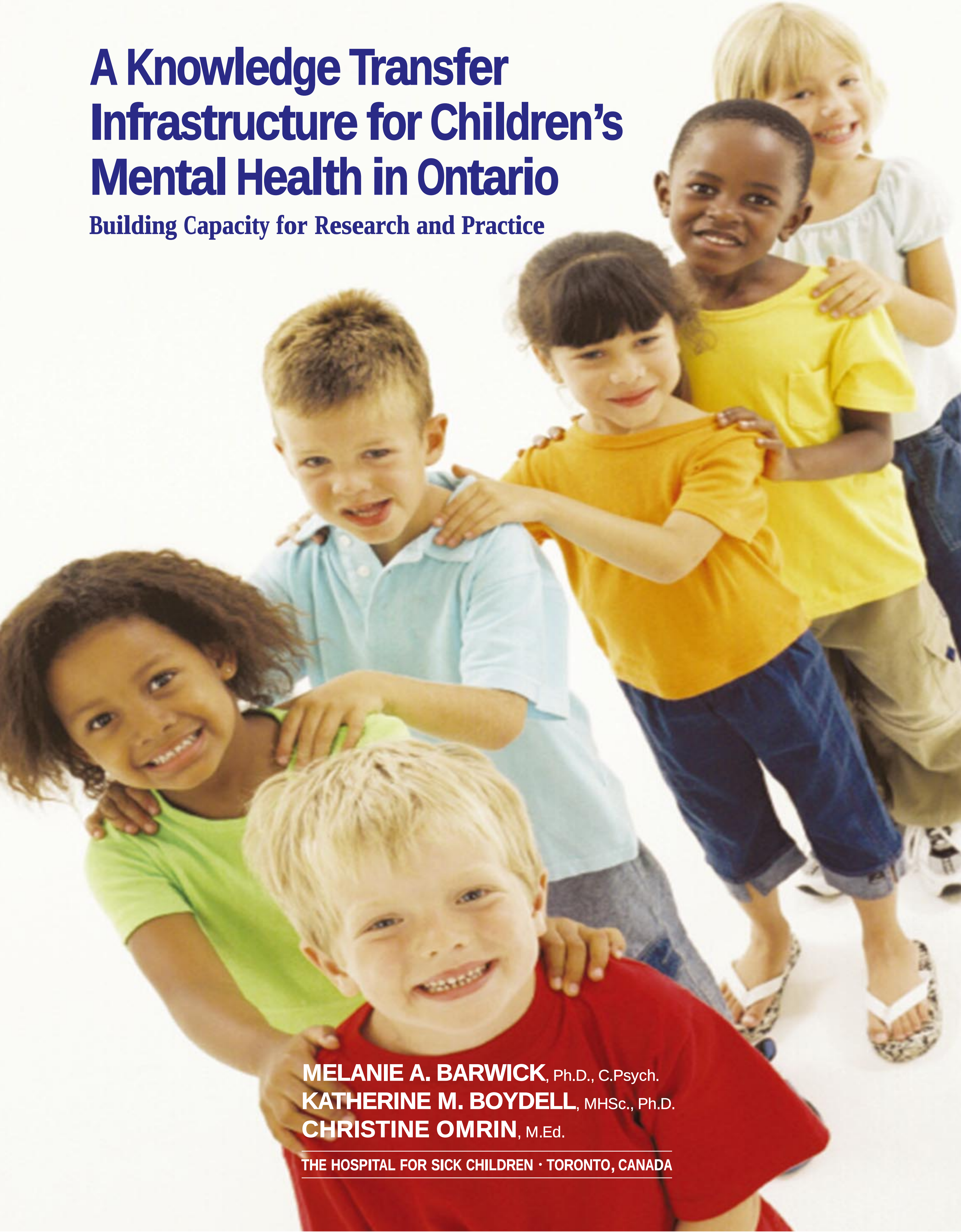

A Knowledge Transfer Infrastructure for Children's Mental Health in Ontario

Building Capacity for Research and Practice

MELANIE A. BARWICK, Ph.D., C.Psych.
KATHERINE M. BOYDELL, MHSc., Ph.D.
CHRISTINE OMRIN, M.Ed.

THE HOSPITAL FOR SICK CHILDREN · TORONTO, CANADA

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Correspondence regarding this document can be addressed to:

Dr. Melanie Barwick
Community Health Systems Resource Group
The Hospital for Sick Children
555 University Avenue
Toronto, ON, M5G 1X8
Canada

Telephone: 416-813-1085
Fax: 416-813-7258
Email: **melanie.barwick@sickkids.ca**

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Research Team

Melanie A. Barwick, Ph.D., C.Psych
Co-Principal Investigator
Psychologist, Community Health Systems Resource Group
Associate Scientist, Population Health Sciences
The Hospital for Sick Children

Katherine M. Boydell, MHSc., Ph.D.
Co-Principal Investigator
Health Systems Scientist, Community Health Systems Resource Group
Associate Scientist, Population Health Sciences
The Hospital for Sick Children

Christine Omrin, M.Ed.
Project Coordinator
Community Health Systems Resource Group
The Hospital for Sick Children

H. Bruce Ferguson, Ph.D.
Co-Investigator
Director, Community Health Systems Resource Group
The Hospital for Sick Children

Charles E. Cunningham, Ph.D.
Co-Investigator
Professor, Department of Psychiatry & Behavioural Neurosciences
McMaster University

Alexander Greer
Collaborator
Senior Policy Analyst, Mental Health Strategic Policy Unit
Ontario Ministry of Health and Long-Term Care

Sherilyn Sklar, M.A.
Collaborator
Quality Improvement and Program Evaluation Specialist
Peel Children's Centre

Sheila Weinstock
Collaborator
Executive Director
Children's Mental Health Ontario

Barbara Everett, Ph.D.
Collaborator
Chief Executive Officer
Canadian Mental Health Association-Ontario Division

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We would like to recognize and thank all of the people who participated in this project - the families, service providers, policy and decision-makers, and journalists/media who shared their research-related practices with us. We sincerely hope that our work will contribute to a strong and adaptable children's mental health system in Ontario.

Main Messages

- Knowledge transfer can involve the *creation* and/or the *exchange* of knowledge.

- Decision-makers seeking to institute changes in practice need to consider knowledge transfer strategies to support them.

- Knowledge transfer is essential for achieving organizational change.

- Improved practice and service delivery necessarily requires that practitioners and managers in children's mental health and related sectors become more involved in the creation and exchange of research-related activities, in collaboration with policy and decision-makers and researchers.

- Face-to-face forums, professional networks/contacts, and brief summaries of key information simply stated and accessed through electronic means (Internet, Email) are favoured by decision-makers, practitioners, and service providers in children's mental health and related sectors.

- As information technologies become more central in knowledge transfer, children's mental health service providers need to be given the resources (funds and training) they need to acquire and maintain this new technology. This is also necessitated by the province's adoption of computer-based screening and outcome assessment tools.

- Factors related to the knowledge user, knowledge content, and mode of dissemination or exchange hinder the capacity of practitioners and decision-makers in children's mental health and related sectors to acquire, assess, apply, and adapt research-related information. With only 25 percent reporting they are doing "very well " in this regard, a great deal of improvement is needed in the interface between research and practice in children's mental health. Improvement will require that stakeholders partner to promote research-to-practice linkages and address existing barriers.

- Funders, decision-makers, and researchers need to address the excess of terms used to refer to knowledge transfer and arrive at one term for common use.

- Building a culture for knowledge transfer requires that research institutions recognize and reward research activities in this area.

Executive Summary

There is a critical need to move research and information from those who generate it to the potential users, and to do so in a way that has direct and immediate application. Traditionally, knowledge transfer has been conceptualized as involving the dissemination of research findings, an activity undertaken at the culmination of research activity. More recently, there is growing appreciation of the role knowledge transfer plays in the creation of new knowledge. In this project, it plays an important role in the creation of new practice in children's mental health. The distinction between the two functions of knowledge transfer represents the difference between knowledge transfer that supports the development of a new practice as distinct from knowledge transfer that addresses the exchange and application of the new knowledge generated. Both creation-driven and exchange-driven knowledge transfer play a role in this project.

The development of this knowledge transfer infrastructure for children's mental health is embedded in a provincial initiative that seeks to introduce systematic screening and outcome measurement for children receiving mental health services in Ontario. Funded by the Ministry of Community, Family, and Children's Services, the measurement initiative is mandated for all children's mental health services and has four main goals. First, to collect standardized aggregate data regarding the mental health problems characteristic of children and youth seeking service (Brief Child and Family Phone Interview - BCFPI; Cunningham, Pettingil, & Boyle, 2000), and assess level of functioning outcomes for children and youth who have received service (Child and Adolescent Functional Assessment Scale - CAFAS; Hodges, 1997). Second, to encourage the adoption of evidence-based interventions by focusing on outcomes and how they relate to different types of services and different populations. Third, to inform policy and practice and to improve service delivery. Fourth, the initiative presents an opportunity to strengthen linkages among mental health services providers and to build linkages among researchers, policy and decision-makers, consumers of mental health services, and the public.

The task of implementing the screening (BCFPI) and outcome assessment (CAFAS) tools across the province is significant in scope and will create significant changes in mental health practice and service delivery. The goal of the current project was to develop a knowledge transfer infrastructure that would support the implementation of these tools, encourage a climate of readiness for change, and facilitate the transfer of new knowledge. We reviewed the literature in knowledge transfer and organizational change, conducted focus groups and interviews about the research-related practices of key stakeholders in children’s mental health and related fields, and surveyed stakeholders across the province to establish the validity and representativeness of what we had learned. We compiled a list of key contacts in children’s mental health and related fields from which to launch our knowledge exchange activities. We adapted our implementation support activities and knowledge transfer strategies on the basis of what we learned about the research-related practices of those involved in the initiative and those on the sidelines seeking to be informed. We improved the knowledge transfer capacity of our CAFAS web site and revised BCFPI reporting features to be more user-friendly and, hence, applicable.

What we learned about the research-related practices of consumers, policy and decision-makers, service providers, and media lends further support to main messages derived from the literature. Factors related to the knowledge user (inexperience, lack of motivation, lack of time), content of the information (too lengthy, contradictory), and mode of dissemination (not always accessible) affect the capacity of individuals to acquire, assess, apply, and adapt research-related information. Face-to-face forums, professional networks and contacts, and brief summaries of main messages simply stated and accessed through a variety of means, preferably electronic, are favoured by stakeholders in children’s mental health. The majority of stakeholders (approximately 75 percent) report that they and their organizations are doing less than “very well” in their capacity to acquire, assess, apply, and adapt research-related information. Improvement is greatly needed and will require that stakeholders partner to promote research-to-practice linkages and address existing barriers.

The knowledge transfer infrastructure developed here has taken these findings into account and developed strategies to support the implementation of the measurement tools and the transfer of knowledge stemming from their use. Multiple approaches are incorporated, including several opportunities for face-to-face exchange (consultation, regional community of practice forums), supports for clinical application (guidelines for special populations, clinical application workshops), capacity building (training in clinical application and software use), and sustainability (training of academic faculty, rater drift assessment, train-the-trainer). These knowledge transfer strategies are outlined on our web site (www.cafasinontario.ca), and an interactive mechanism for knowledge exchange (group email of key information) is built in to the web architecture where it can be continuously updated.

We hope that readers will take away the important “main messages” related to knowledge transfer and organizational change in children’s mental health. Listed at the beginning of this report, these main messages are intended to convey several key points to all stakeholders – researchers, policy and decision-makers, service providers and practitioners. First, knowledge transfer strategies are inextricably linked to the creation and exchange of knowledge and/or practice in children’s mental health; new initiatives necessarily require the support of knowledge transfer strategies in order to succeed. Second, improved practice and service delivery requires that children’s mental health practitioners, service providers, and family consumers become more involved with researchers and policy and decision-makers. Third, there is an overwhelming need for stakeholders in children’s mental health to improve their capacity to acquire, assess, adapt, and apply research-related information. Improvement here will require that stakeholders partner to promote research-to-practice linkages and address existing barriers. Fourth, as information technologies become more central in knowledge transfer and as technologically-based tools are implemented into practice, children’s mental health service providers need to be given the financial and training resources they need to acquire and maintain this new technology.

Continuation of this program of knowledge transfer research requires that we study the *impact* of the knowledge transfer infrastructure on the implementation of the two measurement tools and on the attainment of the measurement initiative’s goals. A project with this aim is currently under development.

Collectively, we have learned a tremendous amount from conducting this study, and have been in the position of being able to apply our new knowledge to the training and implementation support conducted over the past year and a half. We are confident that the knowledge we have generated here will be useful for the development and implementation of other initiatives in children’s mental health and other fields. We welcome feedback on this report and look forward to sharing what we will learn in years to come as this initiative continues to unfold.

Chapter 1

Bringing Knowledge Transfer to Children's Mental Health

Research transfer is a process by which relevant information is made available and accessible for application in practice, planning, and policy making, preferably through interactive engagement with decision-makers and supported by both user-friendly materials and a communications strategy that enhances the credibility of the organization and, where relevant, reinforces the key messages from the research

-Canadian Health Services Research Foundation, 1999

There is a critical need to move research and information from those who generate it to the potential users, and to do so in a form that has direct and immediate application. The challenge of effectively disseminating research knowledge to groups that can make use of the information is receiving increased attention from researchers, funders, and policy and decision-makers. Particular emphasis is being placed on translating health research results into practice. The Canadian Health Services Research Foundation has described the 'linkage and exchange' between researchers and decision-makers as the basis of its effort to facilitate the use of research in practice (Lomas, 2000). Concomitant with this, there is a growing body of research on knowledge transfer and increased interest in innovative and effective strategies for 'doing transfer'.

The model of knowledge transfer we have adopted in this project includes not only researchers and decision-makers but also practitioners in children's mental health and related fields. This knowledge transfer project is embedded within a provincial initiative to introduce systematic and province-wide screening and outcome measurement for children receiving mental health services. The introduction of these measures represents a significant change in mental health practice and service delivery. The knowledge transfer infrastructure developed in this project is instrumental to achieving this change.

Knowledge translation is the exchange, synthesis, and ethically-sound application of knowledge within a complex system of relationships among researchers and users.

-Canadian Institutes of Health Research, 2002

Knowledge transfer has an important role to play in the exchange of new information, what we call *exchange-driven knowledge transfer*, and in the creation of new knowledge, coined here as *creation-driven knowledge transfer*. The development of a knowledge transfer infrastructure for the measurement initiative described above largely involves creation-driven knowledge transfer: the development of strategies in support of the organizational and practice changes that are necessary for successful attainment of the initiatives goals. The distinction between these two types of knowledge transfer reflects the difference between knowledge transfer that is required for the development of a new practice as distinct from knowledge transfer that ensures the exchange and application of the new knowledge it generates. Both are key, and both have a place in this project. However, our initial focus is on developing a knowledge transfer infrastructure that will support the creation of a new practice – the use of the standardized measurement tools in children's mental health. As the new practice takes hold and becomes part of the mental health culture, exchange-driven knowledge transfer strategies will ensure that information has the intended impact on service delivery policy and practice.

Making Research Relevant in Children's Mental Health: Building Capacity in Ontario

Evidence-based decision making requires both the effective transfer of research results by researchers to decision-makers, and the uptake and incorporation of those results by decision-makers. As a result, effective knowledge transfer is a two-sided coin that requires the active involvement of both researchers and decision- makers.

- Research Unit Integrated Policy and Planning Division Corporate Policy Branch, MOHLTC 2000

In November 2000, the Ontario Ministry of Health and Long-Term Care (MOHLTC) launched a research funding competition entitled *Making Research Relevant: Building Capacity in Ontario.* With this new direction, the province will facilitate the development of policies and programs, and the allocation of public resources based on the latest and best evidence in health services and population health. The grant program was designed to fund two separate, yet related, research directions:

- To build and improve the capacity of government decision and policy makers in identifying research priorities, communicating them to the research community, and in understanding and incorporating the results of research into their decisions; and
- To build and improve the capacity of researchers to communicate their results, and to improve their abilities to effectively link with government policy and decision makers and the broader health system's managers and planners.

On average, researchers spend only 6.7 percent of their time on the communication of results outside of the academic community. Yet, the ultimate goal of health services research is to put knowledge to work in ways that significantly improve the health delivery system and ultimately, the health of the population.

- Social Science and Humanities Research Council, 1994

In response to the request for applications, we sought to address both research directions by submitting two separate proposals. Both proposals related to an existing provincial initiative funded by the Ontario Ministry of Community, Family, and Children's Services (MCFCS[1]) to develop capacity for screening and outcome measurement in the province's children's mental health system (hereafter referred to as the measurement initiative). At the request of the review committee, the two projects were combined to focus on the following aims:

- To build and improve the capacity of policy and decision-makers in children's mental health and related fields to identify research and service priorities based on knowledge produced by the measurement initiative; and

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[1] Formerly, Ontario Ministry of Community and Social Services (MCSS)

- To build and improve the capacity of researchers and practitioners to communicate aggregate data and their implementation experiences with policy and decisions-makers, health systems researchers, and service providers across sectors (i.e., mental health, health, child welfare, education, corrections, media, families/consumers).

The applicant team for this project included members of the measurement implementation teams, a policy analyst from MOHLTC, a representative from a children's mental health service provider, as well as representatives from our co-sponsors, Children's Mental Health Ontario and the Canadian Mental Health Association-Ontario Division. When the grant was awarded, the applicant team was reconfigured as a research steering committee. Meetings of the steering committee were held on a monthly basis during the data collection phase of the project. At other times, communication occurred via E-mail and telephone.

Overview of Ontario's Screening and Outcome Measurement Initiative

In the Spring of 2000, the ministries of Community, Family and Children's Services (MCFCS) and Health and Long-Term Care (MOHLTC) jointly issued a mandate for the use of the *Brief Child and Family Phone Interview* (BCFPI; Cunningham, Pettingill, & Boyle, 2000) and the *Child and Adolescent Functional Assessment Scale* (CAFAS; Hodges, 1997) for standardized screening and outcome measurement in children's mental health agencies and selected hospital programs across the province. This new policy direction – to implement systematic standardized screening and outcome measurement – signals a new era in children's mental health brought on by increasing focus on accountability, outcomes, and the promotion of evidence-based practice. Actualization of this new initiative requires several phases of action: (1) government commitment to the initiative – in terms of funding and support, (2) training service providers to use the tools, (3) dissemination of the tools (supporting documents, protocols, CAFAS and BCFPI software applications), (4) support for implementation and adoption of the tools, (5) systematic use of the tools and the generation of aggregate data, and (6) use of aggregated data to inform service delivery policy and practice.

The measurement initiative has four related goals. First and foremost, the province seeks to collect standardized aggregate data regarding the mental health problems characteristic of children and youth seeking service (BCFPI) and the level of functioning of children and youth who have received service (CAFAS). Second, the initiative aims to encourage the adoption of evidence-based interventions by focusing on outcomes and how they relate to different types of services and different populations. Third, the data is intended to inform policy and practice and to improve service delivery. Fourth, the initiative presents an opportunity to strengthen linkages among mental health services providers and to build linkages among researchers, policy and decision-makers, consumers of mental health services, and the public.

Two 3-year (2000-2003) contracts were awarded for the training and implementation phase of the measurement initiative. Responsibility for training and implementation of the BCFPI resides with a group comprised of the developers of the measure *(Centre for the Study of Children at Risk, McMaster University*) and a community-based agency association (*Children's Mental Health Ontario).* CAFAS training and implementation is the responsibility of a collaborative group of researchers (*Community Health Systems Resource Group at The Hospital for Sick Children*) and representatives from several children's mental health service providers across the province (*Peel Children's Centre, East Metro Youth Services, Hincks-Dellcrest Centre, Kinark Child and Family Services, Griffin Centre, Blue Hills Child and Family Services*) known collectively as *CAFAS in Ontario.*

The *Brief Child and Family Phone Interview* (BCFPI) is a computerized structured interview administered to the parents (or teachers) of 3 to 18 year old children and youth at the first point of phone intake, prior to clinical assessment and treatment. It may be re-administered at the completion of service as a measure of service outcome, although this is not the mandated use in Ontario. Clinical interviewers administer the BCFPI to all families seeking service in children's mental health centres or selected hospitals in the province of Ontario. The BCFPI begins with a narrative overview of client concerns, gathers standardized demographic information, asks questions regarding common behavioural and emotional problems, determines impacts on child and family functioning, considers risk and protective factors, determines the family's readiness to participate in services, and identifies potential barriers to service utilization.

The BCFPI's standardized questions were derived from the survey measurement tools developed for the Ontario Child Health Survey (Boyle, Offord, Racine, Sanford, Szatmari, & Fleming, 1993), a series of epidemiological and longitudinal surveys of children in the province of Ontario conducted by the Canadian Centre for the

Study of Children at Risk. The BCFPI yields t-scores for subscales based on Ontario norms for boys and girls aged 6-12 years and 13-18 years. Scores derived from either population or clinical samples are available. In addition to standardized scores on child and family subscales, the BCFPI software allows interviewers to capture narrative information often absent in standardized paper and pencil tools (e.g. onset of problems, settings in which the child functions well, strategies which help solve problems, potential loss of school or home placement, acute family stressors, etc.). The BCFPI's software operates on Windows compatible desktops or laptop computers as a stand-alone system or from a server as a local area network. The BCFPI's software allows on-line data entry, scoring, and report generation.

The *Child and Adolescent Functional Assessment Scale* (CAFAS; Hodges, 1997) measures functional impairment in children and youth 6 to 17 years of age, secondary to behavioural, emotional, or substance use problems. It can be used at intake to link client needs with available services and can be used to assess change over time. In Ontario, the CAFAS is being used as a measure of service outcome.

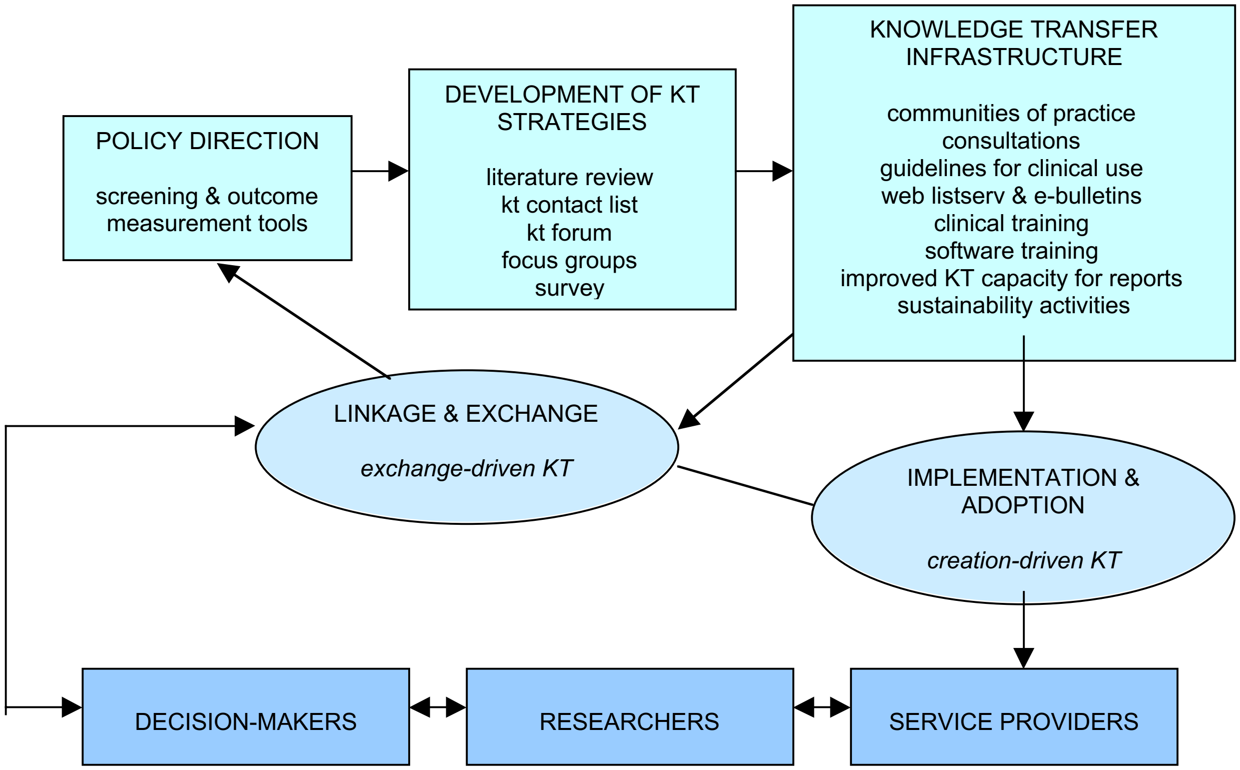
The CAFAS contains a "menu" of behaviourally-oriented descriptions divided into 8 subscales: School/Work, Home, Community, Behavior Toward Others, Moods/Emotions, Self-Harmful Behavior, Substance Use, and Thinking Problems. Scores are also generated for the youth's Caregiver on two scales: Material Needs and Family/Social Support. The intent of the Caregiver scales is to provide information on the context in which the child/youth functions. For each scale, the rater determines the severity level that best describes the youth's most severe level of dysfunction for the time period specified (e.g., the last three months). The severity levels are as follows: Severe (i.e., severe disruption or incapacitation), Moderate (i.e., persistent disruption or major occasional disruption or incapacitation), Mild (i.e., significant problems or distress), and Minimal (i.e., no disruption of functioning). For each scale and each severity level, there are sets of items describing behaviour. The levels of dysfunction are assigned values for purposes of generating quantitative scores. There are no cut-off scores but rather a general framework derived from research with the CAFAS. A profile sheet is included that provides a way to summarize the child's/youth's functioning across settings. This profile can be used in treatment planning with the family or with other members of the treatment team. CAFAS is available as a paper protocol or a computer-based application. The computerized CAFAS is the method being implemented in Ontario. As with the BCFPI, it operates on Windows compatible desktops or laptop computers as a stand-alone system or from a server as a local area network. It provides an assessment report, profile, and treatment plan for every CAFAS evaluation, as well as two administrative reports that aggregate data across clients. Reports of aggregate data can be personalized to answer specific questions.

Project Objectives

Before policy and decision-makers can shape new directions for children's mental health, use of the CAFAS and BCFPI tools must become common practice. This kind of innovation is significant in its scope. In this project we sought to develop a knowledge transfer infrastructure that would support the implementation and adoption of these tools, encourage a climate of readiness for organizational change, and facilitate the transfer of new knowledge. Development of the knowledge transfer infrastructure involved the following project activities and deliverables (see Figure 1-1):

- *Review of knowledge transfer literature* (published and grey) to identify evidence-based strategies that could be applied here;
- Development of a *knowledge transfer contact list* of health systems managers, policy and decision-makers from several sectors, practitioners, media, and family members (consumers) from which to launch new electronic knowledge transfer strategies;
- Piloting and evaluation of a *knowledge transfer forum* as a knowledge exchange strategy to inform the development of communities of practice in the children's mental health sector;
- *Qualitative investigation of stakeholder research-related practices* to inform the development of knowledge transfer strategies;
- *Provincial survey* to evaluate the representativeness of stakeholder research-related practices;
- *Improvement of knowledge transfer capacity* for the CAFAS web site (new *listserv*, improved content organization) and the BCFPI automated reports.

Figure 1-1
Project Activities and Deliverables



Over time, some necessary revisions were made to the project objectives originally outlined in the proposal. These changes occurred due to a number factors. First, changes in the scope of the measurement initiative on the part of MCFCS necessitated that we review our plan to develop an *investigator protocol*. Initially, decision-makers at MCFCS had suggested that data from both tools would be collected centrally in a common software suite, using unique identifiers to protect client confidentiality. The investigator protocol was to serve as a common format for contributing data from individual investigators and/or children's mental health service providers. Two events occurred to change this plan: the ministry has not moved forward with the envisioned database, and the two software applications have been revised and now include "canned" reporting features that serve to standardize the reporting of aggregate data. This essentially eradicated the need for an investigator protocol.

