Evidence-based Practice in the Social Services: Implications for Organizational Change

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ABSTRACT

Evidence-based practice integrates individual practitioner expertise with the best available evidence while also considering the values and expectations of clients. Research can be categorized into two broad areas: primary (experiments, clinical trials, and surveys) and secondary research (overviews of major studies, practice guidelines, and decision and economic analyses). One of the major challenges to incorporating research evidence into organizational life is the absence of an evidence-based organizational culture within human service agencies. This article identifies multiple strategies and case examples for creating such an organizational culture. Three major implications emerge from this analysis: a) agency-university partnerships to identify the data to support evidence-based practice, b) staff training (in the agencies and on campuses) that features problem-based learning approaches to support the introduction and utilization of evidence-based practice, and c) the modification of agency cultures to support and sustain evidence-based practice.

RUNNING HEAD: Evidence-based practice in social service agencies
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Introduction

The use of research evidence to guide practice and develop policies in the human services has become increasingly important given the limited resources and the pressures to document service outcomes. These pressures have emerged from increased scrutiny of public expenditures and the call for information about the impact of interventions on the reduction or elimination of social problems. The most significant progress in the testing and evaluation of interventions has been made in the field of health care. For example, in the United Kingdom (U.K.) National Health Service, all doctors, nurses, pharmacists, and other health professionals now have a contractual duty to provide clinical care based on the best available research evidence. The establishment of the Cochrane Collaboration, a worldwide network designed to prepare, maintain, and disseminate high-quality systematic reviews of research on the outcomes of health care interventions, began in the early 1990s (Bero & Rennie, 1995). In 1999, the Cochrane model was replicated in the fields of social science, social welfare and education with the launch of the Campbell Collaboration. Meanwhile, empirically-based governmental initiatives such as the Child and Family Service (CFS) Reviews have emerged in the U.S. to ensure that state child welfare agency practice is in conformity with federal child welfare requirements and national standards through the use of qualitative and quantitative information sources.

What has become clear, however, is that the reliance on the random diffusion of a growing volume of research information to health and human service professionals is unlikely to adequately inform staff or improve client services. For example, Kirk and Penska (1992) found
that of 276 randomly selected U.S. MSW-trained social workers, 92 percent reported reading at least one professional article a month. However, the extent to which practitioners implement research findings in practice is unclear. There is a growing awareness that conventional continuing education activities, such as conferences and courses which focus largely on the transfer of knowledge, have little impact on the behavior of health professionals and that the circulation of guidelines without an implementation strategy is also unlikely to result in changes in practice (Bero et al., 1998; Gira, Kessler, & Poertner, 2003).

For research evidence to impact practice and policy, scholars have identified at least five requirements: (1) agreement on the nature of evidence, (2) a strategic approach to the creation of evidence and the development of a cumulative knowledge base, (3) effective dissemination of knowledge together with the development of effective means for accessing to knowledge, (4) initiatives to increase the use of evidence in both policy and practice, and (5) a variety of action steps at the organizational level (Davies & Nutley, 2001; Kitson, Harvey, & McCormack, 1998). The purpose of this analysis is to consider evidence-based practice in the context of complex human service organizations. We begin by exploring the nature of the evidence base and issues related to the translating research findings to practice settings. We then review key findings from studies that have examined issues related to the integration of evidence at the organizational level and provide recommendations for future work in this area.

**What is Evidence-based Practice?**

Evidence-based practice (EBP) was first coined by a Canadian medical group at McMaster University. The group defined EBP as a process that considers “the conscientious, explicit, and judicious use of current best evidence in making decisions about the care of individuals” (Sackett, Richardson, Rosenberg, & Haynes, 1997). The process itself follows a
series of steps that include (1) becoming motivated to apply evidence-based practice, (2) converting information needs into a well-formulated answerable question, (3) tracking down with maximum efficiency the best evidence with which to answer the question (which may come from the clinical examination, the diagnostic laboratory, the published literature or other sources), (4) critically appraising the evidence for its validity and applicability to clinical practice, (5) applying the results of this evidence appraisal to policy/practice, (6), evaluating performance, and (7) teaching others to do the same (Sackett et al. 1997; Greenhalgh, 2001). According to Gambrill (1999), a notable feature of EBP process is the attention that is given to the values and expectations of clients and to their active involvement in decision-making processes. Evidence-based social work practice involves clients as informed participants by seeking out practice-related research findings regarding important decisions and sharing the results of such a search with clients. If no evidence can be found to support a service decision, the client needs to be informed and practitioners need to describe their rationale for making recommendations to clients.

Sackett and his colleagues (1997) suggest that the problem-based EBP approach to learning can increase the ability of practitioners to help clients by providing opportunities to access newly generated evidence, update practitioner knowledge and improve performance (which is otherwise subject to deterioration), and overcome some of the deficiencies that are present in traditional continuing education programs.

What is the Best Evidence?

There are differing opinions about what information is considered appropriate in the implementation of evidence-based practice. In general, research evidence can be divided into two broad categories: primary and secondary research. Primary research includes: (1) experiments,
where an intervention is tested in artificial and controlled surroundings, (2) clinical trials, where
an intervention is offered to a group of participants that are then followed up to see what happens
to them, and (3) surveys, where something is measured in a group of participants. Secondary
research includes: (1) overviews or summaries of primary studies which may be (a) conducted
systematically according to rigorous and predefined methods (such as procedures used in the
Cochrane Collaboration) or (b) meta-analyses that integrate numerical data from more than one
study; (2) guidelines that are used to draw conclusions from primary studies about how
practitioners should behave; (3) decision analyses that use the results of primary studies to
generate probability trees for use in making choices about clinical management or resource
allocation, and (4) economic analyses that use the results of primary studies to find out whether a
particular course of action is a good use of resources. Traditionally, the import and relevance of
evidence has been arrayed hierarchically with systematic reviews considered the best evidence
with case review considered the least rigorous as noted in Figure 1 (Guyatt et al. in Greenhalgh,
2001).

