' practice (Drisko & Grady, 2015). These seemingly perpetual misunderstandings have already been debunked by EBP supporters (Gambrill, 2019). However, a major area of criticism not commonly included in lists of EBP misconceptions is the ontological and epistemological fit between social work and EBP. That is, do social work and EBP have a shared agreement about the nature of reality?

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Do they define what constitutes knowledge in comparable ways? While social work has been documented to value an inclusive approach by emphasizing the existence of multiple ways of being and knowing (Khoury, 2019; Liegghio et al., 2019; McNeill & Nicholas, 2019), does EBP do the same?

When confronted with questions of this nature, existing counterarguments given by supporters have focused on correcting readers' misconceptions about the philosophy of science itself (Gambrill, 2019). However, these clarifications do not actually answer skeptics' questions about whether multiple ways of knowing—such as experiential, subjective, and situated—have been included in EBP's conceptualizations of knowledge. Further, simply clarifying that the EBP process includes client engagement is not equivalent to defining the client's lived experiences as itself a form of legitimate knowledge. To meaningfully engage with skeptics' concerns, EBP must demonstrate its use and valuation of knowledges beyond empirical evidence.

By conducting a comprehensive examination of its ontological, epistemological, and methodological positionings, this paper will demonstrate that EBP does indeed subscribe to multiple ways of knowing. Ontology refers to beliefs about the nature of reality, epistemology to what can be known about that reality, and methodology to the specific approaches one can use to capture that knowledge (Guba & Lincoln, 1994). The paper will:

1. Trace the history of EBP to its predecessor—evidence-based medicine—and the philosophical foundations (and associated shortcomings) of that approach.
2. Illustrate EBP's development into its current expanded form, and discuss how this expansion has necessitated EBP's acceptance of multiple philosophical paradigms to generate the *evidences* it requires.
3. Outline central tenets of philosophical pragmatism, followed by a discussion of how EBP is aligned with pragmatism's mission of epistemological plurality.
4. Present methodological implications for how this plurality can augment EBP, as well as social work's opportunity to potentially contribute to this augmentation.

Tracing the History of EBP: Evidence-Based Medicine

Many of the concerns in social work that were discussed above regarding EBP's philosophical base can be traced to its predecessor, evidence-based medicine. The term evidence-based medicine (EBM) first appeared in a 1992 systematic review, and was established in response to its founders' concerns that medicine was overtly expert-based. EBM was defined as the "conscientious, explicit, and judicious use of current best evidence in making decisions about the care of individual patients… [E]vidence based medicine means integrating individual clinical expertise with the best available external clinical evidence from systematic research" (Sackett et al., 1996, p. 71). 'Clinical expertise' was further defined as the "proficiency and judgement that individual clinicians acquire through clinical experience and clinical practice" (Sackett et al., 1996, p. 71) and 'best external evidence' as:

> …Clinically relevant research, often from the basic sciences of medicine, but especially from patient centred clinical research into the accuracy and precision of diagnostic tests… the power of prognostic markers, and the efficacy and safety of therapeutic, rehabilitative, and preventive regimens. (pp. 71–72).

EBM's founders argued against practice solely determined by haphazard clinical opinion, and instead advocated that decisions critically affecting patient care should be guided by a combination of clinical expertise and systematically-generated empirical research to ensure safety and efficacy (Guyatt et al., 1992). The research that EBM overtly prioritized used methods that controlled for threats to results' validity, and resulted in replicable and generalizable findings (Guyatt et al., 1992). This valuation of controlled, generalizable empirical research and recommendation to carefully control subjective knowledges (i.e., clinical expertise) firmly placed the original conception of EBM in the post-positivist paradigm (Guba & Lincoln, 1994). It is worth noting that this 'first pass' version of EBM included nearly all of the concerning features now frequently (mis)attributed to EBP—including by social work (Drisko & Grady, 2015; Howard et al., 2003). These features included the exclusion of client preferences and values, neglect of environmental influences on care, and primary emphasis on external evidence.