Second, our experience with training and implementation for the CAFAS and BCFPI tools, together with our review of the literature in knowledge transfer and, to some extent, organizational change, led to a shift in how we conceptualized knowledge transfer.

Essentially, as the measurement initiative unfolded, our concept of "exchange" surpassed mere communication of data and broadened to reflect the exchange of information required too support the implementation of the measures and the organizational change that will drive their use in practice. We recognized that even in the absence of a central database, the measurement tools will provide extremely rich information with tremendous potential for increasing our knowledge of Ontario children's mental health and how best to deliver services. Accomplishing this, however, has more to do with supporting implementation and adoption and with developing knowledge transfer strategies that will support the exchange of information and practice change than it has with developing ways to collect the data centrally. As mentioned, this has essentially been accomplished by changes to the software for both tools. Collective learning from the data – the stories it will have to tell – will follow, eventually. Some of the strategies we have developed in this project will be useful for the telling and for the building of partnerships that will reform children's mental health services. They will also have the potential to be applied to other projects in the broader health care arena and other sectors.

Lastly, our steering committee recommended that we expand our methodology to evaluate the representativeness of the themes uncovered in the interviews and focus groups. This was important because focus group participants were, for the most part, local (Toronto area) and we wanted to ensure that their views would be shared by service providers and decision-makers across the province and in rural and remote settings. As such, focus group data was used to develop a survey that was distributed across the province. We believe this improved the project and contributed to the validity of the research-related practices we uncovered. The combination or triangulation of qualitative and quantitative approaches also served to strengthen the validity of the overall findings by establishing congruence or complementarity of the results from each method (Steckler, McLeroy, Goodman, McCormick and Bird, 1992).

Chapter 2

Knowledge Transfer and Organizational Change: Main Messages and Shortcomings

That the development of a knowledge transfer infrastructure coincided with the unfolding of the measurement initiative was intentional. Our objective was to develop strategies for *creation-driven* knowledge transfer as well *as exchange-driven* knowledge transfer. We reasoned that the exchange and uptake of knowledge stemming from the use of these measures could not occur in earnest until both measures had been implemented and adopted; creation-driven knowledge transfer strategies were necessary to support this process. As such, knowledge transfer was viewed as inseparable from organizational change. Knowledge transfer does not occur only at the end of a process, project, or research study, but rather, it is ongoing and has an important role to play in creation of new knowledge – or practice, as is the case here. Knowledge transfer is an essential component to achieving organizational change.

Grey literature is defined as that which is produced at all levels of government, academics, business and industry in print and electronic formats, not controlled by commercial publishers
- Third International Conference on Grey Literature, 1997

One of the key activities of this project was to conduct a literature review that would identify best practices in knowledge transfer and inform the development of a knowledge transfer infrastructure for screening and outcome measurement in children's mental health. Our review was deliberately broad, encompassing both the fields of knowledge transfer and, to some extent, organizational change. We also went beyond the published literature to include important and relevant work from the grey literature. In an attempt to be both comprehensive and concise, the thematic findings from our literature review are presented below as main messages.

Search Methodology

The literature on knowledge transfer spans a number of disciplines, including but not limited to management, rehabilitation, education, sociology, psychology, technology, and marketing. It is replete with differing terminology, including *knowledge transfer, dissemination*, *knowledge utilization*, *diffusion,* and *technology transfer*. These terms are sometimes used interchangeably, sometimes carefully distinguished from one another. The different definitions reflect varying assumptions and interests, ranging from "getting the word out" - what we term *exchange-driven* knowledge transfer, to an all-encompassing focus on seeing new knowledge or products from creation through to implementation by intended users - what we call *creation--driven* knowledge transfer. In order to be sufficiently broad, we included 12 terms in our search of 23 databases located in the University of Toronto Library System (see Appendix A). For published literature, we limited our database search to peer-reviewed articles published between 1980 and 2002 we considered relevant to children's mental health. Relevant work in the grey literature was accessed through keyword searches on *Google* and *Yahoo* search engines. Our critical review led to the synthesis of main messages from the literature and an annotated bibliography with summaries and main messages that can be found in Appendix B.

Main Messages from the Literature

1. *Four critical elements are essential to any knowledge transfer strategy: source, content, medium, and user.*

The literature addresses a plethora of information that can assist in strengthening primarily exchange-driven knowledge transfer efforts. Typically, authors consider some combination of four critical elements as essential to the efficacy of any knowledge transfer effort. Factors of importance related to the source of the information include the perceived competence of the source, credibility of their experience and motive for producing the information, their relationship with other sources, and whether they are trusted by the recipient or user of the information. With respect to the content or message, key factors are the credibility of the research methodology and outcomes, cost effectiveness, and the link between outcomes and existing knowledge. To be effective, the knowledge transfer medium or delivery method must be reliable and have sufficient capacity to reach intended users. Clarity and attractiveness of the information "package" and timeliness are also key considerations here. Knowledge transfer strategies are most effective when the information is considered relevant to the user, when users are inclined to apply the knowledge (readiness for change), when sufficient contextual information is provided, and when multiple methods of dissemination are used.

Canadian Health Services Research Foundation, 2000

2. *Evidence-based practices are not widely implemented in real world settings as practitioners have difficulty acquiring, assessing, adapting and applying current best evidence.*

Much of the literature outlines the barriers encountered in the dissemination of evidence-based practice and the strategies used to facilitate dissemination. The barriers to the dissemination and timely application of research findings in health care decision-making are complex and have been little studied. They include many factors beyond the control of the stakeholder audience for whom the findings were intended. Barriers to clinicians include a lack of knowledge and skills, lack of time, financial disincentives, organization of the health care system, and lack of professional reward. Also addressed are barriers facing researchers, such as, lack of time for the development of linkages, the fact that decision-makers often require results faster than the research process can produce them, and lack of academic recognition for many knowledge transfer activities.

Corrigan, Steiner, McCracken et al., 2001
Goldman, Ganju, Drake et al., 2001
Naranjo & Bremner, 1996
King, Hawe & Wise, 1998
Bero, Grilli, Grimshaw et al., 1998
Haynes & Haines, 1998
Ciliska, Hayward, Dobbins et al, 1999
Lomas, 1990
Babor & Higgins-Biddle, 1999

3. *There is increased recognition of the importance of disseminating results of research to wider audiences than other researchers. There is, therefore, a need to educate the media, public, policy and decision-makers about the general importance of research-based information.*

If research is to be used in practice, then it must be communicated to potential users. These individuals are often unconnected to those who do the research and consequently, a huge gap frequently ensues between research knowledge and practice. This gap highlights the need for ongoing linkages between researchers and other key system stakeholders who have the potential to ensure that decisions get made based on evidence and that evidence-based programs or treatments are used in practice.

Sherrod, 1999
Charels, Shalm & Semradek, 1994

4. *Active collaboration with advisory committees (or other mechanisms that involve potential users) is deemed extremely relevant for effective knowledge transfer.*

Involving decision-makers in its formulation and conduct is the best predictor for the application of research knowledge. Early involvement overcomes the challenges of getting “everyone on the same page” by specifically defining what real-world problem needs to be addressed and requiring that participants do their homework to facilitate the creative collaboration process. In reality, partnerships are hard work and take time, but are worth the effort. Moreover, bringing research and researchers into the policy making process may resolve conflict more readily and may also increase the likelihood of consensus in areas where research is available. Effective knowledge transfer strategies draw upon existing resources, relationships and networks to the maximum extent possible while building new resources as needed by users. Participatory approaches offer a model in which researchers and consumers are involved directly in the process of knowledge creation, dissemination and utilization.

Lomas, 2000
King, Hawe, & Wise, 1998
Haynes & Donald, 1998
Westbrook & Boethel, 1997
Sanstad, Stall, Goldstein et al., 1999
Kelly, Somlai, DiFranceisco et al., 2000
Green & Johnson, 1996
Babor & Higgins-Biddle, 1999
Beutler, Williams, Wakefield et al, 1995

5. *The one-on-one encounter consistently emerges as the most efficient way to transfer research knowledge.*

It has been documented that building key face-to-face relationships that are maintained over time are critical to successful knowledge transfer strategies. These one-on-one encounters are suggested not only for researchers and decision-makers, but also between researchers and practitioners, media and consumers. Exchanges between these key stakeholders and researchers allow for nuance and interrogation. Being linked to a researcher provides a conduit to more than one individual's expertise, as the link becomes a gateway to the more extensive knowledge of that researcher's entire community. The same process works for the linkage to crucial stakeholders - they, in turn, become links to the broader community of interest.

Lomas, 2000
Landry, 2001

6. *Scholarly publications are insufficient to maintain the professional momentum of researchers. Traditional continuing education tools such as mailed materials, workshops, and conferences have little impact on the application of research knowledge. Passive dissemination of information is generally ineffective.*

Systematic reviews have suggested that the passive dissemination of information (for example, publication of consensus conferences in professional journals or the mailing of educational materials) is generally ineffective for knowledge transfer and, at best, results in only small changes in practice. Nevertheless, these passive approaches represent the most common approaches adopted by researchers, professional bodies, and health care organizations. The one-way flow of written information and mechanical traditional dissemination approaches have been ineffective in encouraging the adoption and implementation of new programs and strategies.

Simply providing good quality evidence-based information is not enough to change behaviour. The use of specific strategies to implement research-based recommendations seems to be necessary to ensure that practices change, and studies suggest that more intensive efforts to alter practices are generally more successful. For example, more intensive interventions such as interactive continuing education sessions through which clinicians can practice skills they have learned seem more effectual and may influence health care outcomes. Highly respected leaders of opinion have shown to be more effective in changing behaviour.

Wilkes, 1997
Bero, Grilli, Grimshaw et al, 1998
Westbrooks & Boethel, 1997
Azocar, Cuffel, Goldman et al, 2001
Waddell, 2001

7. *Effective dissemination depends upon using multiple rather than single methods to communicate key information. Consistently effective interventions to promote knowledge transfer include educational outreach visits, reminders, multifaceted interventions (in combination) and interactive educational meetings.*

Recognizing that no dissemination method will be effective in all situations, there are a variety of effective means to engage various user audiences. The target audiences and the messages that need to be conveyed generally shape the methods used to interact with potential users. It has been suggested that to maximize the uptake of knowledge, a variety of outputs should be produced. These could include pamphlets for community groups and the public, technical reports and other publications, websites, mailings, and interactive seminars.

Bero, Grilli, Grimshaw et al, 1998
Freemantle & Watt, 1994

8. *No empirical base exists for the dissemination and implementation of evidence-based practices. We know that a program works at the clinical level because we have studied it; but we have not yet studied the implementation process itself.*

Successful implementation of evidence-based practices in the community setting is a complex process that must address practical, systemic, and organizational issues. Research on what happens to a practice once it gets into the community level is beginning to accumulate; yet more work is needed in studying the process of implementation.

Goldman, Ganju, Drake, Gorman, Hogan, Hyde, & Morgan, 2001
Corrigan, Steiner, McCracken, Blaser, & Barr, 2001
Rosenheck, 2001
Carpinello, Rosenberg, Stone, Schwager, & Felton, 2002

9. *Research on community planning boards, community coalitions, and prevention planning initiatives has demonstrated that local ownership and a community's readiness, in terms of both attitudes and organizational capacity, must be in place in order for a comprehensive assessment, planning, and monitoring effort to succeed.*

Not only must communities receive training on how to use new tools and apply assessment data, but they must also receive technical assistance that can help them develop and implement their comprehensive system and, just as importantly, sustain that system once the researchers and the initial funding are gone.

Arthur & Blitz, 2000
Greenberg, Osgood, Babinski, & Anderson, 1999
Butterfoss, Goodman, Wandersman, Valois, & Chinman, 1996
Wandersman, Morrissey, Davino, Seybolt, Crusto, Nation, Goodman, & Imm, 1998

10. *Knowledge transfer belongs within the larger context of innovation and change.*

Knowledge transfer belongs within the larger context of innovation and organizational change. This cycle includes stages of innovation (invention and production of the innovative program), evaluation (determination of its impact, cost-effectiveness, lack of side effects), communication (getting the word out to potential users), dissemination (active strategies that focus on adoption and building potential adopter involvement), capacity-building (helping adopting organizations strengthen themselves in ways that will make them more fertile ground to implement innovations), and change (the actual end-result – use of the innovation to improve services and communities).

Backer, 2000
Morrissey, Wandersman, Seybott, Naton, Cristo, & Davrios, 1997

11. *The success of knowledge transfer in innovation and organizational change requires addressing issues of power or authority to implement new knowledge.*

The notion of power is beginning to be addressed in the knowledge transfer and organizational change literatures. It has been suggested that power is critical to the uptake of knowledge. Work on knowledge transfer in the nursing field has suggested that we need to examine the power differentials between government bodies, scientific centres, and healthcare workers. Lack of authority to implement change within health organizations has been identified as a barrier related to leadership and management of quality improvement in health practice. Others have suggested that managers fail to use their position and organizational authority to influence the utilization of research in practice. This, in turn, likely relates to the attitudes toward research held by managers and organizational leaders.

Gordon, 2001
Traynor, 1999
Marshall, 1999
Omery & Williams, 1999

Shortcomings of the Literature

1. Disparate Terminology

The importance of knowledge transfer has been recognized by several major funding bodies in both Canada and the United States (for example, Canadian Institutes of Health Research, Canadian Health Services Research Foundation, National Institutes of Health). The primary focus is on the creation of new knowledge and its translation into improved health, more effective health services and products and a strengthened health care system. The difficulty lies in the wide variety of terms used to refer to knowledge transfer. Although the generally agreed-upon approach to knowledge transfer is based on the belief that the flow of health knowledge into beneficial actions can be accelerated by ensuring that the translation of knowledge is an integral part of the entire research cycle, the literature is more complex and unwieldy to navigate as a result of the many terms and definitions used, even by agencies and organizations collaborating in the process of knowledge transfer.

2. Narrow View of Potential Users

Although the transfer and uptake of knowledge has captured a great deal of attention in the health sector over the past few years, most of the attention has focused on the transfer and uptake of clinical knowledge and its uptake by one category of decision-maker - clinicians. Much less attention has been directed at other types of knowledge or at other types of decision-makers such as patients/consumers, managers/administrators or policy makers.

Lomas, 1990

3. Lack of Incentives for Knowledge Transfer Activities

There is little discussion or debate in the literature regarding the lack of incentives for knowledge transfer activities undertaken by academic faculty or scientists. As such, knowledge transfer activities have had very little impact on positive career development. This also applies to the potential users of research information as well. Strategies for accessing, assessing, applying and adapting information have not typically been part of the traditional academic and/or scientific culture.

4. Paucity of Knowledge Transfer Models

There are few models of *knowledge transfer* available in the literature. Much of the investigation of knowledge transfer focuses on the use of case studies to demonstrate some of the barriers to implementing research results in everyday practice. In addition, there has been little theorizing vis-à-vis knowledge transfer. Applications of theoretical frameworks have been limited mainly to *innovation research*, in particular, Rogers' *diffusion theory*. Innovation research has examined change from an individual perspective and has provided insights for change management. The role of knowledge transfer in innovation and change requires more exploration.

Rogers, 1983

Chapter 3

Key Contacts for Knowledge Transfer in Children's Mental Health

An important aspect of knowledge transfer is determining whom to include in the exchange of information. In this project we sought to identify key individuals in children's mental health and related sectors for inclusion in our knowledge transfer activities. The resulting *Key Contacts for Knowledge Transfer* is a compilation of key individuals who have a professional interest in children's mental health and, in particular, have an interest in the measurement initiative.

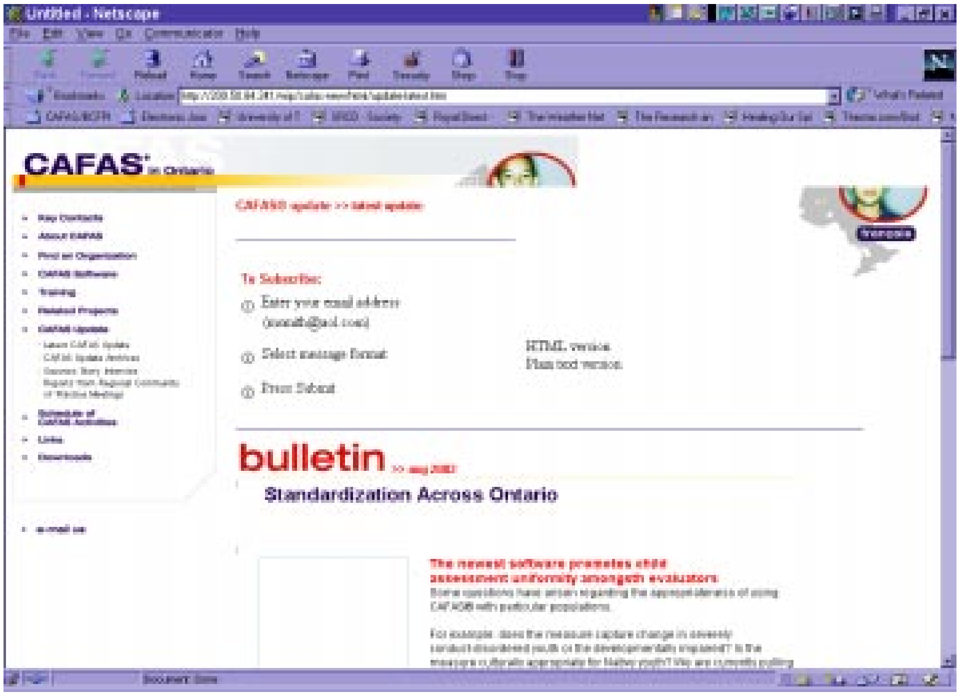
Method

Development of the key contact list began with the steering committee. Members were asked to nominate professional contacts who would likely be interested in information related to the measurement initiative. Nomination sheets were completed during a steering committee meeting. Letters describing the measurement initiative and knowledge transfer project were then sent to each individual nominated by the steering committee. Nominated individuals were subsequently contacted by telephone and invited to attend our Knowledge Transfer Forum and focus groups. They were also asked to nominate others for inclusion in our contact list. Those nominated in this second round were also contacted by telephone and invited to the Knowledge Transfer Forum and focus groups. Nominations were exhausted when no new contacts were offered and list saturation was attained. In general, we found that people's contact networks were narrow because those nominated held positions similar to those who nominated them. In addition, neither steering committee members nor their contacts nominated individuals from the health sector, suggesting a perceived disconnection between health and mental health.

This process resulted in a key contact inventory of 96 individuals representing several sectors, including: health, corrections, education, media, family members, child welfare, service providers, children's mental health organizations, and university faculty. The key contact list is appended to this report (Appendix C), and includes individual's names and job titles, organizational affiliations, telephone numbers, and Email and mailing addresses.

Application

In order to be effective, the list of key contacts must be dynamic (e.g., individuals can add themselves to the list). What we have compiled is merely the beginning of a list that we hope to see expand. We hope to achieve this by inviting individuals to subscribe to our listserv on the CAFAS web site (www.cafasinontario.ca). This feature ensures that the contact list is dynamic and up-to-date, and enhances our knowledge transfer capacity.



To Subscribe:

① Enter your email address

① Select message format

HTML version

Plain text version

① Press Submit

Standardization Across Ontario

The newest software promotes child assessment uniformity amongst evaluators

Chapter 4

A Knowledge Transfer Forum

The literature suggests that face-to-face communication is the most effective means of knowledge transfer (Lomas, 2000; Landry, 2001). Yet, this is difficult to achieve across an expansive geographic region such as Ontario. The concept of a Knowledge Transfer Forum was piloted and evaluated as a way of exchanging key information about the measurement initiative with professionals in children's mental health and related sectors. We reasoned that in order for practitioners and decision-makers to benefit from the new initiative and the knowledge it will eventually generate, they would need to be informed regarding the context and goals of the initiative, and know something about the measurement tools being implemented.

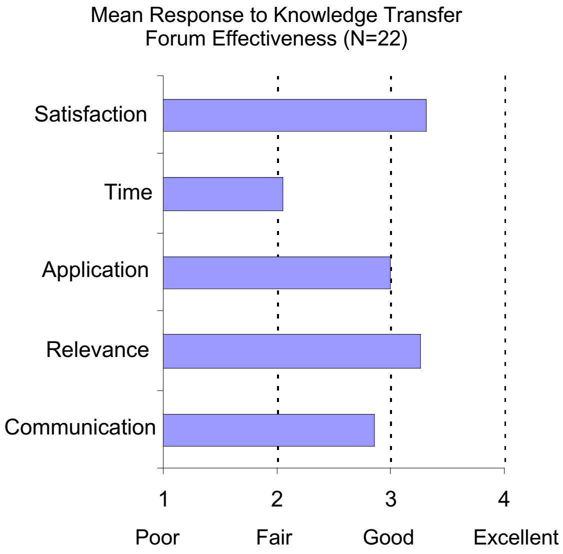
Method

The Knowledge Transfer Forum was billed as "An Overview of Ontario's Screening and Outcome Initiative: Practical Applications of the Brief Child and Family Phone Interview and Child and Adolescent Functional Assessment Scale." Invitations to attend this interactive seminar were extended to all individuals in our Key Contact list. Thirty-three individuals from that list attended.

The Knowledge Transfer Forum was held in a boardroom setting over the course of a morning. Discussion among our project steering committee determined that individuals would be likely to attend a half-day informational event, but that attendance would suffer if we ran the forum over the course of an entire day. Dr. Bruce Ferguson provided an overview of the measurement initiative. Dr. Charles Cunningham reviewed the Brief Child and Family Phone Interview (BCFPI) and Dr. Melanie Barwick provided an overview of the Child and Adolescent Functional Assessment Scale (CAFAS). Each presentation included an overview of the constructs measured, psychometric information, method of administration or rating, and training procedures. Presentations lasted approximately one hour and were followed by a question period. At the end of the morning, participants were invited to evaluate the Knowledge Transfer Forum and to nominate colleagues for inclusion on our contact list.

Effectiveness

To asess participant satisfaction with the Knowledge Transfer Forum we designed a brief questionnaire (see Appendix D). Questions were posed in a combined Likert-scale and open format designed to elicit how well the goals of the forum were communicated, the perceived relevance of the knowledge shared, the likelihood participants would later apply knowledge learned in the session, the extent to which participants felt the time devoted to the forum was adequate, and the overall satisfaction with this strategy for knowledge transfer. Participants were also asked to comment on what could have been done differently, and to provide suggestions for future Knowledge Transfer Forums.



Evaluations of the effectiveness of the knowledge transfer forum were received from 67 percent of those in attendance. Satisfaction with the forum as a medium for knowledge transfer was rated as good to excellent on average, as was the perceived relevance of the information shared and the likelihood the new knowledge would be applied in practice. Respondents felt the extent to which the goal of the forum was communicated was fairly good. The time factor – conducting the forum over the course of an entire morning, was rated as "fair;" not surprising in light of time being a major barrier in the process of knowledge transfer.

Fifteen respondents commented how they might improve the format. In general, the feedback obtained was positive and revolved around the preference for *greater interaction* between the presenter and the audience, the *applicability* of the presented information to the participants' jobs, and *support* for the initiative.

> *I would like to get stakeholder groups together to discuss how to ensure results of research are applied effectively for policy development*
>
> *(It) would be interesting to try and make the (KT Forum) more interactive with (the) audience*
>
> *Given a busy schedule, I almost decided not to attend. I'm very glad I attended!*
> *It was excellent information that may – I hope can be – applicable to my setting*

(Would) love any province-wide attempt to collect valuable data!

I would like to explore how well this information is shared with school boards.
It's excellent and provides a much clearer understanding of assessing children's needs

Contact List Nominations

Participants were asked to nominate colleagues for our key contact list. No new nominations emerged from this request for colleague contacts.

Chapter 5

Emerging Themes in Research-Related Practices in Children's Mental Health

In order to be effective, a knowledge transfer strategy for children's mental health must take into account the research-related practices of those with whom important knowledge will be exchanged. As in any other field, children's mental health professionals interface with the research world in a variety of eclectic ways based on their own disposition, training and experience, and availability of resources to support this endeavour. The literature provides one source of information regarding effective knowledge transfer practices, and this has been summarized in an earlier chapter. Focus groups and interviews were used here to supplement the main messages from the literature. Much can be learned from those with whom we will exchange important information about the measurement initiative. Together with the published evidence, the research-related practices of our stakeholders will inform our knowledge transfer infrastructure.

Focus Groups and Interviews

The exploration of stakeholders' research-related practices involved triangulating qualitative and quantitative research methods. First, focus group discussions were held with key stakeholders involved in various sectors related to children's health and mental health. Because the main purpose of focus group research is to draw upon respondents' attitudes, feelings, beliefs, and experiences, this was a good way to generate important themes. These attitudes, feelings, and beliefs may be partially independent of a group or its social setting, but are more likely to be revealed via the social gathering and the interaction which being in a focus group entails. Focus groups are particularly useful when one wants to explore the degree of consensus on a given topic (Morgan & Kreuger, 1993).

A focus group can be defined as " a group of individuals selected and assembled by researchers to discuss and comment on, from personal experience, the topic that is the subject of research.

-Powell, Single, & Lloyd, 1996

All individuals listed on the knowledge transfer contact list were sent a letter detailing the objectives of this study and soliciting their participation in a focus group. Follow-up telephone calls, placed one week after the letters were mailed, confirmed those interested in attending. Invitations detailing the confirmed date, time, and venue for each stakeholder-specific focus group were sent to stakeholders prior to the focus group interviews. Six stakeholder focus groups were conducted: health, child welfare, education, family consumers, mental health service providers (Northern region), and mental health service providers (Toronto region). The number of participants in each focus group ranged from three to five, and twenty-eight people participated in total. Contacts from the corrections and media sectors were not able to meet as a group, and were therefore individually interviewed by Dr. Boydell by phone or in person. In all, four interviews were conducted. All focus groups were audio taped and transcribed verbatim for the purpose of analysis. Written consent to audiotape was obtained from all of the participants. Each focus group discussion was facilitated by one of the project's principal investigators. Focus groups lasted approximately 90 minutes, and interviews were about 60 minutes long.

The focus group discussion guide was developed based on our review of published and grey literature. The four A's concept – *Acquire*, *Assess*, *Apply*, and *Adapt* - proposed by the Canadian Health Services Research Foundation (2001) provided the underlying conceptual structure for the discussion guide and interview questions. The first set of questions explored how stakeholders *acquire* research information. Participants were asked to discuss their experiences in acquiring research information, the barriers associated with acquiring research, the sources used to obtain such information, and the factors that facilitate the acquisition of research information. The second series of questions focused on examining how stakeholders *assess* the quality of research. Specifically, participants were asked to discuss if and how they assess research information for its relevance, reliability, and validity. The third topic for discussion focused on how research information is *applied* in real world settings, the barriers encountered in this regard, the factors that facilitate application, and the ways in which organizations could apply information relating to the measurement initiative. Lastly, the discussion shifted to stakeholder experience in *adapting* research information. Participants were asked to discuss the methods of receiving information that would best meet their needs, what they would like to see changed about how research information is made available, and their receptivity to receiving unsolicited research information and/or face-to-face meetings pertaining to the measurement initiative.

Focus Group Analysis

Focus group discussions and individual interviews were audio taped verbatim, thereby preserving the respondent's own use of language. Transcripts were converted into the format required for use with *The Ethnograph*; a computer assisted program for thematic analysis of text-based data (Seidel, Kjolseth & Seymour, 1988).