[Insert Figure 1]

The hallmark of EBP is the systematic and rigorous appraisals of research related to
relevant practice questions. The primary focus is on the validity of assessment measures and the
effectiveness of interventions. For example, systematic reviews prepared for the Cochrane
Collaboration require reviewers to clearly state decision-making rules for each stage of the
process with respect to how studies were identified and the criteria they used to assess the
methodology used, the quality of the findings and the ways in which the data were extracted,
combined and analyzed (Oxman & Guyatt, 1993).
The development of systematic reviews for the human services is still in its infancy but is growing largely due to the efforts of the Campbell Collaboration, a sibling Cochrane organization for research reviews in the social and behavioral sectors, criminology, and education. The inaugural meeting of the Campbell Collaboration was held in February 2000 at the University of Pennsylvania and attended by 85 participants representing thirteen countries that reflected the international interest and momentum. Today the Campbell Collaboration houses over 12,000 randomized and possibly randomized trials in education, social work and welfare, and criminal justice. It provides free access to reviews and review-related documents in these content areas.

However, in considering the traditional hierarchy of evidence, some scholars note that evaluating the potential contribution of a particular study requires considerably more effort than simply examining its basic design. For example, a methodologically flawed meta-analysis would rarely be placed above a large, well-designed cohort study. Further, many important secondary types of research, such as guidelines, economic and decision analyses, qualitative studies, and evaluations of risk assessment, which are of particular salience for child and family services are not included in this hierarchy of research methodologies. As a general rule, the type of evidence needed will depend, to a large extent, on the type of questions asked. Figure 2 illustrates the broad topic categories and preferred study designs for addressing questions that emerge in child and family services. For example, the randomized controlled trial is preferred for the determination of treatment effectiveness, whereas a cross-sectional survey may be sufficient to demonstrate the validity and reliability of an assessment instrument.
Up to this point, the focus has been on the hierarchy of research methods used to generate evidence. However, there is another way of viewing evidence; namely the multiple sources of knowledge that are available to practitioners seeking to engage in evidence-based practice. Based on the work of the Social Care Institute for Excellence in London, Pawson et al. (2003) have identified five types of knowledge that could relate to evidence-based practice. As defined in Figure 3, these knowledge types include evidence supplied by users or consumers of social services as well as the service providers who assist service users (e.g., foster parents, home health aides, volunteers, etc.). This domain of knowledge is rarely captured and reported in the practice literature but represents another perspective on Gambrill’s (1999) notion of client involvement noted earlier. If this domain is placed on a hierarchy of knowledge, arguments could be made that suggest this represents the highest level with respect to involving users and providers in assessing the outcomes of services.

The next domain in Figure 3 refers to practitioner knowledge, often poorly researched except in the form of practice guidelines noted in the next section of the article. Practitioner knowledge can be viewed from both a line staff and management staff perspective. The next level in the hierarchy involves organizational knowledge, sometimes codified in policy and procedure manuals and often reflected in administrative data. Similar to organizational knowledge, policy knowledge is captured in both the policy development stage (white papers and legislative testimony) and the policy implementation stage (outcome and process studies). And finally, research as noted in Figure 1 comprises the generally accepted method of compiling knowledge related to service users and providers as well as organizational and policy specialists.
Based on both of these research and practice hierarchies, it is instructive to consider how the translation of other empirically-based materials might improve social services.

**Best Practices and Guidelines**

The mushrooming guidelines industry owes its success at least in part to the growing “accountability culture” that is now being set in statute in many countries and within many fields. Officially produced or sanctioned guidelines, defined as “systematically developed statements to assist practitioner decisions about appropriate care for specific clinical circumstances” (Greenhalgh, 2001, p. 140), are used to achieve several objectives in the provision of clinical care. Practice guidelines are designed to make standards explicit and accessible, simplify clinical decision making, and improve cost effectiveness. Practice guidelines are also used to assess professional performance, to externally control practitioners, to delineate divisions of labor, and to educate patients and professionals about best practices. Despite these benefits, there are drawbacks to the use of guidelines and best practice statements when they reflect “expert opinion” that may have in fact formalize unsound practices. For example, Bartels et al. (2002) cautions that in interdisciplinary fields, the consensus of experts may inadvertently incorporate the disciplinary biases. Similarly, practice guidelines developed at national or regional level may not reflect local needs, ownership by local practitioners, or differences in demographic or clinical factors. The wholesale implementation of practice guidelines may have the effect of inhibiting innovation and preventing individualized approaches to treatment. Furthermore, by reducing practice variation, guidelines may standardize “average” rather than best practice. The drawbacks include legal and political dimensions: judicial decisions could use practice guidelines to determine competent practice or shift the balance of power between
different professional groups (e.g., between clinicians and administrators or purchasers and providers).

Gibbs (2003) recommends the use of guidelines that can be easily interpreted as disconfirming and confirming evidence based on thorough search procedures and objective standards for evaluating evidence. For example, Saunders, Berliner, and Hanson (2003) note that the recently released guidelines for mental health assessment and treatment for child abuse victims and their families (U.S. Office for Victims of Crime in the U.S. Department of Justice) were developed by an advisory committee of clinicians, researchers, educators, and administrators. They evaluated the treatment protocols based on their theoretical grounding, anecdotal clinical evidence, acceptance among practitioners in the child abuse field, potential for causing harm, and empirical support for utility with victims of abuse. The manual advises readers that treatment protocols with the highest levels of empirical and clinical support should be considered “first choice” interventions. Appendix A provides an example of a guideline considered “well-supported and efficacious.”

Groups that have researched the effectiveness of guidelines conclude that the most effective guidelines have been: (1) developed locally by the people who are going to use them, (2) introduced as part of a specific educational intervention, and (3) implemented via a client specific prompt that appears at the time of the consultation (Greenhalgh, 2001). While local adoption and ownership is crucial to the success of a guideline or best practice program, authors suggest that local teams would be wise to also draw on the range of resources available from evidence-based national and international recommendations.

While there are many approaches to the development and implementation of practice guidelines, the research partnership between the Children and Family Research Center of the
University of Illinois at Urbana-Champaign and the Illinois Department of Children and Family Services demonstrates an important collaborative effort. Through this partnership, the Department of Children and Family Services (Research Practice Integration Committee) selects and prioritizes Center-funded research projects for use in agency practice. The Center develops the research questions, methodology, and findings; this is followed by a joint agency-university effort to identify the implications for practice. Members of the partnership draft clinical procedures and the caseworker behaviors linked to each of the practice implications. After a process of discussion and refinement among the partners, the clinical procedures and caseworker behaviors need to be approved by the Department’s Best Practices Committee before they are integrated into departmental policies and training programs. The resulting practice guides are shared with staff and illustrated in Appendix B.

