DOWNLOAD PDF EVIDENCE-BASED PRACTICE : ISSUES AND CHALLENGES.

Chapter 1 : NCSBN Website Policies | NCSBN

Rubin, A. and Parrish, D. a: Challenges to the Future of Evidence-Based Practice in Social Work Education [Special Section: Promoting and Sustaining Evidence-Based Practice], in: Journal of Social Work Education, 43,

Farley, Dennis Feaster, Tara J. Shawn Oak and Bibhuti K. Sar, University of Louisville, USA 1 Introduction Over the past century, the field of social work has evolved from grass-roots community-based movements to an intricate network of formally trained professionals promoting social research, education and practice Klein and Bloom While social work professionals vary widely in their roles, skills, and attitudes toward the nature and future of the profession, they are united through the shared embrace of underlying ethical principlesâ€”beneficence, non-maleficence, autonomy, and justice Freeman ; NASW â€”that guide their interactions with clients. Social workers hold in highest regard the intention to provide ethical and competent services to their clients. Nevertheless, the questions remain: How do social workers know the services they offer are ethical and competent? How do they know that they are providing the best available treatment or intervention, or that services are offered in a way that benefits clients? Is evidence-based practice EBP the answer to these questions? The use of knowledge as evidence dates as far back as B. The philosophical, ethical, intellectual, socio-political, technical, and practical elements that make up the concept of EBP have ebbed and surged over time, blending in various ways as they were assimilated and subsequently accommodated by those entities possessing and exerting the most power within and over the environment at the time. EBP at its core is about curiosity and knowledge. Where did this knowledge come from? Who imparted this knowledge? When did it become knowledge? How does one know if it is good knowledge? Who decides if it is good knowledge? Why is this knowledge better than what one already knows? When considered within the context of professional or expert activity, the concept of duty specifically moral duty to those patients and clients for whom all this effort is expended then enters the mix. In order to fully understand EBP as it relates to knowledge and the moral duties built into the professional pursuit and application of knowledge, one must first be prepared to acknowledge that knowledge and its varying appropriateness as evidence in practice is, has been, and always will be a moving target, evolving over time as efforts to prove, disprove, or simply inform our professional activities occur. A procedural definition, by Rubin and Parrish a, , offers a more detailed explanation: EBP is a process in which practitioners attempt to maximize the likelihood that their clients will receive the most effective interventions possible by engaging in the following five steps: While EBP provides a comprehensive philosophy, structure, and process for providing evidence-based ethical and competent direct practice Gambrill a , and as such has become the gold standard for many disciplines, its adoption by social workers often appears uneven, at best. While EBP has noted support among social work academicians, there seems to be considerable difficulty in its implementation by social workers and students in the field with respect to practice, education, policy, and research. The difficulty arises in attempting to actualize EBP in a manner that maintains fidelity to the process, or doing EBP and doing it right. This difficulty invites perturbations within social work practice, policy, education, and research that have far-reaching ethical implications around the implementation of EBP in the field. We hope that by identifying and parsing concerns related to the process of fully implementing the EBP model, social workers may gain further insight into how to embrace EBP as a best-practices framework, while negotiating the barriers that so often prevent this from fully and successfully occurring. Practice To illustrate the challenges faced in practice, let us consider a practitioner who is working with an underserved populationâ€”female juvenile sexual offenders in a residential treatment program: On assuming her position, a practitioner found that most of the materials currently being used in the program have male-oriented themes and testimonies featuring male sexual offenders. Far from being gender-sensitive, these materials are biased and at-times counterproductive to effective treatment with female offenders. Intuitively, the practitioner believed that relevant materials based on competent research would be available. Wishing to provide best practice interventions for her clients, the

