

8. Edward J. Mullen and the Promotion of Research on Social Work Practice

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A trailblazer is someone who advances through unknown territory, leaving signs along the way for others to follow, so that they may not get lost and to help them safely arrive at their destination. In many ways, a review of the half-century research career of Dr. Edward Mullen justifies designating him as a trailblazer regarding the emergence of evidence-based practice (EBP) as a major influence in contemporary human services and health care. To support this contention, let us review the definition of EBP and its five steps.

8.1 Defining Evidence-Based Practice

It is important to note from the outset that EBP is a five-step decision-making process originally intended to help clinicians and their clients decide what course of intervention to undertake. EBP does not consist of simply locating research-supported treatments and deciding to apply them to a client. Indeed, this approach is completely antithetical to the original and continuing model of EBP. The five steps are based on the assumption that a practitioner needs guidance on the course of action to undertake with a client. A client is most commonly an individual, but it could equally refer to a couple, small group, or organization. Clients present with some situation, most often a problem, for which they are seeking professional help. Sometimes the problem has a discrete name, such as a formal diagnosis of a medical or mental disorder. Sometimes the problem is not a diagnosis per se, but rather a situation being experienced by the client, such as domestic violence, homelessness, poverty, or inappropriate behavior (e.g., committing criminal acts). Given this background, here are the five steps of EBP, as outlined in the latest edition of the original and primary source describing

the process (Straus, Glasziou, Richardson, & Haynes, 2011) and adapted to social work:

1. Frame your need for information into an answerable question (see Gambrill & Gibbs, 2015).
2. Locate credible, recent, and pertinent empirical studies that address your question (see Rubin & Parrish, 2015).
3. Review and critically appraise these studies for their relevance and potential application to your client's situation (see Bronson, 2015).
4. Integrate this information, with the client's preferences, values, professional ethics, and available resources, to come up with an intervention plan and carry it out (see Gambrill, 2015).
5. Evaluate your success in carrying about the above steps and empirically evaluating the client's outcomes (see Thyer & Myers, 2015).

Contrary to common misconceptions, the ability to undertake EBP does not depend on the existence of a large body of randomized experimental outcome studies in the client's problem area. On the contrary, EBP seeks out all credible sources of useful information, which of course includes randomized controlled trials (RCTs) if available, but also high-quality quasi-experiments, preexperiments, correlational research, qualitative studies (see Saini & Crath, 2015), expert opinions, and relevant theory. If recent high-quality meta-analyses or systematic reviews are available, these are often given preferential status because of their ability to better control for bias in conclusions. However there is always evidence that a practitioner can critically review, hence the process of carrying out EBP is always possible, even if the evidence is of low quality.

Contrary to common misconceptions, EBP pays as much attention to other nonresearch factors, such as the client's wishes, values, and preferences. Another primary resource regarding EBP contended that:

knowing the tools of evidence-based practice is necessary but not sufficient for delivering the high quality of patient care. ... The clinician requires compassion, sensitive listening skills, and broad perspectives from the humanities and social sciences. ... For some patients, incorporation of patient values for major decisions will mean a full enumeration of the possible benefits, risks, and inconvenience associates with alternative management strategies that are relevant to that particular patient. For some of these patients and problems, this discussion should involve the patient's family ... [our] responsibility is to develop insight to ensure that choices will be consistent with patient's values and preferences. ... [This] requires skills in understanding the patient's narrative and the person behind that narrative. (Guyatt & Rennie, 2002, pp. 15–16)

8.1.1 Other Features of EBP

The literature tends to stress the research-related aspects of the EBP process, particularly the design, conduct, and reporting of outcome studies, but this should not cause us to lose sight of the profound role that patient preferences, professional ethical standards, and other non-research-based factors have in the process. One form of highly valued research evidence is called a systematic review, which consists of meticulous attempts to track down all the high-quality research aimed at answering a clinical question, and publishing the results. Stringent attempts are made to reduce and control for bias, as much as humanly possible. Two international organizations called the Cochrane Collaboration¹ and the Campbell Collaboration² were formed to help commission and publish systematic reviews in the areas of health care (Cochrane) and social welfare, education, criminal justice, and international development (Campbell). Included in the guidelines for creating teams to design and complete a systematic review is a strong commitment to involve consumers from the very beginning of each

1 See <http://www.cochrane.org>

2 See <http://www.campbellcollaboration.org>

systematic review and in virtually every other initiative undertaken by the Cochrane Collaboration.³

The measurement of a client's functioning, strengths, and problems is intrinsic to the EBP process. How one chooses to measure client functioning or status is seen as needing as much scrutiny as does evaluating outcomes research. Whether the measure is a medical diagnostic test, a measure of overt behavior, or a client-completed rapid assessment measure, the clinician implementing EBP is expected to pose careful questions pertaining not only to the reliability, validity, specificity, and precision of the measure, but also to its appropriate fit with a particular client. Issues of language, cultural nuance, and readability all influence which measures may be appropriate benchmarks of client functioning and change. Straus et al. (2011) provided entire chapters on the EBP perspective on locating, appraising, and using diagnostic, prognostic, and screening measures, as did Moore and McQuay (2006) and Guyatt and Rennie (2002), two other primary original texts establishing the EBP model.

