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From "Producing" to "Consuming" Research: Incorporating Evidence-Based Practice Into Advanced Research Courses in a Master of Social Work Program

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Schools of social work have begun to explore teaching evidence-based practice (EBP) across their curriculum. Although the current literature offers ideas on how to incorporate EBP in foundation research and practice courses, the literature seems nonexistent on how to teach EBP in an advanced research sequence, which could clearly address the widespread criticism that research courses are unsuccessful in making the practice–research link more apparent. This article describes the transition of one school from a "producing research" curriculum focus to an EBP focus, which embraces consuming research. In the present article, the authors discuss the benefits and struggles associated with these two different approaches.

KEYWORDS evidence-based practice, Master of Social Work, research course

INTRODUCTION

The research curriculum in a Master of Social Work program has often been described as producing the greatest amount of anxiety and having the least amount of relevance to the majority of the students who aspire to be practitioners, not researchers (Adam, Zosky, & Unrau, 2004; Epstein, 1987; Green, Bretzin, Leininger, & Stauffer, 2001). There has been a variety

of responses to these concerns, including the use of participatory action research principles, teaching single-subject designs and strategies for program evaluation, designing a continuum of learning expectations based on Bloom's taxonomy, and linking students' research projects to the students' field experience (Adam et al., 2004; Anderson, 2002). Collectively, these pedagogical approaches have hoped to inspire students to participate and consume research as expected by the National Association of Social Worker's (1999) Code of Ethics. However, recently some social work educators have stated that the practice of having students "produce" research (by conducting their own research projects or similar activities) should be replaced by training students to engage in evidence-based practice (EBP) if applying scientific findings to practice research is the ultimate outcome the profession wants to see in its graduates (Howard, Allen-Meares, & Ruffolo, 2007; Jenson, 2007).

EBP originated in the medical and allied health fields and was initially defined as "the conscientious, explicit, and judicious use of the best available scientific evidence in making decisions about the care of individual patients" (Sackett, Richardson, Rosenberg, & Haynes, 1997, p. 2). EBP has evolved to include not only the best scientific evidence available but also the practitioner's expertise and client's values and preferences when deciding on the treatment of care (Haynes, Devereaux, & Guyatt, 2002). Although these definitions suggest that the application is confined to practice decisions, the social work field has emphasized the usefulness of EBP to both practice and policy decisions (Gambrill, 2006b; Howard, McMillen, & Polio, 2003; McNeece & Thyer, 2004; Thyer, 2006).

Schools of social work have been encouraged to incorporate EBP in social work curriculum largely because of a variety of national trends, including (a) the National Institutes of Health's translation research movement; (b) managed-care initiatives that require empirically supported interventions; (c) other health professions' policy statements regarding the need to educate practitioners on the scientific evidence of various treatments; and (d) the proliferation of clearinghouses and government-sponsored agencies that publish meta-analyses, systematic reviews, practice guidelines, and empirically supported interventions (e.g., Campbell Collaboration, What Works Clearinghouse, Blueprints for Violence Prevention; Zlotnik, 2007).

In the past 5 years, EBP has been welcomed to some degree in social work education, as evidenced by several schools of social work (e.g., Columbia University; George Warren Brown School of Social Work, Washington University; University of Toronto) having implemented teaching the tenets of EBP across their curriculum (Howard et al., 2003). Additionally, a special issue of "Research in Social Work Practice" (September 2007) was devoted to EBP, the first national symposium titled "Improving the Teaching of Evidence-Based Practice" was held by the School of Social Work at the University of Texas, Austin, in 2006, and there has been an influx of EBP textbooks (e.g., Gambrill, 2006a; Gibbs, 2002; Rubin, 2007). In Rubin and

Parrish's (2007) survey 73% of faculty members in Master of Social Work programs reported having a favorable view toward EBP. It is surprising that there is still uncertainty about the appropriateness of teaching EBP, and how and where to infuse EBP in the social work curriculum (Rubin & Parrish, 2007; Scheyett, 2006: Shlonsky & Stern, 2007) even though the Council on Social Work Education (2008), in its Educational Policy and Accreditation Standards, repeatedly emphasizes the implementation of EBP whether discussing research-, practice-, or field-education policies.