**Emerging and Promising Practices**

The documentation of emerging and promising practices related to innovative programs and interventions can provide practitioners and policy makers with ideas that may be transferable to other settings. For example, in 2001 the Office on Child Abuse and Neglect (OCAN) initiated a project on the *Emerging Practices in the Prevention of Child Abuse and Neglect* in order to feature and share the designs and outcomes of effective and innovative programs for the prevention of child maltreatment. For example, new or creative ideas and strategies for preventing child abuse and neglect are illustrated in a program called “Hui Makuakane” (Appendix C). As a first-time effort, OCAN recommended the development of a more precise definition of the universe of prevention programs and specification of standards to maximize the objectivity, standardization, and interrater reliability. In another example of federal leadership, the U.S. Children's Bureau has began publishing promising child welfare approaches identified
during their reviews of statewide Child and Family Services, such as Delaware's Child Welfare Staff Training and Retention Initiatives (Appendix D).

Translating the Evidence to Policy and Practice

Despite advances in research and dissemination efforts, a substantial body of literature documents the failure of conventional educational approaches to promote the transfer of various types of research evidence influence practice and policy. Rosenheck (2001) notes that the recent evaluations of new mental health treatments is a sequential two-part process that begins with: (a) efficacy research conducted in highly controlled research settings, and (b) followed by effectiveness research, in which interventions are evaluated in settings that more closely approximate the “real world.” However, the fit between the intervention or guideline and the context of service delivery is not always taken into consideration (Hoagwood et al., 2001). This dimension of “fit” is referred to as “transportability” or “translational” research that focuses on whether validated interventions produce desired outcomes under different conditions (Schoenwald & Hoagwood, 2001). For example, a randomized controlled trial of an intervention that has been validated in an efficacy study may not be effective when implemented with a different population or in a different care setting. Therefore, some aspects of the intervention, the population, and the setting may need to be modified for “real world” service delivery.

Children’s mental health researchers have made an important contribution to transportability research by developing frameworks for validating interventions in different settings (Schoenwald & Hoagwood, 2001). The questions that they have applied to transportability research can be extended to considerations of multiple types of evidence such as “What is the intervention?”, “Who can and will conduct the intervention in question, under what circumstances, and to what effect?”, “Which aspects of the protocols, practice guidelines,
practice settings require modification?”. At each step in the research and intervention development process, decisions are made about the variables that are considered the most relevant. The following dimensions and variables have been used to compare conditions in research settings and practice settings (adapted from Schoenwald & Hoagwood, 2001):

(1) Intervention characteristics (focus of treatment, model complexity, implementation specifications)

(2) Practitioner characteristics (training, clinical supervision, types of practitioner such as social worker, physician, parent, etc.)

(3) Client characteristics (age, gender, ethnicity and cultural identification, family context, referral source)

(4) Service delivery characteristics (frequency, duration, source of payment)

(5) Organizational characteristics (structure, hierarchy, and procedures, organizational culture and climate, size, mission and mandates)

(6) Service system characteristics (financing methods, legal mandates, interagency working relationships)

Given that organizational factors can be the most significant obstacles or enhancers of evidenced-based practices, there has been call for “dissemination research” that would bring more attention to the role of organizational life (Rosenheck, 2001). For example, in an implementation study of family psycho-education programs in Maine and Illinois, Rosenheck (2001) found that the external organizational factors (e.g. statewide advocacy and coalition building) were the most important predictor of successful implementation. While some national and regional research centers have been successful in developing best practices guidelines, disseminating evidence, and sponsoring research-oriented workshops and conferences, it has become increasingly apparent that one of the major challenges to implementing EBP is that of building an evidence-based organizational culture inside and outside social service agencies.

Organizational issues: If there is sufficient evidence, how do we implement it?
Several studies have documented the barriers to the implementation of research findings at the individual practice level, particularly in the field of health care (see Bero et al., 1998; Gira et al., 2003). However, less is known about the experiences of organizations that have attempted to adopt evidence-based policy and practice environments. The barriers identified by Hampshire Social Services (1999) in Appendix E, *Notes on Our Strategy*, include the organizational culture, practice environment, and educational environment. These barriers seem representative of the challenges faced across the field. The solutions that they identify in Figure 4 and the views of evidence-based scholars (Hodson, 2003) suggest that EBP is an innovation that requires (1) ideological and cultural change (by winning over the hearts and minds of practitioners to the value of evidence and the importance of using it when making decisions), (2) technical change (changing the content or mode of service delivery in response to evidence on the effectiveness of interventions), and (3) organizational change (changing the organization and management to better enable EBP).

*Insert Figure 4*

Based on interviews with staff responsible for promoting the development of EBP in the U.K., Hodson (2003) found that a combination of “micro” and “macro” approaches is more likely to achieve lasting change; “micro” approaches refer to altering the attitudes, ways of working and behaviors of individual practitioners and “macro” approaches relate to the “top-down” strategy to redesign key systems (such as the system for dissemination of evidence or the system for developing policy). Organizational approaches, which may include micro and macro strategies, focus on the context within which practitioners and systems operate. This approach removes impediments to new ways of working by redesigning embedded routines and practices.
as well as established cultures and behaviors. It also supplies the supportive structures that are necessary to sustain EBP processes (Hodson, 2003).

**Evidence for Micro Approaches:** Research reviews on micro approaches have focused on the effectiveness of various dissemination and implementation strategies in the field of health care. In their review of 12 meta-analyses of multiple strategies (printed educational materials, continuing education, educational outreach visits, local opinion leaders, audit and feedback, Continuous Quality Improvement, computing, and mass media interventions), Gira et al. (2003) found that certain types of continuing education and uses of computers showed moderately strong outcome, whereas educational outreach visits and audits showed weaker outcomes. The use of printed educational materials, local opinion leaders, and continuous quality improvement were found to be the weakest interventions. An important finding was the differential effectiveness of changing the behaviors of clinicians with respect to the daily decisions confronting clinicians that required a combination of approaches for changing practitioner behaviors.