These oversights were not taken without issue by the medical community, which by this time, had begun to recognize the contributions of social models of care to ethical medicine, including the biopsychosocial model (Borell-Carrió et al., 2004) and patient-centred practice (Epstein, 2000). Upon its introduction, EBM was sharply criticized for its omission of patient input and apparent over-prioritization of randomized control trials (Sackett et al., 1996). Concerns that EBM would result in a chokehold of clinical freedom, be co-opted for funders' cost-saving schemes, and lead to 'cookbook practice' were brought forward within several years of its introduction (Sackett et al., 1996). In response, Sackett and colleagues added patient values and preferences into the EBM model in 1996, and provided a refreshed description of the approach as "…a bottom up approach that integrates the best external evidence with individual clinical expertise and patients' choice" (p. 72). Figure 1 illustrates the three main components of this updated, but still early, EBM model (Haynes et al., 2002a).

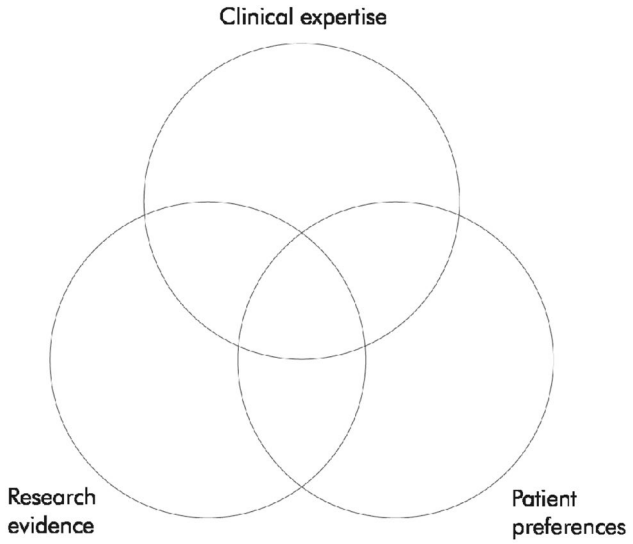

Fig. 1 The three components of an early model of evidence-based medicine in 1996 from Haynes et al. (2002a)

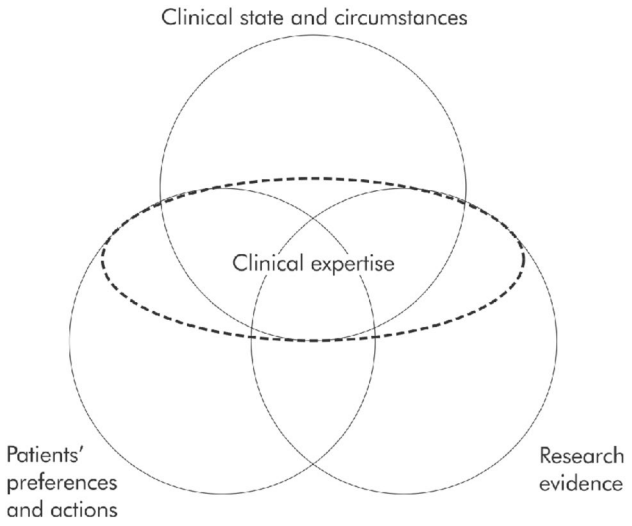

Fig. 2 The four components of the current evidence-based practice model illustrated in Haynes et al. (2002a)

In an article attempting to clarify what EBM was and was not, Sackett and colleagues (1996) further expained that EBM "is not restricted to randomised trials and meta-analyses" (p. 72) and critically emphasized that:

> *Without clinical expertise, practice risks becoming tyrannised by evidence, for even excellent external evidence may be inapplicable to or inappropriate for an individual patient* [emphasis added]… Because it requires a bottom up approach that integrates the best external evidence with individual clinical expertise and patients' choice, it cannot result in slavish, cookbook approaches to individual patient care. External clinical evidence can inform, but can never replace, individual clinical expertise… any external guideline must be integrated with individual clinical expertise in deciding whether and how it matches the patient's clinical state, predicament, and preferences, and thus whether it should be applied. *Clinicians who fear top down cookbooks will find the advocates of evidence based medicine joining them at the barricades* [emphasis added]. (p. 72).