With the infusion of EBP language in the Council on Social Work Education's Educational Policy and Accreditation Standards and the increased academic dialogue noted in social work academic journals and conferences, many schools need guidance on how to adopt EBP in their curriculum; however, there are only a few published examples available. These include articles on (a) how EBP can be introduced into a Master of Social Work foundation research course; and (b) how to teach EBP in a doctoral research course, a foundation practice course, or throughout the curriculum with example assignments, instructional supports, pitfalls, and solutions (Corcoran, 2007; Howard et al., 2003; Petr & Walter, 2005; Shlonsky & Stern, 2007). The present article adds to this existing literature by describing the transition of one U.S. Midwest school from a "producing research" curriculum focus in the advanced research sequence to an EBP focus, which embraces consuming research. This article documents the reasons for the transition and the struggles and triumphs experienced along the journey of designing and implementing an EBP-infused advanced research sequence.

"Producing Research" Curriculum Paradigm

Typically, schools of social work require students in their advanced research coursework to apply their research skills to designing and implementing a research project. From 1998 to 2005, our school's students were required to develop and execute a mixed-method (qualitative, quantitative) research project connected to their field practicum (see Table 1). In the first semester of the two-semester advanced research sequence, students were provided a review of qualitative and quantitative methodology and instructed on developing a logic model of their agency. In addition, in collaboration with their agency, students developed a research question and the corresponding qualitative and quantitative methodology to answer the agreed-upon question to evaluate the practice they were engaged in the field agency. The details of the methodology (including the measures, design, and sampling strategies) were developed in the class with consistent communication with the agency about feasibility. By the end of the semester, students wrote and submitted a paper that doubled as a proposal to the institutional review board at the University of Louisville. In the second semester of the advanced research sequence, after receiving institutional review board

TABLE 1 Descriptions of the "Producing Research" and "Evidence-Based Practice/Consuming Research" Curriculum for the Advanced Research Sequence

Producing research	Evidence-based practice/Consuming research
First semester • Develop logic model of agency to develop a working understanding of mission, activities, outputs, and outcomes • Develop a research question with agency • Execute a limited literature review • Develop quantitative and qualitative methodology including measure, data collection techniques, design, sampling, and consents • Communicate consistently with agency about feasibility • Develop paper/research protocol(s) for university and for agency Second semester • Obtain institutional review board approval from university and agency by prompt responses to revisions and communication of any amendments to both oversight boards • Collect data • Analyze data (descriptive, inferential, content analytic procedures) • Synthesize results and develop and present to fellow students a PowerPoint presentation to communicate results and implications for practice • Create poster presentation from PowerPoint presentation to be given at university community–attended research fair Main skills: critical thinking, hands-on research skills including proposal development, human subject protection, measurement design, data collection, sample selection, interviewing, analysis, written and oral communication skills, time management	First semester • Develop a Client-Oriented Practice Evidence Search (COPES) question in collaboration with agency and instructor • Execute an exhaustive library search (databases, government sites, dissertation abstracts) using key terms and methodological filters (referred to as "MOLES" by Gibbs, 2002) • Evaluate the soundness/rigor of the research gathered • Interview stakeholders, expert and/or experienced practitioners (e.g., agency, local) on their perspective related to COPES question • Interview consumers on their perspective related to COPES question • Organize and synthesize the best evidence from three evidences • Develop a PowerPoint presentation complete with description of evidence-based practice, the COPES question, methodology used, results obtained, consistencies and inconsistencies within each perspective and across the three perspectives, consistencies with social work values and ethics • Develop a suggested plan of action Second semester • Deliver PowerPoint presentation with action plan for the agency • Implement desired action plan designed in collaboration with agency after presentation • Evaluate the effect of the plan's executed activities through qualitative and quantitative methods • Analyze the qualitative and quantitative data and synthesize the results for implications for practice • Write final culminating paper • Present executive summary to agency and class Main skills: critical thinking, literature search, appraisal, interviewing, synthesis, empowerment, leadership, collaboration, facilitation, written and oral communication skills, time management

approval, students collected and analyzed data, and they reported findings via a professional presentation to their peers in class, the agency, and to the university community at an invited research fair that showcased the students' research projects and that celebrated their accomplishments.

