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Improving the Teaching of Evidence-based Practice – Challenges and Priorities

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As a scholar who has spent most of his professional life in the field of social work as a teacher, researcher, and academic administrator, I think that teaching, practice, and research are three separate but intimately related pillars of one holistic system. In 2004, *Brief Treatment and Crisis Intervention* published 2 issues on evidence-based practice (EBP). One specific article, “Leverage Points for the Implementation of Evidence-based Practice,” by Enola Proctor (2004), develops a framework that catches just this holistic aspect of the organization of social work as a scholarly and professional activity. Dr. Proctor’s typology elaborates on evidence-based practice as intermediate outcomes processes on several levels: identifying and accessing EBP; accepting and adopting EBP; implementing EBP; and evaluating EBP. This all takes place in the fields of research, training, and practice organization. The typology depicts the complexity of this holistic system and is, in a sense, rather overwhelming for those of us who believe in the possibility of reforming social work education for future generations of social work professionals. I will return to the issue of complexity.

I would like to start out my comments by looking at the education and training of social work students in order to explicitly accommodate some of the issues within the theme of the conference, “Improving The Teaching of Evidence-based Practice.”

What are the main **challenges** of improving the teaching of evidence-based practice in schools of social work?

Recognizing and working with these challenges presupposes that it is possible and realistic to introduce reforms by using piece-meal engineering.

The Cultural Shift

Historically, teaching social work has been associated with the profession’s vision and understanding of the nature of social work as a practical activity. As we know, the profession’s definition of social work practice has, over time, changed frequently and substantially. Articles in the special issue of *Research on Social Work Practice* (Volume 13, No 3, 2003) show clearly how definitions have shifted over the years. As a result, teaching and training of social workers have shifted with them.

We are now in a phase of our professional history when the emphasis is on evidence-based social work practice. Therefore, we are also preoccupied with how to teach it. The rationale of emphasizing evidence-based practice has been repeatedly formulated (e. g. Gray 1997; Sackett et. al 1997; Gibbs & Gambrill 2002; Gambrill 2004). Recently, Dr. Gambrill (2006) has stressed the rationale behind EBP as a force to:

- a) move away from authority-based decision making in which appeals are made to tradition, consensus, popularity, and status;
- b) honor ethical obligations to clients, such as informed consent;
- c) make practices, policies, and their outcomes transparent;
- d) attend to application problems, that is, encourage a systemic approach to improving services; and

e) maximize knowledge flow – encourage honest brokering of knowledge and share ignorance and uncertainty as well as knowledge. (Gambrill 2006, p. 341).

My favorite definition of evidence-based practice with reference to social work was formulated by Brian Sheldon, a charter member of the international Campbell Collaboration: it is “the conscientious, explicit, and judicious use of current best evidence in making decisions regarding the welfare of service-users and carers” (Sheldon 2003, p. 1). This definition is of course based on the original one by Sackett et al. al. 1997, p. 2).

The implication of this definition is that evidence-based practice is a process of, first of all, *knowing what the current best evidence is*. Then, it is about using the current best evidence *conscientiously and judiciously*. This involves “consistently applying the evidence to the care of all clients for whom it is pertinent” and judiciously “weighing an individual client’s unique treatment circumstances against a practice guideline’s general recommendations for client care” (Sackett et. al. 1997).

So, EBP is a professional state of mind. It is a professional culture!

The challenge is to achieve the cultural shift. I perceive the need for a professional cultural shift as a principle challenge: it is general; and it needs to become a mainstream concern for schools of social work; whose mission is to educate the present and future generations of social work professionals. This cultural shift is a prerequisite for moving from opinion-based to evidence-based social work practice.