clinician embarked on a search to find the most effective and appropriate treatment for her clients. Turning to literature available to her, the practitioner found empirical evidence related to female juvenile sexual offenders to be scarce. A number of Internet searches the practitioner did not have access to academic databases resulted in hundreds of sources relating to juvenile sexual offenders, but only 4 or 5 of those articles were found to be empirical, rigorous, and related to the population in question. Studies in this area were significantly more likely to be conducted with male offenders and then generalized in discussion for use with females. In addition, the articles that dealt with this issue often lacked rigor in their choice of design and were often based on retrospective data. The usefulness of research evidence in direct practice or the development of programs in organizations is influenced, and sometime limited, by a number of factors as suggested in the example above. Small discussed examples of these relating to the immaturity of social sciences and issues of generalizability. In the first, he noted that many questions relevant to the work of practitioners have not yet been addressed by research, making information relevant to a particular problem or issue difficult to locate and possibly leading them to categorize or conceptualize problems into existing categories that may be only partially appropriate, if at all. Small did not state that this imprecision means we should disregard the information obtained with these tools, but he did caution that we should remain aware of the approximate nature of the reality studied as we interpret and apply the findings. As noted above, generalizing research findings to practice situations, especially those involving populations other than the study sample, can manifest a number of problems Small After a review of published research failed to provide evidence relevant to her population, the clinician turned to the practice wisdom of colleagues advanced in the field and who possessed experience specific to the population and topic of interest. To gain access to this information, the clinician continued her search of the Internet, obtained and read books on the topic, and attended professional seminars. A challenge faced by many practitioners is that of having the time and skills necessary to obtain and analyze available data. It is safe to say that, given the recent inclusion of EBP in social work curricula, the majority of licensed social work practitioners have not had formal instruction in the requisite skills and process of using EBP. And in the absence of expert feedback, they can also be difficult to operationalize. Examples of competencies noted by Gambrill , include the abilities to: Efficiently and effectively track down research findings related to information needs, critically appraise different kinds of research reports. CSWE , 5 , on the other hand, specifically addresses research education in Policy 2. Engage in research-informed practice and practice-informed research Social workers use practice experience to inform research, employ evidence-based interventions, evaluate their own practice, and use research findings to improve practice, policy, and social service delivery. Social workers comprehend quantitative and qualitative research and understand scientific and ethical approaches to building knowledge. Social workers use practice experience to inform scientific inquiry and use research evidence to inform practice. As with the social work practitioner, social work educators also experience ethically-based challenges in relation to EBP. This focus challenges social work educators to promote and teach evidenced-based practice methods to comply with the ethical standards established by the profession. Carrying out this mandate in a manner sufficient to result in the level of comprehension and practice discussed as requisite to ethical practice in the literature, within the finite amount of time available in graduate programs, can be more than challenging. Research education can often be experienced by social work students as uninspired and negative Hardcastle and Bisman on one end of the continuum; and overwhelming, barely relevant, and logistically unsupported by workplaces in the practice arena Anonymous [MSW graduate], personal communication 10 Dec , on the other. With respect to classroom experiences, many educators are guided by department syllabi that prescribe a teaching schedule including all content, assignments, and grading criteria. In some universities, detailed power point presentations and lectures on EBP are available to ensure that EBP is taught properly. Beginning with the question and ending with the full evidence base search, students are encouraged to implement their newfound expertise at practicum sites or agencies where they are employed. Educators are many times perplexed when students return and question the applicability of evidence-based practices in the real world. The dilemma is

often what to do when the evidenceâ€”when applied to the specific problemâ€”does not result in the client outcome that is expected. Does the teacher have the prerogative to suggest a non-evidence-based intervention without being contradictory to best practice? The clinician found herself in an obviously difficult ethical dilemmaâ€—go against the agency or managed care guidelines and provide the evidence-based intervention assuming resources allowed or to ignore the findings and continue with business as usual? Although agencies often report that they support evidence based practice, when it comes to making even the best evidence-supported changes in policy or procedures, recommendations can and do still meet with resistance. With respect to practitioner implementation of EBP, organizational policy issues factor into all three of the barrier types above. Obvious challenges are the lack of time and resources to perform EBP in the workplace. In reality, clinicians are overwhelmed with caseload and direct service guidelines. At times, salaries, raises, and even continued employment, are not only based on direct service percentages, but can be forfeited for noncompliance with organizational standards and policies grounded in organizational tradition that may be inconsistent with enhancing client well-being. Specialized seminars are often time and cost-prohibitive for many clinicians and agencies in the field, as can be access to the variety of databases that may or may not provide the information sought. The policy applications of EBP essentially exist in two forms. This first manifestation of EBP and policy i. This expression of the EBP and policy connection is considered part of doing business in the social service arena and generally accepted by most social service practitioners and administrators Gambrill This second manifestation appears to be the point at which an ethical departure occurs within the social work discipline. The manner in which organizations define and promote the practice of EBP internally seems to be the crux of how EBP is embraced or not by social work practitioners Geanellos and Wilson The process of writing grants to fund programs is a well-established part of the social service culture. Funders will provide some or all the resources to implement a program while the providing organization collects data on the manner of implementation and the outcomes of the program for the funders. In doing so, a common language for program efficacy and feasibility is produced that may serve to facilitate the EBP model at the policy level. This is potentially not a purely scientific process, however, as the same organizational behaviors may be exhibited for very different purposes Gibbs and Gambrill For instance, in the process of EBP, data are gathered and critically evaluated about the efficacy and accuracy of policies and programs to some stated end Tanenbaum To the extent that the outcome data support or refute theories, policies, and programs, these are adjusted to reflect the newly emerging understanding of reality assuming the research is rigorous Rubin and Parrish a. In this way, science continues to advance and policies that have firm grounding in empirically derived knowledge are established this can be called evidence-based policy. In reality, however, this originally scientific process may be turned on its head in the partisan world of politics and policy Brendtro et al. An administration or organization may begin with a particular policy that is defined and operationalized in terms of an ideological basis Gambrill a ; this ideological policy stance then funds organizations that will generate data that support this stance. This has the appearance of evidence-driven policy, but in reality, turns the process around from its intent i. While in the end, the evidence that is produced in this upside-down process may be used to further scientific bases of policy, the data obtained must be unsnarled from the ideology before it can be used in this manner Tanenbaum This also begs the question of how this evidence both before and after the scientific vetting process occurs is generalized and disseminated. Because this system of using organizational data as scientific evidence on the one hand, and as support for a particular ideological stance on the other, uses similar language and reporting procedures, social workers implementing the process may well be doing so from a more pragmatic stance and may be at-risk for becoming jaded to the process of evidence as a basis for practice and policy decisions. Taking the case of abstinence-only sex education for example, the top-down political push was for agencies to provide sex education to children and teens focused on delaying sexual activity until marriage. Curricula were developed and programs were funded to carry out these programs stemming from the political ideology that created them. Given the benefit of a decade or more of outcomes available for evaluation, the effectiveness of these