Benefits of "Producing Research" Curriculum

Students benefited from their participation in program evaluations—both formative and summative evaluations—and needs assessments. They also benefited from hands-on experience with the creation of surveys (standardized or author-created), including (a) identifying what to ask and how, when, and where to ask; (b) using various sampling strategies; and (c) designing the most rigorous study given the constraints of the agency and consent requirements. They gained an understanding of the importance of (a) addressing incomplete documentation, (b) training agency staff in data collection, and (c) gathering both qualitative and quantitative data to answer questions such as whether a program was working, whether a program met the needs of the clients it aimed to serve, and whether an agency should be providing additional services or alternate services with their limited resources. The students realized that participation in these research activities honed their critical-thinking skills for the sake of effective, efficient, and ethical practice. Furthermore, as evidenced by the analysis of the course evaluations and exit interviews, students often indicated the research courses had the most profound effect on them as practitioners and critical thinkers. They reported working the hardest in their research courses, reported their research courses as the classes in which they learned the most, and were surprised by how much they valued and enjoyed their research experience.

Struggles Associated With a "Producing Research" Curriculum

A number of struggles were encountered in implementing a "producing research" curriculum. First, multiple reviews and/or delayed approval of the student's proposed project often postponed timely implementation of data collection and subsequently led to sample sizes that limited analysis of key research questions and hypotheses. This often occurred because the agency lacked the infrastructure, resources, and/or knowledge to give approval to the student's proposed project. At other times, agency personnel waited to review until after the university's institutional review board had approved the proposal; however, in some instances, agencies asked for additional changes in the proposal even after such approval had been granted.

Similarly, over the 7 years that students were required to "produce" research, field practicum agencies became more formalized in their reviews of student research proposals, which led to additional paperwork.

Specifically, this process entailed a separate proposal submitted to the agency, sometimes with a presentation requirement and most often given to a committee that had an infrequent meeting schedule. These separate formalized proceedings decreased the time available to implement the research and increased the probability of the agency requesting a change in research protocol or the consent requiring the student to submit amendments to the approved research protocol at the university level.

Second, the university's institutional review board began to require an additional level of review of proposals before it would review and approve proposals. As a result, faculty teaching advanced research now needed to meet to present each of their students' projects for a scholarly merit review completed by the senior faculty in the research sequence. This review was implemented in response to the university's preparation for review by the Association for the Accreditation of Human Research Protection Programs, Inc. This accrediting body considered an internal review to be standard protocol, and the university desired and subsequently achieved the designation in 2005. This review was not present at the onset of the sequence's curriculum design but since its inception, the workload for the senior research faculty significantly increased. Approximately 100 mixed-method studies often needed to be reviewed in a short time period before submission to the institutional review board.

Last, in addition to the aforementioned complications, as a result of the workload of the sequence, few full-time faculty members chose to remain in the sequence because of the "independent study project per student" feel of the course. Therefore, the sequence relied on doctoral students and part-time faculty members with limited pay, varied expertise in methodology and agency–university research collaborations, and limited understanding of the varied risks associated with different topic areas and methodologies that could cause an institutional review board and agency oversight board to scrutinize or even reject a proposal. Varied experience levels often resulted in setbacks in the implementation of the research because of necessary redesigns or significant revisions of the students' proposals jeopardizing timely execution of their project. The research sequence was originally designed to allow students to experience the reasonable challenges of designing and executing a study in the field, but it did not aim to produce unnecessary struggles because of an instructor's lack of experience with institutional review board and agency protocol. Last, students also consistently voiced how time consuming it was to design and execute their research projects.

Attempts to Resolve Struggles in "Producing Research" Curriculum

The tight two-semester schedule coupled with complications of more formalized agency oversight committee reviews, the scholarly merit reviews

required by the university, and various experience levels of the instructors resulted in late starts for students on data collection. These late starts produced studies with low sample sizes and, most often, descriptive-oriented results. The sequence did attempt to address the aforementioned complications by encouraging chart file review type studies and group projects for students working in the same agency. These types of studies lower the human protection risk concerns in both the agency's and university's eyes, increased sample size, and reduced the number of scholarly merit reviews. Collectively, these remedies seemed to reduce the majority of issues, yet they also seemed to reduce the depth of the individual student benefits. In addition, one consistent drawback resulting from the structure of this two-semester sequence was that the students' presentation of their findings and implications came at the end of their tenure with the agency. Consequently, there was limited to no time to help create dialogue or change on the basis of results and implications of the students' two-semester work.