The Need for a New Curriculum

Schools of social work must integrate the culture of evidence-based practice into all levels of its programs. The main teaching contents of this curriculum include: understanding the nature of scientific evidence as it affects social work interventions; understand different levels of scientific evidence; finding scientific evidence; appraising scientific evidence; assessing and appreciating individual client and/or community circumstances; understanding how to use the current best evidence conscientiously and judiciously; understanding organizational settings of social work practice; evaluating results of interventions; developing skills for practicing social work when there is weak or no evidence on what works and what is harmful; and developing skills and organizational structures so that actively contribute to the evidence base of social work practice.

Not only do the curricula have to be reformulated and adapted to embrace the culture of evidence-based practice, we will also need course material and tutorials that support better and more efficient teaching while helping students learn and acquire skills adequately.

Overcoming the Methodology Controversy

For obvious reasons, research on social work practice has been impacted by the *Experiments in Knowing: Gender and Method in the Social Sciences* (2000), argues for getting rid of the paradigm controversy. Her introductory paragraph is much to the point:

My main argument goes as follows: that in the methodological literature today, the ‘quantitative’/‘qualitative’ dichotomy functions chiefly as a gender ideological representation; that within this gendering methodology, experimental methods are seen as the most ‘quantitative’ and therefore as the most masculine; that these processes of methodological development and gendering cannot be separated from the ways in which both science and social science developed, and the social relations in which they are embedded; and that the goal of an emancipatory (social) science calls for us to abandon sterile word games and concentrate on the business in hand, which is how to develop the most reliable and democratic ways of knowing, both in order to bridge the gap between ourselves and others, and to secure that those who intervene in other people’s lives do so with the most benefit and the least harm (p. 3).

She continues:

One crucial strategy for bringing to a close our current paradigm war is to drop the language of ‘quantitative’ and ‘qualitative’ approaches altogether. These terms are relative, rather than absolute, in any case: ‘quantitative’ research often measures quality, and numbers are a frequent occurrence in ‘qualitative’ research (Oakley 2000, p. 303).

I agree completely! I think it is time to drop the dichotomous language and recognize that all research designs are good for the types of scientific questions for which they are tailored. Experimental studies, especially when they are randomized, conducted very carefully, and large enough to generate necessary statistical power, are the designs that produce least bias and are, therefore, the most fit design for measuring effects of social work interventions. Likewise, phenomenological research designs might be the best fit for understanding issues such as the social meaning of a conversation between a social worker and a client.

The social work research community needs to discuss and come to terms with this controversy. Overcoming this challenge will also bring to light the falsity of the suggestion that evidence based research ignores the human context of social and mental health problems (Bilsker & Goldner 2004).

The Challenge of Understanding the State-of-the-art of our Professional Knowledge Base

Social work has, for a long time, been dominated by an air of pessimism regarding the lack of high quality empirical studies (Nygren & Soydan 1997). Perhaps the most influential warning signal was sounded by the Task Force on Social Work Research (1991) in the early nineties.. The Task Force concluded that too little empirical research had been done and that the research that was done was inadequate for the profession’s need to address complex social and mental health problems. Recently, Mullen and Streiner (2004, p. 115) concluded, albeit on the basis of a limited number of available studies, that “there are still many decisions that are made that are not based on good evidence, but the picture is not nearly as bleak as opponents of EBP would have us believe”.

The challenge is to figure out: what is the critical mass of evidence-based knowledge required for a minimum of evidence-based decision making? What is the critical number of high quality

systematic reviews and high quality effect studies required for a minimum of evidence-based decision making? And, what is the critical number of high quality intervention studies to constitute a good evidence for specified intervention types (consider Parent Training Programs in Child Welfare Services, Programs for Siblings in Out-of-home Care, Scared Straight, etc.)?

Thanks to the work initiated by the Cochrane and Campbell Collaborations, we are now able to say, for example, that Scared Straight Programs are harmful (Petrosino 2003) and should not be used in social work and probation services. We are also able to say that there is not enough evidence to demonstrate that Multi-systemic Therapy works (Littell 2005), thus it should be applied with caution and monitored rigorously. And, we can say that the Juvenile Delinquency Programs that are effective with majority youth are also effective with minority youth (Wilson, Lipsey & Soydan 2003).