Thematic analysis consisted of the following two steps. First, responses to each open-ended question were transcribed and placed in a file for that particular question. Second, the process of coding was used to attach key words or phrases to the natural language of the participants. Codes or categories are descriptive and are used to reduce the data into a more manageable and meaningful form. The aim was to understand the content and complexity of the beliefs and constructs that are made manifest or suggested by the respondent's talk (Smith, 1995). Quotes that illustrated the different codes were highlighted and summarized into reports for each code across cases.

Emerging Themes in Research Practices

Acquiring Research-Related Information

Focus groups and interviews revealed that the degree to which research information is acquired or accessed varies across stakeholder groups. Overall, *families* and *child welfare* professionals reported they do not routinely access research information. In contrast, professionals in *health* routinely access research to inform policy-making and funding decisions. Those in *education*, *corrections*, and *advocacy organizations* reported that the acquisition of research information is a common practice in these sectors.

Child welfare professionals reported that often times, established policies, ministry standards, and public pressure play a greater role in the administration of child welfare practices.

> *I don't think we rely on research enough, this would be what I would think. We do sometimes look at it, but I don't think it's disseminated broadly to our front-line staff. I think it's more in an upper management level…. And I think it can influence us to become enthusiastic about certain things. But I don't think it's a guiding force in how we make decisions.*
>
> *But in child welfare our practice is not based on research, it's based on policy and Ministry standards, and policy to some extent, maybe to a large extent. Sometimes, it's based on exceptional cases, you know that's what motivates a senior management, "Let's take a look at how we do this, and come up with some recommendations." And, to some extent, you could even argue Ministry standards are responsive to public pressure…*

Families indicated that they want to access research information, but are generally unable to acquire the information that they would like. They explained that they have few resources that enable them to obtain information on their own and they tend to seek research-related advice from the mental health professionals who treat their children. These efforts however, have not always proved effective. Some parents described the feedback they received after making a request for information, while others discussed the frustration experienced when professionals appear uninterested in sharing educational information.

> *A number of years ago, the professional gave my son a handle, and I said, "Well O.K. what is it?" And so they give you a little, "well you know this is why he's doing this and this and this is what it means". I said, "We'll that's not good enough for me. What can I read"? I said, "Well you know, look I need some information here." He said "Oh there's very limited information out there for you, I mean, that you would understand."*

> *...every time I come down here and I'm in for an hour and a half to see the psychopharmacologist, without fail, I say, "So is there anything new?". "No, No, No" is the response.*

> *…it's very frustrating, as a parent, you want to do the best for your children, the whole bit. You want to educate yourself. Nobody else seems to be interested in doing it. Uh…it's frustrating.*

Participants from the *Health* sector reported that in general, research information is intermittently acquired. Information used to inform policy-making is usually generated from raw data, and evidence-based research is sought more when issues become "complex."

> *We don't do a lot of research on a day in day out basis…we have to generate information for policy-making and we need the data reported to us since we have data quality issues we have to deal with.*

> *My experience is, it depends on the issue and as the issue gets more complex then you have to rely on research information more and more because you know things might have changed in terms of research information.*

> *In terms of policy I think we're certainly looking for evidence-based research. We're looking for information about different programmes, different models, care, standards of care, benchmarks like that.*

Children's mental health service providers revealed that research information is usually not sought or used by front-line practitioners. Rather, research is more regularly acquired by upper-management staff, on whom front-line clinicians rely for information relating to treatments and interventions.

> *…internally, we access the Psych Info System, so if I'm working with a child that has difficulty and has questions, I'll see what the literature says on that. But it's not the standard practice of front-line clinicians to say "Hmmm. This is the kind of case I have, I wonder what the literature says".*

> *Some people in the organization use and access information and then it's those people's jobs to try and influence the people who actually are doing the work.*

> *…the people who would seek the information now are not necessarily involved in treatment and provision of treatment.*
>
> *We have two full time psychology staff there. So where there was a kind of resource and in-consultation we're always returning to the literature. But if it were left up to the front-line staff, given their caseloads and all the stresses that they have, it doesn't happen.*
>
> *…what I've observed working in the hospital setting is the way that you are taught, is you go and you see a case and you come back and you talk to the head of the clinic and that person has the knowledge, has some practical experience but also has the literature.*

Participants from *education* and *corrections* reported that, in general, research information is regularly accessed. One participant indicated that research information plays a vital role in her job as a social worker and education lobbyist.

> *Well, we do often access research and especially through, well, the Minister's Advisory Council obviously wants to be appraised of, of current research at a provincial level for education but also as school social workers we have a professional group that we relate to and so that we're interested in looking at what field research is telling us in terms of our work.*
>
> *…If we're lobbying her [the Minister] about special education we have to get our facts straight and be informed.*

Another participant from the *education* sector indicated that research information is accessed in order to "shape" and "fulfil" policy development.

> *…there are some policy objectives that we have and the government has to fulfil… I think that we do [research] as part of the policy development, and we're increasingly looking towards this, is to really define what we would like to do in terms of policies and have that shaped by the research. Sometimes the research might point you in one direction or another and I think that's something. The responsibility of public service is to provide that information to government.*
>
> *[In corrections], we have a policy and evaluation unit that supplies us with research on youth mental health, juvenile delinquency, crime and clinical issues. We rely on information to a great extent and additionally get information from the Ministry of Health and Welfare Canada.*

For *media*, research information is regularly acquired to provide supportive evidence and background information for the public.

> *We use it all the time for background in my stories…everything from scientific journals to getting on the phone and calling an expert in an area that I'm covering.*

> *We are results-driven and so we look at trends and new research in those areas.*
>
> *We use research all the time for our stories.*

Advocacy organizations commonly accessed and use research-related information to develop policies and positions.

> *My organization is a little different in that we are an advocacy organization as well as a couple of other things…my job is to communicate with the field about all manner of things and also develop policies, positions and that kind of thing, and so we rely heavily on research.*

Barriers to Acquiring Research Information

Stakeholders revealed several barriers associated with accessing research information. *Lack of time* to seek and review large amounts of complex information appeared to be the most prevalent barrier to acquiring information.

> *[In education], time is a massive factor that has to be the first consideration, because, unfortunately, while school boards may be starting to and the Ministry may be starting to demand outcomes, there is absolutely no time to do what's needed to do the research, and that's a sad commentary, but it's a fact.*
>
> *I think yeah it's optimum that we need to make decisions right now with what's in front of you so you don't have time to "Oh I'll just nip to the library to see what the latest research is on whether or not to apprehend this child." So, there's a different pressure there.*
>
> *The other avenue is searching through journals. And that's really very time consuming and we often have very tight deadlines and so that process is just too onerous to, to allow us to do the amount you know, broadly enough and in depth enough to really get a good handle on things.*
>
> *Our problem is that we don't have the time to do it properly… the amount of time it takes to really kind of sort through it and make sure that what you're getting is good information, that's a problem.*
>
> *You don't have the time to sit in front of a computer and read stuff that's complex. You need stuff that is accurate and easy to understand.*

Lack of availability was an obstacle to acquiring information for some of the participants from *education* and *advocacy* sectors.

> *A barrier would be accessing some information that's out there, even on the Internet…it's not always available.*
>
> *I think one barrier is not being able to find the source that you're looking for. I have actually been in contact with somebody in Calgary to try and get a*

> *particular book or document and they can't loan it to me because it's on reserve or something like that.*

Government decision-makers noted that "turf barriers" between ministries impede the ability to obtain information. The "ownership issues" of researchers was deemed problematic for some participants in health. *Media* commented that hospital employees often serve as the "*gatekeepers*" of information, and impede the ability to obtain research.

> *Turf barriers between ministries is a problem. They won't let it go.*

> *I think in my experience with accessing data, I think that it is a harder nut to crack…to get people to let go of that ownership, I mean especially with researchers.*

> *Sometimes it's getting past the public relations sort of thing. When you want to talk to the President of the hospital or somebody in charge of the discovery, that's becoming increasingly more difficult I find. The public affairs people take on sort of a larger role…they're the gatekeepers and they may see it as a more important role that they have, I see it as blocking.*

For *service providers*, accessing research information is often *incongruent with clinical practice*. Clinicians do not commonly refer to the literature when working with a client, deferring instead to a manager for practical and clinical advice.

> *Uh, it's not, it's not the standard of practice sort of front-line clinician would say, "Hmm, this is the kind of case I have, I wonder what the literature says", or "I'm stuck on this case, what should I do?. I don't think the practice has been, unfortunately, you know, "let's look at what the literature says." Probably, more often than not, the practice is, "Is there somebody here, what would my Manager tell me to do?" or "Is there someone here who might have more expertise who could give me a hand?" So, in actual fact when we're talking about the literature influencing practice I think that there are barriers there because the people who would seek that information now are not necessarily always the people who are actively involved in treatment and provision of treatment.*

Service providers indicated that a *lack of a champion* is a barrier to accessing research information. Not having someone who is dedicated to acquiring and sharing information with other staff members was believed to contribute to the limited amount of exposure that clinicians have to research.

> *And you need, you need that kind of person to kind of make that bridge because I think it's unrealistic to have folks go to the literature. For some folks it doesn't fit within their training.*

> *First, I need a middleman. I need a person who can take it from that Greek, tell me "yeah, this is good, reliable, valid research which has these kinds of*

> *limitations." I'm not just going to necessarily trust the author. That's why I need the middleman and then to interpret it for the second, that would be very helpful.*

Families reported feeling *ignored by the practitioners* who treat their children. Believing they are perceived as less than capable of understanding research they are discouraged from reading such material. Consequently, family members indicated that they are often denied access to the information they want. Two parents described the reactions that they have received from practitioners after requesting information that pertained to their children's illness.

> *"Oh, you don't need to bother with reading that, you wouldn't understand it anyways".*

> *…sometimes we get tired of asking questions because I've had professionals literally ignore me.*

Facilitators to Acquiring Research Information

Several themes emerged as factors that foster the acquisition of research information. Those working in the *health, corrections,* and *media* sectors described *frequent contact with researchers* as key to acquiring research information. For them, becoming aware of available research is first and foremost, and personal contacts with researchers keeps them abreast of new research developments.

> *I think to keep in contact with the researchers is one way.. to educate us about the knowledge in the field, because it is changing all the time and because of the way that we work, we are very, like they are saying a lot of our decisions are made in very rapid turnaround….*

> *… I think sometimes, knowing exactly where to look is a challenge, …but I think once we, once we have some contact with competent people who can point us in the right direction, then for the most part the information tends to be fairly readily accessible.*

> *…they are more my friends, and I say "well, if you publish something can you just let me know" because the publications that a lot of these researchers have published, the Ministry generally do not know (about).*

> *…there are people certainly in the city, there are people across the province who we, we know are plugged into a broader network, …and so they end up being a repository for a lot of information.*

> *…links with community and government agencies who …serve as an advisory council help in the acquisition of information. I call experts when trying to access and understand research. The Chief Psychiatrist at Sick Kids is one example.*

> *We really have contacts, people I keep in touch with and who keep in touch with me and tell us about the information.*
>
> *I have certain people that I contact for information. I guess the researchers and other reporters mainly.*

It was suggested that *a stronger relationship between researchers and the Government* would facilitate research acquisition.

> *I guess the relationship between researchers and the Government has to be strengthened a lot too. Because the communication between the two groups, we keep saying that they should talk, but they should talk more and have venues so that we could instead of having to call the researchers on the fly on something, just because they are our friends, there has to be a better communication between these two groups so researchers would know more about how our lives are, what are our needs, and then we would also be able to learn from researchers and update our knowledge in the field. I don't think we have that much, you know it's not quite enough, not from my end.*

Professionals working in *child welfare* talked about the benefits of a *research filtering system* to help disseminate research information and increase the exposure that staff members have to research information.

> *…we get something like six or seven journals and uh…they're made available to people, the contents are on our internal network so people can see what's available. And uh…we sent out copies of articles we think might be of interest to people, so that's one active way, send out research…So yeah I think that to some degree there is a filtering system within our Agency around some of these journals.*

Workshops, forums, and *conferences* were viewed by *service providers* as affording them the opportunity to listen to the "expert" or the "guru" talk about their research. These formats are viewed as helpful for accessing research since they facilitate their ability to acquire and share knowledge, ask questions, and generate pathways for further individual research.

> *In our industry we're accustomed to going off to workshops and hearing an expert, the guru…So the guru's done all the work for you, and is now presenting it and …some people from the organization has set off on a little journey to gather some knowledge and information and bring it back….What you have to do is come back and tell other people about it. They (the researchers) become a resource for questions and allows you to go to the literature and get more information on a specific topic.*
>
> *Very few people want to read. I mean there are very few people who like to read, they like to talk. So how do they find out information? That's why we like to go to conferences.*

Availability of additional funds for purchasing books and hiring a research champion was suggested as effective for facilitating research acquisition.

> *I would like money…for a staff position dedicated to reducing the barriers that we just talked about. Gathering the research, putting things together, taking a look at this issue and doing a good job and having the time to do it and to inform the staff. Money to buy the books and the materials, and the articles and the searches…I don't think we're talking a lot of dollars for either one.*

Advanced notice of publications, sometimes in the form of a "heads-up" telephone call, were said to better enable the *media* participants to be aware of current information and prepare background information for a story. An alliance in which information is shared was said to enhance the access that *families* have to research information.

> *We really enjoy a "heads-up", that way we know what's going on and can keep in touch with the researchers, constant info.*

> *What is most helpful as a journalist is when somebody gives you a heads-up. Instead of calling you in the morning of the report coming out or something like that. Getting a call several days in advance or something you know "This is going to come out are you interested"? It allows the reporter to sort of prepare for it, and we can do a bit of research ourselves.*

As previously noted, *family members*' experience being ignored by practitioners who deny them access to research information. They address this by collaborating with each other – *creating alliances* – for sharing their knowledge, ideas, and experiences.

> *If you ask the health professionals how do we find out the information…it's phoney, you ask other parents, it's talking to hundreds of parents, it's the parents who say "Well did you try this?", "No?" "O.K. how about this?".*

> *How many nights did we, Thursday night, every Thursday night, the two of us got together, brainstorming, hours and hours.*

Sources used in Acquiring Research Information

Stakeholders reported using multiple sources to obtain research related information. Of the many available sources, traditional *journal publications*, *reports*, *communicating with researchers and organizations*, *attending conferences*, *inclusion on the mailing list of organizations*, and *internal research departments* were the most common.

> *There's the Internet, which is really helpful. I do a fair bit of reading journals and reports, probably more reports than journals in accessing information.*

Forums, discussions are a good means of getting information…more briefer pieces like an afternoon or morning.

Internet searches on Medline, CNN, WebMD, and CIHI are performed. Health Canada publications are also a good source.

You spend a lot of time on the phone talking to people and certain organizations will call like ISIS. They'll call every now and then and say "We've got a study coming out. This is who the lead researcher is. Are you interested in a story".

I acquire contacts at hospitals, and being on contact lists, mailing lists of journals supports my access to the information.

And I rely on policy reports, that sort of thing for background information.

The Policy and Evaluation Unit supplies research information on youth mental health, juvenile delinquency, crime, and clinical issues…research is acquired from the Internet, peer-reviewed journals and correctional organizations.

We have an online research library so we get documents that are based on evidence-based research. So we'll be looking at journals, we'll look at books, articles, various forms of archivals, data.

We design questions and answers so, we'll go out and do certain site visits and get information from people within the various district school boards, etc. to get that type of information.

We would have informal meetings or consultations. Sometimes what we do is we have certain advisory committees where we get experts from various areas that we're looking at and we get feedback from them or information, and sometimes (this) directs us to various research documents.

Our association uses much of the same things that you've (Ministry of Education participant) outlined, but also other stakeholder groups for example in the past we've worked fairly closely with the Ontario Association of Children's Mental Health…we've felt if we banded together then the Ministry (of Education) might have strength in numbers and that's usually proved to be very, very fruitful and useful…as school social workers we have a professional group that we relate to and so we're interested in looking at what field research is telling us.

I think that, traditionally, so, just speaking for social work or social work kinds of services because not every board has social workers, that they do use a variety of research tools, largely journals.
…there are people in the City, there are people across the province who we know are plugged into a broader network, and so they end up being a repository for a lot of information… Having some key stakeholders that you go to is very much (an) important source of information.

Journals are a huge source of information for us. Like those on the Net…Whatever may be on the Net, like journals are a huge source of

> *information for us. If there are associations with newsletters, we're working with that as well.*

Despite the barriers that *families* encounter when accessing research information, some information was obtained by *networking* with other parents, or through various associations/organizations and paediatricians.

> *…we are fumbling in the dark and the information we get is from other parents in similar situations.*
>
> *…I get my information from belonging to the OCD, the Tourette Group, the Learning Disabilities Group, the Down Syndrome Society, and the Canadian Down Syndrome Society, you know, all of those ones, and their newsletters that come in…*
>
> *Most of my up-to-date information comes from literature that I'm told about from my paediatrician.*

In general, *service providers* indicated that *Internet searches* for journal publications are the primary method by which they obtain information. They may also *perform modest research* of their own or *use affiliations* with other organzations for information.

> *I guess internally, we access the Psych Info System. So, if I'm working with a child that has difficulty and has questions, I'll see what the literature says on that…Having that available has been really helpful.*
>
> *In terms of accessing information, the Internet has provided us with some opportunities which we can effectively go to and get information, like journals.*
>
> *…I would say primarily that we look at literature reviews and we do little side studies in terms of an area that we may be interested in, in terms of an approach.*
>
> *I also have an affiliation with [organization]; their thrust is to take research results and theory to application.*

Assessing Research-Related Information

The ways in which research information is assessed for relevance, reliability, and validity were found to vary according to resources and experience in research. Some practitioners in *education* and *corrections*, for instance, recognized the importance of considering *the representativeness of research findings* (e.g., the study's population and geographic location). However, for many, the capacity to assess the quality of research is limited.

> *Because I have a research background and I know that you've got to look at the population from which those studies derived and then decide and uh…and that's one of your first questions, how applicable is this research,*

> *to the population…So, we can sit here in Toronto, but we're so totally unique here compared to everything else in the province.*
>
> *…quite honestly, I don't think we have the capacity [to access research] which comes down to time, money, personality, resources. So, the answer is, in my belief, we're not doing a good job right now and I don't think we've figured out how we're going to do a good job.*
>
> *…when I'm looking through evidence-based research, I'm looking at geographic location of where this piece took place. Who were the participants in this study and how does that apply to what I am looking at…I look for endorsements and go to trusted sources. I get second opinions from the research evaluation team and examine the author's affiliation, and ties to pharmaceuticals.*

Members of the *media* are cautious to examine *credibility of the funder* (e.g., pharmaceutical companies) and the *researcher*. They may contact study investigators and/or seek endorsements from trusted sources within and outside their organization.

> *…you know a lot of these studies, just from talking to the lead researcher, you can tell that they went into the study with a preconceived idea of what they were looking for. I always want to know who funded the study because uh…if it's a drug company, then I want to include that in my story.*
>
> *Consultations with other reporters and a staff medical doctor are sought to know more about the author. They often provide insight into things like the author's credibility.*
>
> *I really look at the methods that are used and numbers they give. If they don't make sense I go to the researcher.*

Not surprisingly, *family members* are most limited with respect to assessing the quality of research.

> *…it's great if parents can be really well informed and have research available to them but the great majority of them are not going to have the capacity to have it and know if it is good or what.*
>
> *…there's lots of information out there but how do we know how relevant and good it is? We don't know.*

Health decision-makers suggested that the reliability and validity of a study are not of paramount concern since they commonly *access the raw data* associated with a study to generate answers that relate to decision and policy-making.

> *We work with data sets and access to the data would be a key issue for my group to look at…and so, we're more interested in the numbers mainly, and would take the numbers and double check the numbers that*

> *you give us because we don't know how you generated these numbers. We have to rely on our data (analysis), and that's what we look at.*

Overall, *service providers* indicated that they need *additional supports* in order to help them determine the reliability and validity of research information.

> *I need a middle man to tell me, "yes, this is good, reliable, valid research which has these kinds of limitations"…I'm not just going to necessarily trust the author, that's why I need the middle man to interpret it.*

Factors that Facilitate the Application of Research Information

Respondents identified several factors that facilitate the application of research knowledge. Those in the *child welfare* field favoured studies with *qualitative methodologies* because the descriptive data facilitate the application of research information.

> *Certainly when I send out articles, the ones that seem to get picked up on are the qualitatively-oriented stuff, they speak to what you would do in this type of situation.*

Service providers reported that the extent to which research information specifies *implications for practice* impacts on their ability to apply what is learned. In addition, having a "*champion*" in support of the research findings and/or their application can be extremely useful.

> *…it would help if the researcher could make an attempt to study the issue and, sort of take the position that this is how things should be done in this particular area.*
>
> *If someone is given the responsibility to ensure that implementation happens, a player that speaks to accountability, and rolls things out, then we wouldn't have this diffusion of responsibility happening.*

Media indicated that *communicating with lead investigators* helps to clarify statistical findings and promote the use of the research information.

> *…you have to talk to the lead researcher and you have to ask the dumbest questions. So it's asking them how can this be translated into some kind of statistic that readers will understand.*

For *health policy and decision-makers*, having *formal relationships with researchers* brings them closer to the data and enhances their ability to use it for the purpose of validating policy objectives and answering policy related questions.

> *For the information we get, it would be of greater use if we knew the person, the researchers, if we had that sort of relationship. Then we could take the data and work with it. It's a trust issue.*

Barriers to the Application of Research Information

Focus group and individual interviews revealed several factors that serve as barriers for the application of research information. *Conflicting research results* are problematic for respondents, including *health decision-makers* who noted that this lack of clarity hinders their ability to use research to shape policy.

> *….there's the aspect of, you know, research that counteracts that research, or doesn't support it as much. So it's, it's the decision of a policy person to try and determine which research should be accepted to use as something to validate policy. So, often if there's an area where there's competing research and issues happening that doesn't really drive to one conclusion, then it becomes hard to say to a Minister, "well, based on this research…", when there could be other research that might not support it so strongly.*

Lack of clarity or direction can also hinder comprehension and the application of research information to practice in *education*, *child welfare* and *mental health*.

> *I mean there's the Internet which is really helpful but it's such a mixed bag that you get there. It's a problem.*
>
> *…I used to send articles to people and I've been the recipient of many articles. It's so disjointed that it doesn't add up, and you don't know what that links to.*
>
> *…there are competing pieces of research.., So someone sends out a piece of research and (you) take a look at it. It appears to have reliability and validity and then you discover that there are twenty other articles that take an entirely opposite position. So, this element makes it hard to use it, and understand it.*

Decision-makers in *health* and *education* noted that *timing for research publication* does not often coincide with ministry deadlines for policy and decision-making activities.

> *I think one of the barriers is, do we get the knowledge in time for the decision? The lag time between good knowledge, useful knowledge to the way our lives work at the ministry, sometimes it's a major challenge to use it for our decisions.*
>
> *…And often you're trying to find the research, sometimes mid-way and you might find an initiative that uh, that a university is doing, but their, their timelines are usually fairly long from what I've seen so you might hit them at the right time of getting in there and talking about things, but the reality is they're not going to be finished their project for another two years, that really*

> *might impact what you need to have done within the next six months for example. So often there's challenges with the schedules and expectations within the government to create and input policy with the research community…they have very different timelines that exist.*

In *child welfare,* the directive to *comply with established policies* and standards can sometimes get in the way of applying research information.

> *But you know, all the research in the world about how to investigate a case isn't going to do you a lot of good if policies and the standards that you must comply with are flawed.*

For *service providers*, the *translation* of population-level findings to the level of the individual client is often problematic.

> *…and that's the other thing, research is based on population things, clinical work is individual …it doesn't really apply to this particular client. So you know that's another barrier….every client is different.*

Similarly, research information is often very focused on a *specific topic or illness* and this makes it difficult to apply to a large portion of the complex cases encountered in a clinical setting.

> *…a lot of research is very focused, sort of a tiny aspect of something. And so a broader context would be helpful.*

Service providers also noted barriers to applying research information in the face of *limited training.*

> *…most often the tools that are used in a research study, in a clinical research study, are tools that you can't always apply.*

> *…the reality is that if you try and go and use the literature to replicate what has been done…it doesn't give you, there's no explanation, there's not enough information in anything I've read.*

At times, however, the problem resides in the *lack of research skills* among practitioners in *child welfare*, *education*, and *mental health*. This lack of research knowledge has contributed to an inability to apply information.

> *I don't think there are many in our organization who have research skills like not just having a journal and knowing how to read research…but we can get very excited as an organization about one article where we found out we shouldn't be so there are no skills with most people unless they remember them or were taught them in school about how research can be helpful. They don't know how to find it, how to choose it, how to weight its integrity and ultimately use it.*

> *…so the first thing, the Ministry does not have a statistical background, it's pretty well weeded out so in terms of applying, you know, it's hard.*
>
> *…there are no skills with people unless they remember them or were taught them in school about how research can be helpful.*

Difficulty connecting with the lead investigator of a study can become an application barrier for *media*. In light of stringent deadlines facing reporters, prompt contact with investigators is crucial, but not always possible.

> *Not being able to access researchers for information and clarification pertaining to their work is indeed a barrier.*

Lack of connection with researchers is also important for *health decision-makers.* The lack of formal relationships with trusted researchers who will provide raw data can become a barrier to applying information.

> *…there has to be a formal relationship between the Ministry and this research group, so that I can legitimately go to the research group to ask for information for decision-making.*

While *family* participants cannot acquire research information with ease, they indicated that when they do access information, the resources necessary to use and implement it are not available. *Lack of resources* was deemed a "real frustration" by one family member.

> *Well, I'll tell you one of the real frustrations though that you have with this research is first it's a challenge for parents to get the information and be able to use it. So they get the information, they go to use it, and if there aren't the resources there that can respond to that data, what good does it do?*

Applications of Knowledge From the Measurement Initiative

Participants were asked to envision and discuss possible applications of data and related research information stemming from the measurement initiative. Decision-makers in the *health* sector envisioned that knowledge from the measurement initiative could be useful in *policy development*, *advocacy*, and in *describing the population served*. They stressed the importance of, and preference for, having *access to aggregate data* in order to fulfil these objectives.

> *I can use it eventually as a source of advocacy to say to the Ministry, "This is exactly the kind of work and information that we need to have". But we need the data.*
>
> *We can certainly use the data, there is no question about that to answer our questions. Then the next question is how do we access the data?*

> *…so it's that basic data that we need…in terms of the kinds of adjustments and provisions that need to be made for additional funding or otherwise.*

Media noted that providing readers with empirical evidence and background information is important; readers want hard evidence, not just opinion pieces. In light of this, the importance of "building a case for a story" was stressed, which would be accomplished by *incorporating evidence-based information*.

> *When we're working on a story, related to some aspect of children's mental health, we want to know what statistics are out there in terms of I guess, assessment of how it's being treated and how successful it is. So if you're talking about providing us with data on it, obviously that is something we would want in our story other than just people's opinions.*
>
> *We need empirical evidence to build a case for a story…something evidence-based. You want to know how successful people have been so I mean the data would be interesting.*

Child welfare practitioners hope that data from the measurement initiative will provide insight about whether their *clients differ from those served by children's mental health* agencies. There was also a sense that the data could be used to determine the *compatibility of the measures being implemented to those currently being used in child welfare.*

> *…given those tools and the fact that there are some tools in child welfare that aren't, I don't think, as comparable at all, but sort of used along the way in the same way those are, I think it would be really interesting to look at how compatible those are and whether they tell us anything in common about the children that we're looking at.*

Education decision-makers were interested in the extent to which information from the measurement initiative could *document the needs of children*.

> *…it might help to inform MCSS (Ministry of Community and Social Services) and maybe even the Ministry of Education in terms of the needs of kids out there.*

Adapting the Format of Research Information

Knowing what people make of research information takes us only part of the way toward building a knowledge transfer infrastructure. It is also important to know their preferred ways of receiving information. Overall, stakeholders who participated in this study were receptive to receiving information related to the measurement initiative.