In an earlier review of 18 systematic analyses, Bero et al. (1998) identified some consistent themes among efforts to promote changes in the behaviors of practitioners; namely consistently effective, mixed effect, and little or no effect as noted in see Figure 5. While their review found the passive dissemination of information to be generally ineffective, more support was found for more interactive approaches such as educational outreach visits, interactive educational meetings, and multi-pronged dissemination strategies. Studies suggest that more intensive efforts to alter practice are more successful when coordinated with active dissemination and implementation strategies to enhance the utilization of research findings. The type of
dissemination strategy should take into account: (1) the characteristics of the message, (2) the recognition of external barriers to change, and (3) the practitioner’s level of preparedness for engaging in change.

Evidence for Macro Approaches: In contrast to the large number of studies on efforts to change individual behaviors, the research on macro approaches to changing organizational cultures related to EBP has been limited largely to a small number qualitative studies (Barratt, 2003; Hodson, 2003). For example, Barratt (2003) found that few individuals within organizations in the United Kingdom held common views regarding the nature of evidence along with little consensus on how such evidence could be effectively utilized. In addition, there was little clarity about the types of mechanisms needed to promote and sustain an evidence-based organizational culture. However, Barratt (2003) found considerable consensus on the need for organizations to share a common understanding of what constitutes “best evidence” by fostering continuous dialogue about the nature and relevance of evidence before practitioners could be expected to effectively manage the dissemination, implementation and adoption processes at either the management or line levels. In addition, there was a high level of agreement that responsibility and accountability for EBP should be devolved down through an agency with the active leadership of top management using coordinated strategy groups for supporting the continuous use of evidence-base practice throughout the organization. At the same time, there was equally strong agreement that accessing evidence and reflecting upon its relevance should be an integral part of everyone’s job with time allocated during the work week to read and reflect.
Hodson’s (2003) found that the major barriers to the implementation of EBP were: (1) lack of time to fulfill the EBP role, (2) isolation within their agencies in terms of driving EBP initiatives, (3) lack of resources, and (4) a lack of a sound knowledge base of relevant evidence. The major strategies to address these barriers included a willingness to address organizational issues, specific EBP leadership competencies, and leadership support in the form of regional meetings and seminars support to maintain momentum. Some of these strategies can be handled internally in the agency while others (e.g. developing or enhancing EBP competencies, discussion facilitation, and accessing networking opportunities) may require external assistance or training.

In addition, Hodson (2003) identified the following competencies related to leading the introduction of EBP into the agency: (1) setting agency directions and expectations for staff, (2) increasing staff competence, supporting and enabling critical thinking about practice, (3) using evidence to improve services, (4) generating and sharing evidence, and (5) creating strategic partnerships through networking and personal skills. In addition, the modeling appropriate EBP behaviors included: (1) a demonstrated commitment to one’s own personal development (i.e., “still learning” rather than “burnt out”), (2) demonstrating a belief that research evidence can be used to advance practice, (3) seeing the connection between research and practice whereby EBP is part of everyday work, (4) demonstrating awareness of key issues and being sufficiently well-read to identify research evidence relevant to the key issues.

Evidence on Organizational Approaches: Drawing on dissemination work with more than 900 Veteran’s Affairs programs for severely mentally ill veterans, Rosenheck (2001) identified four major organizational factors for consideration in the implementation of evidence-based
intervention. The first is the development of decision-making coalitions at the top and/or bottom of the organization. He noted that if the impetus comes from the higher ranks of the organization, the initiative has a higher potential for widespread impact. At the same time, if the impetus comes from line staff, it is more likely to succeed because consensus can be easier to achieve when fewer stakeholders are needed for decision-making. His second factor is the degree to which the new initiative is consistent with current organizational goals and objectives. The third factor is the verification and dissemination of implementation results (often through quantitative assessment) and the fourth factor involves the development of “learning subcultures.”

In a similar manner, Sheldon and Chilvers (2000) have suggested the following organizational strategies for supporting the provision of evidence-based social services: (1) regularly scheduled staff training programs that make reference to research both on the nature and development of social problems and on what is known at an empirical level about the effectiveness of different approaches designed to address them, (2) staff supervision that regularly draws upon research to inform decisions about cases and projects, (3) staff meetings that regularly include references to research on what has been tried elsewhere, regionally, nationally and internationally, (4) support facilities to assist staff in efforts to keep abreast of relevant research, (5) a workforce that would take personal responsibility for acquainting itself with the empirical evidence on service effectiveness, and (6) a range of collaborative arrangements between social services departments and local and regional research institutes and universities (especially to promote university courses to address and review the literature on the effectiveness of services and equip students to critically appraise results reported). Both top-down and bottom-up strategies are noted in Figure 5.

[insert Figure 5]
Future Directions

In the context of limited resources and accountability pressures, agencies need innovative strategies to harness information for the benefit of the individuals and communities that they serve. Based on the literature reviewed, evidence-based practice appears to operate best within an organizational context that supports practitioners at each stage EBP process is noted in Figure 6. Future directions suggest agency-university partnerships, staff training, and the modification of agency cultures may be an effective place for organizations to begin considering EBP.

Agency-university partnerships can be used to identify the data that will support evidence-based practice. Key questions that need to be addressed are: 1) how will human service agencies develop the research questions needed to guide the systematic search of the literature?, 2) how will research questions be addressed by researchers?, and 3) how will results be shared and incorporated into practice?.

[Insert Figure 6]

Staff training, within human service agencies and on university campuses, may feature problem-based learning approaches to support the introduction and utilization of evidence-based practice. Major questions might include the following: To what extent are practice guidelines needed and how can they be incorporated in staff training programs? How can training become more “problem-based” in order to apply evidence-based research? How can the transfer of learning be efficiently/effectively assessed?

Finally, the modification of agency cultures may be necessary to support and sustain evidence-based practice. Since there is evidence that practitioners generally do not consult the research literature to guide practice decision-making due to an overwhelming volume of
information, lack of knowledge about searching techniques, a lack of time, and problems with library hours (Bunyan & Lutz, 1991), how can the agency’s culture be modified to address this dilemma? What does management need to do to build and sustain the supports for evidence-based practice? What do supervisors need to do to assist line staff in the process of adopting evidence-based practice? What adjustments do line staff need to make to incorporate evidence-based practice into their daily routines?