It appears that we have already entered a new stage of development in our profession: namely, that we are mapping the state-of-the-art in what works, what is harmful, and what is promising in social work practice. **We need to accelerate this work.**

The Cochrane Collaboration of the health related sciences and practices has estimated that approximately ten thousand systematic reviews are needed to be able to cover all domains of health care! What is the magic number for social work practice? The question remains open, but by mapping the availability of high quality evidence, we will be able to know what intervention programs we can use and with what degree of professional precision.

The Challenge of Creating a Professional Consensus on what is a Reasonable Evidence Level on which to Rely

As a developer of the Campbell Collaboration, I would say that the only evidence standard that is acceptable for declaring a certain intervention as effective is the “gold standard.” That is any social work intervention on which a Campbell or Cochrane systematic review was conducted. This is because we know that these systematic reviews have been conducted in such way that all known types of biases have been considered and, to the extent possible, controlled in order to generate evidence of the best possible quality; and because, even when a Campbell/Cochrane review is completed and published, it is still subject to transparent scrutiny and revision. Only then, with some known degree of certainty, might we suggest that a given social work intervention works, is harmful, or is promising.

The challenging is, however, deciding whether, strictly and exclusively speaking, sticking to the gold standard is reasonable for the social work profession or any other profession whose knowledge base is rather thin? I would say the answer must be determined as a consensus formed by the members of that professional community.

Although the gold standard is the best, most desirable, and ideal goal of any profession in the human services, there might be good reasons why a profession in a given phase of its development might establish another level of evidence as acceptable on interim basis.

After all, (social) scientific knowledge has its limitations: 1) it is provisional because the knowledge it produces becomes more and more sophisticated (less and less biased), thus conclusions are temporary; and 2) generalizations are uncertain because the rules of how widely the results of scientific studies may be generalized are neither precise nor airtight.

There are many examples of evidence typologies that professions and institutions develop and use as benchmarks.

One example is the widely used *Guide to Community Preventive Services (Community Guide)* that provides guidance on population-based public health interventions. The *Community Guide* reviews evidence on effectiveness, the applicability of effectiveness data (i.e., the extent to which available effectiveness data is thought to apply to additional populations and settings), the intervention's other effects (i.e., important side effects), economic impact, and barriers to implementation of interventions (<http://www.thecommunityguide.org/>).

The *Community Guide* uses four categories of evidence of effectiveness: strong, sufficient, expert opinion, and insufficient. These categories of evidence are defined by five criteria of study characteristics: execution of the study, design suitability, number of studies, consistency of studies, and effect size (Briss et. al. 2000, p. 40).

Another example is The Maryland Scale of Scientific Methods, which is an early attempt in the area of crime prevention. The Maryland Scale uses five levels of evidence of effectiveness by assessing the type of study design and has four categories: what works, what doesn't work, what is promising, and what is unknown. Interestingly, this scale does not require an RCT in order to designate what works or what does not work! The Maryland Scale is, thus, much less rigorous compared to standards such as those of Campbell and Cochrane, but it claims to be legitimate given the state-of-the-art in the crime prevention area.

What I mean is that social work needs to develop these kinds of typologies to assess and classify its stock of interventions studies. The California Evidence-based Clearinghouse for Child Welfare is an emerging example (www.cachildwelfareclearinghouse.org). The Clearinghouse has six categories of evidence of effectiveness: well supported effective practice; supported - efficacious practice; promising practice; acceptable/emerging practice; fails to demonstrate effect; concerning practice. We might disagree about the usefulness, accuracy, or (especially) the suitability of criteria through which such categories are generated, but one has to start somewhere and have good arguments for it!

The Challenge of Creating Workplace-based Teaching -- What Medical Model might call Bed-side Teaching!