The Current EBP Model

These iterative additions to EBM ultimately culminated in the current EBP model (as shown in Fig. 2), which replaced clinical expertise with the patient's clinical state and circumstances, and overlaid clinical expertise across the other three components to illustrate its integrative purpose (Haynes et al., 2002a). EBP is now defined as "the integration of the best available evidence with our clinical expertise and our patients' unique values and circumstances" (Straus et al., 2007, p. 2). Note that consistent terminology for each EBP component has not been applied across authors – e.g., the 'external evidence' component has sometimes been labelled 'research evidence', as in Fig. 2 – but this paper will use the former term to be more inclusive of different knowledges.

This expanded model specifically defines 'patient values' as "…the unique preferences, concerns, and expectations that each patient brings to a clinical encounter and that must be integrated into shared clinical decisions if they are to serve the patient" (Straus et al., 2018, p. 1) and 'patient circumstances' as "the patient's individual clinical state and the clinical setting" (Straus et al., 2018, p. 1). The existing definition of 'clinical expertise' was also elaborated as an information-integration and decision-making process used "…to bring these considerations [the other three components] together and recommend the treatment that the patient is agreeable to accepting" Haynes et al. 2002b, p. 1350). EBP's founders, Haynes and colleagues (2002b), continued to stress the flexibility offered by the approach: "In any one situation the patient's clinical state and circumstances may predominate… In another situation, the patient's preferences may take precedence" (p. 1350). The key takeaway is that engagement in EBP requires information to be generated from not one, but *four* sources of knowledge: external evidence, internal clinical state and circumstances, client preferences and values, and clinical expertise.

This model has transcended medicine to being adopted by virtually all other helping professions (Dollaghan, 2007), with a still-skeptical social work one of the few remaining exceptions (Drisko & Grady, 2015). This apprehension has persisted despite the evolved, current version of EBP

aligning more closely with other models that social work has been documented to support. For example, it is generally accepted that social workers in clinical settings practice according to the biopsychosocial model to see beyond clients' biomedical diagnoses and account for the psychological, social, and systemic contexts affecting client well-being (Craig et al., 2015). The biopsychosocial model calls for intervention decisions to be made with consideration of empirical evidence, the clinician's professional experience, and the client's subjective experience of their situation (Borell-Carrió et al., 2004). These requirements directly parallel the components of EBP. Yet, despite these overt similarities, the biopsychosocial model has been embraced by social work while EBP has not.

Philosophical Challenges To EBP

Lin (2020) found that social work students perceived that EBP's primary association with and supposed privileging of (post-)positivist quantitative research was "oppressive" (p. 8), "dehumanizing" (p. 9), and "reductionist" (p. 15). These reported qualities are in direct opposition to the core social work values of social justice, humanism, and holism respectively, thus appearing to render EBP incompatible with the moral and ethical aims of the profession. Others have voiced similar concerns regarding EBP, and have advocated for an inclusive approach to defining, making, and claiming knowledge—with a particular emphasis in privileging subjugated voices (Khoury, 2019; Liegghio et al., 2019; McNeill & Nicholas, 2019). These perspectives create philosophical rifts between EBP supporters and skeptics in social work (Gambrill, 2019), and further entrench the research-practice divide to the detriment of clients.

