January 2024

Case-supportive Technology Virginia - Intervention Background

Quality Improvement Center for Workforce Development (QIC-WD)

Case-supportive Technology

Virginia Department of Social Services

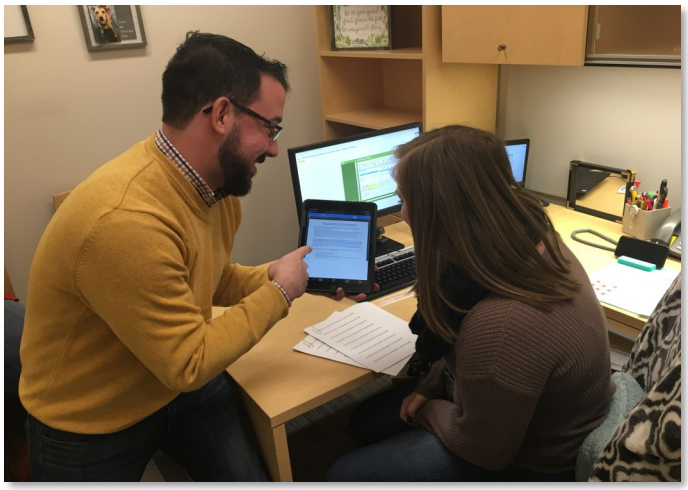
What are technology supports and why were they selected?

According to Berzin, Singer, & Chan, 2015, one of the "12 Grand Challenges of Social Work" is a focus on practice innovation through technology in the digital age. The premise is that by integrating technology into the field of social work and creating practice innovations through information communication technology (ICT), transformative social change will be facilitated. ICT tools include computers for data input and analysis, management information systems (MIS) to capture and record client case information, tapping into to the web to further facilitate access to information and communication via email, texting, instant messaging, social media, video conferencing, and telehealth, and utilization of wireless communication and access to the specific case information stored in the cloud via mobile devices such as smart phones, tablets, and laptop computers (Schoech, 2014).

The Virginia Department of Social Services (VDSS) held listening sessions in each region of the state, and reviewed exit survey results from all 120 local departments of social services (LDSS) prior to partnering with the Quality Improvement Center for Workforce Development (QIC-WD) to address workforce challenges. Through their assessment, Virginia found that the biggest complaint among caseworkers, particularly those leaving their jobs, was that *they felt overloaded with paperwork, and they lacked sufficient technological supports and flexibility to complete casework in a timely and efficient way.* The lack of technology supports and the extra time spent on administrative tasks, took time away from engaging children and families. These dynamics were discouraging and stressful for caseworkers and had a negative effect on caseworker well-being and job satisfaction. VDSS decided to implement new technology tools to address these workforce challenges and their partnership with the QIC-WD provided an opportunity to evaluate the effort.

What is the research behind case-supported technology?

Most of the research about case-supported technology centers around uptake of ICT and the impact on practice (Csiernik et al., 2006), especially when utilized during face-to-face time with clients (e.g., taking notes or completing forms on a tablet or laptop). As ICT has become more accepted among child welfare professionals, the emphasis has shifted to how ICTs can meet practitioner information needs and assist in communication with clients (Tregeagle, 2016) including efforts to upgrade child welfare information systems to promote agility (Comprehensive Child Welfare Information Systems [CCWIS] Final Rule; Hughes, 2018). However, in spite of these advances, uptake remains an issue to be addressed.



The technology acceptance model (TAM) (Davis, 1989) allows researchers to study the impact of various factors on integration of ICTs into practice (Abubakari et al., 2020; Bullock & Colvin, 2015; Curry et al., 2017; King & He, 2006). TAM reasons that behavioral intentions to

use technology is determined by two factors: (1) The perceived usefulness of technology - the extent to which staff believe that using an ICT will enhance rather than interfere with job performance and quality of life of clients; and (2) The perceived ease of use of technology - the extent to which staff believe that using an ICT will be effortless or reduce effort in getting job tasks accomplished (efficiency) (Venkatesh & Davis, 2000).

Recent work has also examined *actual use of technology* using the TAM framework (Curry et al., 2017; Denby, Gomez, & Alford, 2016; Dexheimer et al., 2019; Quinn et al., 2015) finding that behavioral intentions, perceived usefulness, and perceived ease of use are all related to actual use of various forms of ICT (e.g., web-based services referral system, smartphones for youth in foster care, cross-system data linkage, video-assisted visitation).