Media participants indicated that they prefer to receive information that is *simple, briefly summarized,* and *delivered via Email.* Longer documents are preferably received in the form of a hard copy.

> *Brief, one-pagers are good by email… It's an efficient way of getting through the material.*
>
> *If we have a report land on our desk and we've got to write it, write something about in the next day's paper, a summary or synopses definitely helps us…if it can be delivered by email that's helpful as well.*
>
> *In my newsroom, if you want an editor to look at a story that you think is good and should get good play and they're on the other side of the newsroom, my feeling is that rather than sending a long document electronically to their system, they would rather you hand them a brief, hard copy. Then they can just sit back and read it, or they can go have a cigarette or have a coffee and read it, and it's more likely to be read when it's to the point and short.*
>
> *It has to be very simplified in terms of, if there's too much jargon, reporters just hate it. And we like emails more than faxes because they tend to get lost.*

Participants from the *child welfare* sector indicated that they prefer to receive information that is *descriptive and written in plain language.* They also expressed a preference for a *face-to-face format.*

> *It has to be written in plain language with a view towards always being able to answer the questions, as in what are the applications and what are the implications of this for different sectors?*
>
> *Statistical models and things like that don't make sense. So, yeah, I think there is a liking for more qualitative types of information that is more meaningful because it is more readable I think and accessible in this form than using some sort of a statistical model.*
>
> *Forums and that kind of thing are a nice way to getting information too. Some sort of a brief piece, like a morning or something.*

Participants from the *education* sector indicated that they prefer information that is *easily digestible.* Other formats included *attending conferences, face-to-face meetings,* and *accessing web sites* for various organizations.

> *It has to be more readable, and I'm not a researcher, and you are a researcher, and I know that researchers have to write in a certain way, they have to have the standards, they have to show significance levels in order for it to be of any research value, but for me and most it has to be more readable.*

> *In terms of conferences, you get very different insight when somebody asks a question and you think, oh my God, all of a sudden that makes sense. Which doesn't often happen if you're by yourself reading something.*
>
> *Yes, we're very open to face-to-face meetings 'cause often when we see government, we're moving towards breaking down the barriers between ministries and someone here spoke before about how, how the different professionals in the school system don't often at a board level talk to each other very much, so I think face-to-face meetings are a great way to share information.*
>
> *The other thing I like would indeed be an organization's web site or something where you could gather some of that information where maybe you can somehow get more than just the abstracts.*

Families indicated that they want *brief, uncomplicated information.*

> *It's communicating information in a way that I think can be straight-forward, short, and simple.*
>
> *…we want it on one page, why can't something like that be available on research for parents. I think that's really important because most parents don't have the time or the energy at the end of the day, or sleepless nights to go through this much stuff.*
>
> *…there's a big difference between communicating it in a way that people will understand, and dumbing it down. We want easy to read short stuff, that's all.*

Service providers prefer *simple, descriptive* research information, and favour having this information *presented in person.*

> *…a much smaller group of people actually go and read about it so we like to hear it, we like it simple and then you know, we'll go ahead and we'll try it out.*
>
> *If it's too many numbers, my general sense is people don't like it, they don't read it and so there's a more qualitative aspect…so yeah I think there is a tendency towards more qualitative types of information that is more meaningful because it is more readable.*
>
> *…any article that has three pages of stats, you know I wouldn't even send down because there is that sort of what's meaningful. If it's too many numbers, my general sense is people don't like it, they don't read it and so there's more of the need for a qualitative aspect.*

Health sector decision-makes stated a preference for *breakdowns of aggregate data* that can be *accessed via Email.*

> *For us, probably we'd like a breakdown because we have to be prepared for other questions that might come up, so we need to have breakdowns of the basic data reported to us. If they're paper copies, we don't know how long it will take to get passed along and with the amount of things we get we might not even know it arrived. So email seems to get our attention a bit better.*

> *Me, I like broadcasts like Stats Can and Health Canada. You know when they release the daily, more like the daily news when you release something, you have a mailing list, and you just shoot that thing away through the E-mail. So the person who needs it would have your release right there.*
>
> *It would be very helpful if it arrived in E-mail.*

Summary

The barriers and facilitators to acquiring, assessing, applying, and adapting research-related knowledge in children's mental health are not inconsistent with what others have reported in the literature. The extent to which one acquires research information is related to the relative importance in holds for that individual or organization. The motivation to acquire and the methods used vary. It is clear, however, that service providers in children's mental health and related fields do not do this enough. When there is an attempt, it comprises tapping the research knowledge of managers who do little better in this regard or reading journal articles that are known to be feeble in their knowledge transfer capabilities.

Facilitators to acquiring research information are more common among policy and decision-makers and media who cite such strategies as networking and personal contacts and reliance on Internet and electronic media. Factors such as lack of time, lack of available information, resistance to sharing, conflicting findings, and incongruence with practice are commonly identified as barriers by service providers. Service providers are still looking to the traditional methods of acquiring information: attending conferences and reading journal articles. They have much to learn from media and decision-makers with respect to more time efficient and successful knowledge transfer strategies. There is also more of a research utilization culture in policy and media, something that is lacking in mental health practice. Availability of time and resources can help or hinder the utilization of research-related information. Lack of time is a common barrier, but one wonders if this relates to the level of importance given to research-related tasks. Champions are acknowledged as useful but there need to be more of them. Moreover, champions require opportunities to share what they have learned and some measure of authority to make changes. Where research-related activities are valued – through the availability of personnel and funds– time is not an issue. We must consider how to change the relative importance given to research-related activities in the practice culture.

Although the capacity to utilize research information varies, many feel they are ill equipped to assess its value or apply new knowledge to practice in innovative ways. While decision-makers prefer to base their assessments on actual data where possible and media tend to go directly to the research source for clarification, service providers have few strategies and little knowledge in this area. Individual characteristics are partly at fault here: lack of research knowledge, lack of access, lack of authority to apply what is learned, etc. Increasing the level of knowledge sharing and communication among service providers can help as do better at assessing the value and applicability of research knowledge. Breaking down the silos can also improve our capacity to apply what research teaches us. Researchers have a role to play in ensuring relevance to practice in how they communicate their findings, and there have been some improvements in this area. Yet service providers continue to find much of research to be incongruent with practice and many findings contradictory. Here is where researchers, decision-makers, and practitioners can make improvements simply by coming together to sift through the literature and discuss their experience in practice. Together, we can develop a strategic plan for which treatment approaches to support based on the evidence about what works, for whom, and under what conditions. In the case of the measurement initiative, aggregate data will add to this body of research knowledge and can be used to inform mental health practice.

The field of children’s mental health needs to build a culture of research utilization. Unless leaders come to appreciate how use of the BCFPI and CAFAS measurement tools can improve service delivery, the measurement initiative will never be more than a bureaucratic requirement that is adhered to at it’s most minimal level. And, they will never fully realize that it can be so very much more.

Chapter 6

Provincial Validation of Research-Related Practices

Several themes regarding acquiring, assessing, applying, and adapting research related information emerged from our focus groups and interviews with participants from various sectors. To what extent are these themes representative of practitioners throughout the province? To find out, a survey developed by the authors was distributed to the 125 participating service providers across the province, and to 96 key contacts listed on the knowledge transfer Contact List.

The survey served to strengthen the validity of the themes emerging from the focus groups and interviews. The opinions, experiences, and practices of a larger sample afforded the opportunity to complement the qualitative findings and uncover incongruencies.

Method

Focus group data was used to develop a survey regarding research-related practices of decision-makers and practitioners in children's mental health and related sectors. Key themes from the focus groups and individual interviews that pertained to the acquisition, assessment, application, and adaptation of research information were used to create five Likert-scale, and five multi-option check-list questions (Appendix F). Three copies of the survey were sent to the liaison contacts of the province's 125 participating service providers with a request that the surveys be completed by a manager, front-line staff member, and the staff member directly responsible for liasing with CAFAS and BCFPI implementation teams.

To increase the response rate, agencies returning at least one completed survey were entered into a draw for $1,000. Completed surveys were numbered in the order in which they were returned to the research team. Following a deadline date, a randomly selected number was generated by an Internet-based resource, Research Randomizer (www.randomizer.org). The organization whose assigned number corresponded to the randomly selected number won the draw. A cheque for $1,000 was issued and sent to the organization along with the suggestion that the money be used to augment the organizations capacity to make use of research knowledge (i.e., journal subscription, web access) or be used to the benefit of clients and staff.

The response from service providers totalled 188 surveys from a possible 375. A total of 27 surveys were completed by Executive Directors, Residence Supervisors, Chief Executive Officers, Program Directors, Directors of Service, Senior Managers, and Clinical Coordinators. Other respondents included 70 front-line workers, 83 managers, eight CAFAS/BCFPI liaison staff, and 27 “other” agency staff members. This represented a 50 percent return rate. In addition, surveys were sent to 96 Key Contacts, of which a total of 19 were returned. This response corresponded to a 20 percent rate of return. Overall, 188 surveys were returned from 67 service provider organizations and 19 key stakeholders listed on the inventory, for a total of 207 completed surveys.

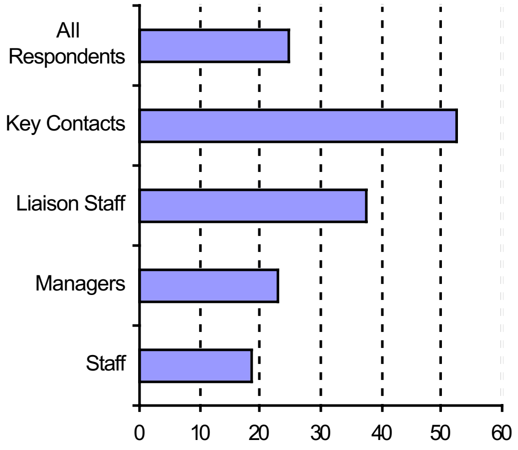
Survey Analysis

Survey data was entered into Statistical Package for the Social Sciences (SPSS), a statistical software program that facilitates the analysis of quantitative data. We were more interested in the frequency with which respondents responded or endorsed certain themes and so no statistical comparisons of group differences were made. Awareness of the general pattern of results was sufficient for informing our knowledge transfer strategies.

Research-Related Practices Across the Province

Acquiring Research-Related Information

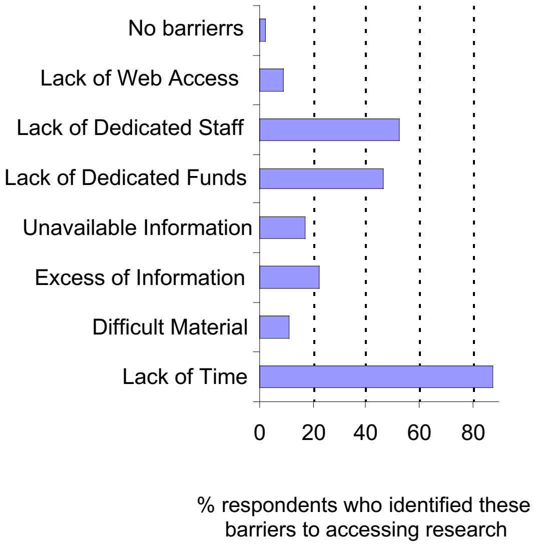
How well is your agency/organization able to find and obtain research information?



% respondents who report their organization obrtains research information “very well”

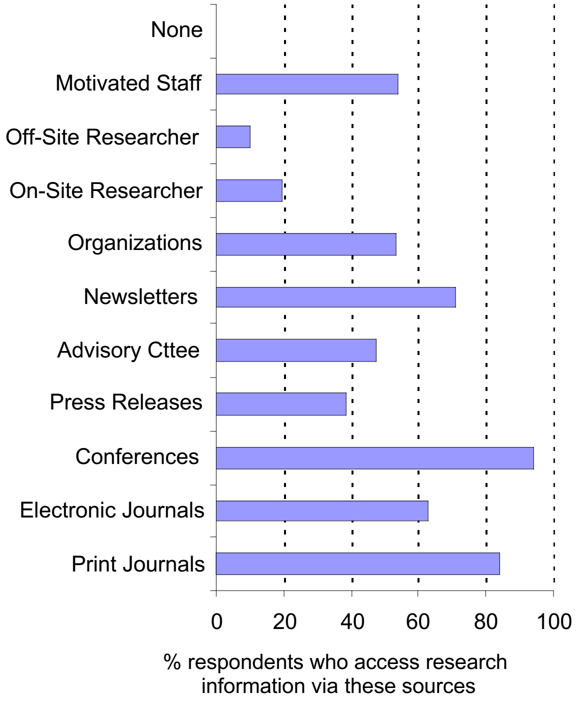
Only one quarter (24.6%) of respondents rated their capacity to obtain research information as “very well.” When capacity to acquire research information was analysed according to type of respondent, a pattern emerged whereby those who have demonstrated greater motivation in research-related practice demonstrated greater capacity in this area. Specifically, approximately half (52.6%) of our Key Contact respondents believed their organizations could acquire research-related information “very well.” Following closely, 37.5% of staff members who have taken on the role of liaison with CAFAS and BCFPI implementation teams responded in the "very well" category. Only 23 percent of managers and 18.6 percent of staff felt their agency could acquire research information "very well".

What barriers are faced by your organization in accessing research information?



Lack of time for acquiring research-related information was identified as a barrier by 87.4% of respondents. Other common barriers included lack of staff dedicated to acquiring research-related information (52.7%), and lack of funds allotted to this type of activity (46.4%). The difficulty posed by an excess of research information (22.7%) and lack of availability (17.4%) were also identified as barriers by about one-fifth of respondents. Interestingly, lack of web access (8.7%) is problematic for very few.

What sources does your organization use to access research information?



Not surprisingly, the major sources of research-related information are reported to be attendance at conferences (94.2%) and accessing print (84.1%) and electronic (62.8%) journal publications. This finding is interesting in light of research that suggests that these sources are not particularly effective for purposes of knowledge transfer. Newsletters, believed to be more effective for KT efforts, were reported as a common source by 71% of respondents. Contact with advocacy organizations (53.1%) and the presence of a motivated staff member (54%) who takes it upon themselves to acquire research-related information were also reported to be useful sources of information.

Approximately one-fifth of respondents reported having access to an on-site researcher (19.3%), with slightly fewer having access to off-site research contacts who can provide them with information (10.1%). Less than 1 percent of respondents reported having no sources of research-related information.

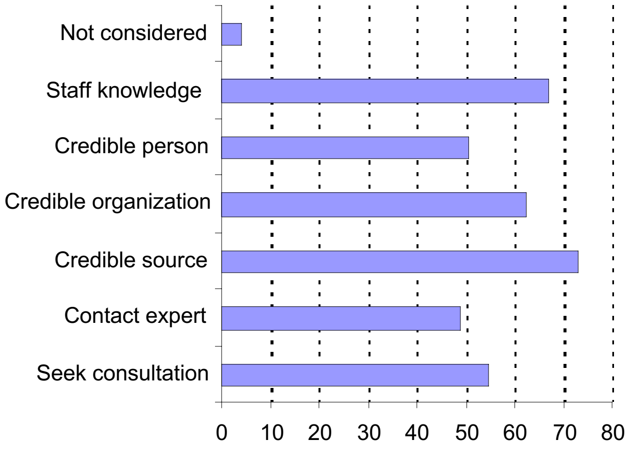
Assessing Research-Related Information

How well is your organization able to determine whether research is relevant, reliable, and of high quality?

% respondents who report their organization does "very well" at assessing research-related information

Only one quarter (27.1%) of respondents describe their organizations as being able to assess the quality of research information "very well." Managers (23.6%) and staff (27.1%) are similar in this regard. Key Contacts (47.4%) were more positive and would be expected to be more motivated and knowledgeable regarding research, as were staff members acting as liaison with the CAFAS/BCFPI implementation teams (25%).

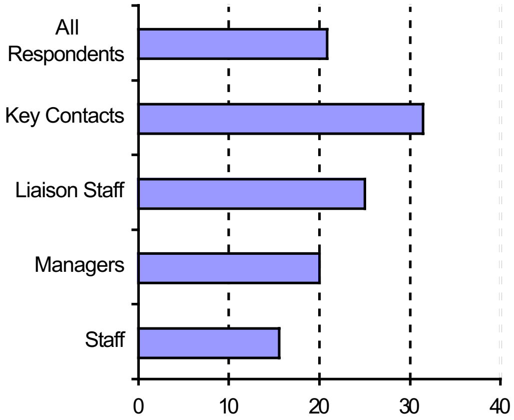
How does your organization determine the reliability and quality of research?



% respondents who report these methods for determining research quality

Between half and three-quarters of respondents reported assessing the quality of research on the basis of the credibility of the source or author (72.9%), their own research knowledge (67.1%), and whether it is supported by a credible organization (62.3%). Whether research is supported by a credible individual (50.7%) or an expert contact (48.9%) were also frequently used methods of assessment. Only 4% of respondents reported not considering research quality.

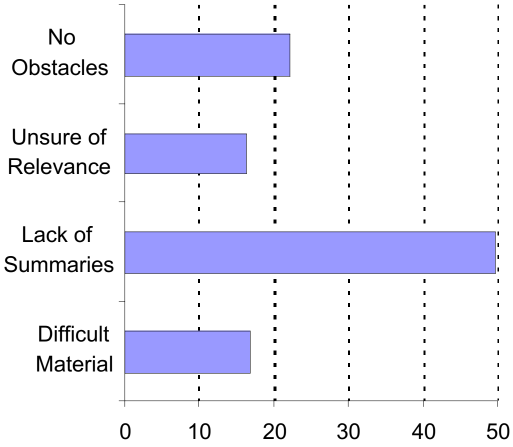
How well is your organization able to extract relevant information from research?



% respondents who report their organization extracts research information "very well"

Overall, about one-fifth (20.8%) of respondents reported that their organization does "very well" at extracting relevant research information. Respondents from our Key Contacts list reported more skill in this regard (31.6%), while a quarter or less of liaison staff (25%), children's mental health agency managers (20%) and staff (15.7%) concurred.

What obstacles does your organization face in filtering out what is relevant?

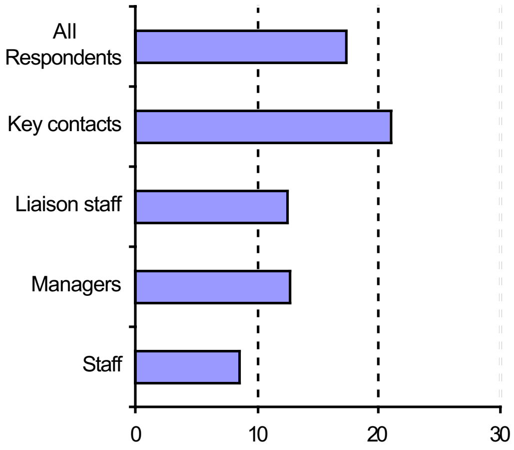


% respondents who report these obstacles to determining relevance of research information

The absence of research summaries was the most frequently reported obstacle to determining the relevance of research findings (49.8%). Material that is difficult to read or interpret posed a significant barrier for 16.9 percent of respondents. Determining what is relevant in research reports was a barrier for 16.4 percent of respondents.

Applying Research-Related Information

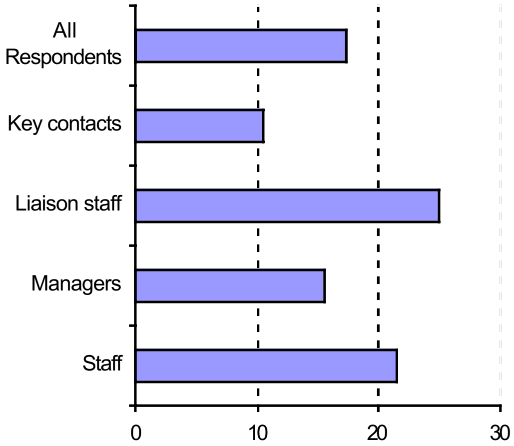
How well is your organization able to apply (promote and use) research information?



% respondents who report their organizations apply research information “very well”

Overall, only 17.4 percent of respondents consider that their organization applies research information “very well.” Consistent with the pattern seen throughout the survey, key contacts were most favourable in this regard (21.1%), followed by liaison staff (12.5%), managers (12.8%) and staff (8.6%).

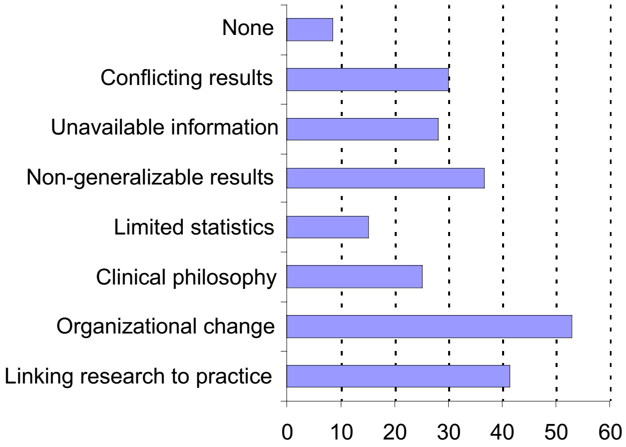
To what extent are your organization’s services/programs supported by research?



% respondents who report their organization’s services are “very much” supported by research evidence

Fewer than 20 percent of respondents reported that their organization’s services or programs were “very much” supported by research evidence. Staff responsible for liasing with CAFAS and BCFPI implementation teams were most favourable on this question (25%). Front-line staff in children’s mental health agencies tended to feel more confident that their services had support from research in the field (21.4%), whereas fewer managers (15.6%) did so. Relatively few key contact respondents (10.5%) tended to share this view, although this would not be inconsistent with their motivation to be linked with research endeavors such as this one.

What barriers does your organization face in applying research information?

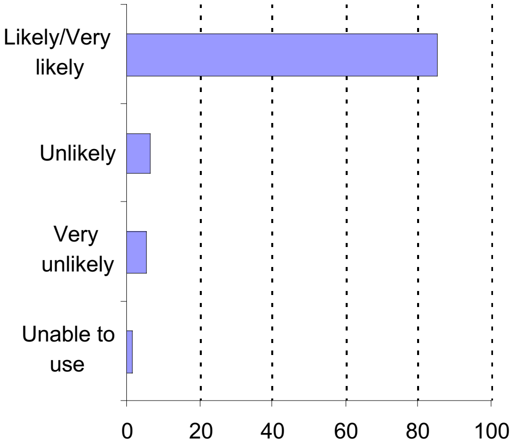


% respondents who reported these barriers to the application of research findings

Half of respondents (53.1%) reported that difficulties associated with organizational change hindered their ability to apply research information to practice. Slightly fewer, or 41.5 percent, reported they were not always sure how to link research with practice. Lack of generalizable findings were also reported to hinder an organization's capacity to apply knowledge from research studies (36.7%). About one-third of respondents reported that conflicting research results (30%), lack of information (28%), and an inconsistency between research findings and clinical orientation (25.1%) were barriers to research application. Only 15 percent of respondents were hampered by limited statistical knowledge, and 8.7% percent reported having no barriers in this activity.

Children's Mental Health and the Internet

How likely is your organization to use resources provided on the Internet?



% respondents indicating Internet use

Focus group and interview data had indicated that many practitioners and decision-makers have developed a preference for accessing research information via the Internet or receiving it via Email. We included a few questions about Internet use in our survey in order to determine whether this finding was representative of practitioners and decision-makers across the province. We were encouraged to find that 85.3 percent of respondents reported they were likely to use the Internet to access research information. Less than one-tenth were unlikely to access this source (6.8%) and only 1.4 percent reported being unable to access the web.

Of those surveyed, 95.7 percent reported that their organizations are connected to the world wide web. In approximately half of these organizations (52.2%), all staff members have access.

Connections with Colleges and Universities

Because many research support come from collaborations and connections with educational institutions, we asked respondents to comment on whether their organization was connected to a university or college, either for library support and/or through faculty appointment of their staff.

Almost half of respondents (47.3%) reported having membership access to a university or college library. More than half (63.3%) of respondents reported staff affiliations with a college or university.

Summary

The survey data very much support the themes that emerged from the focus groups and interviews. In addition, the survey responses show a general pattern for type of respondent whereby the more involved or motivated the individual is with respect to research-related activities, the more positive their perception of their organization's interface with research. Specifically, individuals responsible for liasing with the CAFAS and BCFPI implementation teams and those identified as key contacts were more supportive.

Results of the survey vividly depict the poor capacity of children's mental health organizations in making use of research. Generally, only one quarter of those who responded regard their own organization's ability to acquire, assess, apply, and adapt research-related information as more than adequate. Clearly, there is room for vast improvement in the sector's capacity to make use of research-related information.

Chapter 7

A Knowledge Transfer Infrastructure for Children's Mental Health

The province's screening and outcome measurement initiative in children's mental health is an ambitious undertaking. The extent to which the initiative will be successful in shaping new best practices depends, in part, on the co-ordinated effort of multiple stakeholders, the significant financial investment and policy direction on the part of government, and the level of partnership and active support garnered from practitioners in the field. Success also depends on the development of a knowledge transfer infrastructure that can support the exchange and application of new knowledge and direct the immense organizational change necessary for use of the tools to become part of children's mental health practice in Ontario.

Knowledge translation is defined as the exchange, synthesis, and ethically-sound application of knowledge within a complex system of relationships among researchers and users.

-Canadian Institutes of Health Research, 2002

As in the beginning of this project, we continue to appreciate that the BCFPI and CAFAS data will provide extremely rich information with tremendous potential for increasing our knowledge of children's mental health and how best to deliver services. Accomplishing this, however, has more to do with developing knowledge transfer strategies that will support implementation, clinical utility, exchange of information, and practice change than it has with developing ways to collect the data. As mentioned, this has essentially been accomplished by changes to the software for both tools. Collective learning from the data – the stories it will have to tell – will follow, eventually. Some of the strategies we have developed in this project will be useful for the telling and for the building of partnerships that will reform children's mental health services.

The Knowledge Transfer Infrastructure for Ontario's Measurement Initiative in Children's Mental Health is a composite of strategies developed from the best practices evidence in the knowledge transfer and organizational change literatures and the preferred research related practices of stakeholders revealed in this study. The knowledge transfer infrastructure is illustrated in Figure 7-1 and a description of each component is provided below.

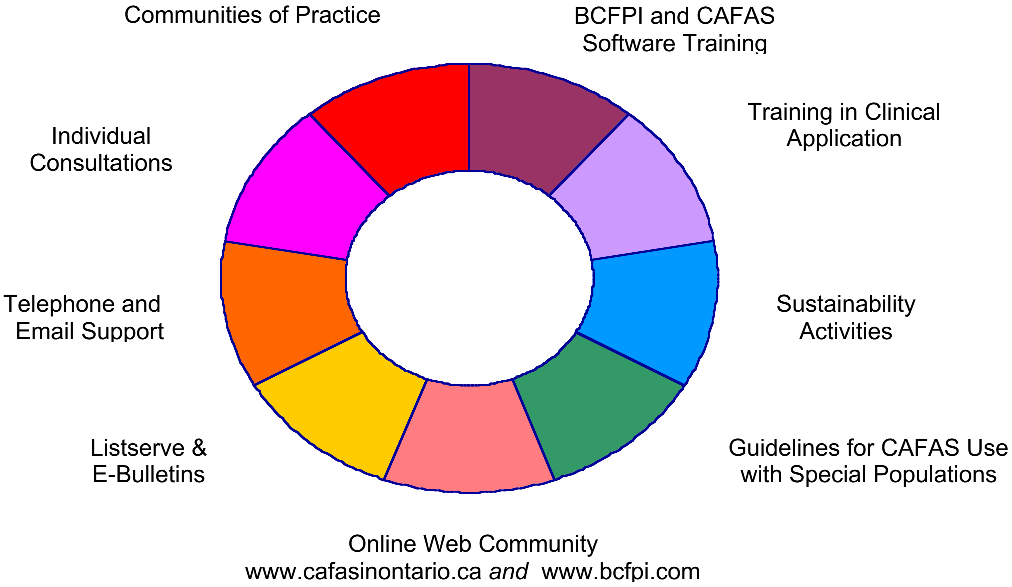
Regional Community of Practice Meetings

A community of practice is a group that shares knowledge, learns together, and creates common practices.