Another feature intrinsic to EBP is its enormous effort to promote the transparency of reporting and disseminating research findings. The Cochrane and Campbell collaborations have helped develop and promote clinical trial registries, wherein experimental and quasi-experimental outcome study protocols can be prospectively published before an investigation is undertaken. This helps others keep abreast of research developments and promotes the honest and complete reporting of all studies and their results.⁴ EBP has been at the forefront of urging the open-access publication of study results, which promotes their accessibility, and the complete publication of the results of all clinical trials, regardless of positive or negative implications.⁵ This completes, in theory, the circle of intervention research—greater transparency at the beginning of a clinical trial; thorough

3 See <http://consumers.cochrane.org>

4 See <https://clinicaltrials.gov>

5 See <http://www.alltrials.net>

reporting of important details when the study outcomes are described, using checklists such as the Consolidated Standards of Reporting Trials⁶; and the open access publication of such results. These laudable features are also a part of the structure of the EBP initiative.

EBP has proven to be an immensely successful practice model that has come to exert a major influence not only on the teaching and practice of medicine, but also in related health care fields such as nursing, psychology, education, and social work. EBP has been endorsed by the National Association of Social Workers (2015), the Council on Social Work Education (2015), and the Society for Social Work and Research.

8.2 The Career of Edward Mullen and EBP

Dr. Mullen's professional social work career extends over 50 years, beginning when he received his master of social work degree in 1962 from the Catholic University of America, in part on the grounds of conducting a research thesis titled "Analysis of Change of Social Performance of Thirty-Five Newly Hospitalized Schizophrenic Patients." During the ensuing 50-plus years, Professor Mullen has undertaken initiatives that in many ways were precursors to the subsequent emergence of the EBP decision-making model. In the following sections, I restate some of the major features of EBP and describe Dr. Mullen's homologous contributions.

8.2.1 Promoting Practitioner Use of Research Findings to Guide Practice

One major feature of EBP is the responsibility of the practitioner to locate the current highest-quality research available related to the client's circumstances or problem and to judiciously appraise these studies to determine if their findings can be applied to the present situation. Precisely this recommendation was made by Mullen in his 1978 paper titled "Construction of Personal Models for Effective Practice: A Method for Utilizing Research

6 See <http://www.consort-statement.org>

Findings to Guide Social Interventions," a contention reiterated throughout his life's work and very clearly articulated in his 1991 chapter titled "Should Social Workers Use Scientific Criteria for Selection of Practice Knowledge?" A primary reliance on tradition, authority, and theory to guide practice was seen by Mullen to be generally less helpful than consulting relevant empirical outcome studies. Although an obvious and widely adopted ethical and practice standard today (see Myers & Thyer, 1997), in the mid-1970s research was more often than not given short shrift as a source of interventionist knowledge.

8.2.2 Promoting Evaluation Studies

The first comprehensive review of existing, published outcome studies in social work was undertaken by Mullen and Dumpson in their 1972 book, titled *Evaluation of Social Intervention*. This was an extensive description and commentary of 15 experiments and quasi-experiments undertaken across a wide array of social work practice. More of a narrative review, compared to the standards of contemporary meta-analyses and systematic reviews, this work was a highly valued and useful state-of-the-art appraisal for its time. One of its main messages was the need for more and higher-quality outcome studies, and throughout his career Dr. Mullen has conducted several such primary studies himself and published numerous methodological pieces addressing the special challenges of what has been called field research. His chapter titled "Design of Social Intervention" (Mullen, 1994) is but one example.

8.2.3 Promoting Measurement

An important aspect of the EBP framework for the critical appraisal of a published study, and of immense importance in the prospective design of intervention research, is the selection of reliable, valid, socially acceptable, and culturally appropriate outcome measures. Naturally, Dr. Mullen has produced an influential book on this topic, titled *Outcomes Measurement in the Human Services* (Mullen & Magnabosco, 1997), which deals not only with choosing measures for large-scale studies, but also the selection of outcome measures for use by individual practitioners to assess their clients and

evaluate results. This book is supported by other chapters and articles dealing with this issue, of which "Outcomes Measurement: A Social Work Framework for Health and Mental Health" (Mullen, 2004a) is one example.

8.2.4 Promoting Client and Practitioner Involvement in Outcomes Research

The Cochrane and Campbell collaborations strive to include consumers (e.g., patients, family members, other caregivers, practitioners) as full members of teams charged with designing and completing a systematic review. Consumers are also highly recruited by these organizations to review draft protocols and systematic reviews prior to their acceptance. These are commendable practices, given the useful insights consumers can provide in research projects, from beginning to end. As might be expected, promoting consumer participation in the design and conduct of outcome studies is something Dr. Mullen has similarly advocated for years. He produced a significant book on the topic, *Practitioner-Researcher Partnerships: Building Knowledge from, in, and for Practice* (McCartt Hess & Mullen, 1995), based on a national conference he organized related to the theme of developing partnerships between researchers and practitioners. For 10 years (1992–2002) he directed the Center for the Study of Social Work Practice at Columbia University, which sponsored national conferences and numerous intervention studies.⁷ His seminal paper "Linking the University and the Social Agency in Collaborative Evaluation Research" (Mullen, 1998) is but one in a lengthy series of articles addressing this theme.