Factors Influencing the Shift From a "Producing Research" to "Evidence-Based Practice/Consuming Research" Paradigm

In 2005, discussions at the school were progressing about the core defining features of the advanced coursework with EBP and critical thinking at the forefront of the academic discourse. These discussions resulted from preparation for the impending Council on Social Work Education reaccreditation self-study process, a similar influence in George Warren Brown School of Social Work's shift to EBP. Given this new focus, the faculty members in the research sequence embarked on a change in their course objectives and were open to considering alternate approaches as a result of becoming increasingly frustrated by various agency and institutional issues impeding the goals of the sequence. Creating evidence-based practitioners was appealing to the research instructors because it meant creating lifelong learners who graduated with skills to critically evaluate the research literature with consideration of the consumer preferences and practice wisdom for the goal of effective, ethical practice. We realized that we would be revising our main goals of creating "producers" of research to "consumers" of research, but we felt the change was justifiable.

Therefore, we decided to incorporate the five steps of EBP in our advanced research sequence using the practicum agency as the laboratory for the student experience. Given our objectives, incorporating the following five steps of EBP seemed manageable and valuable:

1. developing an answerable question
2. tracking down with maximal efficiency the best evidence
3. critically appraising the evidence

4. applying the results of the appraisal
5. evaluating the outcome (Sackett et al., 1997, p. 3).

As previously described, our school has a long history of implementing research projects in practicum agencies, so the experiential nature of the student's project was familiar to our agencies. We also kept the core of our foundation research sequence: to educate students on qualitative and quantitative methodologies with specific emphasis on executing a single-subject design. However, we added an evidence-based literature review on a practice topic relevant to their foundation practicum, which required students to search for the best evidence, execute an elementary appraisal of the articles, and develop recommendations for practice. The advanced practice coursework also chose to adopt EBP assignments that emphasized the need to consult and appraise multiple sources for evidence before making practice and policy decisions.

Approximately 3 years ago, we revised the advanced research sequence to an EBP approach largely drawing on Petr and Walter's (2005) approach to teaching EBP, which included (a) the appraisal of the best available empirical evidence and the perceptions and preferences of the consumers and (b) the wisdom of the professionals when making appropriate practice decisions. It is interesting that many students and several faculty members "mourned" the loss of the previous curriculum. As the change was implemented, some members of the faculty questioned whether the benefits of teaching EBP would outweigh the loss of the intensive hands-on research curriculum.

Evidence-Based Practice/Consuming Research Curriculum

See Table 1 for a complete listing of the assignments and activities of the "Evidence-Based Practice/Consuming Research" curriculum. In the first semester of this two-semester EBP advanced research coursework, students are required to execute the first three steps of the five-step process: developing their questions, tracking down the evidence, and critically appraising the evidence. Some of our initial assignments, specifically those related to the literature evidence, are similar to those discussed in a recent article by Shlonsky and Stern (2007). First, students are required to develop a best practice inquiry question in collaboration with their field practicum agency ideally selecting a practice or policy issue that is frequently encountered or one that represents a consistent focus of the agency. Second, students must execute an exhaustive literature search of (a) various library-held databases, including dissertation abstracts; (b) evidence-based clearinghouses; and (c) public Web sites, including government sites pertinent to their question. Students are directed to identify key terms in their questions and to make use of methodological filters (referred to as "MOLES" by Gibbs, 2002) to capture the best evidence for their question. Students draw heavily from