programs can be determined. Despite millions of dollars in funding and the backing of government agencies, the results indicate that abstinence-only sex education is remarkably ineffective for delaying sexual activity of teens, preventing pregnancies, and the spread of STIs among the target population Santelli The problem, however, lies in the intervening period between the ideological birth of the programs and the overwhelming evidence to refute its effectiveness. Presumably, at some point between, organizations began to see for themselves that these programs did not work. This creates the daunting ethical snarl. For social service agencies and the workers who are employed by them to continue to function, they must have resources. Often these resources are controlled by political entities that have particular ideological bents that may or may not align well with that of either the agency or the worker Gambrill a; Rubin and Parrish a. Nonetheless, for survival, organizations may secure funding that requires reporting particular practice behaviors and their results. Do the organizations accept the funding with strings attached? Do they take an approach that refuses such funding prospects and risk not being able to serve clients or support workers?

Chapter 2 : Evidence-Based Practice: The Problem-Solving Approach

In light of the growing importance of evidence-based practice in healthcare provision, this paper looks into the importance of the evidence based practices in the new healthcare market. The paper will also focus on the challenges that have been encountered in strive to adapt evidence based practice.

Key elements of EBPH have been summarized 3 as the following: Engaging the community in assessment and decision making; Using data and information systems systematically; Making decisions on the basis of the best available peer-reviewed evidence both quantitative and qualitative ; Applying program planning frameworks often based in health behavior theory ; Conducting sound evaluation; and Disseminating what is learned. Data for community assessment As a first step in the EBPH process, a community assessment identifies the health and resource needs, concerns, values, and assets of a community. This assessment allows the intervention a public health program or policy to be designed and implemented in a way that increases the likelihood of success and maximizes the benefit to the community. The assessment process engages the community and creates a clear, mutual understanding of where things stand at the outset of the partnership and what should be tracked along the way to determine how an intervention contributed to change. Often conducted through national or statewide initiatives, surveillance involves ongoing systematic collection, analysis, and interpretation of quantitative health data. Various health issues and indicators may be tracked, including deaths, acute illnesses and injuries, chronic illnesses and impairments, birth defects, pregnancy outcomes, risk factors for disease, use of health services, and vaccination coverage. National surveillance sources typically provide state-level data, and county-level data have become more readily available in recent years Box 1. State health department websites can also be sources of data, particularly for vital statistics and hospital discharge data. Additionally, policy tracking and surveillance systems Box 1 monitor policy interest and action for various health topics Other data collection methods can be tailored to describe the particular needs of a community, creating new sources of data rather than relying on existing data. Telephone, mail, online, or face-to-face surveys collect self-reported data from community members. Community audits involve detailed counting of factors such as the number of supermarkets, sidewalks, cigarette butts, or health care facilities. For example, the Active Living Research website www. Qualitative data collection can take the form of simple observation, interviews, focus groups, photovoice still or video images that document community conditions , community forums, or listening sessions. Qualitative data analysis involves the verbatim creation of transcripts, the development of data-sorting categories, and iterative sorting and synthesizing of data to develop sets of common concepts or themes No single source of data is best. Most often data from several sources are needed to fully understand a problem and its best potential solutions. Several planning tools are available Box 1 to help choose and implement a data collection method. Selecting evidence Once health needs are identified through a community assessment, the scientific literature can identify programs and policies that have been effective in addressing those needs. The amount of available evidence can be overwhelming; practitioners can identify the best available evidence by using tools that synthesize, interpret, and evaluate the literature. Systematic reviews Box 1 use explicit methods to locate and critically appraise published literature in a specific field or topic area. The products are reports and recommendations that synthesize and summarize the effectiveness of particular interventions, treatments, or services and often include information about their applicability, costs, and implementation barriers. Evidence-based practice guidelines are based on systematic reviews of research-tested interventions and can help practitioners select interventions for implementation. The Guide to Community Preventive Services the Community Guide , conducted by the Task Force on Community Preventive Services, is one of the most useful sets of reviews for public health interventions 27, The Community Guide evaluates evidence related to community or population-based interventions and is intended to complement the Guide to Clinical Preventive Services systematic reviews of clinical preventive services Not all populations, settings, and health issues are