8.2.5 Promoting Dissemination of Research Findings

Professor Mullen and his associates have consistently worked at promoting the dissemination of current research findings so that they are more accessible and intelligible to practitioners. One approach they have recently advocated is the development of various evidence-based clearinghouses, websites that critically evaluate current research studies in particular areas and provide synopses of their findings. Soydan, Mullen, Alexandra,

7 Summarized at <http://www.columbia.edu/cu/csswp>

Rehnman, and Li (2010) described the operation and features of clearinghouses and detailed the operation of four such websites in the areas of child welfare, Swedish social services, services for older adults, and evidence-based practice in China. One chapter representative of this theme in Dr. Mullen's work is titled "Facilitating Practitioner Use of Evidence-Based Practice" (Mullen, 2006). As director of the Center for the Study of Social Work Practice, he coordinated national conferences and symposia on the themes of Outcome Measurement in the Human Services; Practice Research Partnerships; Research and Practice: Bridging the Gap; and Evidence-Based Social Work: Practice and Policy. Sponsoring a single conference is a major undertaking. Hosting and coordinating four of them is truly monumental. Each brought together subject-matter experts from around the world who spoke to a larger audience of practitioners and academics, and many important papers and books emerged from these meetings. Dr. Mullen also coedited two special issues of the journal *Brief Treatment and Crisis Intervention* (Mullen, 2004b, 2004c) focused on the theme of evidence-based policy and practice.

8.2.6 Promoting EBP

This section need not be unduly long because Dr. Mullen has been writing about and promoting EBP for decades. Along with Eileen Gambrill, he is one of social work's most stalwart advocates of this approach to practice and policy.

8.2.7 Critiques of EBP

Apart from his general advocacy of aspects of the EBP process, Professor Mullen has also discussed some of its limitations and made recommendations as to how it may be improved. He suggested, for example, that RCTs may not be the best form of evidence to rely on and has proposed more pragmatic alternatives and extensions such as comparative effectiveness research studies involving strategies such as crossover designs, N = 1 RCTs, cluster RCTs, and delayed-start designs (Mullen, 2015). He also recommended high-quality quasi-experimental designs because they can yield more practical results than RCTs may be capable of producing.

Mullen has recently emphasized that meaningful evidence should include information on the causal mechanisms of how interventions work, stating that "to be considered 'relevant evidence' an explanatory connection between an intervention and an outcome must be established rather than a mere association" (Mullen, 2015, p. 1). I like this suggestion very much, although it raises the standard used for inferring the effectiveness of a treatment considerably higher than the simpler task of determining that an intervention had a given effect. The great French physician Claude Bernard made similarly strong recommendations in his enormously influential text *An Introduction to the Study of Experimental Medicine* (1865/1949). For example:

- It is not enough for experimenting physicians to know that quinine cures fever; but what is above all significant to them is knowing what fever is and accounting for the mechanism by which quinine cures. (p. 209)
- They want to know what they are doing; it is not enough for them to observe and to act empirically, they want to experiment scientifically and to understand the physiological mechanism producing disease and the medicinal mechanism effecting a cure. (p. 210)
- The object of the experimenting physicians is to discover and grasp the original causation of a series of obscure and complex morbid phenomena ... To find a cure, we must always go back, in the end, to the original causation of phenomena. (p. 216)

These were lofty aspirations for medicine more than 150 years ago. How much more of a challenge is presented by seeking to obtain a valid accounting of the causes of complex psychosocial phenomena and the actual mechanisms of action of social work interventions! Such an ideal has not yet been completely accomplished in medicine, and we will have to wait for some considerable time before it is achieved in social work. However, lofty aspirations established for us by leaders in the field such as Ed Mullen are exceedingly useful.

8.3 Summary

Throughout his career, Edward J. Mullen has focused on important themes relating to the better integration of research findings into the delivery of social work services. He has also contributed greatly to integrating practitioners into the process of designing and conducting intervention research. Many of the themes that Professor Mullen stressed have emerged as essential constituents to the model now known as evidence-based practice, so when EBP developed parallel to his own work, it is understandable that he embraced this approach with some enthusiasm. His embrace is not uncritical, however. EBP has elements that need refinement and Dr. Mullen has helpfully provided suggestions along these lines. Now retired but retaining the well-deserved title and honor of the Willma and Albert Musher Professor Emeritus at the Columbia University School of Social Work, Dr. Mullen and his past and continuing intellectual contributions to social work, and to applied social science more broadly, continue to inform and inspire new generations of practitioners and researchers.

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