These rifts are embedded in the larger philosophical debate in social work contrasting post-positivist with social constructivist and critical paradigms (Borden, 2013; Hothersall, 2019; Morgan, 2014; Tsang, 2000). While the ontology and epistemology of post-positivism assumes the existence of an objective, material reality that exists independent of human experience, social constructivist and critical paradigms argue that all reality is subjective and socially contingent (Guba & Lincoln, 1994). Furthermore, although there is no required, direct linkage between epistemology and specific research methods (Tsang, 2000), quantitative methods have heuristically been associated with post-positivism and qualitative methods with social constructivism and critical paradigms (Guba & Lincoln, 1994). In social work, conceptualizations of knowledge that may appear to reduce the importance or validity of socially-generated knowledges (e.g., post-positivist heuristics like 'hierarchies of evidence' that prioritize quantitative over qualitative methodologies) have been met with a mixture of skepticism and resistance (Khoury, 2019; McNeill & Nicholas, 2019).

In the context of this debate, it almost seems to be an expectation that one must choose 'a side' to identify with. However, some social work scholars have increasingly begun to acknowledge the shortcomings of this either-or approach for a profession that specializes in handling matters that are complex, ambiguous, value-laden, and socially-contingent yet compulsorily-material (Borden, 2013; Morgan, 2014; Tsang, 2000). That is, to engage in social work practice means having to acknowledge that client issues are simultaneously socially constructed *and* have 'real' consequences that are politically, financially, emotionally, and physically experienced by the client. As Morgan (2014) aptly stated, "We are not free to believe anything we want about the world if we care about the consequences of acting on those beliefs" (p. 1048). Thus, social workers must intervene on the material plane of existence to achieve the outcomes clients expect of us, even if the matters we face may be social in nature and origin.

What is Philosophical Pragmatism?

In an effort to quell disagreement and instead reach consensus among these philosophical 'camps', there has been increasing interest in philosophical pragmatism as a means of bridging varied paradigms and advocating for epistemological plurality to support practice-relevant and politically-responsive research (Gibson, 2010; Tsang, 2000). Philosophical pragmatism argues that the aim of inquiry is to achieve whatever outcome will best help us navigate the challenges of daily living, and to identify future courses of action that can be used to overcome human problems (Hothersall, 2019). This primary emphasis on concrete, practical outcomes allows for ontological and epistemological flexibility with regard to which exact actions are taken to achieve those outcomes (Tsang, 2000). This flexibility calls for epistemological plurality to recognize multiple ways of knowing—including experiential knowledges *alongside* systematically-collected data. The ontological debate between social and material reality is thus duly silenced in favour of achieving practical outcomes: "To a pragmatist, the mandate of science is not to find truth or reality, the existence of which is perpetually in dispute, but to facilitate human problem-solving" (Powell, 2001, p. 884).

Pragmatism's pluralist approach to ontology and epistemology is highly responsive and adaptable to the various complexities that shape clinical social work practice (Borden, 2013; Tsang, 2000). Its emphasis on experiential knowledge that is generated in situ aligns well with the premise that each clinical encounter is itself a

knowledge-generating endeavour (Borden, 2013; Hothersall, 2019). The simultaneous holding and privileging of multiple knowledges should be welcomed by social workers who are concerned about epistemic oppression.

How EBP and Pragmatism Align

At its core, EBP is a decision-making tool. It uses multiple sources of information—both empirical and experiential, situated and general—to answer practical questions such as, "Out of all of the options available, which one should I pick to address the issue(s) at hand?" The tangible result of engaging in the EBP process is a recommendation for a *potential* best course of action that the practitioner must be prepared to revise and rework should the outcomes fall short of what was intended. In this way, the complete, cyclical process of EBP is itself an act of experiential learning, as knowledges are externally located, internally created in dialogue with the client (and supporting others), applied, tested, reflected on, and revised as needed. This process mirrors Borden's (2013) description of pragmatist-informed clinical practice:

> We have come to think of the therapeutic endeavor as an active, searching process, facilitated through critical inquiry, dialogue, experiential learning, action and reflection on action. Both parties bring their knowledge and experience to bear, revising their understanding in light of ongoing outcomes. (p. 255)

All of these features—the practical purpose of EBP, the recognition of multiple sources of knowledge, the resulting recommendations for future-oriented actions, and the experiential nature of its learning—align with the tenets of philosophical pragmatism. The following section will more fully examine the ontological and epistemological bases of each EBP knowledge source to argue for the overall model's pluralistic nature. The considerations behind these knowledge sources will be contextualized using hypothetical questions that may be familiar to practitioners from occasions when clients come to them for help.