represented in evidence-based guidelines and systematic reviews. Furthermore, there are many types of evidence eg, randomized controlled trials, cohort studies, qualitative research , and the best type of evidence depends on the question being asked. Not all types of evidence eg, qualitative research are equally represented in reviews and guidelines. To find evidence tailored to their own context, practitioners may need to search resources that contain original data and analysis. Peer-reviewed research articles, conference proceedings, and technical reports can be found in PubMed www. Maintained by the National Library of Medicine, PubMed is the largest and most widely available bibliographic database; it covers more than 21 million citations in the biomedical literature. Practitioners can freely access abstracts and some full-text articles; practitioners who do not have journal subscriptions can request reprints from authors directly. Economic evaluations provide powerful evidence for weighing the costs and benefits of an intervention, and the Cost-Effectiveness Analysis Registry tool Box 1 offers a searchable database and links to PubMed abstracts. These sources may provide useful information, although readers should interpret nonâ€”peer-reviewed literature carefully. Internet search engines such as Google Scholar http: Program-planning frameworks Program-planning frameworks provide structure and organization for the planning process. Public health interventions grounded in health behavior theory often prove to be more effective than those lacking a theoretical base, because these theories conceptualize the mechanisms that underlie behavior change 32, Logic models are an important planning tool, particularly for incorporating the concepts of health-behavior theories. They visually depict the relationship between program activities and their intended short-term objectives and long-term goals. The first 2 chapters of the Community Tool Box explain how to develop logic models, provide overviews of several program-planning models, and include real-world examples Box 1. Evaluation and dissemination Evaluation answers questions about program needs, implementation, and outcomes Ideally, evaluation begins when a community assessment is initiated and continues across the life of a program to ensure proper implementation. Four basic types of evaluation can achieve program objectives, using both quantitative and qualitative methods. Formative evaluation is conducted before program initiation; the goal is to determine whether an element of the intervention eg, materials, messages is feasible, appropriate, and meaningful for the target population Process evaluation assesses the way a program is being implemented, rather than the effectiveness of that program 36 eg, counting program attendees and examining how they differ from those not attending. Impact evaluation assesses the extent to which program objectives are being met and may reflect changes in knowledge, attitudes, behavior, or other intermediate outcomes. Ideally, practitioners should use measures that have been tested for validity the extent to which a measure accurately captures what it is intended to capture and reliability the likelihood that the instrument will get the same result time after time elsewhere. New survey questions receive a technical review, cognitive testing, and field testing before inclusion. Outcome evaluation provides long-term feedback on changes in health status, morbidity, mortality, or quality of life that can be attributed to an intervention. Because it takes so long to observe effects on health outcomes and because changes in these outcomes are influenced by factors outside the scope of the intervention itself, this type of evaluation benefits from more rigorous forms of quantitative evaluation, such as experimental or quasi-experimental rather than observational study designs. The Centers for Disease Control and Prevention CDC Framework for Program Evaluation, developed in , identifies a 6-step process for summarizing and organizing the essential elements of evaluation The related CDC website Box 1 maintains links to framework-based materials, step-by-step manuals, and other evaluation resources. After an evaluation, the dissemination of findings is often overlooked, but practitioners have an implied obligation to share results with stakeholders, decision makers, and community members. Often these are people who participated in data collection and can make use of the evaluation findings. Dissemination may take the form of formal written reports, oral presentations, publications in academic journals, or placement of information in newsletters or on websites. Top of Page Putting Evidence to Work An increasing volume of scientific evidence is now at the fingertips of public health practitioners. Putting this evidence to work can help practitioners meet demands for a systematic approach to public health problem solving that yields measurable outcomes. Practitioners need

skills, knowledge, support, and time to implement evidence-based policies and programs. Many tools exist to help efficiently incorporate the best available evidence and strategies into their work. Improvements in population health are most likely when these tools are applied in light of local context, evaluated rigorously, and shared with researchers, practitioners, and other stakeholders. Top of Page Acknowledgments Preparation of this article was supported by the National Association of Chronic Disease Directors; cooperative agreement no. Jacobs, Prevention Research Center in St. Am J Prev Med ;27 5: Toward a transdisciplinary model of evidence-based practice. Milbank Q ;87 2: Annu Rev Public Health ; Corsini encyclopedia of psychology. Encyclopedia of human behavior. Jones and Bartlett; Oxford University Press; Use of evidence-based interventions in state health departments: J Public Health Manag Pract ;16 6: Examining the role of training in evidence-based public health: Health Promot Pract ;10 3: Evidence-based interventions to promote physical activity: Am J Prev Med ;33 1 Suppl: Barriers to evidence-based decision making in public health: Public Health Rep ; 5: PubMed Healthy People framework: Accessed March 7, The effect of disseminating evidence-based interventions that promote physical activity to health departments. Am J Public Health ;97 CrossRef PubMed Core competencies for public health professionals. Designing competencies for chronic disease practice. Prev Chronic Dis ;7 2. PubMed Standards and measures. Public Health Accreditation Board. Training practitioners in evidence-based chronic disease prevention for global health. Promot Educ ;14 3: Teaching evidence-based public health to public health practitioners. Ann Epidemiol ;15 7: Improving the public health workforce: J Public Health Manag Pract ;14 2: Prev Chronic Dis ;2 2. Nurs Outlook ;58 6: What gets measured, gets changed: J Law Med Ethics ;39 Suppl 1 The practice of qualitative research.

Chapter 3 : The Influence And Challenges Of Evidence Based Practice In Nursing | Researchomatic

Evidence-based practice (EBP) applies the principles and techniques of evidence-based decision making to interventions intended to improve, or ameliorate, the social or clinical problems of affected individuals, including offenders with drug abuse problems.