Conclusion

Evidence-based practice integrates individual practitioner expertise with the best available evidence while considering the values and expectations of clients for their care. While the development of evidence that is based on randomized controlled trials in the human services is still in its infancy, other types of knowledge hold promise for improving practice. This knowledge is increasingly available within agencies and is rapidly becoming available at the state, regional, and federal levels. Strategies such as agency-university partnerships, staff training that features problem-based learning approaches, and the modification of agency culture to support and sustain evidence-based practice hold promise for building evidence-based organizational cultures within the human services.
Figure 1: Hierarchy of Evidence from a Research Perspective

<table>
<thead>
<tr>
<th>Research Design</th>
<th>Description</th>
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<tbody>
<tr>
<td>Systematic reviews and meta-analyses</td>
<td>Secondary research papers where all primary studies on a particular topic have been critically appraised using rigorous criteria.</td>
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<tr>
<td>Randomised controlled trials with a) definitive results (i.e. confidence intervals which do not overlap the threshold clinically significant effect) and b) non-definitive results (i.e. a point estimate which suggests a clinically significant effect but with confidence intervals overlapping the threshold for this effect)</td>
<td>Participants are randomly allocated by a process equivalent to the flip of a coin to either one intervention or another. Both groups are followed up for a specified time period and analyzed in terms of specific outcomes defined at the outset of the study.</td>
</tr>
<tr>
<td>Cohort studies</td>
<td>Two or more groups of individuals are selected on the basis of differences in their exposure to a particular agent and followed up to see how many in each group develop a particular condition or other outcome.</td>
</tr>
<tr>
<td>Case-control studies</td>
<td>Participants with a particular condition are identified and “matched” with control cases. Data are then collected on past exposure to a possible causal agent for the condition. Case-control studies are generally concerned with the etiology of a condition rather than treatment.</td>
</tr>
<tr>
<td>Cross-sectional surveys</td>
<td>A sample of participants are interviewed, examined, or otherwise studied to gain answers to a specific question. Data are collected at a single time point but may refer retrospectively to experiences in the past.</td>
</tr>
<tr>
<td>Case reports</td>
<td>A case report describes the history of a single participant in the form of a story. Case reports are often run together to form a case series in which the histories of more than one participant with a particular condition are described to illustrate an aspect of the condition, the treatment, or their adverse reaction to treatment.</td>
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<tr>
<th>Topic</th>
<th>Purpose</th>
<th>Study Design</th>
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<tbody>
<tr>
<td>Treatment Effectiveness</td>
<td>Testing the efficacy of treatments, procedures, client education, or other interventions</td>
<td>Preferred study design is the randomized controlled trial</td>
</tr>
<tr>
<td>Diagnosis/Assessment</td>
<td>Demonstrating whether a new test or assessment is valid (can we trust it?) and reliable (would we get the same results every time?)</td>
<td>Preferred study design is the cross-sectional survey in which both the new test and the gold standard test are performed</td>
</tr>
<tr>
<td>Screening/Prevention</td>
<td>Demonstrating the value of tests that can be applied to large populations and that pick up disease at a presymptomatic stage</td>
<td>Preferred study design is cross-sectional survey</td>
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<tr>
<td>Prognosis</td>
<td>Determining what is likely to happen to someone whose disease is picked up at an early stage (e.g. risk assessment)</td>
<td>Preferred study design is the longitudinal cohort study</td>
</tr>
<tr>
<td>Causation</td>
<td>Determining whether a putative harmful agent is related to the development of a condition</td>
<td>Preferred study design is cohort or case-control study, depending on how rare the disease is, but case reports may also provide crucial information</td>
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**Figure 3: Hierarchy of Knowledge from a Practice Perspective***

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<th><strong>Service User and Care Provider Knowledge:</strong></th>
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<tr>
<td>As active participants in the use or provision of services, service users possess often unspoken and undervalued knowledge gained from the use of and reflection on various interventions. Similarly, care providers (foster parents, home health assistants, volunteers, etc.) have unspoken and undervalued knowledge gained from the provision of various interventions.</td>
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**Practitioner Knowledge:**

*Line staff:* Practitioners possess tacit knowledge, often shared informally with colleagues, that is based on their repeated experiences in dealing with clients of similar backgrounds and problems. Similarly, practitioners have acquired knowledge how organizations function to facilitate or inhibit service delivery, how policy changes impact service delivery, and how community (neighborhood) factors influence service provision. This knowledge tends to be acquired one practitioner at a time and specific to service settings and may be difficult to articulate and aggregate.

*Management staff:* Practitioners at the supervisory, middle management, or senior management levels have acquired knowledge about client populations, staff experiences, internal organizational dynamics, and external inter-agency dynamics that also tends to be acquired one practitioner at a time and may be difficult to articulate and aggregate.

**Organizational Knowledge:**

Often assembled in the form of policies and procedures manuals, organizational knowledge also includes administrative data gathered on a regular basis to account for the number of clients served, the outcomes of service, and the costs associated with service provision. The aggregation of this data is captured in quarterly or annual reports to funding sources (government, foundations, and donors) and to the community at large.

**Policy Knowledge:**

Often assembled in the form of legislative reports, concept papers, grand jury investigations, court decisions, technical reports, and monographs from research institutes, this form of knowledge focuses on what is known that could inform policy development or what has been learned from policy implementation that can inform administrative practice as well as future policy development.

**Research Knowledge:**

Often derived from empirical studies utilizing an array of quantitative and qualitative research methodologies, this knowledge is displayed in research reports, service evaluations, and service instrumentation (see hierarchy of research methodologies noted in Figure 1). It is also possible for research knowledge acquisition to focus on one or more of the previous categories noted above (user/carer, practitioner, organizational, and policy).