- McDermott, 1999

The concept of *community of practice* stems from the business literature, and its essential features remain unchanged in its application to the mental health initiative. Support for its application in children's mental health was derived from our experience with the knowledge transfer forum and evidence regarding the effectiveness of face-to-face exchange of information. Knowledge transfer is very much about leveraging knowledge, something that is actually very hard to do and is more dependent upon community building than information technology (McDermott, 1999). Often, knowledge to be shared is neither obvious nor easy to document and requires a human relationship to think about, understand, share, and appropriately apply. Leveraging knowledge involves a unique combination of human and information systems. In our knowledge transfer infrastructure, *communities of practice* capture the human element, while web-based supports reflect the informational element. Traditional methods of exchange – telephone and in-person consultation – are included as important exchange modalities in light of the generally poor technological sophistication among children's mental health agencies in the province.[2]

Figure 7-1
Knowledge Transfer Strategies



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[2] It is worth noting here that over the course of the past two years, all children's mental health agencies participating in the initiative have established connection to the Internet and are now connected to Email.

Children's mental health agencies can be thought of as "teams" – groups of people with a common goal, interdependent work, and joint accountability. These teams are composed of people from different professions or jobs (psychologists, psychiatrists, social workers, early childhood educators, accountants, business assistants), whose knowledge and skills are needed to produce delivery of mental health service to children and their families. The very thing that makes teams work well – common goals, shared focus, physical proximity and working rapport – can easily lead to what McDermott calls "two related learning disabilities: isolation and team myopia" (McDermott, 1999). Working together in close proximity over an extended period develops a rhythm, rapport, common identity and, ultimately trust. Teams can be great vehicles for learning, but they also have limitations. Teams can become silos that have limited access to other teams or agencies. When this happens, teams can re-invent tools, analyses, or approaches developed elsewhere, and they may habitually reject ideas from the outside and lose their ability to generate new ideas. They waste time searching for information that one of their colleagues likely has. Research in creative thinking has long shown that new ideas usually come from the intersection of disciplines, perspectives, or ways of thinking (Leonard-Barton, 1997; De Bono, 1970). Isolation results in professionals who are not aware of developments in their field (McDermott, 1999).

KEYPOINTS

Despite their benefits, teams have key limitations and can become new silos

When teams are combined with COPs this problem is overcome

Teams focus on their strengths (serving children and their families) while COPs focus on learning within these tasks

Teams and COPs are different: teams are tightly integrated and driven by deliverables; Communities of Practice are more loose-knit and driven by value

- McDermott, 1999

The business world has effectively combated this problem by combining teams with *communities of practice.* Because *communities of practice* focus on a topic they create a forum for sharing information and standardizing practices. As they share ideas and experience, people develop a set of common practices. Sometimes they formalize these in guidelines and standards, but often, they simply remain "what everybody knows" about good practice. In children's mental health, *communities of practice* can share information, insight, experience, and applications for the CAFAS and BCFPI tools. *Communities of practice* are intentional in their focus, start-up activities and support. To develop the trust, connection and sharing of natural communities (envisioned here as regions) it is necessary to support the natural process of community development rather than impose an artificial one. Starting *communities of practice* is very different than team building. McDermott (1999) proposes a useful set of guidelines:

- *Focus on a few important topics.* To leverage knowledge effectively, start with a few *communities of practice* focused on topics strategically important to the organization.

- *Build on natural networks.* Once you have identified an important topic to form communities around, find the networks of people who already share knowledge about that topic.
- *Build personal relationships* with community members.
- *Make it easy to contribute and access the community's knowledge and practices.*
- *Develop community coordinators* and core groups. A key success factor for intentional communities is to have a coordinator who organizes and maintains the community. This coordinator is usually a well-respected and well-connected community member. Get key thought leaders involved.
- *Support communities.* Managers need to give people the time and encouragement to reflect, share ideas with other teams (agencies) and think through the implications of other teams' ideas.
- *Be patient - communities of practice* often take time to develop. Because they are organic, *communities of practice* need time to find the right kind of information to share, the right level of detail, the right participants, and the right forums.

People need tacit knowledge: knowledge that is not documented, that their peers have never previously articulated, and that needs to be thought about and shared.

We propose to apply the concept of *communities of practice* to the children's mental health system in the following way.

- *Communities of practice* will be developed for the 9 MCFCS regions, thereby taking advantage of the geographical MCFCS organization already in existence.
- Their focus will be on supporting the measurement initiative, although they will likely prove useful for other activities within the children's mental health sector in time.
- Participants will be service providers responsible for implementation of the two tools and others from each agency in the region who have an interest. MCFCS and MOHLTC program supervisors are also a natural part of the regional group. The advantage of this organization is that it opens up the channels of communication to include staff members beyond the level of management – those traditionally the recipients of policy and practice directives from the ministry.
- *Communities of practice* will be organized in collaboration with the MCFCS regional supervisor and members of the CAFAS and BCFPI teams. In all likelihood, the MCFCS supervisor will retain this function.
- We hope that agency managers will support the *communities of practice* and their staff involvement, and view it as

Communities of practice leverage tacit knowledge.

- McDermott, 2000

Communities of Practice are significant sites of innovating.

- Seely Brown & Duguid, 1991

essential to successfully implementing the CAFAS and BCFPI tools. People need time and encouragement to participate.

- ♦ *Communities of practice* have begun slowly. One has been held in the South West Region and more are planned to follow shortly.
- ♦ Summaries of *communities of practice* events will be provided to the entire CAFAS /BCFPI community on the CAFAS in Ontario web site. The intent here is to extend the range of information exchange and learning that occurs within these regional forums.

Individual Consultations

Support staff from the CAFAS and BCFPI teams are available for individual *consultations* on an as-needed basis. An effort has been made to leverage our staff resources by meeting with several agencies together, particularly when travel is involved.

Telephone and Email Support

Both CAFAS and BCFPI teams are equipped to respond to agencies by telephone and Email. In 2001, a CAFAS business card with web site address and key telephone contact information was made available to all clinicians training for rater reliability on the measure.

E-Bulletins: CAFAS Updates

Late in 2001, the CAFAS team developed a newsletter bulletin to share important new developments. To date, three *CAFAS Udpate* bulletins have been distributed to all participating agencies (these can be viewed on our web site, www.cafasinontario.ca). With the launch of the revised CAFAS web site, *CAFAS Update* bulletins will be distributed electronically via listserv to individuals on the email contact list established as part of this project (knowledge transfer Contact List) and to participating agencies and key decision-makers at MCFCS and MOHLTC.

Guidelines for CAFAS Use with Special Populations

Individuals are more likely to adopt innovations (new practices, tools) if they appreciate the relative advantage of doing so (Rogers, 1983). That is, to what extent will the adoption of this innovation improve the existing situation? For the CAFAS tool, the relative advantage relates to the extent to which it adds clinical value for the client and practitioner, and organizational value for the agency or hospital setting. The rating of the CAFAS requires clinical skill and experience, and training is provided to each clinician so that they can learn to use the tools. However, clinical interpretation and application of these tools is a separate skill. To address this, Hodges developed a support document entitled *CAFAS Compilation of Guidelines for Special Situations and Client Types.* The special guide describes the nuances of rating the CAFAS scale for children/youth who are developmentally delayed, have eating disorders, are themselves caregivers (teen parents), are in residential settings or psychiatric hospitals, or display inappropriate sexual behaviours. This special guide is made available to all clinicians during reliability training.

Our experience in training clinicians to become reliable raters of the CAFAS over the last two years has led to a collaboration with *Dilico Ojibway Child and Family Centre* in Thunder Bay to develop guidelines for clinicians working with First Nations children and youth. The *Special Guideline for Rating CAFAS for First Nations Children and Youth* is nearing completion in draft form. It will be distributed to all service providers this population and will be made available in download format on the CAFAS web site.

Sustainability Activities

Throughout the evolution of the measurement initiative, every effort has been made to build sustainability for use of the tools. Stakeholders have been conscious about encouraging new linkages between children's mental health providers, and while CAFAS and BCFPI teams are available for support, the intention is to develop mutual support practices within regions. Sustainability relates, in part, to the communities of practice described earlier. But it also includes activities that will support reliable CAFAS practice in years to come.

Examining the extent of *Rater Drift* over time is important relative to sustaining the use of CAFAS in the province. CAFAS requires clinical skill and experience in addition to knowledge of standardized rating procedures in order to be applied reliably and validly. To what extent do clinicians drift in their knowledge of standardized rating procedures over time? To answer this, all clinicians in the province are asked to rate 10 new case vignettes one year following their achieving reliability on the tool. This data is being collected and will be analyzed to determine the extent of rater drift. In turn, what is learned about rater drift will be used to ensure that necessary supports (for example, booster sessions) are put into place to keep everyone rating the tool consistently. This exercise relates to the quality of data collected for CAFAS and, thus, is an important sustainability activity.

The children's mental health system is dynamic with respect to the professionals who work in it – workers come and workers go. As the reliability training phase of the measurement initiative ends and service providers move towards implementation, the issue of *training new staff* to be reliable raters of CAFAS arises. The question becomes how to go about doing this in a way that maximizes available resources (for example, trainer time and expenses for travel) while helping agencies to become independent adopters of the tools.

A survey on new staff training preferences was circulated to all participating service providers in June 2002. Results of the survey suggested that service providers largely planned to address CAFAS training of new staff by assigning an in-house trainer. This led *CAFAS in Ontario* staff to move ahead with plans for *Train-the-Traine*r instruction to be held regionally from July 2002 through March 2003. To be facilitated by *a CAFAS in Ontario Trainer*, the objective of train-the-trainer activity will be to ensure that in-house trainers are equipped to provide ongoing CAFAS reliability training for incoming staff.

An additional strategy for maintaining CAFAS sustainability in the province has been a pilot project to *train college and university instructors to become reliable CAFAS raters* with a view toward teaching their students to learn this skill prior to their leaving the educational system. The anticipated result of this activity will be to have new staff enter children's mental health system jobs with CAFAS training and reliability already in hand.

BCFPI and CAFAS Software Training

The BCFPI and CAFAS tools are both software-based, a fact that increased the attractiveness of the measures in their initial selection by the province. Both software tools have built-in capacity for reporting information on individual clients as well as on aggregate data. In learning to be users of both of these tools, clinicians (CAFAS) and intake staff (BCFPI) must learn to be reliable raters (CAFAS) and/or administrators (BCFPI) of each tool. A secondary but equally important task is then (1) to learn how to navigate the software, and (2) to learn how to manage the databases they derive in order to analyze aggregate data. A significant challenge to this exercise is posed by the lack of computer literacy in the field in general, as well as the poor state of computer technology among the majority of children's mental health agencies. *CAFAS software Training* is being provided to all agencies in regionally organized training sessions that will be combined with *Train-the-Trainer* instruction (in order to leverage trainer and travel cost expenses). *BCFPI Software Training* is a one-day small group workshop conducted in a computer lab setting. Computer and interviewing skills are addressed and participants receive BCFPI certification as per specific criteria.

Improved Knowledge Transfer Capacity of BCFPI Reports

Although version three of the BCFPI software includes automated “canned” reports intended to make aggregate data available to users, it was observed (during field support) that use of the canned reports was beyond the capacity of many users. To enhance the transfer of information - the user’s capacity to use and therefore apply data from the canned reports - the reports were simplified and a downloadable audio-visual tutorial produced.

Training in Clinical Application of Measures

For successful adoption of the tools to occur, clinicians must be taught to apply their new knowledge. The first level of training for both tools pertains to reliable use or administration. To become reliable raters of the CAFAS, participants attend a 2-day workshop and complete 10 case vignettes to a certain inter-rater reliability standard. For BCFPI, users must be “certified” as competent administrators of the tool before they are encouraged to use it independently in practice.

Both tools produce reports that summarize the information collected, both at the level of individual clients and in aggregate form. Developing the skills necessary for interpreting the CAFAS and BCFPI client reports is a separate enterprise from learning to administer or rate the tools. Clinical application of the information provided in client reports involves experience in making use of the data in developing the client formulation, and making clinically astute decisions about appropriate treatment options – preferably, evidence-based services – that are available.

This issue is most relevant to client reports generated by the BCFPI because they occur at the time of intake and can be most useful in understanding the nature of the child’s difficulties and in directing the most suitable method of treatment. As such, the BCFPI team has been providing training for basic clinical use of the tool in larger 1/2 day workshops. The training is based on four standard client profiles (BCFPI Standard Parent Report) and covers the 20 steps for clinical use outlined in their manual.

Online Web Community

One way to leverage knowledge is to link people through electronic media. Both CAFAS and BCFPI teams had developed *web sites* for each of the tools early on in the measurement initiative. In considering the knowledge transfer strategies in support of the initiative a natural thought was to link BCFPI and CAFAS supports onto one web site location. This idea was discussed by the steering committee and it was concluded that to do this would confuse users and that, for now, core supports for each tool should be kept separate.

As this project progressed, the *CAFAS web site* evolved as an electronic knowledge transfer mechanism (listserv) while also providing participants with an overview of all the knowledge transfer strategies in support of CAFAS training, implementation, and adoption. *Listserv* capability was added to further enhance knowledge transfer opportunities. The contact list generated in this project serves as the beginning of the listserv list, and individuals can now add their email addresses to the list and receive *CAFAS Updates* and additional information posted on the web site. The information provided on the site links the CAFAS user to all of the knowledge transfer elements described earlier in Figure 7-1. The reader is referred to www.cafasinontario.ca too view the site.

Chapter 8

Final Remarks

The knowledge transfer infrastructure for the measurement initiative in children's mental health was developed from best practices and from the research-related practices of key stakeholders. It also stems from our experience in supporting the use of these tools throughout the province over the last two and a half years. With these strategies now in place, the task before us is to continue to bring people together and to ensure that information about these tools is communicated to those who need it in ways that are clinically applicable and easy to understand and use.

We will apply what we have learned in communicating and sharing this project with key stakeholders. Key contacts compiled in this project will receive an electronic version of this report, as will mental health providers participating in the measurement initiative. In addition, this report will be posted in downloadable form on the CAFAS, BCFPI, and knowledge transfer-related web sites. The provision of main messages and an executive summary at the front of this report puts our key points forward to the intended audience in a way that is most accessible to them. We hope these will elicit discussion and serve as a catalyst for the development of a culture of research utlization in children's mental health.

Continuation of this work requires that we examine the *impact* of this knowledge transfer infrastructure on the use and application of the measurement tools. To what extent is the implementation and application of the these tools dependent upon utilization of the knowledge transfer strategies developed and how does this interact with other factors known to be important for knowledge transfer and organizational change, such as leadership, readiness for change, and available resources? We hope this research direction will provide the beginning of an empirical foundation for the dissemination and implementation of evidence-based practices.

Collectively, we have learned a tremendous amount from conducting this study, and have been in a position to apply our new knowledge to training and implementation support over the past year and a half. We hope that the knowledge generated here will be useful for the development and implementation of other initiatives in children's mental health and other fields. We welcome feedback on this report and look forward to sharing what we will learn in years to come as this initiative continues to unfold.

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Appendix A

Databases and Terms

Databases Searched

1. **ABI/INFORM Global**: Accounting, Business Information, & Telecommunications.
2. **Canadian Business & Current Affairs (CBCA**): Canadian Journals, newspapers, & other media.
3. **Francis:** humanities, sociology, psychology, health & education.
4. **Wilson Business Abstracts:** business-related articles from published periodicals.
5. **Ageline:** sociology, biological sciences, and linguistics.
6. **PsycInfo:** psychology & related disciplines.
7. **Social Sciences Abstracts:** a broad array of social sciences journals.
8. **Social Sciences Citation Index:** social sciences, arts & humanities.
9. **Applied Science & Technology Abstracts:** communication & information technology & artificial intelligence.
10. **General Science Abstracts:** psychology, sociology, medicine, & humanities
11. **Safety Science & Risk Abstracts:** sociology, environmental sciences, & computer science.
12. **Essay & General Literature Index:** humanities & the social sciences.
13. **Expanded Academic ASAP & IBSS Extra & PAIS International**: humanities, social sciences, & science & technology.
14. **PsychArticles:** full text articles from APA journals & selected EPF (Educational Publishing Foundation) journals.
15. **Health & Safety Science Abstracts:** sociology, linguistics, & environmental sciences.
16. **UMI Proquest Direct** : computing, business, banking, & religious periodicals.
17. **Cochrane Library:** effects of healthcare interventions.
18. **Embase:** psychiatry, nursing, health policy and management, and public health.
19. **E-Psyche:** environmental sciences, government publications, reports, & books in health & safety science, pollution, toxicology, & agriculture.
20. **CCINFO Web:** occupational health & safety on chemicals, material safety, & toxicological information.
21. **Periodicals Contents Index:** social sciences, arts, & humanities.
22. **Health Star:** health services, technology, administration, & research, clinical & non-clinical aspects of health care delivery; evaluation of patient outcomes, effectiveness of procedures, services, & processes, & quality assurance.
23. **Medline:** medicine, nursing, dentistry, the health care system, & the preclinical sciences.

Terms Searched

1. translation research
2. knowledge translation
3. health communication
4. technology transfer
5. diffusion of innovations
6. knowledge utilization
7. research utilization
8. knowledge transfer
9. knowledge development
10. linkage and exchange
11. transportability
12. dissemination research

Appendix B

Annotated Bibliography

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Main Messages:

- It may take as long as one to two decades for original research to be put into routine clinical practice. As such, the translation of research into sustainable improvements in clinical practice and patient outcomes is a substantial obstacle to improving the quality of health care.
- What has been learned in the research setting is often not implemented into daily clinical practice.
- Many examples of success in translating research into practice have involved inpatient care or settings in which most providers practice in close proximity.
- Some strategies work best in certain contexts but success may be influenced by the care setting, the patient, organizational factors, and the desired behaviour change.

Addis, M. E., Wade, W. A., & Hatgis, C. (1999). Barriers to dissemination of evidence-based practices: addressing practitioners concerns about manual-based psychotherapies. **Clinical Psychology: Science & Practice**, 6(4), pp. 430-441.

Main Messages:

- The use of manual-based treatments is contentious
- action must be taken if manual-based treatments are to be effective

Summary: The last several years have seen much debate over the appropriateness and viability of empirically supported manual-based therapies for clinical practice. While the majority of discussions have focused on the strengths or weaknesses of evidence-based treatments, and the differences between research and clinical practice, scant attention has been paid to addressing the actual concerns of practitioners in clinical settings. Based on the available research, and our experiences with training and supervision in manual-based treatments, we discuss practitioners' most common concerns, including effects on the therapeutic relationship, unmet client needs, competence and job satisfaction, treatment credibility, restriction of clinical innovation, and feasibility of manual-based treatments. Rather than arguing that these concerns are unwarranted, we suggest future directions in the field must take if evidence-based treatments are to be viable and effective in clinical practice. Starting with the assumption that these treatments have much (but not everything) to offer practitioners in clinical settings leads to qualitative and quantitative research questions involving all parties with an interest in evidence-based practice.

Ahearne, J. F. (2001). Scientists, policy makers, and the public: a needed dialogue. **Health Physics**, 80, 384-387.

Main Messages:

- Effective dialogue must occur between researchers, decision-makers and the public if scientific knowledge to be incorporated

Summary: Effective incorporation of scientific knowledge into public policy requires effective dialogue among scientists, policy makers, and the general public. How can this be accomplished so that all three groups have confidence in the processes leading to policies? What are the appropriate roles for scientists? What are the appropriate uses of science? Suggested answers will be proposed.

Andréasson, S., Hjalmarsson, K., & Rehnman, C. (2000). Implementation and dissemination of methods for prevention of alcohol problems in primary health care: a feasibility study**. Alcohol and Alcoholism**, 35, 525-530.

Main Messages:

- Dissemination of material without provision of extra resources found to be ineffective
- Unattractive content of prevention material assumed to be responsible

Summary: Secondary prevention of alcohol problems in health care has been proved efficacious in many studies, yet its implementation remains scarce, and its effectiveness in regular health care remains unknown. This article reports results from a feasibility study of dissemination of alcohol prevention methods in primary health care in Stockholm. Initial interviews with general practitioners (GPs) and district health nurses indicated that few raised the issue of alcohol with patients, made notes about alcohol in patient charts or found working with alcohol issues rewarding. The impact of a training session, where a project nurse visited all willing GPs and nurses, was limited. Although the uptake of the prevention package was high, follow-up at 3 months indicated that little use was made of the materials. Specifically, screening rates were low. In the future, secondary prevention of alcohol problems will require better adaptation to the realities of primary care.

Altman, D. G. (1995). Sustaining interventions in community systems on the relationship between researchers and communities. **Health Psychology**, 14, 526-536.

Main Messages:

- Researchers in community work must face the challenging problem of planning for the time when the research and development phase of the program is completed. The resulting sustainability plan is defined as an infrastructure that remains in a community after a research project has ended.

Summary: This article reviews the challenges associated with transferring innovations to community systems, changing program delivery from an experimental context controlled by researchers to program delivery controlled by community organizations, and sustaining long-term effects of interventions. Researchers who develop and implement community interventions in diverse health areas need to confront several issues: (1) fostering effective long-term relationships between researchers and the communities they study and in which they intervene, and (2) designing and implementing interventions that are useful to community systems after the formal phase of research ends.

Azocar, F., Cuffel, B. D., Goldman, W., & McCulloch, J. (2001). Best practices: dissemination of guidelines for the treatment of major depression in a managed behavioral health care network. **Psychiatric Services**, 52, 1014-1016.

Main Messages:

- Guidelines ineffective in changing practice
- Fewer than two-thirds of clinicians recall receiving guidelines, only half of those receiving actually read them
- Opinion leaders more influential in changing physician's behaviour than education alone

Summary: Numerous treatment guidelines have been developed in the past decade to address the accumulating evidence of variation in clinical practice and quality of care for the treatment of major depression and other mental and medical disorders. The Agency for Healthcare Research and Quality recently reported that the National Guideline Clearinghouse, an Internet-based resource, now offers access to more than 700 evidence-based clinical practice guidelines on its Web site. As organizational and individual accountability becomes a greater priority in today's service delivery systems, it is important to understand how to achieve adherence to guidelines and greater consistency in clinical practice. Previous studies that examined methods for influencing clinicians' behavior have shown that traditional continuing education tools, such as mailed materials, workshops, and conferences for physicians, have little impact. More intensive interventions, such as interactive continuing education sessions through which clinicians can practice the skills they have learned, seem more effective and may influence health care outcomes. Highly respected leaders of opinion, academic detailing, and continuous quality improvement teams have also been shown to be more influential in changing physicians' behavior than education alone. However, given that most mental health specialists are unaffiliated, provide care in private offices, and belong to numerous open managed care networks, it would be unrealistic to rely on the use of academic detailing and continuous quality improvement in large decentralized delivery systems. Few studies of effective dissemination of guidelines as a strategy for influencing psychiatrists' clinical practice have been published, and there have been no studies of nonphysician mental health practitioners. Managed behavioral health organizations (MBHOs) provided coverage to 176 million people in 1999. They are thus in a unique position in the mental health services system to study clinicians' behavior in real-world settings. Studying dissemination of guidelines in an MBHO provides access to a large population of patients throughout the United States who are treated by a representative sample of independent clinicians who have different backgrounds and clinical experience. We sought to determine whether clinicians read guidelines disseminated by MBHOs and, if so, whether they find such guidelines helpful.

Backer, T. E. (2000). The failure of success: challenges of disseminating effective substance abuse prevention programs. **Journal of Community Psychology**, 28, 363-373.

Main Messages:

- We have failed to bridge the gap between useful knowledge and community practice; mostly because we make the same mistakes repeatedly.
- The focus should not be on which "term" is used to label dissemination activities, but rather that these activities include a focus on their "effectivness."
- Information about the innovation and its relevance to potential adopters must be communicated effectively, in user-friendly, easily-accessible formats
- Evidence must be available that the innovation is effective, works better than available alternatives, and does not have significant side effects.
- Sufficient human and financial resources must be available to implement the innovation effectively in new settings.
- Potential adopters must be able to hand the human dynamics of change associated with innovation adoption, by rewarding change activities and involving those who will have to live with change in designing how the innovation will be implemented; and by helping adopters overcome their fears, resistances, and anxieties.
- We need to put dissemination into the larger context of the overall cycle of innovation and change, a cycle that includes the stages of innovation, evaluation, communication, dissemination, capacity-building, and change.

Summary: The author addresses three inter-related factors that help explain why so little progress has been made in addressing the challenges of dissemination since the 1960s. A recommendation is made that dissemination needs to be viewed in the larger context of overall cycle of innovation and change. Recommendations are made for action are made.

Barlow, D., Levitt, J.T. and Bufka, L.F. (1999). The dissemination of empirically supported treatments: a view to the future. **Behaviour Research and Therapy**, 37, S147-S162.

Main Messages**:**

- Barriers to successful implementation of empirically supported treatments
- Community providers – widely varying academic backgrounds who may rely on their extensive clinical experience rather than research to guide them
- Many studies not ready by community clinicians – seldom have access to the types of settings which researchers conduct their work
- New training initiative required

Summary: Despite developments of psychological interventions for a variety of disorders and problems, evidence exists that these treatments are not readily available to the public who requires them because they have not been effectively disseminated to the mental health professionals who deliver them. The variety of barriers to successful dissemination are outlined, and recent developments in clinical research and public health policy are described that may facilitate the advancement of evidence-based psychological practice.

Bero, L.A., Grilli, R, Grimshaw, J.M., Harvey, E., Oxman, A.D. and Thomson, M.A. (1998). Closing the gap between research and practice: an overview of systematic reviews of interventions to promote the implementation of research findings. *British Medical Journal*, 317, 465-468.

Main Messages:

- Systematic reviews of rigorous studies provide the best evidence of the effectiveness of different strategies to promote implementation of research findings
- Passive dissemination of information is generally ineffective
- Essential to use specific strategies to encourage implementation of research based recommendations and to ensure change in practice

Summary: There are many different types of intervention that can be used to promote behavioural change among healthcare professionals and the implementation of research findings. Systematic reviews of rigorous studies provide the bets evidence of the effectiveness of different strategies for promoting behavioural change. Identified consistently effective interventions as being: educational outreach, reminders (manual or computerized), multifaceted interventions (combination of two or more of audit and feedback, reminders, local consensus processes or marketing), interactive educational messages (participation of healthcare providers in workshops that include discussion or practice). Interventions of variable effectiveness include: audit and feedback, use of local opinion leaders, local consensus process, patient mediated intervention. Interventions that have little or no effect include: educational materials (practice guidelines, audiovisual materials, electronic publications), didactic educational meetings (such as lectures). Authors conclude that it is vital that dissemination and implementation activities be rigorously evaluated wherever possible. Economic evaluations should be considered an integral component of research. Outline potential benefits of international collaboration in this area.

Beutler, L. E., Williams, R. E., & Wakefield, P. J. (1993). Obstacles to disseminating applied psychological science. **Applied and Preventive Psychology**, 2, 53-58.