the resources provided at www.evidence.brookscole.com, a supplement Web site to the Gibbs (2002) book available to the public. On this Web site, students are provided numerous examples of <u>C</u>lient-<u>O</u>riented <u>P</u>ractice <u>E</u>vidence <u>S</u>earch or "COPES" questions (including effectiveness, assessment, and descriptive questions), how to develop key terms, and the most appropriate MOLES given the question type. Students are directed to use a variety of MOLES to gather the most appropriate literature for their question type. They are encouraged to look for the best available research including systematic reviews and meta-analyses. If a student's question has an effectiveness focus, random clinical trials are also of greatest interest. In the absence of these types of publications, students are directed to look at the next best available research, which would include pretest/posttest studies with and without controls as well as qualitative and quantitative descriptive studies. Next, approximately five stakeholders or expert practitioners in or outside the agency at the local, state, or national level (depending on the student's initiative and budget for long-distance calls) and approximately five consumers are interviewed on their perspectives related to the best inquiry question. For the third step of the process, the students are required to (a) evaluate the soundness or rigor of their collected research using modified appraisal forms described in Gibbs (2002); (b) organize and synthesize the best evidence of each constituent (literature, stakeholders/practitioners, and consumers); and (c) develop a paper explaining EBP, their question, the methodology, results obtained, and consistencies and inconsistencies noted within and across the three evidences, with recommendations for best practice in the form of an initial draft of an action plan. During the synthesis of their literature, students are taught to separate the articles into low-, middle-, and high-rigor tiers and to note consistencies and inconsistencies with each subgrouping. To identify themes in their interviews, students are taught to content analyze the interviews for overarching themes.

In the second semester, students complete the final two steps of the five-step process for EBP: applying the results of the appraisal and evaluating the outcome. To accomplish the fourth step of applying the results, students must (a) detail a suggested plan of action; (b) develop and deliver a PowerPoint presentation based on their first semester's paper to their agency complete with a suggested plan of action; and (c) implement the agreed-upon plan of action typically revised in collaboration with the agency after their presentation. For the final step of evaluating the outcome, students are required to (a) evaluate the effect of the plan's executed activities through brief qualitative interviews and quantitative surveys; (b) analyze the qualitative and quantitative data; and (c) write a paper incorporating the first and second semester activities and develop an executive summary for their agency. Students were taught various descriptive and inferential statistics during the semester using the statistical analysis software <u>P</u>redictive <u>A</u>nalytics <u>S</u>oft<u>W</u>are (PASW, Version 18, formerly SPSS), which they could use to analyze

their quantitative evaluation data and so they could get a better understanding of the results section of the articles they will hopefully read throughout their career.

Struggles Associated with EBP/Consuming Research Curriculum

FIELD PRACTICUM

Three years into this new curriculum, we continue to educate the practice agencies regarding the switch from the 7-year tradition of producing research to consuming research through a variety of venues including initially a workshop with Leonard Gibbs and Eileen Gambrill, annual practicum orientations, semester forums with the practicum agencies, and meetings with our community advisory board, which include many of our practicum agencies. This education revolves around the five steps of EBP, as well as the expectations related to the required student-agency collaboration on the question, required agency presentation, action plan, and evaluation tasks. It is necessary that the agencies understand their level of required participation at various points so they can work with the student on selecting a topic area that is of great interest to their agency. Even though the shift from producing research to consuming research no longer requires oversight by agency and university review boards, the interviews with stakeholders, practitioners, and clients are viewed as research activities by some agencies but not by the university institutional review board. The purpose of the interviews has been explained as opportunities to gather the practice wisdom's perspective of the best practices related to a particular practice, the strengths and barriers to effective practice at the agency, and the receptivity of their clients to best practices. The purpose of the consumer interviews is to obtain their perspective of various practices including practices that have worked or not worked for them. In discussions with the agencies, senior research faculty members have explained the interviews as class assignments and/or opportunities for professional development and assured that confidentiality will be maintained. Some agencies continue to be uncomfortable having students talk with clients about best practices for a different reason, specifically because they are concerned that the clients might think the agency could act expeditiously in modifying their practice based on the consumers' feedback. We have shared that the act of interviewing consumers have several messages for the students:

1. It communicates the value of transparency and accountability we should demonstrate with our clients (Gambrill, 2007).
2. It teaches students that the values and preferences of clients matter in EBP.
3. It fosters comfort with having conversations with clients, when possible, around shared decision making (Mullen, Bellamy, Bledsoe, & Francois, 2007).