This article has been cited by other articles in PMC. EBM integrates clinical experience and patient values with the best available research information. It is a movement which aims to increase the use of high quality clinical research in clinical decision making. EBM requires new skills of the clinician, including efficient literature-searching, and the application of formal rules of evidence in evaluating the clinical literature. The key difference between evidence-based medicine and traditional medicine is not that EBM considers the evidence while the latter does not. Both take evidence into account; however, EBM demands better evidence than has traditionally been used. One of the greatest achievements of evidence-based medicine has been the development of systematic reviews and meta-analyses, methods by which researchers identify multiple studies on a topic, separate the best ones and then critically analyze them to come up with a summary of the best available evidence. The EBM-oriented clinicians of tomorrow have three tasks: Evidence Based Medicine, health, patients, decision making 1. Medical knowledge grows every day, so that previously accepted facts rapidly become old and it seems impossible to follow such explosion of scientific information. There are clear difficulties when clinician needs to keep step with the new achievements published in medical journals: The problem of academic isolation or armchair phenomenon occurs, where the doctor should spend most of its work hours only to review all published articles and studies. On the other side, even if the doctors find the time to read all of them, they would be lack the time to evaluate the value of the study, its methodology, outcome and transparency. That is why a need occurs that the doctor, with his limited time, read selectively, make effective selection of what he reads, and what not 1. Family medicine, by its nature, is very complicated discipline which is featured among other things, high proportion of poorly differentiated problems overlapping with the biological, psychological and social factors. EBM - Evidence Based Medicine, which originated in the second half of the 19th Century and earlier, means conscious and reasonable use of current, best scientific evidences in making decisions in treatment of each individual patient. Evidence based medicine is the conscientious, explicit, judicious and reasonable use of current best evidence in making decisions about the care of individual patients. EBM application means relating individual clinical signs, individual clinical experience with the best scientific evidences obtained by the clinical research 2. The revised and improved definition of evidence-based medicine is a systematic approach to clinical problem solving which allows the integration of the best available research evidence with clinical expertise and patient values. Under the individual clinical noticing we thought of the ability, skill that doctors acquired during years of clinical practice, and clinical experience is necessary and indispensable part that makes a good doctor. The best scientific evidence is considered to be a randomized controlled clinical study conducted on the amount of respondents that can prove the effectiveness of many drugs, as well as the harm and the inefficacy of others in comparison with the best existing therapy 3. Instead of routinely reviewing the contents of dozens of journals for interesting articles, EBM suggests that you target your reading to issues related to specific patient problems. Developing clinical questions and then searching current databases may be a more productive way of keeping current with the literature. External clinical evidence can inform, but can never replace, individual clinical expertise, and it is this expertise that decides whether the external evidence applies to the individual patient at all and, if so, how it should be integrated into a clinical decision. Clinicians who fear top down cookbooks will find the advocates of evidence based medicine joining them at the barricades. One of the central aspects of this relationship is the decision-making process, which can vary from simple types of clinical decisions e. Evidence Based Medicine is a conceptual approach of the physician in making decisions related to the individual patient. Unlike this, Evidence Based health Care is somewhat broader concept that

includes advanced approach to understanding the patients, families and doctors beliefs, values and attitudes. Evidence Based Health Care, also relies on evidence, but primarily those on population level 5. So, for example, despite the strong evidences during seventies of the last century that the treatment such as thrombolytic therapy and use of aspirin are efficient in treatment of acute myocardial infarction, it took almost one decade that these treatments become routine in treatment procedures for the patients with acute myocardial infarction. Similar to this, there are examples that some-where were available scientific research evidences and their practical application is complex. On one side, there is a lack of firmness which will synthesize and make systematic results of the primary scientific researches. On the other side, that indicates inability of available evidences obtained in research which will gain relevant information which consumers of health services and medical professional needs to make decisions. In broader sense, that reflects lack of appropriate frames, systems and strategies which will more efficiently influence of professional conduct. Rarely that is a single problem. The fact is that only small number of cases can be solved during the first meeting doctor-patient. Family doctor often is forced to make plan of care for the patients, because it is a case of complex issues, and it is difficult to make care plan. Complex nature of work in general practice means that the patient seeks assistance in aspect of illness feeling ill for which it does not have strong proofs about efficiency of any intervention. There is still need to refine in which manner should be incorporated in the complexity of doctor-patient relation within Family medicine. One of the important concepts of EBM is the hierarchy in validating evidences based on which decision is made, which means that before making decisions it is important to evaluate value of evidences. According to that concept most valuable evidence, for example efficacy of the single therapeutic mean, comes from the results of the multicenter, randomized, comparison, controlled clinical study. Evidences of least value are based on studies of the physiology functions and clinicians observations. Evidences obtained by meta-analysis of several randomized controlled research RCR. Evidences from only one RCR. Evidences from well designed controlled research RCR. Evidences from one quasi experimental research. Evidences from non experimental studies comparative research, case study , according to some, for example Textbooks. Evidences from experts and clinical practice. The principle of EBM emphasizes, above all, that the foundation of any medical decisions regarding the optimal diagnostic or therapy procedure are scientific evidences from clinical research, and clinical experience and intuition are of great help, but not the main basis in decision-making. New in the application of EBM is that making decisions about treatment for each individual patient is a complex process that allows doctors and patients to select the best possible solutions for each individual patient. Random Reflections on Health Services and subsequent advocacy, caused increasing acceptance of the concepts behind evidence-based practice. However, the founder of EBM is considered to be English epidemiologist Archie Cochrane, who lived in the 19th century and which has already pointed out the impossibility of monitoring all the new discoveries in medical science. During the last ten years in the world rapidly is growing the interest in the application of EBM. The reason for this is the application of electronic records, the Internet phenomenon, an increasing number of different clinical tests that doctors cannot track, as well as increase in cost of health care 7. Today, in almost all western countries doctors apply EBM in treatment for every patient with the support of the governments of these countries, the ministries of health and pharmaceutical industry. This includes practical guidelines for different diseases, a database with the best scientific evidence from each category, which is edited by special experts and which is continuously updated with new data, medical journals and literature available with the latest objective information. It is a long list of procedures that appeared useful at one moment, and afterwards shown to be inefficient or even harmful. Example of this is the application of thalidomide during pregnancy and as consequence of that children was born with anomalies. Group for Evidence Based Medicine Resource from McMaster University identified the approach in 5 steps that each individual physician in the application of this approach must follow. Defining problem Each doctor several times a day is in the position of making various medical decisions. Often in the process of medical decision-making occur questions such as: It is clear that the already busy doctor, will not be able to answer in this way all the questions that come in practice and therefore