EBP Component: External Evidence

> "In general, which of my options are most likely to achieve the results I hope for?"

It is common for clients to come to practitioners with questions like this one about how to best address their problems. The key points to note in this hypothetical question are (1) the client's request for *generalized* information (connoted by "in general") and (2) the ask for *probabilistic* information (implied by "most likely"). Generalized information is knowledge that is presumed to exist external to the practitioner and client's subjectivities—i.e., knowledge that is situated outside the boundaries of how one personally interprets one's own experiences. The probabilistic assumption behind the hypothetical question acknowledges that one can never fully and accurately predict the outcome of an action, but that there is nevertheless 'a best guess'. Therefore, this question presupposes that there is an 'objective' external reality that can be probabilistically apprehended and generally applied across people. This aligns with the ontological and epistemological positions of post-positivism (Guba & Lincoln, 1994). That is, this question's requirements can most pragmatically be satisfied by a paradigm that aims to explain and predict how this external reality 'really' works. These knowledges can then be used to predict the probable outcome of using a general intervention suggested by external evidence on a specific client situation, which is precisely the answer that this client is seeking. Under a pragmatist approach, it logically follows that if a client asks a post-positivist question, the practitioner should provide a related post-positivist answer.

EBP Component: Client Preferences and Values

> "Which of these options fit best with what's important to me?"

This question requires the practitioner to understand and engage with what is personally important to the client at a given moment in time. Each client's values and preferences are based on a host of lived experiences and subjectivities that are utterly unique to that individual. These preferences are situated in and relative to context—e.g., the present time, place, situation—and prone to change as the context around them continuously shifts. The client may also hold multiple, conflicting perspectives at once. Therefore, any knowledge gained about the client's preferences and values is limited only to the present client-practitioner encounter, and cannot be generalized to any other time or situation. The ontological and epistemological assumptions behind this hypothetical question, then, are that the answer lies in the transactional negotiation of the client's subjective, relative, and potentially multiple ways of knowing and being. These requirements render post-positivism's generalized and objective knowledges pragmatically irrelevant for this purpose, and align best with social constructivism (Guba & Lincoln, 1994).

EBP Component: Clinical State and Circumstances

> "Which options can we actually do?"

Similar to the patient preferences component, this question also requires consideration of the unique characteristics

of both the client's situation and the practice setting. For example, the client's situational factors include their health diagnoses and prognoses, as well as their social and financial resources that can be used to aid recovery. Setting-specific factors that may influence the feasibility of treatment options can include the disciplinary expertise available on the program's team and the maximum length of time that clients are allowed to participate in the program. Thus, the answer to this hypothetical question is predicated on highly relative client- and setting-related attributes, which presupposes that the possibilities created from the client-practitioner transaction are constrained by social, economic, political, and cultural influences. This emphasis on the shaping of material reality by structurally-contingent factors best aligns with the ontology and epistemology of critical paradigms (Guba & Lincoln, 1994).

EBP Component: Clinical Expertise

"What do *you* think we should do?"