Main Messages:

- Clinicians believe that research findings are important in modifying their practices
- Clinician knowledge comes form popular books and workshops rather than academic journals

Summary: Many argue that the objectives of individual research reports are inconsistent with the needs of practitioners and should logically be changed. Based on a survey of how practitioners use psychological research, it appears that clinicians believe that research findings are, and have been, important in modifying their practices. However, they tend to get this "research" information more often from popular books, practice-oriented journals, and workshops than from research journals. Hence, information probably is not coming from scientists and may not actually represent state-of-the-art research knowledge. We propose that scientists should market their findings through popular articles like books, workshops, and other vehicles of communication valued by practitioners.

Blount, R. L. (1987). The dissemination of cost-effective psychosocial programs for children in health care settings. **Child Health Care**, 15, 206-213.

Main Messages:

- Dissemination of inefficacious psychological problems not uncommon
- Dissemination of efficacious programs often not done

Summary: Psychosocial programs for children must be both efficient and efficacious. Efficiency is dictated by cost, case of implementation, and likelihood of program compliance. Unfortunately, in attempting to promote efficient programs, inefficacious programs have been disseminated. Also, there are instances of failing to disseminate efficacious programs because they are not efficient. This paper presents a three-stage model as a guide for the dissemination of psychosocial programs. Further, specific suggestions are given as to how we may move from the level of efficacious treatments that are currently used on a limited scale to widespread dissemination.

Broner, N., Franczak, M., Dye, C. and McAllister, W. (2001). Knowledge transfer, policymaking and community empowerment: a consensus model approach for providing mental health and substance abuse services. **Psychiatric Quarterly,** 72(1), 79-102.

Main Messages:

- A consensus model of policymaking
- Four key structural elements for creating such a consensus infrastructure: I) leadership and a facilitating capacity for initiating and promoting such an endeavor, II) a network or consortium of key researchers, practitioners, consumers, and policymakers to empower community ownership, III) a process for consensus building and strategic problem solving for such a consortium, and IV) the continued creation of a multi-directional dialogue through information dissemination
- Key weakness of traditional knowledge utilization model lies in its failure to incorporate an "epistemologically active" end-user
- Knowledge is not simply possessed by experts but is created by the engagement of both experts and end-users
- Initial basis for consensus building model – Habermas's notion of communicative action – his argument provides a conceptual and philosophical basis for the role of processes that encourage consensus
- Build on empowerment and collaborative philosophy described by Freire and Denzin, and the strategic planning process outlined by Bryson, as well as the best practices program components described by Donabedian
- This model is a formalized method of group decision-making that brings together the knowledge of experts, providers, policymakers, individual consumers, family members, advocacy groups, researchers and other key stakeholders

Brown, B. S. (1987). Networking between research and service delivery. **International Journal of Addictions**, 22(4), 301-317.

Main Messages:

- Need for a wide variety of dissemination strategies to be effective.
- Reviews the impediments to the adoption of new models of service delivery in the field of drug abuse. Strategies for overcoming those obstacles with a view toward the translation of research materials to a language and format appropriate to the field of service delivery are explored. Issues in the study of competing strategies of knowledge transfer are also explored.

Carpinello, S. E., Rosenberg, L., Stone, J., Schwager, M., & Felton, C. J. (2002). New York state's campaign to implement evidence-based practices for people with serious mental disorders. **Psychiatric Services**, 53, 153-155.

Main Messages:

- The challenge is implementing evidence-based practices in routine mental health setting is largely to create a major shift in how the mental health industry defines a high-quality environment.
- Credibility on the part of mental health authorities is essential in obtaining ongoing support for a shared vision of change.
- The best outcomes are achieved when evidence-based practices are made available to recipients in combination and when accountability for the coordination of delivery is fixed at the local government level.
- The consensus of experts plays an essential role in the promotion of evidence-based practices.
- The system-wide use of evidence-based practices calls for modifying the behaviour of many clincians. Widespread dissemination of research findings that demonstrate the effectiveness of interventions is needed, as is the widespread availability of technical assistance.
- Organizational strategies for change include incorporating knowledge and training in evidence-based practices into workforce performance standards and into academic study programs.
- Multipronged approaches are most likely to lead to behavioural change.
- Having champions of implementation of evidence-based practices across all stakeholders is critical.

Summary: The perspectives of several mental health experts regarding the systematic implementation of evidence-based practices are shared. Emerging themes on this topic are discussed. A strategy for promoting evidence-based services includes consensus building, stakeholder education, clinician training, outcomes measurement, and financial components. Clinical practices that are perceived to be useful but for which there is no research base must be studied, and the pace of development of new treatments must be increased.

Carter, C. (1996). Using and communicating findings. In R.Reviere, S. Berkowitz, C. C. Carter, & C. G. Ferguson (Eds**.), Needs Assessment: A Creative and Practical Guide for Social Scientists** (Washington, DC: Library of Congress Cataloguing-in-Publication Data).

Main Messages:

- ♦ Presents details on how to use and communicate findings from needs assessment based on five basic elements: the audience, draft findings prior to study completion, presentation, dissemination, and implementation
- ♦ Final reports for general consumption should not exceed 30 pages, excluding bibliographies and appendices

Charles, C., Schalm, C., & Semradek, J. (1994). Involving stakeholders in health services research: developing Alberta's resident classification system for long-term care facilities. **International Journal of Health Services**, 24, 749-761.

Main Messages:

- ♦ Stakeholder involvement in the knowledge production and dissemination process leads to great uptake of research findings

Summary: Little attention has been directed in Canada to identifying stakeholders at the administrative policy level to whom relevant health services research information can be targeted. This article describes a case study in which key stakeholders (long-term care facility owners, operators, and care providers) were explicitly defined not only as targets of original research information to inform administrative public policy but also as collaborators in the research process and dissemination of results. The research involved development of a classification system to measure resident care requirements in the province's nursing homes and auxiliary hospitals. The classification system formed the basis of a new government administrative policy for allocating public funds to these facilities based on levels of care. The authors describe the rationale for involving stakeholders in the research process, the role of stakeholders as collaborators, and lessons learned from the Alberta experience. Examples are presented of how stakeholders can contribute to the health services research process and outcome: by providing experiential knowledge related to the research outcome, anticipating and overcoming potential problems with policy implementation, facilitating policy-oriented learning across stakeholder groups, assisting in the transfer of research information to wider stakeholder audiences, and promoting acceptance for policy change.

Ciliska, D., Hayward, S., Dobbins, M., Brunton, G., & Underwood, J. (1999). Transferring public-health nursing research to health-system planning: assessing the relevance and accessibility of systematic reviews. **Canadian Journal of Nursing Research**, 31, 23-36.

Main Messages:

- ♦ Systematic reviews a good way to overcome barriers to use of research
- ♦ Decision-makers report an unmet need for research evidence

Summary: A descriptive study was designed to gain an understanding of the research needs, perceptions of barriers to research utilization, and attitudes towards systematic reviews of decision-makers in public health at the level of systems planning. Public-health consultants and managers in Ontario were surveyed about barriers to research utilization and awareness of and attitudes towards systematic reviews as a method of/vehicle for research transfer. Access to 5 completed reviews was provided in summary, abstract, and full form, and on diskette, hard copy, and Internet. A follow-up survey at 3 months assessed use, relevance, application, and further dissemination of the reviews. A total of 242 people in positions of public-health policy and decision-making participated. Respondents reported a great, largely unmet, need for research evidence. They viewed systematic reviews as likely to overcome the barriers to research use related to critical appraisal, time, timeliness, availability, cost and credibility, but not the barriers related to policy climate, authority, or implementation resources. Three months after requesting a review, 93% said they would follow it up; 91% remembered receiving it, and

71% of these had read it while 23% stated it played a part in program planning or decision-making.

Corrigan, P.W., Steiner, L., McCracken, S.G., Blaser, B. & Barr, M. (2001) Strategies for disseminating evidence-based practices to staff who treat people with serious mental illness. **Psychiatric Services**, 52(12), 1598-1606.

Main Messages:

- We need to adopt an evidence-based approach to evaluating the dissemination of evidence-based treatments
- Individual service providers lack the necessary knowledge and skills to assimilate evidence-based practices
- Organizational dynamics undermine the treatment teams' ability to implement and maintain innovative approaches

Summary: Evidence-based practices have not been widely implemented in real-world treatment settings for several reasons, including existing state laws, administrative policies, funding priorities, advocates' concerns, and program staffing. Dissemination strategies focus largely on program staffing and the question of why treatment teams that are responsible for assisting people with serious mental illness fail to use evidence-based practices. In a review of the research literature, two barriers to staff dissemination emerge: individual service providers lack the necessary knowledge and skills to assimilate these practices, and certain organizational dynamics undermine the treatment teams' ability t0o implement and maintain innovative approaches. Three sets of strategies are useful for overcoming these barriers and fostering dissemination: packaging evidence-based practices so that specific interventions are more accessible and user-friendly to service providers; educating providers about relevant knowledge and skills; and addressing the organizational dynamics of the team to facilitate the implementation of innovations. Research on dissemination is relatively new and is less well developed than the clinical and services research enterprise that has led to evidence-based practices.

Dixon, L., Lyles, A., Scott, J., Lehman, A., Postrado, L., Goldman, H., & McGlynn, E. (1999). Services to families of adults with schizophrenia: from treatment recommendations to dissemination. **Psychiatric Services**, 50, 233-238.

Main Messages:

- Very few family members receive information from professionals regarding the mental illness of their relative

Summary: OBJECTIVE: Data from the Schizophrenia Patient Outcomes Research Team project were examined to determine the extent to which families of adults with schizophrenia receive services and whether training staff in the provision of family services increases service availability. METHODS: For patients with a diagnosis of schizophrenia, paid claims for family therapy were identified in 1991 in a nationally representative sample of Medicare data and one state's Medicaid data. In a field study in two states, 530 patients were asked about services received by their families. A quasi-experimental dissemination of a family intervention was done at nine agencies; staff at four agencies received a standard didactic presentation, and staff at five received that standard presentation paired with intensive training. RESULTS: In the representative national Medicare sample of 15,425 persons with schizophrenia, .7 percent (N=108) had an outpatient claim for family therapy. This figure was 7.1 percent in the Medicaid sample of 5,393 persons with schizophrenia in one state. Of the 530 patients in the field study who reported having contact with their families, 159 (30 percent) reported that their families had received information, advice, or support about their illness, and 40 (8 percent) responded that their families had attended an educational or support program. At the four agencies where staff received only didactic training, no changes in family services were found after one year. Three of the five agencies where staff participated in intensive training enhanced their family services. CONCLUSIONS: A minority of families of persons with schizophrenia receive information about the illness from providers. Implementation of model family interventions is possible with considerable technical assistance. A gap exists between best practices and standard practices for families of persons with schizophrenia.

Duffy, M. (2000). The Internet as a research and dissemination resource. **Health Promotion International**, 15(4), 349-353.

Main Messages:

- The internet an obvious route for knowledge dissemination
- Identification of problems related to underdeveloped skills, lack of user support, and credibility as a publishing route must be addressed

Summary: The rapid growth of the Internet and the advantages of the medium over traditional communication formats in terms of flexibility, speed and reach make it an obvious route for research dissemination. Given the emphasis on evidence-based decision-making as a way of improving the allocation of scarce resources to improve health, and given the focus on dissemination therein, the potential of the web to get digestible information to the right people at the right time is even more apparent. While the Internet is not panacea and issues around equity of public access are still to be resolved, its possibilities as a resource for professionals should not be underestimated and its longer term impact on the way we carry out and communicate research are likely to be far reaching. However, before its full potential can be realized, problems relating to underdeveloped skills and lack of support for users need to be addressed, as do issues around the Internet's credibility as a publishing route for professional researchers. Similarly, new types of expertise and creativity need to be nurtured in those charged with developing the unique features of the medium. This will ensure that health researchers, practitioners and policy makers are at the forefront rather than bringing up the rear of the increasing number of professionals finding the Internet a key tool in their work.

Edwards, R., Jumper-Thurman, P., Plested, B.A., Oetting, E.R. & Swanson, L. (2002). Community Readiness: Research to Practice. **Journal of Community Psychology**, 28(3), 291-307.

Main Messages:

- Community readiness must be distinguished from individual readiness
- Development of the Community Readiness Theoretical Model is based on several underlying premises: (1) communities are at different stages of readiness for dealing with a specific problem, (2) the stage of readiness can be accurately assessed, (3) communities can be moved through a series of stages to develop, implement, maintain and improve effective programs, (4) it is critical to identify the stage of readiness because interventions to move communities to the next stage differ with each stage of readiness
- Stages of readiness in a community have to deal with group processes and group organization, characteristics that are not relevant to personal readiness

Eisenberg, J. M. (2001). Putting research to work: reporting and enhancing the impact of health services research. **Health Services Research**, 36, x-xvii.

Main Messages:

- There needs to be a system in place to track and report impact of the research that is done.
- The Agency for Healthcare Research and Quality (AHRQ) in the United States has developed a model that shows different levels of the impact of research.

Summary: The paper reviews a model for determining the impact of research.

Elliott, H. & Popay, J. (2000). How are policy makers using evidence? Models of research utilization and local NHS policy-making. **Journal of Epidemiology and Community Health**, 54, 461-468.

Main Messages:

- Sustained dialogue between researchers and policy makers critical
- Direct influence of research on decision-making tempered by finances, shifting time scales and policy maker's own knowledge

Summary: STUDY OBJECTIVE: This paper is based on a qualitative study that aimed to identify factors that facilitate or impede evidence-based policy making at a local level in the UK National Health Service (NHS). It considers how models of research utilization drawn from the social sciences map onto empirical evidence from this study. DESIGN: A literature review and case studies of social research projects that were initiated by NHS health authority managers or GP fund holders in one region of the NHS. In depth interviews and document analysis were used. SETTING: One NHS region in England. PARTICIPANTS: Policy makers, GPs and researchers working on each of the social research projects selected as case studies. MAIN RESULTS: The direct influence of research evidence on decision making was tempered by factors such as financial constraints, shifting time scales and decision makers' own experiential knowledge. Research was more likely to impact on policy in indirect ways, including shaping policy debate and mediating dialogue between service providers and users. CONCLUSIONS: The study highlights the role of sustained dialogue between researchers and the users of research in improving the utilization of research-based evidence in the policy process.

Estabrooks, C. A., Pollock, C., & Huey, C. (Eds.) (2001). **Knowledge Utilization Colloquium '01 Proceedings (2001).** Alberta, Canada: University of Alberta. Web document: http://www.nursing.ualberta.ca/estabrooks/kusp/ku%20colloquium%20proceedings.pdf.

Farquhar, J.W. (1996). The case for dissemination research in health promotion and disease prevention. **Canadian Journal of Public Health**, 87, Supplement 2, S44-49.

Main Messages:

- The case for dissemination research stems from the major imbalance in research funds available for preventive medicine relative to needs.

Flaskerud, J. H. & Anderson, N. (1999). Disseminating the results of participant-focused research. **Journal of Transcultural Nursing**, 10, 340-349.

Main Messages:

- Participant focused research empowers participants and aids the dissemination process

Summary: Participant-focused research (PFR) includes the "subjects" as full partners in the research process. As such, participants share in the products or outcomes of research. PFR goes beyond the traditional research approach of disseminating findings to other scientists and clinicians and includes participants and community residents in sharing the skills, knowledge, and resources of the study with the objective of empowering the participants. This article demonstrates the use of PFR in disseminating the results or products of study to the participants through two examples of long-term research projects conducted in Los Angeles. The first example is a community-based study of HIV prevention with low-income Latina women. The second example is an ethnographic study of health concerns and risks among adolescents in juvenile detention. These examples provide two approaches to dissemination of research findings and benefits to the participants and the community.

Freeman, A. C. & Sweeney, K. (2001). Why general practitioners do not implement evidence: qualitative study. **British Medical Journal**, 323, 1-5.

Main Messages:

- Process of implementation of new knowledge is extremely complex

Summary: The objective of this study was to explore the reasons why general practitioners do not always implement best evidence. Six main themes were identified that affected the implementation process: the personal and professional experiences of the general practitioner's; the patient-doctor relationship; a perceived tension between primary and secondary care; general practitioners' feelings about their patients and the evidence; and logistical problems. Doctors are aware that their choice of words with patients can affect patients' decisions and whether evidence is implemented. In conclusion, general practitioner participants seem to act as a conduit within the consultation and regard clinical evidence as a square peg to fit in the round hole of the patient's life. The process of implementation is complex, fluid, and adaptive.

Freemantle, N. & Watt, I. (1994). Dissemination: implementing the findings of research. **Health Library Review**, 11, 133-137.

Main Messages:

- Effective dissemination depends on use of multiple means of communicating key messages

Summary: There is an increasing interest in dissemination among researchers, policy makers and information scientists. Dissemination, in the context of health services, can be taken to mean the process of implementing the findings of research. Currently there is a considerable delay in the adoption of evidence on the effectiveness of interventions by professionals in the NHS and other health systems. The development of research designs such as randomized control trials, which can provide the most reliable information on the efficacy of interventions, is a crucial but partial step in the quest to place clinical practice on a more scientific basis. Systematic overviews of interventions bring together the relevant evidence to provide overall estimates of the effectiveness of health service interventions. However, there remains the difficulty of bringing them to the attention of health professionals in a manner which will enable them to improve the effectiveness of their clinical practice. The research evidence suggests that effective dissemination will depend upon using multiple means to communicate key messages rather than a single measure or 'magic bullet'. Information professionals have a role in ensuring the key research evidence is promoted, and that it is as reliable as possible.

Goldman, H.H., Ganju, V., Drake, R.E., Gorman, P., Hogan, M., Hyde, P.S. & Morgan. O. (2001). Policy implications for implementing evidence-based practices. **Psychiatric Services**, 52(12), 1591-1597.

Main Messages:

- Mental health policies must create the organizational and financial incentives to implement evidence-based practices.
- It is critical to have a dedicated individual and/or an infrastructure to support systemic change.
- Implementing evidence-based practices is a quality-improvement process that provides accountability through the monitoring of the fidelity of practices that have been demonstrated by research to be effective.
- No empirical base exists for the dissemination and implementation of evidence-based practices. We know that a program “works” at the clinical level because we have studied it; but we have not yet studied the implementation process itself.

Summary: The authors describe the policy and administrative practice implications of implementing evidence-based services, particularly in public-sector settings. They review the observations of the contributors to the evidence-based practices series published throughout 2001 in *Psychiatric Services.* Quality and accountability have become the watchwords of health and mental health services; evidence-based practices are a means to both ends. Eight courses of action are proposed to address the gap between science and practice: continue to build the science base; overcome stigma; improve public awareness of effective treatments; ensure the supply of mental health services and providers; ensure the delivery of state-of-the-art treatments; tailor treatment to age, sex, race, and culture; facilitate entry into treatment; and reduce financial barriers to treatment.

Goodman, R. M. (2000). Bridging the gap in effective program implementation: From concept to application. **Journal of Community Psychology**, 28, 309-321.

Main Messages:

- How projects are implemented explain a relatively high proportion of the variance of outcomes; implementation typically dominates the outcomes.
- The development of strategies to assure effective implementation is important if program outcomes are to be assured.
- Where desired outcomes are not evident, and the intervention mechanisms are unknown, the program is at risk of a Type III error; little result due to faulty implementation.

Summary: Although great expense and effort is often incurred for community initiatives, they often produce modest results that some have attributed to the inadequacies of community-based interventions. This article addresses the fundamental question of how funding and implementating organizations can bridge the gap that currently exists between the desire to use community strategies for improving health and the strategic implementation of programs to better assure outcomes.

Gordon, D. A. (2000). Parent training via CD-ROM: using technology to disseminate effective prevention practices. **The Journal of Primary Prevention**, 21(2), 227-251.

Main Messages:

- Technology can be effectively used to disseminate effective prevention practices

Summary: Family-based prevention programs have demonstrated effectiveness in reducing risk factors for substance abuse. The lack of efficient methods for training staff and insuring treatment integrity and the limited time that program progenitors have for dissemination impede the spread of these programs. Additionally, there are barriers to families who use these programs such as stigma associated with a parent education or mental health approach, transportation and access difficulties, and inability to commit to months of treatment sessions. New developments in technology can surmount most of these barriers. The author describes a video-based interactive CD-ROM for training parents and families in child management and relationship enhancement skills.

Green, L.W. and Johnson, J.L. (1996). Dissemination and utilization of health promotion and disease prevention knowledge: Theory research and experience. **Canadian Journal of Public Health**, 87(S2):1-17.

Main Messages:

- Different kinds of knowledge require different diffusion strategies

Summary: The authors review the theoretical and research foundations of knowledge dissemination and utilization. They produce a table that illustrates the selected disciplinary contributions to the field of innovation diffusion. The theoretical underpinnings common to the field of knowledge dissemination and utilization are identified. Three developments in recent years promise to rveive diffusion research – theoretical (ecological theories), methodological (participatory research) and technological (new communication technologies).

Haines, A. and Donald, A. (1998). Making better use of research findings. **British Medical Journal**,_317, 72-75.

Main Messages:

- Pressure for more effective and efficient implementation of research findings is likely to grow
- Reasons for failing to get research into practice are many and include lack of appropriate info at point of decision making, and social, organizational and institutional barriers to change
- All people within an organization who will have to implement the change or who can influence change should be involve din developing strategies for change
- Those who adopt new ideas early tend to differ in a number of ways – they tend to have more extensive social and professional networks (Rogers, EM, *Diffusion of innovations.* New York, Free Press, 1983)

Summary: There is increasing interest in implementing research findings in practice both because of a growing awareness of the gap between clinical practice and the findings of research and also because of the need to show that public investment in research results in benefits for patients. Improved understanding of the reasons for the uptake of research findings requires insights from a range of disciplines. In order to promote the uptake of research findings it is necessary to identify potential barriers to implementation and to develop strategies to overcome them. Specific interventions that can be used to promote change in practice include using clinical guidelines and computerized decision support systems, developing educational programmes, communicating research findings to patients, and developing strategies for organizational change.

Haynes, B. and Haines, A. (1998). Barriers and bridges to evidence based clinical practice. **British Medical Journal**, 317,273-276.

Main Messages:

- Practitioners have difficulty finding, accessing, interpreting and applying current best evidence
- New evidence based services (electronic databases, systematic reviews, and journals that summarize evidence) make accessing current best evidence feasible and easy in clinical settings

Summary: There are several barriers to the successful application of research evidence to health care. They include factors beyond the control of the practitioner and patient as well as factors that might be modified to advantage. Suggest three steps that are needed to harness research evidence for healthcare practice – synthesizing the evidence, developing clinical policy from the evidence, and, applying the policy at the right place, in the right way, at the right time. They also suggest models for doing so. For example, in synthesizing the evidence – abstracting services that critically appraise studies – these appraisals then published – advances in information technology can provide access to high quality research.

Kelly, J. A., Somlai, A. M., DiFranceisco, W. J., Otto-Salaj, L. L., McAuliffe, T. L., Hackl, K. L., Heckman, T. G., Holtgrave, D. R., & Rompa, D. (2000). Bridging the gap between the science and service of HIV prevention: transferring effective research-based HIV prevention interventions to community AIDS service providers. **American Journal of Public Health**, 90(7), 1082-1088.

Main Messages:

- ♦ Manuals and staff training workshop and telephone consultation follow-up are more effective than either manuals alone or manuals and workshop in the adoption of interventions.

Summary: AIDS service organizations (ASOs) rarely have access to the information needed to implement research-based HIV prevention interventions for their clients. We compared the effectiveness of 3 dissemination strategies for transferring HIV prevention models from the research arena to community providers of HIV prevention services. Interviews were conducted with the directors of 74 ASOs to assess current HIV prevention services. ASOs were randomized to programs that provided technical assistance manuals describing how to implement research-based HIV prevention interventions, manuals plus a staff training workshop on how to conduct the implementation, or manuals, the training workshop, and follow-up telephone consultation calls. Follow-up interviews determined whether the intervention model had been adopted. The dissemination package that provided ASOs with implementation manuals, staff training workshops, and follow-up consultation resulted in more frequent adoption and use of the research-based HIV prevention for gay men, women, and other client populations. Strategies are needed to quickly transfer research-based HIV prevention methods to community providers of HIV prevention services. Active collaboration between researchers and service agencies results in more successful program adoption than distribution of implementation packages alone.

King, L., Hawe, P. and Wise, M. Making dissemination a two-way process. **Health Promotion International**, 13(3), 237-244.

Main Messages:

- ♦ Linkage systems between researcher and implementer groups can foster more effective transfer of programmes
- ♦ Dissemination more likely to be influential if based on two-way process of exchange
- ♦ Publishing results in journals is not a sufficient dissemination process
- ♦ Dissemination agents found to contribute to successful programme uptake

Summary: There is concern that the full potential of health promotion programmes is not being achieved because of insufficient transfer of new knowledge about effective programmes from research into practice. The process extends beyond circulating information or relying on passive processes of diffusion. Identify a range of factors that influence dissemination: attributes of the programme, practitioner characteristics, researcher characteristics, linkages between researchers and practitioners, and dissemination method.

Klein, S. M. (1996). A management communication strategy for change. **Journal of Organizational Change**, 9, 32-46.

Main Messages:

- ♦ Most people do not fully comprehend the necessity for the change or how it ultimately might affect them.
- ♦ Several key communications principles taken together can constitute a communications strategy to support change: (1) message redundancy is related to message retention, (2) use of several media is more effective than just one, (3) face-to-face communication is a preferred medium, (4) line hierarchy is the most effective organizationally sanctioned communication channel, (5) direct supervision is the expected and most effective source of organizationally sanctioned information, (6) opinion leaders are effective changers of attitudes and opinions, and (7) personally relevant information is better retained that abstract, unfamiliar or general information.

Summary: Many organizational participants are only vaguely aware that changes are taking place and the ambiguity surrounding these changes provide fertile ground for rumours, anxiety, and ultimately, resistance. This is true even though management has communicated its intent. Organizational changes often founder because not enough strategic thought is given to communicating the rationale, the progress and the impact of the change. The process should be based on a good grasp of some principles of communication together with an understanding of the change process. Seven key communications principles are discussed to combat this situation. Communications strategies are related to various stages of organizational change.

Landry, R., Amara, N., & Lamari, M. (2001). Utilization of social science research in Canada. **Research Policy**, 30, 333-349.

Main Messages:

- Knowledge utilization depends much more heavily on factors regarding the behaviour of the researchers and users context than the attributes of the research products.

Summary: This paper addresses three questions: What is the extent of the use of social science research in Canada? Are there differences between the social sciences disciplines in regard to extent of use? What are the determinants of utilization of social science research knowledge in Canada? The paper develops and tests an empirical model which derives its dependent and independent variables from prior studies in knowledge utilization. Instead of limiting utilization to instrumental use, the paper defines utilization as a six stage cumulative process. Based on a survey of 1229 Canadian social science scholars, the findings of this study show that nearly half of the research results lend to some use by practitioners, professionals and decision-makers. Furthermore, comparisons of means of utilization show that the professional social sciences (social work and industrial relations) lend to higher levels of utilization than the disciplinary social sciences (economics, political science, sociology and anthropology). Multivariate regression analyses show that the most important determinants of utilization are the mechanisms linking the researchers to the users, the dissemination efforts, the adaptation of research outputs undertaken by the researchers, the users' context and the publication assets of the researchers. The other explanatory factors exert a more mitigated influence on knowledge utilization. The last part of the paper derives policy implications from the regression results. Overall, the most important finding of this paper is that knowledge utilization depends much more heavily on factors regarding the behavior of the researchers' and users' context than on the attributes of the research products.

Landry, R., Lamari, M., & Amara, N. (2001). Extent and determinants of utilization of university research in public administration. Université Laval. Web document: http://www.fss.ulaval.ca/kuuc.