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<th><strong>Organizational Culture</strong></th>
<th><strong>Barrier</strong></th>
<th><strong>Solution Suggested</strong></th>
</tr>
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<tbody>
<tr>
<td></td>
<td>Little history, culture or expectation that evidence is routinely and systematically used to underpin practice</td>
<td>Creating the right culture and expectation through reinforcement of expectations and setting specific objectives for individuals</td>
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<td></td>
<td>A belief that achieving evidence-based ways of working is entirely a central departmental responsibility, rather than a joint responsibility with individuals locally,</td>
<td>Reflect evidence in operational practice with the approval, encouragement, and guidance of managers; reflect evidence in training, strategy, and policy</td>
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<td></td>
<td>Risk aversion mitigates against taking action in response to new ideas</td>
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<tr>
<th><strong>Practice Environment</strong></th>
<th><strong>Barrier</strong></th>
<th><strong>Solution Suggested</strong></th>
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<tbody>
<tr>
<td>Workload and time pressures of staff mitigate against discovering relevant evidence or generating it through evaluating initiatives or practice</td>
<td>Encourage formal evaluation of practice and sharing of best practice results within and across areas; establish networks, collate materials in the library; assess research deficits; develop a research agenda</td>
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<tr>
<td>Poor systems to establish and share best practice across the department</td>
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<tr>
<th><strong>Educational Environment</strong></th>
<th><strong>Barrier</strong></th>
<th><strong>Solution Suggested</strong></th>
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<tbody>
<tr>
<td>Skepticism about how transferable or generalizable evidence is, which mitigates against adoption of new ideas</td>
<td>Raise awareness about available materials, foster skill development in utilizing these resources through training, set up “reading clubs” and learning sets to help digest and disseminate evidence; utilize trainers</td>
<td></td>
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<tr>
<td>Evidence is not available in easily digestible formats which allow simple translations into policy and practice</td>
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* Hampshire Social Services *Notes on Our Strategy* (1999)
Figure 5: Interventions to Promote Professional Behavioral Change (Bero et al., 1998)

<table>
<thead>
<tr>
<th>Consistently Effective</th>
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<tbody>
<tr>
<td>Educational outreach visits</td>
</tr>
<tr>
<td>Reminders (manual or computerized)</td>
</tr>
<tr>
<td>Multifaceted Interventions – a combination that includes two or more of the following: audit and feedback, reminders, local consensus process, marketing</td>
</tr>
<tr>
<td>Interactive Educational Meetings – Participation of health care providers in workshops that include discussion or practice</td>
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<table>
<thead>
<tr>
<th>Mixed Effects</th>
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</thead>
<tbody>
<tr>
<td>Audit and Feedback – Any summary of clinical performance</td>
</tr>
<tr>
<td>Local Opinion Leaders – Use of providers nominated by their colleagues as ‘educationally influential’</td>
</tr>
<tr>
<td>Local Consensus Process – Inclusion of participating providers in discussion to ensure that they agreed that the chosen clinical problems was important and the approach to managing the problem was appropriate</td>
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<tr>
<td>Patient Mediated Interventions – Any intervention aimed at changing the performance of health care providers where specific information was sought from or given to patients</td>
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<table>
<thead>
<tr>
<th>Little or No Effect</th>
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<tbody>
<tr>
<td>Educational Materials – Distribution of published or printed recommendations for clinical care, including clinical practice guidelines, audio-visual materials and electronic publications</td>
</tr>
<tr>
<td>Didactic Educational Meetings – Lectures</td>
</tr>
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</table>
Figure 6: Steps Involved in Implementing Evidence Based Practice (Sackett et al., 1997)

- Becoming motivated to apply evidence-based practice
- Converting information needs into questions
- Efficiently tracking down with the best evidence to answer questions
- Critically appraising the evidence for validity and usefulness
- Applying results to practice/policy
- Evaluating performance
- Teaching others to do the same
Figure 7: Creating and Sustaining an Evidence-based Organizational Culture in Social Service Agencies*

I. Team or unit level strategies:

- Develop and disseminate an in-house newsletter on relevant research
- Form and support monthly journal clubs to discuss an article or book of relevance to practice and to encourage knowledge sharing among practitioners
- Include research on the agenda of supervisory meetings, unit meetings, and departmental meetings
- Involve students in agency field placements to search for, summarize, and share relevant research
- Create a library in every supervisor’s office of relevant research articles, reports, and books
- Help staff access existing databases (Cochrane and Campbell Collaboratives)

II. Department or agency level strategies:

- Develop an organizational environment that recognizes the importance of research in making decisions at all levels of the organization
- Identify champions for evidence-based practice (chief information officer, knowledge manager, etc.)
- Demonstrate ownership of evidence-based practice by senior and middle management (may require special orientation sessions)
- Provide resources for evidence-based practice (internet access, training, library materials, etc.)
- Establish a steering committee responsible for implementing evidence-based practice
- Support the design, implementation, and utilization of service evaluations
- Create a climate of continuous learning and improvement (learning organization)
- Promote evidence-based training and evidence-based decision-making
- Develop system of email alerts of recent, relevant articles
- Create a policy on supervision that includes evidence-based practice
- Consider mandatory in-service training on evidence-based practice and lobbying for similar content in local pre-service university programs
- Promote protected reading time for staff to review relevant research
- Structure student placements around evidence-based practice

III. University/Institute research development and dissemination strategies:

- Provide clear, uncomplicated, user-friendly presentations of research findings
- Conduct research relevant to the service mission of the organization
- Develop research and evaluation partnerships between agencies and universities/institutes
- Utilize multiple methods of dissemination
- Build dissemination into all research projects
• Engage practitioners in research topic identification and development

IV. Implications for senior management

• Develop and circulate a policy statement that clearly identifies the value-added qualities of evidence-based practice including:
  • An approach to assessing service effectiveness
  • A way of finding promising practices for adaptation/incorporation
  • Provide evidence to support decision-making at the line and management levels
  • An approach to making decisions about the effectiveness of contracted services

• Develop an orientation program whereby senior staff become thoroughly acquainted with evidence-based practice and begin to redesign the organizational culture to make it possible to install this new approach to service delivery

• Identify a champion from the rank of either senior management or middle management to serve as the agencies chief information officer (knowledge manager) to guide this organizational change (based on a well-defined job description or work portfolio)

• Identify a university/institute partner to conduct systematic reviews of existing evidence by involving agency staff in:
  o selecting the areas for review,
  o reviewing the results of the reviews and recommendations,
  o designing the strategies for incorporating new knowledge into ongoing practice and evaluating the outcomes
  o coordinating all agency efforts to promote evidence-based practice through the agency’s chief information officer or knowledge manager.

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References


Appendix A

Trauma-focused Cognitive-Behavioral Therapy (CBT) (Adapted from a summary by Judy Cohen, M.D. and Esther Deblinger, Ph.D.)