The client's final hypothetical question, like the EBP component it represents, asks the practitioner to evaluate and weigh the knowledge from the other three EBP components in order to arrive at a decision for what to do next. This evaluation includes the practitioner's self-assessment of their ability to competently implement treatment options, which is determined in part by the scope of their professional training. The use of clinical expertise requires the practitioner to incorporate learning from all the aforementioned knowledges, and in doing so, to also accept the varied ontological and epistemological suppositions that come with these knowledges. The practitioner *must* accept these suppositions, because knowledge cannot be separated from its ontological and epistemological origins—origins that are foundational belief systems about how the world is and what knowledge can be gleaned from it. In other words, they fundamentally define the parameters of what knowledge is and can be. Thus, this final component of the model that transcends the other three is the pragmatist core of EBP through its necessary acceptance and use of the other components' epistemological plurality. Moreover, the primary purpose of using clinical expertise to come to a recommendation for how best to proceed reflects pragmatism's action-oriented and problem-solving aims.

Methodological Implications for EBP and Social Work

EBP's use of multiple knowledge sources for the purpose of situated problem-solving demonstrates its alignment with philosophical pragmatism. Thus far, this paper has explored this alignment through conceptualizations of what knowledge is (ontology and epistemology), but not how it can then be discovered or generated (methodology). While the former describes *what* to look for, the latter describes *how* to find or create it (Guba & Lincoln, 1994). Although methodologies are generally thought of as relevant solely to the knowledge-making endeavours of academic research, this would be underselling the lived knowledges that are generated out of clinical encounters (Borden, 2013; Hothersall, 2019). Indeed, pragmatists would argue that the boundaries between formal academic research and the problem-solving endeavours of every day (clinical) life are overlapping rather than distinct (Morgan, 2014).

Therefore, practitioners and researchers would also benefit from a more fulsome understanding of the various strategies and practices (i.e., methods) they can use as part of their engagement with EBP's knowledge sources. EBP itself can also benefit from incorporating a broader suite of methods at its disposal, beyond the limited tools provided by quantitative methods alone. EBP's use of diverse paradigms makes for a wide menu of methodological options. The following section will provide a sampling of some of these possibilities.

Qualitative Methods

Interviews

Qualitative interviews are highly suitable for engaging with the fluidity, relationality, and relativity of client's experiences, and its increased use as part of the EBP process to ascertain client's preferences and values has previously been advocated for (Dollaghan, 2007). Although interviews are used by multiple paradigms, its strength at drawing out rich personal narratives and using dialogue to co-create knowledge (Guba & Lincoln, 1994) is arguably at its peak when paired with social constructivism given its primary emphasis on relational knowledges. The specific skills that are used when conducting qualitative interviews—e.g., active listening, empathy, and open-ended questions—are already used by practicing social workers given our roles as client-family intermediaries and counsellors (Craig et al., 2015). It is the EBP model, itself, that should place greater emphasis on the value of this method as a primary way to build client rapport and obtain insights regarding their preferences and beliefs. This need to further develop the client values component was also acknowledged by the original authors of EBM (Straus et al., 2007). It is evident that social workers' existing competencies in relational practices can contribute greatly to this development.

Table 1 Application of qualitative research practices to EBP

Qualitative Research Practices	Use in EBP
Groundedness	Obtain information regarding client preferences and values directly from the client as much as possible.
Triangulation	Consulting with multiple sources, such as speaking with the client's close supporters and reviewing past clinical documentation, to ensure fulsome understanding of the client's context.
Member-checking	Sharing the practitioner's understanding of the client's preferences with the client to ensure accuracy of comprehension.
Contextualization of data	Acknowledging that the client's preferences are susceptible to change, and are only held at a particular moment in time. Continuous dialogue with the client is thus warranted.
Reflexivity	Assessing one's own skills and knowledge to competently deliver an intervention. Acknowledging that one's biases and assumptions can result in blind spots that negatively affect client service.