must resort to the process of determining priorities, as well as refining issues that needs to be asked. Good clinical question must be clear, directly focused on the problem, and answerable by searching the medical literature. Type of clinical question The most common type of clinical question is about how to treat a disease or condition. Such questions are questions about intervention. Types of clinical questions: Search for wanted sources of information After formulating the clinical question, which stems from a concrete patient, the next step is to search for relevant evidence that will provide the answer to the question. This is not always easy, especially in Family medicine, in which the problems caries the poorlydefined problems in the start. However, there are numerous sources of information that may be of assistance, including medical journals, which treat certain problems in the field of Family medicine, search of electronic databases and communication with colleagues. The ideal information source is valid contains high quality data , relevant clinically applicable , comprehensive has data on all benefits and harms of all possible interventions , and is user-friendly is quick and easy to access and use. Critical evaluation of the information When we decide which magazine to read, it is important to read it carefully, because not all the published information is of equal importance and value. Critical assessment of the articles is a process that involves careful reading and analysis of methodology, contents and conclusions. Application of information of the patient The fourth step in the process of the use of Evidence Based Medicine in practice is the decision how to apply acquired information on the special circumstances pertaining to each patient. This is probably a crucial step in the process, if not the most complex. Now it is necessary to decide whether there is something in relation to our patient because of which it would be necessary to discard the acquired information. The questions that we should ask before the decision to apply the results of the study are: Are the participants in the study similar enough to my patient? Is the treatment available and is health care system prepared to fund it? What alternatives are available? Do the potential side effects of the drug or procedure outweigh the benefits? Are the outcomes appropriate to the patient? If something does not exist, it is necessary to weigh the potential harm from the benefit and do all that in partnership with the patient, where our decision in the end, in fact, will be shared. Efficacy evaluation of EBM application on a patient The final step is the evaluation of Evidence - based approach and efficiency of its application to a specific patient. During this process it is important to assess whether certain evidence, which is applied to the patient, caused changes to better and that to the extent that it is confirmed by research. If the data differ significantly, it would be necessary to investigate why some patients did not respond to the changes introduced in the expected way and what can be done to change it. To use evidence summaries in clinical practice; To help develop and update selected systematic reviews or evidence-based guidelines in their area of expertise; and To enrol patients in studies of treatment, diagnosis and prognosis on which medical practice is based. Physicians should use websites and texts that are revised at least once a year, select and appraise evidence in explicit way, and cite evidence in support of statements about clinical care. Sources of evidence There are different web sources of evidence. The search for best evidence should begin by looking at the highest-level source available for the problem in question. Evidence-based journals of secondary publication select from the biomedical literature original and review articles, summarize them, and present comments by clinical experts 1. There are several online evidence-based databases. The Cochrane Library is a collection of databases in medicine and other healthcare specialties provided by the Cochrane Collaboration and other organisations. The Cochrane Collaboration is an international not-for-profit and independent organization, dedicated to making up-to-date, accurate information about the effects of healthcare readily available worldwide. It produces and disseminates systematic reviews of healthcare interventions and promotes the search for evidence in the form of clinical trials and other studies of interventions. The Cochrane Collaboration was founded in and named after the British epidemiologist, Archie Cochrane. At its core is the collection of Cochrane Reviews, a database of systematic reviews and meta-analyses which summarise and interpret the results of highquality medical research. The Cochrane Library aims to make the results of well-conducted controlled trials readily available and is a key resource in evidence-based medicine. It consists of a regularly updated collection of evidence-based medicine databases: Clinical Evidence is an updated

database of the best evidence for effective health care, put together by the BMJ.

Chapter 4 : The Impact of Evidence-Based Practice in Nursing and the Next Big Ideas

Many issues arise in the discussion of the evidence-based practice (EBP) movement and implementation science in special education and specific educational practices for students with severe disabilities.