Main Messages:

- Adaptation of research for users, efforts made to acquire research, and linkages between researchers and users are good predictors of uptake of research by government officials

Summary: This paper addresses three questions: What is the extent of the use of university research in public administration? Are there differences between the policy domains in regard of the extent of use? What are the determinants of utilization of university research in public administration? The paper first reviews the major methodological problems of the field to indicate how they are dealt with in the present study. Then it applies conceptual models and methodological solutions likely to alleviate the problems identified in the field to data about how professionals and managers in Canadian and provincial public administrations use university research in their professional activities. Based on a survey of 833 government officials from Canadian and provincial public administrations, comparisons of the means of utilization will compare the extent of utilization of university research in public administration across seven policy domains ranging from 41.3 for the domains of municipal and regional affairs, public works and public infrastructures to 56.6 for the domains of education and information technology. The results of the Multivariate regression analyses show that characteristics of research products and focus of research on the advancement of scholarly knowledge or on users' needs do not explain the uptake of research, but that adaptation of research for users, acquisition efforts made by users, linkages between researchers and users and the organizational context of the users are good predictors of the uptake of research by government officials. The last part of the paper derives from the regression results' implications for theory building, public policy and future research.

Landry, R., Lamari, M., & Amara, N. (2001). Climbing the ladder of research utilization: evidence from social sciences research. **Science Communication**, 22, 396-422.

Main Messages:

- ♦ The critical stage of knowledge utilization is the stage of transmission

Summary: Previous studies that have used knowledge utilization scales as their dependent variable have aggregated the stages to construct overall indices of knowledge utilization and they have attempted to identify factors explaining the extent of utilization. In this paper, each stage of the knowledge utilization scale is considered separately and compared to the previous stage in order to find factors explaining that researchers are able to climb up in the ladder of knowledge utilization from the echelon of no transmission to the echelon of transmission, then from the stage of transmission to that of cognition, from cognition to reference, from reference to effort, from effort to influence, and finally, from influence to application. To our knowledge, no prior empirical studies have examined the factors explaining why researchers succeed in climbing up the echelons of the ladder of knowledge utilization. The results suggest that the crucial stage of knowledge utilization is the stage of transmission. Likewise, scholars do not differ on most of the explanatory variables when they try to climb from transmission to the higher echelons of the ladder of knowledge utilization. These results suggest that there are barriers to entry and that these barriers are primarily located between the stage of no transmission and the stage of transmission. These results carry theoretical and policy implications that need to be explored carefully.

Lomas, J. (1990). Finding audiences, changing beliefs: the structure of research use in Canadian health policy. **J.Health Polit.Policy Law**, 15, 525-542.

Main Messages:

- ♦ There is a gradual increase in improved responsiveness by researchers and policy makers to increase the potential impact of research at administration and policy levels

Summary: The impact of research information depends on its ability to change beliefs or policy assumptions within the relevant audiences. As a hybrid of American and British systems, Canada's chosen decision-making structure for policy-making and its legislative framework for health insurance make these audiences unclear and not readily accessible. This factor and historical characteristics of the research community which made them only partially responsive to the values of decision makers provide an explanation for the limited past use of research information in Canadian health policy. More recently, improved responsiveness by researchers and an emerging definition of the audiences by legislative policymakers are bringing about a gradual increase in the potential impact of research at the levels of administrative and clinical policy. Because of continuing decision-making constraints on legislative policy, however, impact at this level is predicted to remain diffuse, with only cautious acceptance of the changes in beliefs implied by research.

Lomas, J. (2000). Using 'Linkage and Exchange' to move research into policy at a Canadian Foundation. **Health Affairs**, 19(3), 236-240.

Main Messages:

- ♦ Bringing decision makers who can use the results of a particular piece of research into its formulation and conduct is the best predictor for seeing the findings applied
- ♦ It is more difficult to reject, discount or ignore research results when one has contributed to them
- ♦ The one-on-one encounter consistently emerges as the most efficient way to transfer research

Summary: This paper describes the efforts of one foundation to link the processes of health services research and decision making through all aspects of its research funding. This philosophy of linkage and exchange is a promising way to increase the relevance and use of health services research.

Maclean, D. (1996). Positioning dissemination in public health policy. **Canadian Journal of Public Health**, 87(S2), 40-43.

Main Messages:

- ♦ Technology plays an important role in enabling dissemination
- ♦ Opportunity to learn from the business sector

Summary: Research should play an important role in the implementation of health policy. The application of research methodologies to dissemination of knowledge and practice is being recognized more and more as a legitimate and important component of the health policy agenda.

Marshall, M. N. (1999). Improving quality in general practice: qualitative case study of barriers faced by health authorities. **British Medical Journal**, 319, 164-167.

Main Messages:

♦ Barriers to the leadership and management of quality improvement in general medical practice include: absence of an explicit strategic plan, competing priorities, sensitivity of health professionals, lack of information, lack of authority to implement change, unclear roles, and isolation from other authorities.

Summary: Several barriers to research utilization were identified in this qualitative study of three UK health authorities. These barriers serve to impede the ability of health authorities to fulfil their responsibilities and reduce their capacity to contribute to quality improvements in general practice.

McCall, R.B. (1988). Science and the press: Like oil and water? **American Psychologist**, 43(2), 87-94.

Main Messages:

♦ Few scientists are prepared or trained to be interviewed by the press

♦ Relations between sciences and the press need improvement

Summary: Scientists and journalists have traditionally viewed each other warily. Recently, scientists from all disciplines have been urged to be more co-operative with reporters. Psychologists have more contact with the press than other scientists but, if relations are to improve, both scientists and journalists must understand the purposes, values, and procedures of the other.

McDermott, R. (1999). Learning across teams: how to build communities of practice in team organizations. **Knowledge Management Review,** 8, 32-36.

Main Messages:

♦ Despite their benefits, cross-functional teams have key limitations, and can become silos.

♦ A double-knit organization overcomes this problem by linking teams with Communities of Practice.

♦ In a double-knit organization, teams focus on their strengths (outputs, processes, services) while communities of practice focus on learning within functions.

♦ Teams and Communities of Practice are different: teams are tightly integrated and driven by deliverables; Communities of Practice are more loose-knit and driven by value.

Summary: Teamwork is prolific in almost every aspect of business and is often encouraged as a way of communicating and sharing knowledge. But there are some key limitations to cross-functional teams. In this article, McDermott argues that a better model is the double-knit organization, which provides a far more meaningful exchange of learning by interweaving teams with Communities of Practice in one company-wide fabric.

McKee, W. T., Witt, J. C., Elliott, S. N., Pardue, M., & Judycki, A. (1987). Practice informing research: a survey of research dissemination and knowledge utilization**. School Psychology Review**, 16(3), 338-347.

Main Messages:

♦ Research literature which is intended to inform the profession, to reflect its needs, and to provide a strong scholarly base for practice is not being read, and consequently has little change of directly influencing practice through implementation.

♦ When general areas of functioning are compared (e.g., assessment, consultation, etc) the greatest need for information is in the are of school-based intervention and, more specifically, around the development of effective interventions for both academic and behaviour problems, areas where practitioners perceived their training to be least adequate.

♦ Talking with colleagues was ranked as the foremost method used by psychologists for obtaining information impinging on their current practice; journal articles ranked second.

- Providing a mechanism whereby school psychologists can talk to each other may be as useful as hiring outside consultants, sending people to workshops, and filling libraries with professional development materials.

Summary: With a call for increased social validity in the school psychology research literature comes the suggestion that researchers listen to practitioners, both in terms of meeting important information needs as well as in identifying significant research problems. This article reports the results of a survey of 210 NASP members' research and information needs across several areas of practice. In addition to providing a practitioner's view of research priorities, the usefulness of a number of journals and other resources were evaluated. It was concluded that several areas of research identified as crucial to practice have been neglected both in training and in the research literature. A discussion of the implications of these data for researchers was provided to increase social validity within the professional literature.

Millman, J., Samet, S., Shaw, J., & Braden, M. (1990). The dissemination of psychological research. **American Psychologist**, 45, 668-669.

Main Messages:

- Psychologists do not commonly venture to bring research findings believed relevant to the attention of policymakers.
- It is rare that a purportedly relevant study will reach the desks of policymakers.
- Both may reflect: (1) a lack of support for this activity by academic institutions, (2) a lack of motivation, and/or (3) a lack of skill in use of available venues.

Summary: This brief report describes a survey of psychologists who taught at the doctoral level in Manhattan universities in the year 1986-87, to determine the extent to which their research was concerned with real-world issues, to what extent, and how they sought to make their findings known to those who could use them. Results showed that those who carried out field studies and those whose departments rewarded applied research were more likely to have communicated research to potential users. The most frequently identified modalities for such communication were lectures to lay persons and consults to organizations. Least common were providing reports to contracting agencies, stakeholders, press releases, and communications with legislators or judiciary.

Naranjo, C.A. & Bremner, K.E. (1996). Dissemination of research results regarding the pharmocotherapy substance abuse: Case examples and critical review. **Substance Abuse**, 17(1), 39-50.

Main Messages:

- Few clinical trial results have significant impact on clinical practice due to inadequate dissemination
- The facilitation of transfer of research studies requires the involvement of professionals trained in techniques of marketing and dissemination
- Vagaries and dilemmas are frequently involved in the dissemination of research findings by scientists who have no training in marketing

Summary: The transfer of treatment research findings to clinical practice begins with influential dissemination. Other factors, such as availability of resources, acceptance by clinicians, and relevant company sponsorship can ultimately determine the clinical application of a new technology. The authors use two examples to indicate that scientists must collaborate with professionals trained in techniques of dissemination and marketing in order to facilitate the transfer of research results to clinical practice.

Omery, A., & Williams, R. P. (1999). An appraisal of research utilization across the United States. **Journal of Nursing Administration**, 29, 50-56.

Main Messages:

- The change process involves two functions: research evaluation and environmental readiness for change.
- Environmental readiness includes identifying the nature and identity of the change agents, readiness of individuals, and evaluation of available resources (financial, time, expertise).
- Attitude of the nurse toward research is key to research utilization.

- Work environment is also key; behaviour of clinical managers can inhibit the development of research utilization activities in practice. Managers exhibit failure to use their position and organizational authority to influence the utilization of research in practice.
- Themes emerging from expressed barriers included resources, prevalent culture, change process, and nursing education.
- Themes emerging from expressed facilitators included leadership commitment, available resources, and culture.

Summary: The success of research utilization is a function of how well it has been incorporated into the cultural norm of the organization. This article describes current and future nursing research utilization activities in various clinical agencies across the United States and identifies barriers and facilitators to those activities.

Osterloh, M. & Frey, B. (2000). Motivation, knowledge transfer, and organizational forms. **Organization Science**, 11(5), 538-550.

Main Messages:

- Different types of motivation underlie the spread of tacit versus explicit knowledge

Summary: Determined the kinds of motivation needed to generate and transfer tacit knowledge, as opposed to explicit knowledge. Employees are motivated intrinsically when activities are undertaken for Ss' own immediate satisfaction, and extrinsically when Ss are able to satisfy needs indirectly, especially through monetary compensation. A crowding effect exists where tangible rewards undermine intrinsic motivation for interesting tasks. Intrinsic motivation is crucial when tacit knowledge in and between teams must be transferred and organizational forms must enable different kinds of motivation. It is concluded that: (1) crowding effects make intrinsic and extrinsic motivation endogenous variables; (2) market elements such as profit centers are beneficial; and (3) firms are better able to manage motivating than the market.

Perry, R. D. & Hanig, D. (1994). Dissemination and utilization of the mental health evaluation. **Evaluation and Program Planning**, 17(1), 93-96.

Main Messages:

- The final evaluation report on Washington state's mental health system received wide distribution and has had an immediate impact.

Summary: The paper reviews the short term impacts of the mental health evaluation. In the short term, mental health funding increased, and many of the changes recommended in the report are in the process of being made. Although it is too soon to assess long-term impacts, follow-up on the report's recommendations will provide important new information on how the goals of the reforms are being met.

Persons, J. B. (1997). Dissemination of effective methods: behavior therapy's next challenge. **Behavior Therapy**, 28, 465-471.

Main Messages:

- Large numbers of patients do not receive effective treatment because practitioners have been slow to adopt effective new treatments.
- One of behaviour therapy's most important tasks in the coming years is to disseminate innovations.

Summary: Dissemination of effective interventions developed by behavior therapists is one of behavior therapy's most important tasks now and in the coming years. Dissemination should occur when a treatment is supported by efficacy data from randomized controlled trials or from a large series of single case studies. The author discusses several examples of diffusion failure, discusses when dissemination is appropriate, and provides recommendations for improving dissemination of empirically supported behavioral interventions and methods.

Rosenheck, R.A. (2001). Organizational process: A missing link between research and practice. **Psychiatric services**, 52, 1607-1612.

Main Messages:

- The daily decision making of service providers is shaped by ingrained routines, power structures and established resource arrangements rather than current scientific findings
- There is a need for dissemination process research

- The key to developing a community of practice is frequent interaction

Summary: Organizational process is an under-examined barrier and a potential bridge for the introduction of innovative treatment models into mental health practice. The author describes key operational characteristics of large, complex organizations and strategies that have been used to facilitate implementation of innovative programs in the Department of Veterans Affairs health care system. He argues that complex organizations of the type in which mental health care is increasingly delivered are characterized by multiple competing goals, uncertain technologies, and fluid involvement of key participants. Interventions shown to be effective in controlled studies are not easily introduced into such organizations, because research is typically conducted in a buffered organizational niche that is shielded from the complex open systems around it. Key strategies for moving research into practice include constructing decision- making coalitions, linking new initiatives to legitimated goals and values, quantitatively monitoring implementation and ongoing performance, and developing self-sustaining communities of practice as well as learning organizations.

Shanley, C., Lodge, M., & Mattick, R. P. (1996). Dissemination of research findings to alcohol and other drug practitioners**. Drug and Alcohol Review**, 15, 89-94.

Main Messages:

- Intensive workshop found to be a useful dissemination strategy when combined with other strategies

Summary: This article provides an overview of the literature in the area of research dissemination, and suggests ways of increasing communication between researchers and clinicians. It then describes a dissemination project based at the Centre for Education and Information on Drugs and Alcohol (CEIDA) which was designed to convey the results of a major research project in the alcohol and other drug areas to practitioners in the New South Wales. The article includes the development, implementation and evaluation of the project. The format employed - an intensive workshop conducted in different locations, was found to be a useful strategy, particularly when used to promote a large research project of clinical significance and when used in conjunction with other dissemination strategies.

Sheldon, T.A., Guyatt, G.H. & Haines, A. (1998). Getting research findings into practice: When to act on the evidence. **British Medical Journal**, 317, 139-142.

Main Messages:

- Not all research findings can or should be implemented; prioritization is necessary
- Systematic reviews that show consistent results are likely to provide more reliable research evidence than non-systematic reviews or single studies
- Researchers should design studies that take into account how and by whom the results will be used and the need to convince decision makers to use the intervention studied
- The decision whether to implement research evidence depends on the quality of the research, the degree of uncertainty of the findings, relevance to the clinical setting

Summary: There is increasing interest in providing evidence-based health care – in which healthcare professionals, provider managers, those who commission health care, the public and policymakers consistently consider research evidence when making decisions. Purchasers should be able to influence the organization and delivery of care and the type and content of services. Policymakers should ensure that policies on treatment reflect and are consistent with research evidence. They must also ensure that there is adequate infrastructure for monitoring changes in practice and for producing, gathering, summarizing and disseminating evidence.

Sherrod, L.R. (1999). “Giving child development knowledge away”: Using university-community partnerships to disseminate research on children, youth and families. **Applied Developmental Science**, 4, 228-234.

Main Messages:

- A bi-directional flow increases both the chances someone will listen to academics and the usefulness of the communication to them
- University-community partnerships ensure the dissemination of research to audiences other than academics
- Need to educate the media, the public, legislators about the general importance

- for research-based information

Summary: Researchers are increasingly recognizing the importance of disseminating research results to a wider audience than other researchers. Dissemination is important to maintaining a national commitment to the support of research, and it is essential if we are to develop policies and procedures that effectively promote the development of children and youth. There is a clear role for partnerships in furthering dissemination efforts.

Sobell, L. C. (1996). Bridging the gap between scientists and practitioners: the challenge before us. **Behavior Therapy**, 27, 297-320.

Main Messages:

- Lessons from the business community have direct applicability to disseminating science-based clinical procedures
- Successful dissemination results when practitioners are true partners in research, development, and dissemination process

Summary: The need to develop effective and efficient strategies for the dissemination of evidence-based health care has been recognized by governments, researchers, and clinicians alike. However, recognition and implementation are separate issues. If scientists are to have a significant impact on clinical practice, they will have to learn a new way of "doing business". Lessons from the business community and from the field of diffusion of innovations research (dissemination research) have direct applicability to disseminating science-based clinical procedures. This paper presents two examples of the successful integration of science and clinical practice. The goal in each case was to address problems fundamental to dissemination research, specifically for addictions treatment. The first example demonstrates how scientists and practitioners successfully worked hand-in-hand to integrate science and practice, by creating a clinical protocol that subsequently served almost 300 clients. The second example describes the successful dissemination of a clinical research intervention into community settings. the key to effective dissemination was to make practitioners true partners in research, development, and dissemination process. For the effective wedding of clinical science and practice on a wide scale, dissemination must be adopted as a value and become a major objective of health care organizations. Current health care emphasis on evidence-based practice suggests that alliances between practitioners and scientists will point the way to clinical standards of practice for the next millennium.

Stolte, J. J., Ash, J., & Chin, H. (1999). The dissemination of clinical practice guidelines over an intranet: an evaluation. **Proceedings of the American Medical Informatics Association Symposium**, 960-964.

Main Messages:

- Computerized guidelines do not guarantee that information easier to retrieve – must be fully integrated in clinical decision-making process

Summary: This study compares two clinical practice guideline dissemination systems. It was hypothesized that placing guidelines on an intranet would make this information easier to retrieve. Retrieval time, retrieval accuracy, and ease of use were empirically evaluated. Sixteen clinicians from Kaiser Permanent volunteered to complete tasks that measured these variables. Time values were significantly longer for tasks completed with intranet guidelines (Intranet = 6.7 minutes, Paper = 5.7 minutes). Tasks completed with paper guidelines had a significantly higher percentage of perfect scores than those completed with the intranet (Paper = 85%, Intranet = 59%). There was no significant difference in reported ease of use. Simply placing clinical information on an electronic system does not guarantee that the information will be easier to retrieve. Such information needs to be fully integrated into the clinical decision making process. Computerizing guidelines may provide a necessary initial step toward this goal, but it does not represent the final solution.

Stone, D., Maxwell, M., & Keating, M. (2001**). Bridging Research and Policy. The Global Development Network**. Web document: http://www.ids.ac.uk/gdn/power/all.htm

Main Messages:

Summary: This paper is about the relationship between research and policy - specifically about how research impacts on policy, and about how policy draws on research. It might be thought that the relationship is straightforward, with good research designed to be relevant to policy, and its results delivered in an accessible form to policy-makers - and with good policy-making securely and rationally based on relevant research findings. In fact, this is far from the case. As a taster, Box 1 gives ten reasons why the link from research to policy might not be straightforward. Sometimes research is not designed to be relevant to policy. Sometimes it is so designed but fails to have an impact because of problems associated with timelines, presentation, or manner of communication. Sometime (probably quite often) policy-makers do not see research finding as central to their decision-making. The relationship between research and policy is often tenuous, quite often fraught. To observe as much is not new. There are literatures on the question in many social science disciplines - in political science, sociology, anthropology, and management, to name a few. Our purpose here is to review some of these literatures and to draw out the implications for both researchers and policy-makers. The starting point is a discussion of what is meant by "policy" and the "policy process". The rational, linear model of policy-making - which summarizes a logical sequence from problem definition, through analysis of alternatives, to decision, implementation, and review - is the traditional approach. We will see shortly what is wrong with this. Accordingly, the paper begins (Section 2) with a brief review of thinking on policy, presenting alternative models, and setting out a framework for thinking about the interaction between research and policy. It then deals successively with the challenge facing researchers (Section 3) and policy-makers (Section 4). Can the range of advice already offered to researchers be extended? And can policy-makers be helped by new ideas such as evidence-based policy-making and performance-based evaluation? The conclusion (Section 5) draws these threads together, suggesting that the impact of research is uncertain and contingent on social and political context.

Szulanski, G. (2000). The process of knowledge transfer: a diachronic analysis of stickiness. **Organizational behavior and human decision processes**, 82(1), 9-27.

Main Messages:

- Knowledge transfer is a process with different stages

Summary: When acknowledged, difficulty is an anomaly in the way transfers are modeled rather than a characteristic feature of the transfer itself. One first step toward incorporating difficulty in the analysis of knowledge transfer is to recognize that a transfer is not an act, as typically modeled, but a process. This article offers a process model of knowledge transfer. The model identifies stages of transfer and factors that are expected to correlate with difficulty at different stages of the transfer. The general expectation is that factors that affect the opportunity to transfer are more likely to predict difficulty during the initiation phase, whereas factors that affect the execution of the transfer are more likely to predict difficulty during subsequent implementation phases. Measures of stickiness are developed for each stage of the transfer to explore the predictive power of different factors at different stages of the process. A cross-sectional analysis of primary data collected from 271 questionnaires through two-step survey of 122 transfers of organizational practices within eight firms illustrates the applicability of the model.

Tarrier, N., Barrowclough, C., Haddock, G., & McGovern, J. (1999). The dissemination of innovative cognitive-behavioural psychological treatments for schizophrenia. **Journal of Mental Health**, 8, 569-582.

Main Messages:

- Absence of skills in the mental health workforce one reason for slow implementation of treatment innovations

Summary: There has been considerable research in recent years that has suggested that non-drug psychosocial interventions have considerable benefits to patients suffering from psychoses. These interventions include family interventions, individual cognitive-behaviour therapy and early signs monitoring. In spite of these research findings the dissemination of these interventions into routine practice has been slow and patchy. This paper briefly reviews these research studies and investigates reasons why dissemination of such evidence-based practice has not progressed. The absence of skills in the mental health workforce is one reason for the slow implementation of treatment innovations. The attempts to skill sections of the workforce are described and the relative success of the various training projects is described. The difficulties and limitations of these attempts are discussed.

Tenove, S.C. (1999). Dissemination: Current conversations and practices. **Canadian Journal of Nursing Research,** 31(1), 95-99.

Main Messages:

- ♦ Relationships are crucial to successful dissemination
- ♦ Successful dissemination requires a complex system of two-way linkages among researchers, practitioners and their organizations
- ♦ “conversations” in dissemination must take place

Summary: This article outlines a workshop Conversations in Dissemination, hosted by the Alberta Consortium for Health Promotion. This workshop focused on how researchers, practitioners, policymakers and others can help one another to access, interpret, apply, and participate in a more broadly conceived dissemination process. Acknowledgement was made of the fact that knowledge is developed on both sides of the practitioner/researcher divide and that this is often ignored. An outline is given of the move from a unidirectional approach, to a systems approach which leads to new linkages, to two-way communication.

The National Institute of Mental Health Council's Clinical Treatment and Services Research Workgroup (2001). **Bridging science and service**. Web document: www.nimh.nih.gov/research/bridge.htm.

Main Messages:

- ♦ Researchers, policymakers, health care providers, and most critically, individuals with mental illnesses and their families today recognize that translating the remarkable breakthroughs into procedures and policies of everyday clinical practice is an urgent, essential, and achievable task. It is a challenge that has profound implications for the quality of the lives of Americans with mental illnesses and for the health of the Nation.
- ♦ Workgroup shaped an action plan with 49 recommendations for fulfilling the Nation's commitment to individuals with mental illnesses. This action plan is structured by the goals of informed priority setting, using a dynamic and rapidly growing knowledge base, as well as methodological innovation, and administrative and infrastructure enhancements: (a) Increase the usefulness of NIMH research for individuals with mental illnesses, clinicians, purchasers, and policymakers through informed priority setting; (b) Selectively expand the NIMH portfolio in the domains of efficacy, effectiveness, practice, and service systems research to foster integration across these fields and to expedite the implementation of research-based practices and policies; (c) Identify research innovations in design, methods, and measurement to facilitate the translation of new information from bench to trial to practice; (d) Strengthen NIMH's leadership and administrative activities to provide the infrastructure to achieve the goals stated above in a timely manner.

Traynor, M. (1999). The problem of dissemination: evidence and ideology. **Nursing Inquery,** 6,187-197.

Main Messages:

- ♦ Any investigation of research evidence and occupational practice and identity, if it is to be critical, has to abandon as an overriding aim the increased implementation of research findings and take on an exploration of power differentials between government bodies, scientific centres and healthcare workers.

Summary: This paper re-contextualizes research evidence as an example of textually-based social control. It does this by drawing on two areas of theoretical literature; feminist literary theory and the sociology of scientific knowledge. Accounts of literary works as ideological instruments of social control suggest that (at least some kinds of) research literature may fulfill a similar role among a clinical readership. There have also been compelling accounts of scientific writing as expressions of desire on the part of one group to 'act at a distance' upon others. In the light of this literature, it becomes less tenable to see research dissemination as the simple transfer of information, supplemented by organizational work. Research is implicated in the attempt by one group to enroll others in its own project and in the (self-

)construction of the identities of the healthcare worker. The accounts that literary theory can provide do not remain focused upon the text, but draw links between the reading process and the experience and place in society, for example the gender, of the writer and reader. As such their explanations create a space for the resisting reader.

Wilkes, M. S. (1997). The public dissemination of medical research: problems and solutions. **Journal of Health Communication**, 2, 3-15.

Main Messages:

- ♦ Media coverage of research is valued and strategically necessary
- ♦ There are numerous obstacles to the timely flow of accurate scientific information reaching the public
- ♦ Once peer review is complete, publicly funded research should be available to any interested member of the public

Summary: Visibility in the media is strategically necessary to ensure a favorable public image. There is increasing pressure for researchers to seek out members of the press. This paper reviews three barriers that function to obscure the timely public dissemination of medical information: (a) journal editorial policy concerning the dissemination of research findings (sometimes called the Ingelfinger rule), (b) the news embargo, and, (c) the peer review process. Authors suggest a fast track for peer review to aid in timely dissemination.

Wilson, G. T. (1997). Dissemination of cognitive behavioral treatments – Commentary on “Dissemination of effective methods: behavior therapy’s next challenge. **Behavior Therapy**, 28, 473-475.

Main Messages:

- ♦ Rigorously evaluated in over 20 randomized control trials, cognitive behaviour therapy (CBT) is currently the treatment of choice for bulimia nervosa. Yet, in the United States, CBT is rarely used in the treatment of bulimia nervosa.
- ♦ Dissemination failures is attributed to (1) the lack of training in empirically supported treatments in predoctoral training programs and internships in clinical psychology, (2) practitioners who are dismissive of the practical relevance of randomized control trials despite the fact that they provide the data for empirically established treatments, and (3) perceived limitations to the autonomy of the therapist and hence, reduce effectiveness, resulting from manual-based therapies.
- ♦ The best hope for advancing the use of empirically supported treatments is improved training of mental health professionals.
- ♦ We can better promote the adoption of empirically established, manual-based treatments by making protocols more “therapist-friendly.”

Summary: Demonstrably effective cognitive behavioral treatments for a number of clinical disorders are underutilized in clinical practice. Improving dissemination presents a challenge as Persons (1997) argues. In this commentary, reasons for dissemination failures, and suggestions for promoting empirically supported treatments, are discussed.

Zytowski, D.G. (1992). Let’s make knowledge Dissemination as good as knowledge production. **Journal Vocational Behaviour**, 40: 207-209.

Main Messages:

- ♦ Shortcoming in the widespread practice of conducting research in isolation and disseminating it via piecemeal journal publication
- ♦ Suggests prepublication exchange of information
- ♦ Advance the progress of our knowledge by sharing new methods and findings through a clearinghouse for research-in-progress and prepublication abstracts.