Ethnographies

Ethnographic methodologies are useful for conceptualizing the factors relevant to clinical state and circumstances in the EBP process. For example, rapid ethnographies have been used to identify the socio-cultural influences that shape healthcare delivery (Liberati et al., 2015). Political influences such as the move toward new managerialism and neoliberalism shed light on why practitioner workloads are high and organizational resources are scarce (Baines & Cunningham, 2011). These may be the exact reasons why a research-supported or client-preferred treatment is infeasible when considering the clinical state and circumstances component in EBP. Specific ethnographic methods include stakeholder interviews, field observation, and reviewing organization-relevant documentation (Liberati et al., 2015). Many ethnographic approaches are rooted in critical paradigms (Baines & Cunningham, 2011), which necessitates a call to action when practice inequities are discovered. Clinical social workers already practice ethnographic methods by leveraging structural contingencies to advocate for client needs and engaging systemic barriers that interfere with care (Craig et al., 2015). Social work again has a role in developing EBP's clinical state and circumstances component beyond mere identification of environmental barriers, to transforming structural deficiencies at their root.

Qualitative Research Practices

More broadly, qualitative methods make use of varied practices to enhance the trustworthiness and integrity of their findings—i.e., the qualitative equivalent of quantitative notions of validity. For example, qualitative researchers who practice *reflexivity* actively recognize and strive to be transparent about how their emotions, beliefs, and implicit assumptions might influence the knowledge-making process (Levitt et al., 2018). Outside of research, reflexivity has been discussed in applied healthcare literature and is recommended for use by practitioners to improve critical self-awareness of their practices (Liberati et al., 2015). Reflexivity is especially important for practitioners to engage in honest assessments of their ability to competently provide a given treatment—regardless of whether it is research-informed or client-preferred. Given social workers' ethical requirement to practice only within our areas of competency, practitioner reflexivity should be included as a necessary component of EBP engagement.

Other qualitative research practices that have not yet transcended the realm of research, but are nevertheless relevant to EBP, include: *Groundedness*, or ensuring that findings can be directly linked to their source knowledges; *triangulation*, or using multiple methods to confirm the accuracy of findings; *member-checking*, or sharing findings with informants to confirm their accuracy; and *contextualization of data*, or considering findings in relation to their temporal, local, and situational circumstances (Levitt et al., 2018). Examples of how these practices could be used to support practitioner's use of the EBP process are suggested in Table 1.

Quantitative Methods

Given EBP's existing reliance on quantitative research methods, this paper will not repeat the extensive guidance already provided by authoritative texts on the subject (e.g., Straus et al., 2018), including those specifically intended for social work (e.g., Drisko & Grady, 2019; Engel & Schutt, 2017). However, it must be noted that social workers have been reported to have low self-efficacy and skill regarding quantitative research methods due to a lack of education on the subject (Lin, 2020). This knowledge gap is problematic, as an understanding of what makes certain research evidence (1) relevant to one's client (i.e., external validity) and (2) likely to produce the results that one hopes for (i.e., internal validity) are mandatory for evaluating the quality of quantitative research evidence. Note that these two criteria are required to answer the post-positivist question our hypothetical client posed regarding generalized and probabilistic information, respectively. A practitioner therefore must be competent at evaluating both qualitative and quantitative research, as contributions from both methods may benefit

Table 2 Application of quantitative research practices to EBP

Quantitative Research Practices	Use in EBP
Comparison Conditions	It can be difficult to evaluate whether the client has experienced progress because of the practitioner's intervention if one has nothing to compare it to. Introducing control conditions, such as comparing progress pre- and post-treatment or comparing progress on a treated goal to an untreated goal can help mitigate this issue.
Repeated Measurement	Measuring the client's outcomes only once before or after treatment can make it difficult to evaluate progress, since change (or lack thereof) could be due to random fluctuations in the client's status or measurement tools. Measuring outcomes repeatedly can help establish test-retest reliability and increase confidence that changes are not random.
Interrater Reliability Checks	Familiarity with and investment in the client can introduce subjective bias into the practitioner's observations of client progress. Consulting with a colleague or supervisor for a second opinion, or preferably, having them directly observe the clinical situation can help the practitioner guard against blind spots.

the client. Thus, quantitative training is sorely needed for social workers to be able competently engage with all four components of EBP. Doing so would allow social workers to become critical consumers of quantitative research beyond mere ideological rhetoric.