Point 2-Evidence Summary Cochrane Collaboration Database of Systematic Reviews-provides reports of rigorous systematic reviews on clinical topics. The Health Professions Education report IOM, declared that current educational programs do not adequately prepare nurses, physicians, pharmacists or other health professionals to provide the highest quality and safest health care possible. This overhaul would require changing way that health professionals are educated, in both academic and practice settings. Programs for basic preparation of health professionals were to undergo curriculum revision in order to focus on evidence-based quality improvement processes. Also, professional development programs would need to become widely available to update skills of those professionals who were already in practice. Leaders in all health disciplines were urged to come together in an effort for clinical education reform that addresses five core competencies essential in bridging the quality chasm: All health professionals should be educated to deliver patient-centered care as members of an interdisciplinary team emphasizing evidence-based practice, quality improvement approaches, and informatics IOM, Table 4 presents details of each competency. Work in interdisciplinary teams - cooperate, collaborate, communicate, and integrate care in teams to ensure that care is continuous and reliable. Employ evidence-based practice - integrate best research with clinical expertise and patient values for optimum care, and participate in learning and research activities to the extent feasible. Apply quality improvement - identify errors and hazards in care; understand and implement basic safety design principles, such as standardization and simplification; continually understand and measure quality of care in terms of structure, process, and outcomes in relation to patient and community needs; and design and test interventions to change processes and systems of care, with the objective of improving quality. Utilize informatics - communicate, manage knowledge, mitigate error, and support decision making using information technology. From this core set, IOM urged each profession to develop details and strategies for integrating these new competencies into education. With a focus on employing evidence-based practice, nurses established national consensus on competencies for EBP in nursing in and extended these in Stevens, Through multiple iterations, an expert panel generated, validated, and endorsed competency statements to guide education programs at the basic associate and undergraduate , intermediate masters , and doctoral advanced levels in nursing. Between 10 and 32 specific competencies are enumerated for each of four levels of nursing education which were published in Essential Competencies for EBP in Nursing Stevens, These competencies address fundamental skills of knowledge management, accountability for scientific basis of nursing practice; organizational and policy change; and development of scientific underpinnings for EBP Stevens, These resources have also been incorporated into educational settings as programs are revised to include EBP skills. Curricular efforts were also underway. To stimulate curricular reform and faculty development, the IOM suggested that oversight processes such as accreditation be used to encourage adoption of the five core competencies. Initiatives that followed included the new program standards established by the American Association of Colleges of Nursing, crossing undergraduate, masters, and doctoral levels of education AACN, The AACN standards underscored the necessity for nurses to focus on the systems of care as well on the evidence for clinical decisions. This systems thinking is crucial to effect the changes that are part of employing EBP. Through multiple phases, this project developed a website that serves as a central repository of information on core QSEN competencies, knowledge, skill, attitudes, teaching strategies, and faculty development resources designed to prepare nurses to engage in quality and safety. While the materials presented were in existence in other professional literature, the book added great value by synthesizing what was known into one publication. This resource was accessible to every faculty member offering teaching strategies and learning resources for incorporating the IOM competencies into curricula across the nation. This

close alignment reflects the appreciation that nursing must be part of this solution to effect the desired changes; and remaining in the mainstream with other health professions rather than splintering providers into discipline-centric paradigms. Impact on Nursing Research Nascent fields are emerging to understand how to increase effectiveness, efficiency, safety, and timeliness of healthcare; how to improve health service delivery systems; and how to spur performance improvement. Nursing research has been impacted by recent far-reaching changes in the healthcare research enterprise. Nascent fields are emerging to understand how to increase effectiveness, efficiency, safety, and timeliness of healthcare; how to improve health service delivery systems; and how to spur performance improvement. These emerging fields include translational and improvement science, implementation research, and health delivery systems science. Investigation into uptake of evidence-based practice is one of the fields that has deeply affected the paradigm shift and is woven into each of the other fields. Several notable federal grant programs have evolved to foster research that produces the evidential foundation for effective strategies in employing EBP. Clinical and Translational Science Awards When the public cry for improved care escalated, rapid movement of results into care was brought into sharper focus in healthcare research. The term, translational science, was coined, and the definition was provided by NIH Nurses are involved in each of the 60 CTSAs that were funded across the nation Nurse scientists have been significant leaders in the CTSA program, conducting translational research across these two areas. Nurses are involved in each of the 60 CTSAs that were funded across the nation, contributing from small roles and large roles, ranging from advisor and collaborator to principal investigator. As part of the CTSAs, nurse scientists conduct basic research and applied research, adding significantly to the interprofessional perspectives of the science. Patient-Centered Outcomes Research As evidence mounted on standard medical metrics Another recent and swooping change in healthcare research emerged with a focus on patient-centered outcomes research PCOR. As evidence mounted on standard medical metrics mortality and morbidity , it was noted that metrics and outcomes of particular interest to patients and families such as quality of life were understudied. In , attention was drawn to the need to produce evidence on patient-centered outcomes from the perspective of the patient. These calls encourage early and meaningful engagement of patients and other stakeholders in stating the research question, conducting the study, and interpreting results AHRQ, The Next Big Ideas Two additional federal initiatives exemplify what may be called the next big ideas in EBPâ€”each underscoring evidence-based quality improvement. The initiatives call for better use of the knowledge that may be gained from quality improvement efforts. Both initiatives emanate from the NIH and both focus on generating evidence needed to make systems improvements and transform healthcare. Because of the central role that nurses play across all healthcare settings and clinical microsystems, research in this field is highly relevant to the profession. This field of science moves beyond the individual provider as the unit of analysis and focuses on groups, health systems, and the community. For example, one emphasis in the field is discovering and applying the evidence for the most effective ways to speed adoption of evidence-based guidelines across all health care professionals in the clinical unit and in the agency. Improvement Science Research Network The overriding goal of improvement science is to ensure that quality improvement efforts are based as much on evidence as the best practices they seek to implement. In many instances, studies about single innovations on Star Point 4 were often not rigorous or broad enough to produce credible and generalizable knowledge Berwick, As a new field, improvement science focuses on generating evidence about employing evidence-based practice, providing research evidence to guide management decisions in evidence-based quality improvement. The overriding goal of improvement science is to ensure that quality improvement efforts are based as much on evidence as the best practices they seek to implement. Recognizing that pockets of excellence in safety and effectiveness exist, there is concern that local cases of success in translating research into practice are often difficult to replicate or sustain over time. Factors that make a change improvement work in one setting versus another are largely unknown. The ISRN is an open research network for the study of improvement strategies in healthcare. The national network offers a virtual collaboratory in which to study systems improvements in such a way that lessons learned from innovations