One of the outstanding characteristics of Social Work is that it has its own practice -- the practice of change for the betterment of individual clients, groups, neighborhoods, communities, and so forth to the effect of global policies. But, the education of future professional social workers is hardly integrated with real professional practice. True, we send our students into the field, but given the benefits of genuinely integrating theoretical teaching with real life practice, our field

placements often seem, in different corners of the world, more cosmetic to me! I might be wrong, but I wonder!

In improving the teaching of evidence-based practice, social work education needs to take advantage of the social work profession itself and create a *client-side teaching model* that is similar to bed-side teaching in the medical profession.

In sum, I have emphasized some of the priority challenges for improving the teaching of evidence-based practice in social work. These priority challenges are the needs: for a general professional cultural shift, for adequate curricula, to overcome the controversy of scientific methodology, to better understand the state-of-the-art of the professional knowledge base, to create a professional consensus on what is a reasonable evidence level on which to rely and in what circumstances, and to create genuine and instrumental teaching integrated into the places where social work is practiced.¹

Understanding Extra-institutional Sources of Institutional Change

Now, I would like to briefly come back to the question of social work teaching, practice, and research as a more complex and intertwined system, and the prospect of a system change.

Activities of teaching, practice, and research are materialized through their corresponding institutionalized organizations: social work schools, social work agencies, and institutions of research, which are often but not always, part of the teaching institutions. In principle, these institutions act autonomously, but interact and co-act from time to time. Again, in principle these three institutionalized organizations constitute an interdependent system that might be perceived as a complex system of organizations.

The challenge in this context is: how is it possible to change such a complex system in a given state or nation-state?

To approach this challenge, I would like to draw on modern organizational theory and empirical findings. The New Institutional Theory of organizations (Meyer & Scott 1983; Powell & DiMaggio 1991; Scott & Meyer 2001) has been very able to explore mechanisms of organizational change regarding introduction, diffusion, and implementation of innovations.

Traditionally, while organizational change has been analyzed as an endogenous or intra-organizational process, the New Institutional Theory has drawn our attention to the effects of exogenous factors that impact institutional patterns and, consequently, induce change. DiMaggio and Powell (1991, p. 30) point out two established theses of the New Institutional Theory:

¹ Rubin and Parrish (undated manuscript for submission to JSWE), in “Challenges to the Future of Evidence-based Practice in Social Work Education” elaborate on three additional, well-conceived challenges: how to alleviate difference in how evidence-based practice is defined; how to prepare students not to over-rely upon authoritative publications that advocate certain interventions as evidence based; and how to prevent standards of evidence from losing their genuine and intended evidentiary power.

1. Actors in major institutions “realize considerable gains from the maintenance of those institutions.”
2. When organizations are “unstable and established practices ill formed, successful collective action often depends upon defining and elaborating widely accepted rules of the game. Consequently, the acquisition and maintenance of power within organizational fields requires that dominant organizations continually enact strategies of control, most notably through either the socialization of newcomers into the shared world view or via the support of the state and its judicial arm”.

It then is obvious that in any given organizational field, such as institutionalized social work education organizations and social work agencies, there will be considerable effort towards maintaining old organizational patterns or myths such as teaching the effectiveness of social work interventions that actually lack high standards of evidence. In other words, actors in educational institutions and professional agencies will tend to stick to opinion-based social work interventions rather than adopting newer evidence-based interventions.

Extra-institutional sources are factors that intervene with and impact institutional patterns and processes, thus inducing change. Collective action might be the most powerful extra-institutional cause of institutional change. Extra-institutional sources also include “the effects generated by the networks of social behavior and relationships which compose and surround a given organization”, “autonomous play of interests and improvisation” and exercise of power (DiMaggio & Powell 1991, p. 30).

Brint’s and Karabel’s (1991, p. 337-360) case-study of the transformation of American community colleges from predominantly liberal arts to predominantly vocational training institutions casts an important light on our efforts to transform schools of social work from predominantly opinion-based to predominantly evidence-based institutions of education. The change in community colleges was sponsored by key elites to promote the goals of economic progress and justice. However, the bitter experience is that it took sixty years for the diffusion to take place!