Becoming a critical consumer of research helps practitioners primarily with making decisions when choosing a course of action before getting started, but what about once the intervention starts? Making this initial choice was the focus of our hypothetical client's original question about external evidence. Once intervention begins, the client's focus will typically shift instead to matters such as, *"Now that we've started, is the option I chose* actually *working?"* Like the original question, this new question presupposes an 'objective' reality external to the practitioner and client's subjectivities (connoted here by "actually"), making it yet another post-positivist question. To help answer it, practitioners can use quantitative methods developed for empirically studying the effects of interventions in individual clients, including the sampling described in Table 2.

Conclusion

Given that EBP is the foremost contestant in social work's current efforts to close the research-practice gap, this paper has argued that EBP deserves a closer examination to critically identify its areas of deficit and find constructive ways to improve them. Many past movements to bridge research and practice have come and gone, and this is precisely why a concerted effort must be made to stop this endless cycle of "fads, fashions, and associated… misadventures" (Howard et al., 2003, p. 235). Acknowledging the faults that EBP has had in its past and current forms should present an opportunity to transform it for the better, rather than dismissing it altogether. In other words, social work must be careful not to 'throw the baby out with the bathwater', especially as the ideals of EBP (i.e., the pursuit of safe, thoughtful, and effective client care) are honourable ones.

Furthermore, social work as a discipline has a great deal to contribute to EBP's much needed development. As Carey (2012) aptly pointed out, many qualitative research practices, like the ones described in Table 1, are likely already used by social workers in the field. Having the relational skills to obtain a detailed understanding of client values and supporter perspectives, why and how those values came to be, and applying these situated knowledges to guide client care are expected social work competencies. This represents an opportunity for social workers to contribute to the expansion and development of EBP so that the model may legitimately claim its aim of being client-centred.

The arguments presented in this paper can be used to inform future research on EBP implementation among social workers, particularly as it relates to social workers' attitudes as a barrier to implementation. This theoretical re-conceptualization of EBP toward epistemological pluralism demonstrates how EBP can indeed align with the profession's existing values and ethics. Drawing attention to the parallels between their professional values and EBP's epistemological positionings may help social workers perceive EBP as more acceptable for the profession to adopt. This technique, referred to as self-affirmation, has been recommended in health psychology research to help change professional behaviour (Michie et al., 2014).

As part of calls to improve social work education on EBP (Lin, 2020), EBP's epistemological plurality and its alignment with social work values may be best addressed through social work pre-service and continuing education. This education could include clarifying EBP's reliance upon multiple component parts, its sourcing of diverse forms of knowledge, and teaching the concrete research method skills necessary for its fulsome application. Enhanced education efforts should be directed at social workers across all stages of development—from impressionable new trainees, to seasoned practitioners, to professional leaders who gatekeep the resources required to engage in EBP. However, perhaps the most important audience in need of a re-conceptualization

of EBP are social work educators, who pass on their own attitudes and biases for or against EBP to their students (Lin, 2020), and contribute misconceptions about EBP's philosophical stance in literature influential to the profession. The outcome of educational changes such as these could have critical implications for how social work chooses to engage with EBP in the years to come.

Undoubtedly, critics of EBP will find further faults with the model. Such critical skepticism is good—a discerning and inquisitive mind that does not simply take established truths for granted should be the primary characteristic of all knowledge-making endeavours. However, pointing out flaws without an accompanying commitment to bettering those deficiencies does not help the ultimate cause of social work: To improve well-being for all. This paper is an invitation for EBP skeptics and supporters alike to stop creating unhelpful ideological divides, harness the possibilities of collectivizing our knowledges, and move forward together constructively to finally achieve the elusive dream of closing the research-practice gap. We owe at least this much to the people we serve.

Funding No funding was received to assist with the preparation of this manuscript.

Declarations

Conflict of interest The author has no competing interests to declare that are relevant to the content of this article.

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