Brief Report
The Role of Technology in Evidence-informed Practice: Uniting the Human and the Digital in Child Welfare

Kristen Lwin, PhD[1], Julia Wedeles, MSW[2],
and Eavan Brady, PhD (student)[3]

1 Executive Director, Practice and Research Together, 303A Front St. East, Toronto, ON, M5E 1V9, klwin@partcanada.org

2 Implementation Specialist, Practice and Research Together, 303A Front St. East, Toronto, ON, M5E 1V9, jwedeles@partcanada.org

3 Assistant Professor, School of Social Work and Social Policy, Trinity College Dublin, College Green, Dublin 2, Ireland, bradye3@tcd.ie

Corresponding author: Kristen Lwin, PhD, Executive Director, Practice and Research Together, 416-987-3575, klwin@partcanada.org

Abstract:

In response to increasing demand for ethical practice, transparency, improved accountability, and critical thinking, the child welfare field is moving towards a model of evidence-informed practice (EIP). The use of research evidence to guide practice in child welfare has become progressively important given the limited resources and pressures for efficiency and accountability in services outcomes. This paper will discuss a Canadian organization's experiences of promoting EIP, using information and communication technologies. Information and communication technologies (ICT) may play an integral role in the implementation of EIP among child welfare practitioners; as important as technology in this endeavor, is the human element.

Introduction

In response to increasing demand for transparency and accountability, and improved child, youth, and family outcomes, the child welfare field is moving towards a model of evidence-informed practice (EIP). EIP is an ethical approach to child welfare practice to promote conscious decision making, particularly given the availability of research evidence and evaluation strategies that prevent harm for both children, youth, and families (Littell & Shlonsky, 2010).   Existing literature, however, demonstrates that many interventions in child welfare are not supported by rigorous evidence and may have unintended, negative consequences, or little impact at all, and that research evidence is not widely used in every day decision making (Horwitz et al., 2013; Littell & Shlonsky, 2010). As stewards of public tax dollars and in the interest of bettering the lives of children, youth, and families, child welfare practitioners have an ethical mandate to inform decisions by critically incorporating the best available research evidence (Gambrill, 2005). Information and communication technologies (ICT) have the potential to play an integral role in the implementation of EIP among child welfare organizations. As a Canadian knowledge translation and implementation organization we will discuss our experience in promoting EIP using ICT.

EIP encourages decision-making that draws on multiple sources of evidence, including case context, practitioner experience, service user preferences and values, and research evidence (Nevo & Slonim-Nevo, 2011). The use of EIP demands critical thinking to effectively assess research methodology and findings, and to integrate multiple perspectives and sources of evidence (Littell & Shlonsky, 2010). The judicious use of best evidence in making practice decisions is an honest, transparent avenue for managing uncertainty (Gambrill, 2007).

Information and Communication Technologies (ICT) have the potential to effectively facilitate the development of EIP. The growing popularity of EIP in recent years has been facilitated by the rise of ICT, which contributes to collaboration between the domains of research, policy, and practice (Gambrill, 2007). ICT can provide opportunities to connect with a wider audience to share information and strategies for sustaining this philosophy of practice.

The Role of Technology in Supporting Evidence-informed Practice

There is a dearth of literature that explores the impact of technology on supporting and promoting EIP in child welfare. Several studies, however, have examined the role of technology in teaching and promoting the use of research evidence in healthcare (Doran et al., 2009; Institute of Medicine, 2001; Leung, 2002). Leung (2002) explored the use of information technology (IT) as a means of facilitating the use of research evidence among student nurses and found that the use of technology enhanced quality of learning and application to practice.

IT has been noted as helping to promote access and use of relevant research among nurses and thereby fostering safe, high-quality care with tools that can make more extensive information accessible to frontline clinicians at the point of decision making (Bates &

Gawands, 2003) and improvement in research values and awareness (Doran et al., 2009).

The use of ICT may help to overcome this gap in knowledge through tools to "enhance the translation, implementation, and dissemination of important research findings in clinical practice." (Ortiz & Clancy, 2003, para. 23) Health care, and indeed child welfare, is behind many other fields in "harnessing the capabilities of ICT to improve services, knowledge, communication, outcomes, quality, and efficiency" (Ortiz & Clancy, 2003, para. 13).

Practice and Research Together (PART)

The overriding mission of PART is the promotion and implementation of EIP in child welfare organizations. There are two major processes that drive this mission: 1) Knowledge translation; and 2) Promoting the organizational implementation of EIP. Without ICT, PART would be unable to effectively and efficiently engage in knowledge mobilization. The use of ICT allows for frequent, quality support and information to be provided to member organizations in a cost-effective manner that surmounts geographical challenges. Furthermore, by using ICT to creatively mobilize knowledge, PART is striving to improve services, knowledge, communication, outcomes, quality, and efficiency, between efficiency and a primary capability of how ICT can be used in health and social services to improve outcomes (Ortiz & Clancy, 2003).