In addition, one of our influential macro-oriented agencies have communicated that they feel EBP is a clinical model that competes with and even stifles innovation, similar to the "cookbook" criticism noted in Gibbs and Gambrill (2004, p. 458). The concern is that in rapidly changing environments, innovation should be constant. We believe, as Zlotnik (2007) and others who have suggested, that EBP should encompass appraising the empirical base of all social work, which is not limited only to clinical contexts, but rather it also includes community- and policy-oriented decisions. We also feel that EBP does not stifle innovation but rather it has the capacity to stimulate innovation if the multiple evidences (e.g., literature, practitioners, consumers) are brought to bear on the practice under review. While EBP clearly requires searching the literature for the best practices, it does not foster indiscriminant or unconditional application of the EBP. Often, the process of EBP requires flexibility in the application as a result of the practitioner and consumers' perspectives.

STUDENTS

At the end of the two-semester sequence, students are required to write a reflection paper exploring the process of EBP identifying the best information to inform their practice, developing and implementing a dissemination/action plan, evaluating the effect of their dissemination efforts, the barriers and challenges they faced in trying to accomplish the goals of this course, and the effects on their development as a professional and on agency practice. The students' papers were read for themes related to the struggles at each step in the EBP process. These themes will be intertwined with faculty observations in the following section.

In relation to the COPES question development and search for their literature, students reported having limited time to assess the complete vision of the agency, gaps in services, hopes of the agency, and most frequent concerns in relation to the services offered by the agency. Many students reported being disappointed in the dearth of high-quality literature available, a disappointment also noted by Mullen et al. (2007). Students also reported locating exactly what they wanted took great skill to answer their COPES question. Students needed frequent practice with reading and appraising various research articles. In addition, many articles do not easily fit into the designated appraisal forms (e.g., correlational studies, mixed-method or chart file review studies). Students also can become overwhelmed by the complex nature of some of the articles, and instructors tended to provide additional assistance in deciphering methodology and results with students. Students also need to practice organizing the appraisal scores, results, and implications in and across each perspective (literature, practitioner/stakeholder, or consumer).

In their reflection papers, students reported that implementing the action plan was the most rewarding part of the process but that often their action plan, as designed, did not go as planned as a result of the limited time and reliance on busy practitioners to execute the agreed-upon dissemination steps. They had difficulty working with practitioners because of their lack of presence at the agency given that much of their work was with clients in the community or practitioners were too busy to consider alternate approaches to practice. In response to these struggles, faculty members spent time discussing common pitfalls and solutions as well as celebrating individual student success to help motivate students in their efforts to create change. Students reported having to find alternate venues for affecting change in their agency, which spoke to the resilience, flexibility, and tenacity that our students exhibited during the action plan/dissemination phase. During the evaluation step, students reported being disappointed in having to so quickly evaluate their effect. In addition, students were excited about applying the statistics they learned through SPSS, and some students who were placed in small agencies were disappointed in their amount of evaluation data obtained that limited their analysis.

Both students and faculty members reported on the fast-paced intensity of the course. As with the "producing research" curriculum, we continue to experience the time-consuming nature of the independent study course structure but have been unwilling to eliminate this aspect because of the rewarding experience for each student to work on a practice for which they have passion. It is not surprising that many of the student struggles we have experienced are similar to those described by Shlonsky and Stern's (2007) in their article on their experiences of teaching EBP in a variety of courses. Parallels include the following: (a) the need to give smaller assignments while implementing the steps of EBP to reduce student frustration and allow for maximal guidance from instructors earlier on in the process, (b) the assistance students need to create appropriate COPES questions, (c) struggles related to students' attempts to comprehend sophisticated methodologies, and (d) practice and direction required to aid students in integrating the three evidences.

Agency and Student Benefits of the Evidence-Based Practice/Consuming Research Curriculum

The action plans of the EBP projects have led to the following benefits for the agencies: expansion of existing programs, revisions to training curriculum, literature reviews for grant applications, addition of new programs, specialized continuing education opportunities for agency staff, revision of policies and procedures, evidence-based fact sheets for staff and clients, formalized collaborations between agencies, strategic planning, revisions of practice

protocols used with clients, and development of task forces to devise best practice protocols.