Brief Description:
Trauma-focused cognitive behavioral therapy, an intervention based on learning and cognitive theories, is designed to reduce children's negative emotional and behavioral responses and correct maladaptive beliefs and attributions related to the abusive experiences. It also aims to provide support and skills to help non-offending parents cope effectively with their own emotional distress and optimally respond to their children. See references for theory and rationale.

Treatment Components (12-18 sessions):

• Psychoeducation about child abuse, typical reactions, safety skills and healthy sexuality

• Gradual exposure techniques including verbal, written and/or symbolic recounting (i.e. utilizing dolls, puppets, etc.) of abusive event(s).

• Cognitive reframing consisting of exploration and correction of inaccurate attributions about the cause of, responsibility for, and results of the abusive experience(s).

• Stress management techniques such as focused breathing and muscle relaxation exercise, thought stopping, though replacement, and cognitive therapy interventions.

• Parental participation in parallel or conjoint treatment including psychoeducation, gradual exposure, anxiety management and correction of cognitive distortions.

• Parental instruction in child behavior management strategies.

• Family work to enhance communication and create opportunities for therapeutic discussion regarding the abuse.

Treatment Manuals or Protocol Descriptions:


Treatment Outcome Study References:


Appendix B

Parents' Expectations of Caseworkers: An Abbreviated Summary (Adapted from John Poertner, Dennette M Derezotes, Ellyce Roitman, Casandra Woolfolk, Jo Anne Smith, Children and Family Research Center, School Social Work, University of Illinois at Urbana-Champaign)

As a bridge between research and practice, this client satisfaction inventory is designed to highlight the 24 caseworker behaviors identified as important to parents, the clinical implications of these behaviors, and specific casework interventions that can be implemented to address each identified issue.

Caseworker Behavior 1: My caseworker encourages me to discuss times when things were better in my family.

Clinical Implications: Encouraging clients to discuss times when things were better in their family offers them the opportunity to identify and acknowledge family strengths and resources. Through recognition of sequences of positive patterns, families can begin to make conscious use of their strengths and resources to work toward a desired future.

Casework Interventions:

1) Ask the client to discuss the positive patterns they observe in themselves and their families.
2) Tell clients about the positive patterns observed in the client and/ or their family.
3) Ask the client how they will know when things are better.
4) Discuss with the client what changes DCFS is wanting to see to ensure their child's safety.

These activities can be done periodically throughout the life of the case.

Caseworker Behavior 2: When my caseworker makes a mistake, she/he admits it and tries to correct the situation.

Caseworker Behaviors 3 and 22: My caseworker tells me what she plans to say in court about my family and me - both negative and positive.

And -- My caseworker explains to me what will happen in court.

Caseworker Behavior 5: My caseworker informs me about the help that is available to complete my case.

Caseworker Behaviors 6 and 8: My caseworker devotes enough time to my case.

And -- My caseworker gets me necessary services in a timely manner.

Caseworker Behavior 9: My caseworker cares about my kids.
Caseworker Behavior 10: My right to make decisions about my children has been respected during the time they have been in care.

Caseworker Behavior 11: My caseworker helps me talk to my child often.

Caseworker Behavior 12: My caseworker calms my fears about what the agency can do to my children and me.

Caseworker Behavior 13: My caseworker speaks up for me with other professionals involved in my case.

Caseworker Behavior 14: My caseworker has experience dealing with the kinds of problems my family and I are experiencing.

Caseworker Behaviors 15 and 21: My caseworker's expectations of me are reasonable.

And -- My caseworker is clear about what she/he expects from me.

Caseworker Behavior 16: When my caseworker says she will do something, she does it.

Caseworker Behavior 17: Meetings with my caseworker occur at least once a month.

Caseworker Behavior 18: My caseworker listens to my side of the story.

Caseworker Behavior 19: My caseworker respects my right to privacy.

Caseworker Behavior 20: My caseworker returns my calls.

Caseworker Behavior 23: I am involved in decisions made about my case.

Caseworker Behavior 24: My caseworker respects my social/ cultural background.
Appendix C

Hui Makuakane
1505 Dillingham Blvd., Suite 208
Honolulu, HI 96819
(808) 841-2245

The Hui Makuakane Program recognizes the important role of fathers in the family and supports that role through a variety of activities, including home visits, group activities, and crisis support. The program was developed in response to a need to engage fathers in the Hana Like Home Visitor Program, a Healthy Families in Hawaii home visitation program for the entire family. Receiving referrals from the Hana Like Program, Hui Makuakane provides supportive services to fathers, both in and out of the home, with the goal of preventing child abuse and neglect by engaging fathers in the lives of their children and supporting them as effective parents and positive role models.

Hui Makuakane aims to recognize and support the role of fathers in the family through the following services goals:

1) Increase fathers' understanding of how their babies grow and what to expect as they grow
2) Increase fathers' knowledge of the kinds of activities they can do with their children to help them grow and develop
3) Increase the amount of time fathers spend with their children in play and in fulfilling their day-to-day needs (e.g., changing diapers, feeding)
4) Teach fathers how to set limits and enforce them using positive disciplinary techniques
5) Help fathers feel good about themselves as parents and to have loving, nurturing relationships with their children
6) Help fathers set personal goals and make progress toward those goals.

The program engages fathers in the following activities in order to increase their participation in the services for the entire family: group activities, home visits, career development, job help, support in crisis, referral to other community resources, and outreach to fathers in correctional facilities. Home visits by Father Facilitators for all fathers enrolled in the program are the primary service provided by Hui Makuakane. Father Facilitators provide personal help with answering fathers' questions about their children and learning new and fun activities to do with their children including:

1) Infant massage instruction is provided during home visits as a way to increase positive parent-child interaction
2) Help fathers establish and reach vocational and educational goals
3) Making referrals to other community resources to help fathers meet their goals
4) Providing fathers with 24-hour access to Father Facilitators via cell phones in case of a crisis

5) Group outings are available for the entire family, for just fathers in the program, for just fathers and children, or for just fathers and their partners.