More recently, national reports in the United States (DHHS 1999, Institute of Medicine 2000, New Freedom Commission on Mental Health 2003) reveal evidence that there is a two-decade gap between best clinical research and utilization of these research results in the American health and mental health care systems.

What does all of this information mean for the diffusion and implementation of evidence-based social work practice?

We are aware of the agency and power of endogenous sources of change, such as the participants of this conference, as they return back to their home institutions to build alliances with colleagues, students, and others to contribute to a systemic change from teaching predominantly opinion-based social work practice to teaching predominantly evidence-based social work

practice. However, we also need to assess the role of extra-institutional sources of institutional change.

What are the types some of the extra-institutional sources that can potentially contribute to the diffusion and adoption of evidence-based practice in social work?

Potentially the most powerful extra-institutional source is the actions and networks of the **clients** (and their families) of social work services. Because of the disadvantaged power positions and other predicaments of individual clients and unorganized groups of clients, they may make a weak factor in this context. However, the voice of clients might be, and at times is, articulated by informal or semi-formal networks that sometimes become formal **organizations** of clients' rights. We see this tendency more and more in the health care sector. As individual clients learn how to make use of information sources such as clearinghouses, their ability to demand accountability will develop and become a more important external factor. For instance, broad networks of patients associated with the Cochrane Collaboration foster the ability to understand how to use evidence-based knowledge in health care services.

Especially since the start of the EBP movement, **Government agencies** have been more and more active in voicing clients and tax-payers to secure client safety, transparency in treatment, and cost efficiency. Governments and their agencies are important extra-institutional sources, also, because they are in commend of public policy instruments such as regulations, economic means, and information (Davies, Newcomer, and Soydan 2006). Over the years, there have been commitments and alliances developed between government agencies and Cochrane and Campbell Collaborations to promote EBP. The U. S. Department of Education's What Works in Education Clearinghouse (<http://www.w-w-c.org/>) is a national example of how government can try to induce change in school education. Sweden's Institute for Evidence-based Social Work Practice (<http://www.socialstyrelsen.se/IMS/>) is an international example of how governments in other countries may use their power to induce organizational change toward evidence-based practice in social work. Governments voicing of clients' rights is a trend that can be seen in many countries today.

I would also give special attention to **professional organizations** such as the Council on Social Work Education, National Association of Social Workers, and Society for Social Work and Research. These professional organizations are well positioned to play a major role as extra-institutional sources. Especially, CSWE can set standards for social work training programs and require high scientific standards of teaching and training materials, and NASW can mobilize the entire profession to require high scientific standards in understanding what works and what is harmful for the clients of social services.

An important proposition that we have learned from the New Institutional Theory is:

“Organizations that incorporate societally legitimated rationalized elements in their formal structures maximize their legitimacy and increase their resources and survival capabilities.” (Meyer and Rowan 1991, p.53).

Schools, hospitals, and social welfare organizations in the United States and elsewhere show a strong ability to survive because they adapt to the demands of their institutional environments. In other words, once schools of social work are considerably exposed to the demands of external stakeholders, they will have to absorb and integrate these elements into their organization by virtue of the fact that they will need to increase their legitimacy in order to survive as institutions. This is exactly why the clients, governments, and significant professional organizations are potentially powerful sources of change for teaching evidence-based practice.

Conclusions

1. The ultimate purpose of evidence-based social work practice is to avoid harm, and if possible, to do some good for the client!
2. Historic, guiding principles of social work, such as respect for human dignity, integrity, social justice, and the idea of betterment, require nothing less than evidence-based practice.
3. Moving from opinion-based to evidence-based social work is a challenging enterprise.
4. Improving the teaching of EBP may take time and much effort.
5. It is, however, possible to overcome these challenges and reform social work training programs in order to educate future generations of social workers for the benefit of clients.
6. When impacted by exogenous sources of change, schools of social work and social work agencies will have to adopt evidence-based practice in order to increase their legitimacy and survival capability.

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