Zhang and Gutierrez (2007) also found that *subjective norms* in the agency (e.g., social pressure to use ICTs by senior managers, supervisors, and peers) facilitated ICT use, as did *perceived behavioral control* in terms of worker perceptions that they have the competency, time, technological support, and training to use the ICT. (For positive examples of training supports for ICT see Quinn et al., 2015, and for a negative example of technological failure inhibiting ICT use see Weiner et al., 2019.) In addition, others found that *worker characteristics* such as age, tenure, and gender can impact perceptions, behavioral intentions, and ICT use (e.g., Curry et al., 2017).

Furthermore, some studies have even found that ICTs improve implementation of service delivery (Tregeagle, 2016) and standardization to a practice intervention (Chan & Holosko, 2016; Jabaley et al., 2011). This is especially true if:

- Human-centered design is utilized in developing the ICT systems (Smith & Eaton, 2014)
- Users were active participants in the implementation and refinement of the ICT (Dellor et al., 2015)
- ICTs are used as a strategy to increase participation by families, children, and youth (Tregeagle, 2016)

There has been speculation that if workers will embrace ICT, such tools may be able to reduce worker stress and burnout and the turnover stemming from this aspect of employment (e.g., Constantino et al., 2021). Although this hypothesis has not been tested, there are several types of stress ICT could address such as:

- **Stress that results from feeling torn between competing values of the organization** (see the Competing Values Framework: Adams et al., 2008; Quinn, 1988). Child welfare workers are often torn between the dual goals of *meeting agency expectations for documenting* case notes, assessment protocols, case plans, etc. vs. *directly engaging* children, youth, young adults, and families (Gibson et al., 2018; Travis & Mor Barak, 2010).

- **Stress in meeting the demands of the job under tight timelines often while juggling large caseloads**. Child welfare workers have to complete the voluminous amounts of required documentation and meet with partners, families, children and youth within timelines that are almost impossible to meet given the amount of time it takes to complete such tasks (Bott, 2019).

How was the case-supportive technology intervention developed?

VDSS decided to install two ICTs for a comprehensive case -supportive technology approach (see the Intervention Overview for more information):

- *Transcription services* to facilitate documentation of case notes by verbally recalling and dictating information from an interview or events during a visit with families or children or a visitation between families and children; and
- *Mobile access to the MIS in the field using* COMPASS|Mobile, a mobile application with the ability to update demographic information, document maltreatment and environmental conditions utilizing the built-in camera, upload case notes from transcriptions, complete structured decision-making tools, identify open placements near children, and facilitate communication between family members and children in out-of-home care.

The theory of change hypothesized that the design, installation, and implementation of this case-supportive technology intervention by VDSS, with the support of the QIC-WD, would enable staff to boost efficiency and productivity as they complete documentation in the field soon after engagements with clients and collaterals *without taking the time to drive back to an office* and *without losing time in having to recall details* from scribbled notes or memory from engagements that took place days and weeks before. This enhanced efficiency and productivity and ability to meet timelines would reduce perceived stress which would in turn lead to more job satisfaction, intentions to remain with the agency and actual retention.

In addition, the freed-up time could potentially be spent in actual engagement with families, children, and youth and reduce feelings of internal conflict which would lead to more job satisfaction and more positive outcomes of safety, permanency, and well-being.

What research gap is the QIC-WD addressing?

As described earlier, there are multiple gaps in the literature connecting technology use to child welfare worker efficiency and job satisfaction. And there is a dearth of literature connecting technology supports to worker turnover. The QIC-WD evaluation will examine the implementation of technological interventions including staff characteristics and the likelihood, degree, and manner of technological adoption, and associations between caseworker characteristics and turnover (some early findings have been presented). The study will help the field understand how transcription services and mobility devices are used by different groups of workers and its impact on the timeliness of casework documentation and flexibility for staff, including the ability to complete administrative tasks while out of the office.

This product was funded through the Department of Health and Human Services, Administration for Children and Families, Children's Bureau, Grant # HHS-2016-ACF-ACYF-CT-1178. The content of this publication does not necessarily reflect the views or policies of the funder, nor does mention of trade names, commercial products, or organizations imply endorsement by the US Department of Health and Human Services.