and quality improvement efforts can be spread for uptake in other settings. The ISRN supports rigorous testing of improvement strategies to determine whether, how, and where an intervention for change is effective. The following shortcomings in research regarding improvement change strategies have been noted: The primary goal of the network is to determine which improvement strategies work as we strive to assure effective and safe patient care. Through this national research collaborative, rigorous studies are designed and conducted through investigative teams. Foundational to the network is the virtual collaboratory, fashioned to conduct multi-site studies and designed around interprofessional academic-practice partnerships in research. The ISRN offers scientists and clinicians from across the nation opportunities to directly engage in conducting studies. ISRN Research Priorities were developed via stakeholder and expert panel consensus and are organized into four broad categories: The research collaboratory concept has proven its capacity to conduct multi-site studies and is open to any investigator or collaborator in the field. These will provide the scientific foundation for the rapidly expanding efforts to make healthcare better. Nurses will take advantage of these EBP advances to address opportunities and challenges. Much has been done to make an impact; much remains to be accomplished. From this admittedly selective overview of EBP, it is seen that the story of EBP in nursing is now long, with many successes, contributors, leaders, scientists, and enthusiasts. Opportunities and challenges exist for clinicians, educators, and scientists. Those leading clinical practice have willing partners from the academy for discovering what works to improve health care. Such evidence to guide clinical management decisions is long overdue Yoder-Wise, While there are benefits to both as the evidence is gathered and applied, the true benefit goes to the patient. Clinical leaders have unprecedented opportunity to step forward to transform healthcare from a systems perspective, focusing on EBP for clinical effectiveness, patient engagement, and patient safety. Those leading education have great advantages offered from a wide variety of educational resources for EBP. The rich resources offer students a chance to meaningfully connect their emerging competencies with clinical needs for best practices in clinical and microsystem changes. Those leading nursing science have access to new funding opportunities to develop innovative programs of research in evidence-based quality improvement, implementation of EBP, and the science of improvement. Readiness of the clinical setting for academic-practice research partnerships brings with it advantageous access to clinical populations and settings and an eagerness for utilization of the research results. The challenges for moving EBP forward spring from two sources: Therefore, adopting the following habits hold promise for moving us ahead: Persistence in educating the future workforce, and retooling the current workforce, with awareness, skills, and power to improve the systems of care. Laying aside comfortable programs of research and picking up programs of systems research. Insistence on multiple perspectives and sound evidence for transforming healthcare. The nursing profession remains central to the interdisciplinary and discipline-specific changes necessary to achieve care that is effective, safe, and efficient. New in our vernacular and skill set are systems thinking, microsystems change, high reliability organizations, team-based care, transparency, innovation, translational and implementation science, and, yes, still evidence-based practice. Let us move swiftly to make these new ideas and skills commonplace. Additional information has been added at the request of the author. Her multi-site research on team collaboration and frontline engagement in quality improvement is conducted through the national collaboratory, the ISRN. The science of improvement. Journal of the American Medical Association, 10 , Dissemination and implementation research in health: Translating science to practice. Oxford University Press, Inc. Implications of the IOM reports for nursing education. A strategy for quality assurance. To err is human: Building a safer health system. Crossing the quality chasm:

Chapter 5 : Evidence-Based Practice Implementation Challenges - Child Welfare Information Gateway

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Chapter 6 : Evidence Based Medicine â€“ New Approaches and Challenges

The impact of evidence-based practice (EBP) has echoed across nursing practice, education, and science. The call for evidence-based quality improvement and healthcare transformation underscores the need for redesigning care that is effective, safe, and efficient.