In the students' reflection papers, students reported that participating in the process of EBP developed concrete skills, as indicated by the following remarks: "[It] taught me how to find the best evidence," "[It] taught me to appraise articles more thoroughly," "[I] learned how to collect and analyze qualitative data," "[I] learned how to synthesize evidence from multiple sources," and "[It] gave me more familiarity with SPSS." They also discussed the gain in general social work skills: "[It] taught me to be more deliberate and focused in my work," "[It] taught me to effectively assess my work," "[It] taught me the importance of attention to detail," "[It] gave me the confidence and credibility to affect change in other places without appearing like a troublemaker," "[It] taught me that advocacy is an important part of social work and I learned more about this role through this project," "[It] taught me to remain flexible when trying to create change," and "[It] taught me how to apply best practices in my work." Students also reported that the process allowed them to participate as a practicing professional, stating the following: "[It] was important to learn that although I was only a student, I could start making change at this agency." Students consistently reported that they were confident their project made a difference at the agency. Students reported the long-lasting effect this process will continue to have on their careers. They talked about "using the steps throughout [their] career," "seek[ing] to incorporate the process of EBP into [their] future practice," "[being] confident in [their] ability to use EBP in the future," "learning EBP will make [them] effective practitioner[s]," and "believ[ing] EBP should be utilized throughout one's career for it provides a foundation to support practices and influences decisions." Students also indicated that "EBP is a message to never stop learning and to continue to extend [their] knowledge—couple of [their] lifelong goals."

The benefits for the students include advanced skill development in executing an extensive literature search, as well as reading, dissecting, and evaluating various research articles and learning the evidentiary hierarchy when synthesizing their articles. They clearly became well versed in one area of practice as a result of their comprehensive and current research/literature review and interviews with agency and local experts in their field of choice that Howard and Allen-Meares (2007) agreed as being one benefits of teaching EBP. Their critical-thinking skills are honed through the process of gathering, appraising, organizing, and synthesizing the results of the three perspectives (i.e., research, stakeholders/practitioners, consumers) and developing recommendations and an action plan that align with the synthesis. They are able to evaluate the effect of the action plan they facilitated or led with the stakeholders/practitioners and learn to communicate the process in both written and oral venues.

COMPARISON OF THE "PRODUCING RESEARCH" CURRICULUM WITH EVIDENCE-BASED PRACTICE/"CONSUMING RESEARCH" CURRICULUM

Both approaches emphasized the importance of research to practice in an effective and efficient fashion for the sake of their clients, but they do so in distinctly different journeys. With the "producing research" curriculum, students gained insight firsthand of all aspects of research methodology and design including human subject protection with one mixed methodology study. They learned the complimentary nature of quantitative and qualitative data collection and developed their critical thinking skills primarily during their conceptualization and design of their project and during processing the implications to practice. With the EBP curriculum in which consuming research is a core aspect, students build an extensive knowledge base for one specialized area of practice and learn to evaluate and synthesize the literature, practice, and consumer wisdom before executing any action plans with the agency. They collaborate with their agency on the implications of practice, become advocates and change agents, and experience the real-life struggles of limited time and the effect of authoritarian traditional stances of agency personnel. They see the value of evaluating any effect they had using qualitative and quantitative data collection and analysis. They hone their critical thinking skills through all aspects of the process. They also have to struggle what to do when the total amount of literature is limited or the literature related to their population of interest is nonexistent.

FINAL REFLECTION AND FUTURE DIRECTION OF THE CURRICULUM

The main concern of the EBP approach to research has been that this sequence is not preparing students to conduct research and not preparing them adequately for doctoral programs. To be an effective researcher, one must be well versed in a variety of methodologies and the corresponding necessary components involved in designing research projects. The sheer volume of research articles read and appraised by the student in his or her EBP project makes him or her at least as prepared for designing studies as did participation in one mixed-method study.