Collaboration with Healthy Families in Hawaii resulted in increased involvement and participation among fathers during family home visits by the Hana Like Home Visiting Program.
Appendix D

Promising Approach: Delaware’s Child Welfare Staff Training and Retention Initiatives

I. Identifying Information

Agency Sponsor: Delaware Department of Services to Children, Youth and Families
Target Population: Child welfare caseworkers and supervisors

Required/Funding Source: personnel budget.
Length of Operation: 1997 to present

Personnel procedures: Educational requirements for prospective child welfare caseworkers include a bachelor's degree in a field closely related to child welfare.

II. Description of Promising Approach

Staff retention is one of the challenges facing child welfare agencies, which typically experience significant staff turnover in short periods of time. The Delaware Department of Services to Children, Youth, and Their Families has put in place procedures for stabilizing their workforce, building on a legislative initiative enacted in response to several child fatalities.

The Child Abuse Prevention Act of 1997 established systems designed to improve the training and retention of State child welfare caseworkers, using an "overhire" process that supports new staff development. Through these changes and other new procedures, the department is hiring faster, providing more staff training, and improving staff management.
Appendix E

Evidence-based practice in Hampshire Social Services (England): An abbreviation of 1999 organizational strategy

Introduction

The requirement for Social Services Departments to use empirical evidence in developing policy and practice is becoming increasingly important with the growing focus on best value and performance results in terms of effectiveness. Evidence-based practice is defined as “the conscientious, explicit and judicious use of current best evidence in making decisions about the welfare of service users.” (adapted from Sackett et al, BMJ 1996; 312; 71-72)

Evidence is based on the results of soundly based effectiveness research published in refereed journals. However, evidence can also include unpublished work by practitioners if it is methodologically sound and transferable. Professional experience about "what works" built up over many years of practice may also constitute evidence and must not be ignored. The key imperative is for "judicious use" of the "best evidence" available from the full range of sources.

Reliance only on "practice wisdom" means that we do not challenge what we are doing. When we intervene in the lives of others, we should do so with the best evidence available about the likely outcomes of that intervention. The goal is to get the Social Service organization into a position where:

- there is both an expectation and a desire to know what evidence says about how best to approach interventions,
- there is ready access to and awareness of best available evidence,
- where evidence is not available, steps are taken to plug this gap,
- staff are able to understand and interpret evidence in order to inform policy development, training and practice decisions,
- service delivery reflects what the evidence is saying about best practice,
- the results of policy and practice decisions are routinely evaluated to gauge outcomes,
- evaluation results are disseminated in order to add to the body of available evidence.

There are multiple barriers to implementing evidence-based practice in the social services and they include some of the following:

- little history, culture or expectation that evidence is routinely and systematically used to underpin practice,
- a belief that achieving evidence-based ways of working is entirely a departmental (central) responsibility, rather than a joint responsibility with individuals locally
- workload and time pressures of staff mitigate against discovering relevant evidence ( or generating it through evaluating initiatives I practice )
- evidence is not available in easily digestable formats which allow simple translation into policy and practice,
• poor systems to establish and share best practice across the department,
• skepticism about how transferable or generalizable evidence is (this is likely to be a combination of a "not invented here" syndrome, concerns about the validity of "old" research and a lack of skills to appraise evidential material) which together mitigate against adoption of new ideas,
• risk aversion also mitigates against taking "action in response to new ideas.

Any strategy to promote evidence-based practice across the department needs to explicitly and directly address these factors.

The organizational resources and opportunities available to promote evidence-based practice include:

• The achievement of evidence-based practice within the department requires that a very broad range of issues are effectively addressed, including: departmental culture, processes (and responsibilities) for the development and improvement of practice, staff skills, information systems and workload management.

• The ultimate aim is to ensure the practice of front-line staff in every client group and Area is evidence-based and therefore maximizes positive outcomes for our service users. The key groups of staff that the strategy will need to impact are therefore:

  1) **front-line practitioners themselves**: who will need to routinely challenge and review their practice in the light of best evidence, and if required, amend their ways of working;

  2) **operational managers**: who will need to set the expectation of routine review of practice, facilitate and encourage this process, allowing innovative or new ways of working to be adopted, and play a key role in sharing best practice with colleagues;

  3) **HQ commissioning staff**: who will need to ensure that current and future strategies, policies and procedures to which practitioners turn for guidance and direction are founded on available evidence about what works and what is best practice in service delivery,

  4) **trainers**: who will need to ensure that current and future training material reflects available evidence about effective practices and best approaches, and that the training agenda develops appropriate skills in the staff to understand, use and generate evidence.

In addition, existing frameworks will need to be harnessed to explore more evidence-based ways of working such as the following:

• meetings of individual teams, of unit / team managers and of Service Managers could be used to discuss research and its application in each client group - "

• Performance Development (appraisal) and supervision could be used to set individual members of staff specific practice objectives related to the explicit use of evidence
• the care management process could be used more explicitly to review current practice, plan evidence-based interventions for individual users and record the outcomes
• technology (such as Hantsnet, WWW) is a readily available resource which could also be exploited further.

Creating the right organizational culture

The challenge is to create a culture that promotes the basics of performance management (assessing how well we currently do things, questioning practice in an attempt to continuously improve, and measuring our achievements in so doing). The routine use of evidence to underpin practice then becomes a natural corollary.

This requires a strong commitment to this way of working (rather than "practice wisdom"), because this change might be seen as threatening by some staff. Managers clearly have a crucial role to play in setting clear expectations about the use of evidence in underpinning interventions or strategies. Managers need to use the practices mentioned above (team meetings, Performance Development and supervision of care management practice, performance agreements) to:

• reinforce these expectations
• set specific objectives for individuals
• value, acknowledge and encourage achievements

The notion of "champions" is also a useful way of promoting culture change. This will be achieved by creating a network of staff (through workshops, training events and projects) who are interested in developing evidence-based ways of working. The primary implementation components include:

• Providing mechanisms to help staff access "digestible" evidence-based literature
• Developing skills of all staff to generate and exploit evidence through training programs
• Reflecting evidence in operational practice (supporting the risk-taking of trying out new ways of working through individual supervision and care management processes.
• Reflecting evidence in training, strategy and policy (the training calendar needs to reflect the topics on which there is clear evidence that suggest future changes in practice).
• Developing a research agenda (directing more of the available research towards systematic reviews of current evidence so available resources can then be targeted to meet these needs).