ICT are critical to the dissemination of research by PART to practitioners within the field. PART resources vary in terms of format as well as interactivity, drawing on the variety of medium ICT allows. Firstly, the majority of text-based resources are topical literature reviews, crafted to be accessible to non-academics, while maintaining an emphasis on research methodology as it relates to practice questions. Similar in focus but much larger in scope, are Guidebooks, which synthesize research findings on wider topics and engage the reader in critical thought and application to practice. Lastly, an electronic library houses a database of peer and non-peer reviewed articles for direct access to research. Given the time constraints experienced by child welfare practitioners, audio resources allow content to be presented in an engaging fashion while addressing the needs of various learning styles; literature reviews are offered in audio-based format to provide flexibility in consumption.

Video resources are comprised of storyboards, webinars, and recorded videos. PART webinars are presentations by researchers and provide a means through which practitioners can connect with researchers in real-time. Video resources provide another means for practitioners to engage with research evidence. Finally, PART offers an interactive resource that guides practitioners to think critically through a case decision. This resource has utility as both an individual and small group exercise. The variety of technologies used to present evidence offers access to a wide audience, no matter their location, and multiple formats to accommodate various learning styles. ICT permit ease in sharing of resources, as well as quick search functions to promote the efficient use of research in practice.

The variety of utilized media formats reflect adherence to adult learning principles, which espouse the use of multiple methods for knowledge acquisition and exploration (Coffield, Moseley, Hall, & Ecclestone, 2004; Walter, Nutley, & Davis, 2003). This variety in

formats allows flexibility in meeting diverse needs and overcomes geographical limitations inherent to dissemination through other forms. This flexibility also provides individuals and organizations a level of convenience by being able to connect to resources at any time and from any location with Internet access. Team utilization of ICT (e.g., viewing an archived webinar) provides an opportunity for group critical discussion about evidence and its application. In using ICT in this way, PART can address geographical and temporal challenges.

Lessons Learned

People and Relationships

PART's primary method of distilling research knowledge and evidence is the program website where all resources are housed. While the PART website acts as the portal to its resources, there remains the challenge of driving people to access, explore, and utilize the website to support practice. This challenge is where the critical nature of interpersonal relationships with formal and informal leaders comes to the fore. In the context of successes and challenges it has become evident that relationships are a vital factor in building and maintaining momentum for implementing and promoting the use of PART and EIP.

During the implementation of EIP within child welfare organizations, several member organizations have embraced the idea of developing an EIP Committee, versus a single liaison who acts as a conduit between PART and the member agency. Within an organization, an EIP Committee may: 1) Provide an organizational strategy for integrating and implementing EIP; 2) Create 'buy-in' at all levels of the organization; 3) Leverage resources to ensure that EIP becomes a sustainable model of practice and decision-making; and 4) Promote transfer of knowledge following all learning opportunities. To be most effective, these committees include representation from different geographic areas (e.g., staff from different geographical branches within an organization) and different organizational levels and roles (e.g., practitioners, supervisors, senior leaders IT department) to ensure that activities reach a broad cross-section of the organization's staff and serve to share the work of implementing the program. EIP also serves as a way of actively engaging those informal leaders within an organization who may be experienced in ICT and/or EIP and may play a key role in promoting utilization.

Supportive Technological Infrastructure

To effectively utilize ICT an organization's technological infrastructure is an important factor. So often organizational leaders have good intentions of promoting utilization of information through ICT, yet neglect the most basic practical, and crucial, technological factors. During the process of supporting member organizations to implement and promote EIP via the PART website, we have found that one of the critical ingredients has been to ensure the availability of appropriate technological infrastructure. This capacity includes access to computers and networks with the requisite bandwidth, speakers, and flash video plug-ins, the most commonly neglected technological factors. While over time with

the increased availability of technology this has become less of an issue, it is not uncommon to hear from staff from member organizations that they are unable to access information due to technological limitations. Depending on the organization, needs may include access to semi-private computers in quiet spaces where people can watch webinars with minimal distraction or access to a shared space where staff can gather to watch a webinar and discuss the evidence and its potential application. Support and commitment from senior leaders is a key factor in the successful implementation and utilization of EIP through ICT. The ability of leaders to model behaviour and continually assess organizational barriers and facilitators to successful utilization of EIP through ICT promotes the continual development of the use of EIP and the success of the organization.

Conclusion

Providing ongoing and tangible support for staff to use resources and apply them to practice is crucial when using ICT. Commitment to supporting the implementation of EIP using ICT and allowing the necessary time and technological infrastructure that this involves is crucial. Without this commitment, basic endeavours like attending webinars are made difficult and the process of utilizing ICT and integrating EIP into everyday work can be difficult. It is imperative to consider the role of human relationships that act in tandem with the resources available via ICT that will be used when implementing and promoting the use of evidence in practice. The importance of developing, nurturing, and sustaining supportive relationships based on open channels of communication cannot be overstated. Our experience demonstrates that ICT is a valuable medium for promoting EIP in the field of child welfare; however, ensuring that the human touch and interpersonal relationships are attended to is pivotal to the success of this endeavour.

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