The senior research faculty member has a clear understanding of what has been compromised and achieved with the change from producing research to EBP paradigm that emphasizes consuming research. Given that the majority of our students are likely to practice with a Master of Social Work, teaching the process of EBP will serve our students in their careers

better than the previous "producing research" curriculum. The academic discourse related to the loss has begun to dissipate as the education of the different benefits of the EBP curriculum has continued. The familiarity of the EBP approach have become more evident as further dialogue continues with our important practice partners around strengths and barriers they experience in the process. Students continue to report on the intense time commitment but by the spring semester indicate that they have been empowered by their capacity to create change in an agency. Benefits to the agencies have been more evident than the previous research curriculum as a result of the success of the action plan phase.

Incorporating EBP into a curriculum is a "labor of love," and our labor is still continuing. Faculty members meet regularly in curriculum committees to discuss the horizontal and vertical integration of the various sequence objectives, and research faculty members meet in sequence meetings to explore the strengths and barriers to the EBP projects. Dean's forums allow dialogue among students and the administration. In addition, annual practicum orientations, spring workshops, advisory board meetings, and semester forums enable discussions of the objectives of the EBP projects. Contracts have been developed between students and the agency to understand the role of both in the EBP projects and at graduation, an annual award has been given to a student highlighting the best EBP project that year.

In being true to the process of EBP, as evidenced-based practitioners, the faculty members in the research sequence are currently engaged in sharing the successes and struggles of the students, as communicated in their reflection papers with the faculty and the practicum agencies. We have reached the point in the curriculum development at which it is time to systematically collect the field practicum agencies' perceptions regarding the previous "producing research" and the recent "consuming research" curriculum, as well as the recent alumni's perceptions regarding their success and struggles with using EBP in their careers since graduating from the new curriculum.

IMPLICATIONS FOR PRACTICE

As schools of social work began to seriously consider if and where to incorporate EBP, essential lessons that were learned is that schools will need to be prepared to spend 3 to 4 years (a) priming various audiences (e.g., field agencies, alumni, students, faculty members) to discuss the pros and cons of the shift in curriculum focus and (b) developing and delivering curriculum while incorporating feedback loops to direct their efforts. Feedback loops should be used to create dialogue with the field agency, alumni, students, and faculty members to (a) explain the rationale for curriculum

design, (b) allow opportunities to assess for reoccurring themes of concerns, (c) communicate curriculum redesigns in response to the concerns, and (d) develop mutually reinforcing content across the research and practice concentration courses.

We will continue to build on the vertical and horizontal integration of EBP into the foundation research course and the advanced practice courses. Recent discussions among the faculty members teaching in the advanced research and advanced practice sequences led the advanced practice sequence to provide greater instruction on logic models and organizational change strategies, both of which are extremely helpful to the research sequence's objectives and both of which were being taught in both sequences but received a cursory review in the advanced research course as a result of time constraints. Instruction in logic models will help the students better understand their agency's objectives, activities, resources, and outcomes. This practice has helped students note gaps in services or areas of improvement as communicated by the agency, leading to more relevant best inquiry or COPES questions. Instruction in organizational change in the advanced practice sequence will provide for greater understanding of the agency's stage of development in relation to the practice in question, leading to more appropriate choice of dissemination strategies.

If considering designing an EBP infused advanced research sequence that incorporates a project within a practicum setting, schools should be cognizant of (a) the time constraints involved in a two-semester course, (b) the reality that students may arrive in an advanced research sequence with limited research knowledge, therefore requiring consideration of rapid-fire reviews or online courses aimed to bolster qualitative and quantitative research methodology knowledge acquisition, (c) the need to make appraisal tools manageable, (d) the need to have realistic expectations for dissemination plan efforts, and (e) the need to secure time each class to communicate and reflect on the commons struggles and student-specific success, which fosters inspiration and resiliency when students are frustrated when attempting to produce change. The ultimate objective of our advanced research sequence courses has been to teach students to be lifelong learners. This goal can be accomplished by staying current on the relevant literature to one's specialty, seeking the counsel and guidance of one's colleagues, and keeping the client's values and preferences foremost during the search for the most desired method for change. The message is one of adaptability, flexibility, and critical thinking. In addition, it teaches novice practitioners to hasten to succumb to routine application of therapeutic approaches and policy but to question and search for the most appropriate strategy, given the current presenting situation. Social work research curricula that aim to emphasize critical thinking and problem solving should strongly consider EBP approaches as a strategy to achieve those goals.

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