Appendix C

Knowledge Transfer Contact List

ACADEMIA

Dr. Nico Trocmé
Faculty of Social Work
University of Toronto
246 Bloor Street West
Toronto, ON, M5S 1V4
416-978-5718
Nico.trocme@utoronto.ca

CITY OF TORONTO

Mary Lawrence
Director of Child Care Centre
City of Toronto
95 Bellevue Avenue
Toronto, ON, M5T 2N8
416- 392-5868
Lawrence@oradev.csis.csd.metrotor.on.ca

Debbie Jackson
Special Needs Supervisor
City of Toronto
95 Belleveue Avenue
Toronto, ON, M5T 2N8
416-392-8297
Jackson@csis.csis.csd.metrotor.on.ca

Susan Howson
Special Needs Supervisor
City of Toronto
95 Bellevue Avenue
Toronto, ON, M5T 2N8
416-392-8593
Howson@csis.csis.csd.metrotor.on.ca

Peter Varmuza
Director of Planning
55 John Street, 10th floor
Toronto, ON, M5H 3C6
416-392-8297
Varmuza@csis.csis.csd.metrotor.on.ca

Karen Gray
Program Manager
City of Toronto
55 John Street, 10th floor
Toronto, ON, M5H 3C6
416-397-1465
Gray@oradev.csis.csd.metrotor.on.ca

Marna Ramsden-Urbanski
General Manager of Children's Services
City of Toronto
55 John Street, 10th floor
Toronto, ON, M5H 3C6
416-392-8128
Ramsden@csis.csis.csd.metrotor.on.ca

CHILD WELFARE

Michelle Louis
Supervisor
Children's Aid Society of Toronto
843 Kennedy Road
Scarborough, ON, M1K 2E3
416-924-4646
Mlouis@torontocas.ca

Dave Flemming
Supervisor-Intake Program
Children's Aid Society of Toronto
33 Charles Street East
Toronto, ON, M4Y 1R9
416-924-4646
Dflemming@torontocas.ca

Marg Osmond
Manager of Training
Ontario Association of Children's Aid Society
75 Front St. E. 2nd Floor
Toronto, ON, M5E 1V9
416-366-8317
Mosmond@oacas.org

Nancy McLaren
Multi-Service Team
Children's Aid Society of Toronto
4211 Yonge Street, #400 North York,
ON, M2P 2A9
416-924-4646
Nmaclaren@torontocas.ca

Bruce Leslie
Research and Program Analyst
Children's Aid Society of Toronto
900 Dufferin St., #201
Toronto, Ontario, M6B 1B1
416-924-4646
Bleslie@torontocas.ca

Heidi Kiang
Supervisor-South Team
Children's Aid Society of Toronto
70 Chartwell Road
Etobicoke, ON, M8Z 4G6
416-924-4646
Hkiang@torontocas.ca

Philip Howe
Assistant Manager
Children's Aid Society of Toronto
15 Huntley Street
Toronto, ON, M4Y 2K9
416-924-4646
Phowe@torontocas.ca

Gayle Vandermeulen
Director of Quality Assurance
Ontario Association of Children's Aid
Society
75 Front St. E, 2nd Floor
Toronto, ON, M5E 1V9
416-366-8115
Gvandermeulen@oacas.org

Jeannette Lewis
Executive Director
Ontario Association of Children's Aid
Society
75 Front St. E. 2nd Floor
Toronto, ON, M5E 1V9
416-366-8317
Jlewis@oacas.org

EDUCATION

Don Buchanan
Facilitator of Community Education
Chedoke Child & Family Centre
Sanitorium Rd. Box 2000
Hamilton, ON, L8N 3Z5
905-521-2100
Buchanan@hhsc.ca

Jerry Ponikvar
Board of Directors
Education Quality & Accountability Office
2 Carlton Street, #1200
Toronto, ON, M5B 2M9
1-888-327-7377
e-mail@eqao.com

Bob Bonisteel
Board of Directors
Education Quality & Accountability Office
2 Carlton Street, #1200
Toronto, ON, M5B 2M9
1-888-327-7377
e-mail@eqao.com

Dominic Giroux
Board of Directors
Education Quality & Accountability Office
2 Carlton Street, #1200
Toronto, ON, M5B 2M9
1-888-327-7377
e-mail@eqao.com

Dr. Bette Stephenson
Board of Directors
Education Quality & Accountability Office
2 Carlton Street, #1200
Toronto, ON, M5B 2M9
1-888-327-7377
e-mail@eqao.com

Doretta Wilson
Board of Directors
Education Quality & Accountability Office
2 Carlton Street, #1200
Toronto, ON, M5B 2M9
1-888-327-7377
e-mail@eqao.com

Maureen Kempston-Darkes
Board of Directors
Education Quality & Accountability Office
2 Carlton Street, #1200
Toronto, ON, M5B 2M9
1-888-327-7377
E-mail@eqao.com

Martin Cugelman
Board of Directors
Education Quality & Accountability Office
2 Carlton Street, #1200
Toronto, ON, M5B 2M9
1-888-327-7377
E-mail@eqao.com

Robert Glass
Chief Executive Officer
Education Quality & Accountability Office
2 Carlton Street, #1200
Toronto, ON, M5B 2M9
1-888-327-7377
E-mail@eqao.com

Malcolm Powell
Manager of Social Work Services
Hamilton-Wentworth District School Board
100 Main St. W. Box 2558
Hamilton, ON, L8N 3L1
905-527-5092
Mpowell@hwdsb.on.ca

Carol Yaworsky
Executive Director
Learning Disabilities Association of Ontario
365 Bloor Street East
Toronto, ON, M4W 3L4
416-929-4311

Jane Loughborough
Social Worker
Toronto District School Board
265 Balliol Street, #2204
Toronto, ON, M4C 1C9
416-570-2574
Jane.loughborough@tdsb.on.ca

Catherine Davis
Native Population Advisor
Minister’s Advisory Council-Special Education
R.R. #2
Roseneath, ON, K0K 1X0
905-352-3583
Studentservices@rol.ca

Raymond LeBlanc
Developmental Disorders
Minister’s Advisory Council-Special Education
5512 Notre-Dame-de-Grace
Montreal, QC, H4A 1L5
613-562-5800
Duleb@videotron.ca

Martha Walsh
Multiple Exceptionalities
Minister’s Advisory Council-Special Education
6 Breckenbridge Blvd.
St. Catherines, ON, L2W 1A7
905-688-3550
905-688-3550

Lynn Ziraldo
Chair-Interministerial Committee
Minister’s Advisory Council-Special Education
9 Elston Court
Richmond Hill, ON, L4C 8A6
905-884-7933
Ldayr@idirect.com

Camille Quenneville
Director of Policy Development
Ontario Public School Board’s Association
439 University Avenue
Toronto, ON, M5G 1Y8
416-340-2540
Cquenneville@opsba.org

Denice Basnett
CAFAS Trainer
Hospital for Sick Children
180 Dundas Street West
Toronto, ON, M5G 1Z8
416-813-8691
Denice.basnett@sickkids.ca

Peter Chaban
Teacher/Researcher
Hospital for Sick Children
180 Dundas Street West
Toronto, ON, M5G 1Z8
416-813-8691
Peter.chaban@sickkids.ca`

Dr. Gordon McLure
Researcher
Hospital for Sick Children
180 Dundas Street West
Toronto, ON, M5G 1Z8
416-813-7179
gordon.mclure@sickkids.ca

James Arthur
Chair
Thunder Bay Catholic School Board
115 West Mary St. 2n Fl.
Thunder Bay, ON, P7E 4K5
807-625-1544
Jarthur@tbcdsb.on.ca

Patricia Marra-Stapleton
Psychoeducational Consultant
Toronto Catholic District School Board
60 Atlas Avenue
Toronto, ON, M6C 3N9
416-397-6800
Marrap@pcdsb.on.ca

Dr. Frances Rauenbusch
Chief Psychologist
Toronto Catholic District School Board
80 Sheppard Avenue E.
North York, ON, M2N 6E8
416-222-8282
Fran.rauenbusch@tcdsb.org

Dr. Janice Currie
Coordinator of Psychology
Toronto District School Board
140 Borough Drive
Scarborough, ON, M1P 4N6
416-397-3027
Janice.currie@tdsb.on.ca

Pauline Thornton
Behaviour Resource Teacher
Trillium Lakelands District School Board
200 County Rd. Box 240
Lindsay, ON, K9V 4S4
705-324-5300
Pauline.thornton@tldsb.on.ca

John Stanley
Senior Policy Advisor
Ministry of Education
20 Bay Street, 4th Fl.
Toronto, ON, M5G 2N8
416-325-2221
John.stanley@edu.gov.on.ca

Crawford Dedman
Manager of Coordinated Services
Ministry of Education
20 Bay Street, 4th Fl.
Toronto, ON, M5G 2N8
416-325-5134
Crawford.dedman@edu.gov.on.ca

Roselynn Degano
Special Education Project Leader
Ministry of Education
20 Bay Street, 4th Fl.
Toronto, ON, M5G 2N8
416-314-8185
Roselynn.degano@edu.gov.on.ca

Alex Bezzina
Policy Analyst
Ministry of Education
20 Bay Street, 4th Fl.
Toronto, ON, M5G 2N8
416-314-5685
Alex.bezzina@edu.gov.on.ca

Dr. June Simonson
Education Officer
Ministry of Education
20 Bay Street, 4th Fl.
Toronto, ON, M5G 2N8
416-325-2674
June.simonson@edu.gov.on.ca

MEDIA

Laura DiBattista
Health Reporter
City TV
299 Queen Street West
Toronto, ON, M5V 2Z5
Laurad@citytv.com

Avis Favaro
Health Reporter
CTV-Canada A.M.
9 Channel 9 Court
Scarborough, ON, M1S 4B5
Afavaro@ctv.ca

Francis Flanigan
Freelance Writer
157 Briar Hill Avenue
Toronto, ON, M4R 1H8

Rita Daly
Health Policy Writer
The Toronto Star
1 Yonge Street, 5th Floor
Toronto, ON, M5E 1E6
Rdaly@thestar.ca

Brent Paszt
Health & Medical Reporter
CTV-Canada A.M.
9 Channel 9 Court
Scarborough, ON, M1S 4B5
Bpaszt@ctv.ca

Scott Simmie
Journalist
The Toronto Star
1 Yonge Street, 5th Floor
Toronto, ON, M5E 1E6
Ssimmie@thestar.ca

CORRECTIONS

Tom Windebank
Provincial Coordinator
Ministry of Correctional Services
171 Judson St. Bldg. C
Toronto, ON, M8Z 1A4
Tom.windebank@jus.gov.on.ca

Jeff Wright
Manager-Program Effectiveness
Ministry of Correctional Services
200 First Ave. W. 3rd Fl.
North Bay, ON, P1B 9M3
Jeff.wright@jus.gov.on.ca

Loretta Eley
Executive Coordinator
Ministry of Correctional Services
25 Grosvenor St. 16th Fl.
Toronto, ON, M7A 1Y6
Loretta.eley@jus.gov.on.ca

George Seymour
Clinical Advisor
Ministry of Correctional Services
550 Gerrard St. E.
Toronto, ON, M4M 1X6
George.seymour@jus.gov.on.ca

HEALTH

Bill Ng
Senior Information Analyst
MOHLTC
5700 Yonge Street
Toronto, ON, M2M 4K5
Bill.ng@moh.gov.on.ca

Jessie Wong
Provincial Analyst
MOHLTC
5700 Yonge Street
Toronto, ON, M2M 4K5
Jessie.wong@moh.gov.on.ca

Rachel Chan
Economic Consultant
MOHLTC
5700 Yonge Street
Toronto, ON, M2M 4K5
Rachel.chan@moh.gov.on.ca

Graham Woodward
Manager (Acting)
MOHLTC
5700 Yonge Street
Toronto, ON, M2M 4K5
Graham.woodward@moh.gov.on.ca

Colleen Keys
Policy Analyst
MOHLTC
56 Wellesley Street West
Toronto, ON, M5S 2S3
Colleen.keys@moh.gov.on.ca

Faye More
Program Analyst
MOHLTC
80 Grosvenor St, 5th Fl.
Toronto, ON, M7A 1R3
Faye.moore@moh.gov.on.ca

Dennis Helm
Director of Mental Health
MOHLTC
Hepburn Block, 5th Fl.
Toronto, ON, M7A 1R3
Dennis.helm@moh.gov.on.ca

Nancy Douglas
Senior Policy Analyst
MOHLTC
56 Wellesley Street
Toronto, ON, M5S 2S3
Nancy.douglas@moh.gov.on.ca

SERVICE PROVIDERS

Larry Sanders
Executive Director
Bayfield Homes
14 Mill Street
Cunsecon, ON, K0K 1T0
613-392-3552
Sanders@bayfield.net

Marian Archibald
Past President
Children's Mental Health Ontario
40 St. Claire Ave, #309
Toronto, ON, M4T 1M9
416-921-2109
Parents@cmho.org

Brian O'Hara
Manager-Information
Children's Mental Health Ontario
40 St. Claire Ave, #309
Toronto, ON, M4T 1M9
416-921-2109
Brian@cmho.org

Marnie Keene
Intake Worker
Chimo Youth & Family Services
55 Mary Street W., #220
Lindsay, ON, K9V 5Z6
705-324-3300
Chimoyouth@on.aibn.com

Sandra Savage
Executive Director
Family Life Centre
1091 Gorham St., #202
Newmarket, ON, L3Y 7V1
905-895-2371
Flc@neptune.on.ca

Dr. Hugh Drouin
Executive Director
Family Services Ontario
1243 Islington Ave., #300
Toronto, ON, M8X 1Y9
416-231-6003
Fso@familyservicesontario.org

Dr. William Mahoney
Director of Paediatrics
Hamilton Health Sciences Centre
1200 Main Street, Box 2000
Hamilton, ON, L8N 3Z5
905-521-2100
Mahoney@hhsc.ca

Eva Vertesi
Supervisor
Kids Help Phone
439 University Avenue, #300
Toronto, ON, M5G 1Y8
416-586-0100
Eva.vertesi@kidshelp.sympatico.ca

Mary Martin-Rowe
Health Promotion Consultant
Ontario Provincial Clearinghouse
180 dundas Street W., #1900
Toronto, ON, M5G 1Z8
416-408-2249
Mary@opc.on.ca

Christine Simmons-Physick
V.P. Child & Family Srvs
Kids Help Phone
439 University Avenue, #300
Toronto, ON, M5G 1Y8
416-586-0100
Chris.simmons-physick@kidshelp.sympatico.ca

Caroline Tremblay
Manager of Clinical Supervision
Kids Help Phone
439 University Avenue, #300
Toronto, ON, M5G 1Y8
416-581-8965
Caroline.tremblay@kidshelp.sympatico.ca

Dr. Jonathan Golden
Psychologist
Kinark Child & Family
Centre
1100 Gorham Street
Newmarket, ON, L3Y 7V1
905-898-4572
Jonathan.golden@kinark.on.ca

Tom Walters
Director
Lakehead Regional Family Centre
283 Lisgar Street
Thunder Bay, ON, P7B 6G6
807-343-5000
tomw@irfc.on.ca

Keith Powell
Executive Director
Ontario Association for Community
Living
240 Duncan Mill Road, #403
Toronto, ON, M3B 1Z4
416-447-4348
Keith@acl.on.ca

Gita Schwartz
Executive Director
Ontario Association-Residences
Treating Youth
9011 Leslie Street
Richmond Hill, ON, L4B 3B6
905-889-7494
Gita@oarty.net

Judi Hanninen
Secretary
Ontario Association of Parents for
Children's Mental Health
111 Park Street
Scarborough, ON, M1N 2P2
416-267-9127
Judih@interlog.com

Chris Higgins
Executive Director
Ontario Federation for Community
Mental Health
250 Consumers Road, #806
Toronto, ON, M2J 4V6
416-490-8900
Chiggins@ofcmhap.on.ca

Christine Stapleford
Director of Youth Services
Spina Bifida & Hydrocephalus Assn. of
Ontario
69 Yonge St. #500
Toronto, ON, M5E 1K3
416-214-1056
Provincial@sbhao.on.ca

Peggie Willett
Manager of Performance
Centre for Addiction & Mental Halth
33 Russell Street
Toronto, ON, M5S 2S1
416-535-8501
Peggie_Willett@camh.net

Dr. Brian Rush
Research Scientist
Centre for Addiction & Mental Health
33 Russell Street
Toronto, ON, M5S 2S1
416-535-8501
Brian_rush@camh.net

Carol Lloyd
V.P. of Provincial Srvs.
The Easter Seal Society
1185 Eglinton Ave. E, #800
Toronto, ON, M3C 3C6
416-421-8778
Clloyd@easterseals.org

Barbara Gray
Provincial Services Manager
The Easter Seal Society
1185 Eglinton Ave. E, #800
Toronto, ON, M3C 3C6
416-421-8377
Bgray@easterseals.org

Dr. Carol Sinclair
Director of Treatment
Hincks-Dellcrest Centre
1645 Sheppard Ave. W.
Toronto, ON, M3C 3C6
416-633-0515
Csinclair@hincksdellcrest.org

Dr. Elsa Broder
Hincks-Dellcrest Centre
114 Maitland Street
Toronto, ON, M4Y 1E1
416-924-1164
Ebroder@hincksdellcrest.org

Sandy Brown
Adolescent Services
Whitby Mental Health
Centre
700 Gordon Street
Whitby, ON, L1N 5S9
905-668-5881
Browns@wmhc1.moh.gov.on.ca

Herb Spence
Consultant
Peel Children's Centre
85A Aventura Court
Mississauga, ON, L5T 2Y6
905-795-3500
Hspence6@cogeco.ca

Cathy Persons
Families Coordinator
Ontario Federation for Cerebral Palsy
1630 Lawrence Ave. W.
Toronto, ON, M6L 1C5
416-244-9686
Ofcp@ofcp.on.ca

Dr. Kathy Sdao-Jarvie
Director of Clinical Standards
Peel Children's Centre
85A Aventura Court
Mississauga, ON, L5T 2Y6
905-795-3500
Ksdaojarvie@peelcc.org

Appendix D

KT Forum Evaluation

Please take a few minutes to provide some feedback about today's Training Institute.

We are particularly interested in your views regarding dissemination of knowledge in this format.

Thank you!

	Poor	**Fair**	**Good**	**Excellent**
Communication of the goals of this Training Institute through publicity or in the introduction was…	1	2	3	4
Relevance of the information gained in the session to my job is…	1	2	3	4
Likelihood of applying this information in my organization/department is…	1	2	3	4
The time taken to share information in this format was…				
Overall satisfaction with this format of knowledge transfer is…	1	2	3	4

What would you have done differently:

Other comments/suggestions:

Appendix E

Focus Group Discussion Outline

- ✓ Introduction of research and purpose.
- ✓ Ground rules for discussion, e.g., one person speaks at a time, no side conversations, no right or wrong answers, comments stay in this room
- ✓ Explain the reason for taping and the uses to which the tapes will be put (consent forms)
- ✓ Introduce ourselves
- ✓ Members introduce themselves

ACQUIRE RESEARCH INFORMATION	
1	Do you **use** research information in your practice? When issues come up in your agency, do you look to research to provide possible solutions answers? What are some examples of how this worked in your agency?
2	Through which **sources** do you seek to acquire research information: (journals, grey literature, databases, web sites, working with researchers, informal peer networks) ?
3	What **barriers** have you encountered in trying to access information?
4	What has **helped** you access research information?

ASSESS RESEARCH INFORMATION	
1	How **confident** are you in research-based solutions or evidence that you have sought out or that has been brought to your attention?
2	How do you know that research is **relevant** or **applicable** ?
3	How important is it that the research be **relevant and applicable to your context**?
4	Do you have any experience in trying to **adapt research to your context**?

APPLY RESEARCH INFORMATION	
1	**How is research information used** in your setting? At what point is it **used to inform decision-making (staffing, program delivery)**?
2	How do you imagine your agency **will apply CAFAS/BCFPI data** collected from your agency? At different levels (client/organization)?
3	Within your organization, what are some of the **supports** for this?
4	Within your organziation, what are some of the **barriers** for this?

ADAPT THE FORMAT OF RESEARCH INFORMATION	
1	What **ways of receiving** research information would best meet your needs?
2	What would you like to see changed about how research information is made available to you?
3	How receptive are you to receiving unsolicited research information about BCFPI/CAFAS? Other topics?
4	How receptive are you to occasional face-to-face user meetings about BCFPI/CAFAS research? Would that be useful?
5	(display material) Look over this example of a report describing BCFPI data from one agency? What are your impressions of this format? Do you see your agency using something similar? How would they change it?

- Is there anything else that we haven't touched on?
- Invite each person to give a final comment.
- Contact / addresses of participants for purpose of dissemination.
- Thank the participants.
- Contact us in future with other points (by email, phone).

Appendix F

Provincial Survey

Is Research Working for Children & Families in Your Agency?

We are interested in your agency's capacity to *access*, *assess*, *adapt*, and *apply* research findings in order to enhance children's mental health services. Your responses will be kept *confidential* and survey results will be reported in aggregate form.

Agency Name: ____

Access and Acquire	(circle or tick, as appropriate)	(✓) Not applicable
1. How well is your agency able to find and obtain research information?	not well very well 1 2 3 4	
2. What barriers are faced by your agency in accessing research information? Check all that apply.	__ time (for seeking & reviewing material) __ level of difficulty of research material __ too much information (overwhelming) __ information is unavailable __ lack of resources: (indicate which type) ( ) money ( ) staff ( ) web access __ other___________________ __ no barriers	
3. What sources does your agency use to access research information? Check all that apply.	__ journals: ( ) print ( ) electronic, via web __ conferences, forums __ press releases __ advisory committees __ newsletters __ organizations __ researcher: ( ) on-site ( ) off-site __ research-motivated individual on staff __ other___________________ __ no sources	
Assess		
4. How well is your agency able to determine whether research is relevant, reliable and of high quality?	not well very well 1 2 3 4	
5. How does your agency determine the reliability and quality of research? Check all that apply.	__ seek consultation or second opinion __ contact expert(s) __ credibility of source or author affiliation __ supported/used by credible organization __ supported/used by credible individual __ staff member(s) research knowledge __ other_____________________ __ not considered	

Adapt & Apply		(✓) Not applicable
6. How well is your agency able to extract relevant information from research?	not well very well 1 2 3 4	
7. What obstacles does your agency face in filtering out what is relevant? Check all that apply.	__ information is hard to interpret __ lack of brief reports or summaries __ not sure what is relevant __ other___________________ __ no obstacles	
8. How well is your agency able to apply (promote and use) research information?	not well very well 1 2 3 4	
9. To what extent are your agency's services / programs supported by research evidence?	not at all very much so 1 2 3 4	unknown ( )
10. What barriers does your agency face in applying research information? Check all that apply.	__not always sure how to link research with practice __ organizational change is difficult to accomplish __ research focus is inconsistent with clinical philosophy __ no staff with statistical knowledge __ research results often not generalizable to our client population(s) __ not enough information available to enable implementation __ conflicting research findings __ other___________________ __ no barriers	

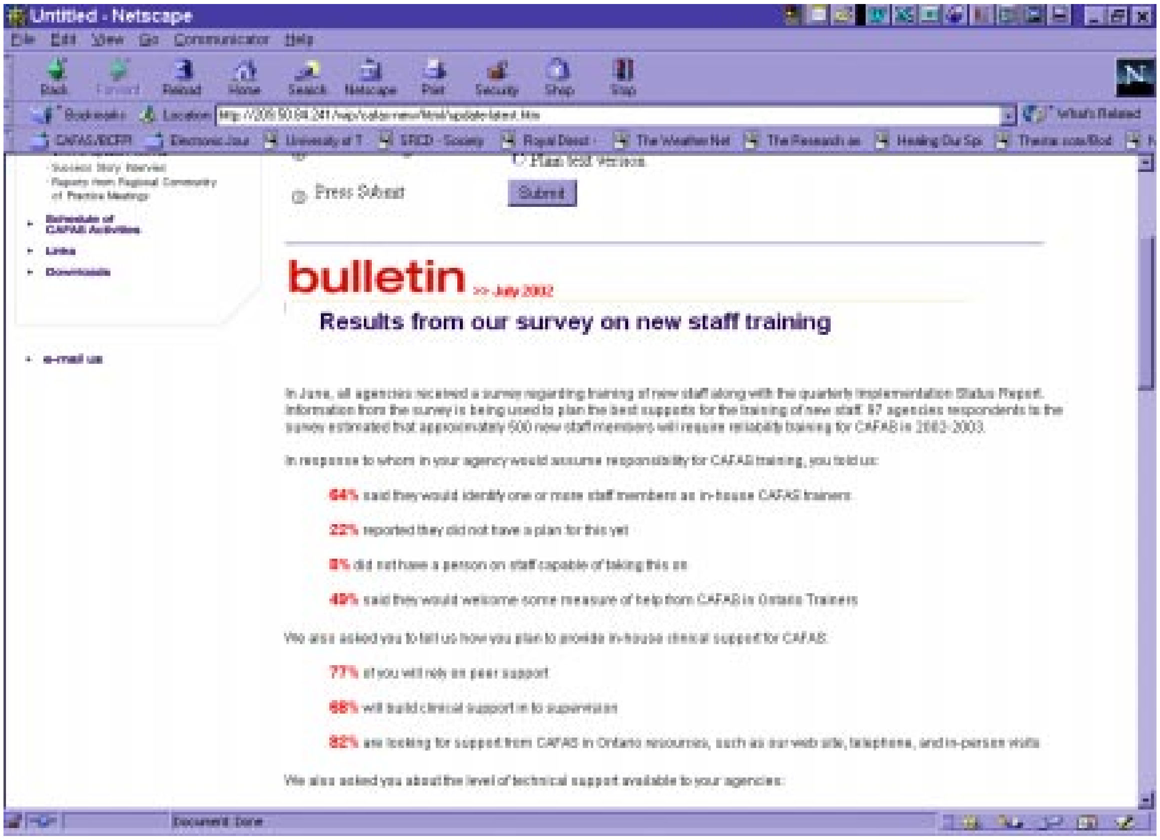
A Few Questions About the Internet	(please check that which applies)
1. How likely is your agency to use resources provided on the internet?	__ unable to use (no internet access) __ very unlikely __ unlikely __ likely __ very likely
2. Does your agency have membership access to a university or college library?	[ ] yes [ ] no
If yes, how do you access library material?	[ ] proxy web access [ ] by mail/in person
3. Are any staff affiliated with a college or university?	[ ] yes [ ] no
4. Is your agency connected to the web?	[ ] yes [ ] no
5. Are individual staff members connected to the web?	[ ] all [ ] some [ ] none

Thank you very much for taking the time to complete this survey.
When you fax all 3 surveys back to Christine Omrin at 416-813-7337
your agency will be entered into a draw for $1,000

Funded by Ontario Ministry of Health and Long-Term Care's Making Research Relevant Initiative

Appendix G

CAFAS Update E-Bulletin



bulletin >> July 2002

Results from our survey on new staff training

In June, all agencies received a survey regarding training of new staff along with the quarterly Implementation Status Report. Information from the survey is being used to plan the best supports for the training of new staff. 87 agencies respondents to the survey estimated that approximately 500 new staff members will require reliability training for CAFAS in 2002-2003.

In response to whom in your agency would assume responsibility for CAFAS training, you told us:

64% said they would identify one or more staff members as in-house CAFAS trainers

22% reported they did not have a plan for this yet

8% did not have a person on staff capable of taking this on

49% said they would welcome some measure of help from CAFAS in Ontario Trainers

We also asked you to tell us how you plan to provide in-house clinical support for CAFAS:

77% of you will rely on peer support

68% will build clinical support in to supervision

82% are looking for support from CAFAS in Ontario resources, such as our web site, telephone, and in-person visits

We also asked you about the level of technical support available to your agencies: