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Introducing Technology in Child Welfare Referrals: A Case Study

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Abstract

Access to social services is important for the safety of children and ultimately for reunification of families involved in the child welfare system. The process of linking families to services however, varies by caseworker and can be cumbersome and time-consuming. The DCFS Needs Portal is an internet-based intervention to improve the timing and quality of social service referrals in Los Angeles County. We used a case study approach including in-depth interviews, direct observations and user feedback obtained from the Needs Portal to 1) determine perceived benefits and barriers to adopting the Needs Portal and 2) report how the flow of information between users and developers was used to adapt to user needs. Our analyses revealed four major barriers: 1) caseworker apprehension regarding new technology, 2) variation in communication styles by user type, 3) lack of technological infrastructure and 4) competing workplace demands. Information sharing between developers and users has the potential to better meet the needs of users and ultimately maximize utilization of new technology. Although internet-based interventions are designed to inexpensively and effectively coordinate services, emerging interventions may require in-person assistance and modifications in order to succeed.

Keywords

child welfare; service referral; information and communication technology; internet

INTRODUCTION

The child welfare system is charged by state and federal law to protect children from abuse and neglect. When children are removed from caregivers, the child welfare system is also mandated to address the specific needs of each family (Fein & Staff, 1993) and make efforts to reunify as quickly as possible by coordinating service plans to link parents to social services. Linking caregivers to appropriate services can increase the likelihood of reunification (Marsh, Ryan, Choi & Testa, 2006), thus timely completion of service plans is a key factor for reunification (Chuang & Wells, 2010). Linking families to service providers however, often presents challenges because there is little standardization in how caseworkers make service referrals. Internet-based service referral methods could present a solution by standardizing referral processes and providing real-time updates for caseworkers and service providers. However, little is known about the benefits or difficulties in implementing internet-based referral interventions in child welfare offices. This case study explores efforts to introduce an internet-based service referral tool for families involved in the child welfare system.

Service linkage

In Los Angeles County, caseworkers at the Department of Children and Family Services (DCFS) are responsible for referring families to social services. The specific strategies used to refer families however vary according to caseworkers' knowledge of community service providers (Bunger, Chuang, & McBeath, 2012). Some use paper-based resource guides to make individual telephone calls to service providers on behalf of families. Others provide families with packets that include a list of agencies and ask families to call to schedule appointments. Often, paper-based resources are out of date such that requested services are no longer available. When services are available, families may be placed on long waiting lists because of high demand (Young & Gardner, 2002) or clients' needs remain unmet (Ayon, 2009). Though experienced caseworkers may rely on existing relationships with service providers or word of mouth recommendations from fellow caseworkers (Fedoravicius, McMillen, Riwe, Kagotho & Ware et al., 2008), newer caseworkers may be less connected to social service resources in the community. Consequently, families may miss out on services if caseworkers are unaware of available service providers (McDonald & Rosier, 2011). Further complicating the issue are high caseloads and other competing responsibilities that hinder caseworkers' ability to link families to services (Stiffman et al, 2000; Smith & Donovan, 2003; Ayon, 2009).

The service referral process may be more efficient through the use of greater inter-agency collaboration between caseworkers and service providers (Azzi-Lessing & Olsen, 1996; Smith & Mogro-Wilson 2007). Given that information sharing is a critical component of successful collaboration between agencies (Johnson, Zorn, Tam, Lamontagne and Johnson, 2003; Darlington, Feeney & Rixon, 2005), internet-based technology, with its inherent interactive nature, may be particularly effective for improving the linkage process in the child welfare system.

Taking a practice research approach, the impetus for this intervention was to use internet technology to address a practical problem: the complex barriers families and caseworkers

face in an effort to find services (Goldkulh, 2012). Secondly, users' practical concerns would be used to continually refine the design of the system as a whole. With that in mind, the system was designed so that caseworkers could describe the specific needs of families and community agencies could respond almost immediately with availability of services. This would reduce the amount of time it takes to contact agencies individually and also standardize procedures so that requests come to the attention of all available service providers regardless of individual caseworkers' familiarity with service providers.

Social service providers note a general interest in adopting internet-based technology across different sectors however, use of internet technology in human service organizations is lower compared to other types of businesses (Tregeagle & Darcy, 2008). Thus social services organizations may be missing an opportunity to embrace the interactive nature of internet technology to improve communication and information sharing while growing and strengthening referral networks. Adopting internet technology means caseworkers must first become accustomed to information technology as the primary method for linking families to services. As a result some caseworkers are anxious or even resistant to integrating internet technology into their already busy daily routines (Fitch, 2009). Additionally, the time needed to learn an internet-based referral system may be seen to outweigh any potential benefits in the long run (Drumm, McCoy, & Lemon, 2003; Cronley & Patterson, 2012). For example, to justify the initial time commitment needed to learn an electronic referral system, Fitch et al. (2009) chose to invest extra time and effort into encouraging use by explaining that the initial time involved in learning their electronic system would save both time and paperwork demands in the long run.

An important component to designing and successfully implementing internet-based technology then is finding ways to encourage users to try the new system. One useful approach is to ensure the system adapts to the changing needs of users. Internet technology in particular has the flexibility to adapt to user needs in real-time thus justifying the initial time and effort needed to learn and adopt new technology.

The current article is a case study of a pilot intervention to implement the DCFS Needs Portal (Needs Portal), an internet-based referral tool designed to link child welfare involved families to social services. The purpose of this article is first to examine the perceived benefits and barriers of implementing the Needs Portal. Within this larger framework, we examine the flow of information between developers and users to understand how the Needs Portal adapts to the changing needs of users.

METHODS

Description of Intervention

Working in collaboration with the Los Angeles Department of Children and Family Services (DCFS), the UCLA Spatial Analysis Lab developed the Needs Portal to link families to social services quickly and efficiently. The Needs Portal has two primary users: community-based service providers and DCFS caseworkers. Users may access the Needs Portal website only after attending an in-person training during which users register into the system by entering user-specific registration codes. This ensures information is limited to caseworkers

and service providers vetted by the Needs Portal team. Community-based service providers with existing working relationships with DCFS were selected to register in the Needs Portal. During registration, service providers indicate the specific category of services they provide. DCFS caseworkers enter information about the specific needs of a family (a “support ticket”) into a secure database and indicate the categories of services families need. To protect client confidentiality, sensitive information including last names and addresses are not included on support tickets. The system automatically notifies service providers via email when a support ticket matching their service category is created. For example, if a caseworker indicates substance abuse treatment as a service need, the Needs Portal automatically notifies all registered community providers who provide substance abuse treatment services. In this way, requests are sent to appropriate providers regardless of caseworkers’ individual knowledge of available service providers. Once notified, service providers respond and comment on support tickets only if they are able to provide immediate services. When providers respond to a support ticket the system pre-populates the agency name, location, telephone number, languages spoken and types of health insurance accepted. DCFS caseworkers then review all comments and consult with families to select an appropriate service provider. Ultimately the decision to select a particular service provider is left to the families themselves. Families may select agencies based on location, financial constraints or language requirements. Service providers in turn update support tickets with the dates families make contact and begin receiving services. Thus, the Needs Portal links DCFS caseworkers to multiple service providers in the Los Angeles area, facilitates exchange of information between caseworkers and service providers, and provides access to the status of each case all in real-time.

Research Design

Qualitative semi-structured interviews were conducted with child welfare caseworkers and with service providers to explore users’ experiences using the Needs Portal and the extent to which that information is used to improve the functionality of the Needs Portal. Interviews were conducted in one phase during the fall of 2013 as part of a larger process evaluation. DCFS caseworkers and community service providers were interviewed at their respective agencies. These single session interviews were conducted by a Needs Portal team member and lasted approximately one hour. Interview data were supplemented by on-site observations by the Needs Portal team. From fall 2013 through spring of 2014, three trainers were on site weekly to conduct trainings, assist caseworkers with technical problems and conduct observations. Team members took notes and shared observations weekly in order to better understand users’ experiences with the Portal and evaluate the implementation process. The University of California Los Angeles Institutional Review Board approved all study procedures.

Sample and Data Collection

A convenience sample of DCFS caseworkers and service providers was utilized. In total, we conducted ten interviews with six caseworkers and four service providers. There were a total of four males and six females. A qualitative interview guide was developed and used by the research team to capture users’ experiences with the Needs Portal. Questions for both DCFS caseworkers and service providers focused on two domains: 1) Use of Technology and 2)

Use of the Needs Portal. Both DCFS caseworkers and service providers were then asked to provide input on the strengths and weaknesses of using the Needs Portal and to provide recommendations on the ways in which the Needs Portal could better serve their respective needs.

Data Analysis

A case study approach was employed in analyzing participants' transcripts (Creswell, 1995). Two of the authors read all written transcripts several times to obtain an overall analysis. From each transcript, authors obtained significant phrases that pertained directly to participants' experiences using the Needs Portal. Meanings were then formulated from the significant phrases. These meanings were clustered into themes allowing for the emergence of patterns common to all of the participants' transcripts. Once the authors obtained descriptions and themes, the authors contacted participants a second time to validate these findings. The authors utilized Dedoose software to manage the large quantity of data and to ensure a systematic approach to the coding of each interview (Lieber, 2009). Upon the completion of coding the data the authors created a table via Microsoft Word to help facilitate data interpretation. Relevant quotes were selected and naturalistic generalizations were summarized during team meetings among all five authors to discuss the major themes that emerged.

LESSONS LEARNED

In depth interviews, feedback communicated through the Needs Portal itself and direct observations revealed four major barriers to adopting the Needs Portal: 1) caseworker apprehension over new technology, 2) variation in communication styles by user type 3) lack of technological infrastructure, and 4) competing workplace demands. The themes, and the ways in which the Needs Portal team responded are summarized in Table 1.

1. Apprehension over new technology

Caseworkers reported feeling apprehensive about adopting new technology into their work routines with some caseworkers reporting general discomfort with new technology. One caseworker who had been employed at DCFS for 15 years reported,

I am not sure that I will change that much of what I do already. I use the Rainbow Resource Guide [a paper-based social service referral guide]. I don't mind that; it works for me. I am not so comfortable with new technology. I will give the Portal a try, but technology tests my patience sometimes and makes me frustrated.

Another caseworker shared,

While some of us are more apt to use the Portal because we like technology and see the benefits, others are slow to use it because new technology doesn't come as easy for them. It would be a good idea to offer more hands-on trainings for workers who need help getting started using the Portal.

2. Variation in communication styles by user type

DCFS caseworkers and service providers each had different communication needs in using the Needs Portal. Caseworkers reported a decrease in the amount of time they spent making individual telephone calls and tracking down services due to improved communication with service providers. They reported that they appreciated the ease with which the Needs Portal facilitated initial communication with service providers. A caseworker shared,

I really like being able to quickly describe my client's needs, post a ticket and hear back from community partners in the same day, instead of the old method of calling a lot of agencies to see who has an opening. There isn't a lot of time for back and forth with communication. Using the Needs Portal you know immediately who has availability.

Though caseworkers were pleased with how quickly service providers responded to support tickets, they were less successful communicating to service providers which clients had decided to use their services. Consequently, service providers could not identify which clients were referred through the Needs Portal so that their perception was that the Needs Portal was not generating clients. Thus, service providers described communication with caseworkers as challenging. One service provider stated, "Caseworkers do not follow up often enough to indicate whether a client is planning to utilize our services." Nearly all service providers expressed a need for more communication from caseworkers upon responding to a service ticket. Another service provider shared,

Our agency would feel more connected if we heard back from the caseworker regarding the status of the case and whether the client has been referred to our agency for services. As it is now, we have no idea if a client has selected our agency. There needs to be more follow through on the caseworkers' part. We are doing our work of responding to tickets, they need to communicate back to us, otherwise, it feels like a black hole.

3. Lack of technological infrastructure

A theme that emerged among some caseworkers was lack of infrastructure at the DCFS offices, which impacted caseworker's ability to use the Needs Portal. Several participants reported not having internet access or computers available during Team Decision Making meetings (TDMs). TDMs are held in private rooms for all decisions involving a child's removal, change of placement, as well as service plans for biological parents, making it an ideal place to find and link families to social services. Not having access to computers or the internet in these rooms resulted in a lack of usage among TDM facilitators. One caseworker noted,

As a Team Decision Making facilitator, it would help to have Internet access and a laptop computer set up within a TDM meeting so that we can access the Needs Portal. Sometimes we actually have to step out of the TDM meeting to verify or check information and it is disruptive. If we had access to the Portal during the meetings it would be helpful to link families to services on site and save time for workers and the family.

4. Competing workplace demands

Balancing workplace demands against perceived benefits of the Needs Portal was another theme that emerged from interviews. Caseworkers reported feeling overwhelmed by high caseloads and case management duties and were concerned about the time and effort needed to learn a new system. A caseworker shared,

It takes a long time to enter all of the information required into the Needs Portal system. Especially the demographic information; mother's ethnicity, child's age, father's insurance, etc. I don't have that much time to spare. If I had an assistant, that would be a different story.

A second caseworker explained,

Sometimes, I don't have the time to learn new technology. I have other priorities, serving my clients, and dealing with their crises.

ACTIONS TAKEN

The flow of information between users and developers of the Needs Portal was used to address each of the major barriers described above. In response to each of the barriers relating to learning new technology, the Needs Portal team offered consultations, one-on-one and small group trainings once a week from June through December 2013. Additionally, the Needs Portal team offered telephone consultation through a hotline system. Feedback from face-to-face trainings and telephone consultations were used to develop a set of Frequently Asked Questions (FAQ's), all of which was accessible on the Needs Portal website. These efforts resulted in an increase in the number of support tickets generated however, in the winter of 2014, when the Needs Portal team was not present on site on a weekly basis, the number of support tickets generated decreased by half, suggesting that the intervention was not yet sustainable and needed continued facilitation. As a result, Needs Portal staff resumed weekly site visits in the spring of 2014, to provide onsite technical support and encouragement.

In order to adapt to users' varying communication needs the Needs Portal team shared communication best practices during ongoing trainings. The team explained the importance of indicating which service providers families intended to visit. Further, the Needs Portal team implemented a new process for support tickets that required caseworkers to indicate which agencies clients had selected. This information was then used to create auto-generated emails that were sent to all providers who responded to the support ticket indicating which providers families intended to contact. This new process served two main goals. First, it fulfilled service providers need to know which clients to expect and second, it removed the onus of notifying service providers from caseworkers and folded it into the functionality of the Needs Portal itself.

The Needs Portal team provided tablets and hot spot devices to address the lack of technological infrastructure at the DCFS field office. The tablets and hotspot devices allowed caseworkers (TDM facilitators in particular) to generate support tickets during TDMs. However, through onsite visits, the training team noticed that neither the tablets nor

hot spots were being used to create support tickets. TDM facilitators shared that in the end they did not have enough time during TDMs to access the Needs Portal and complete support tickets. They opted to use computers at their desks to create support tickets after these meetings.

While little could be done to reduce the burden of high caseloads, the Needs Portal team developed and distributed a two-page guide (“cheat sheet”) to reduce the amount of time caseworkers spent looking for information. The cheat sheets first direct caseworkers to the list of information needed to generate support tickets. Once this information was gathered, caseworkers could follow step-by-step instructions to fill in all required fields without stopping to search through physical files and computer databases. Though some caseworkers believed high caseloads to be a major barrier to adopting the Needs Portal, others expressed a desire to expand the Needs Portal to include more child welfare cases. One caseworker shared: “It would be great to use the Portal for referrals in addition to [substantiated] cases so that we can provide families with services and prevent the need for them to enter the system.” In response, the Needs Portal was expanded to include emergency response cases, the stage at which unsubstantiated allegations of abuse and/or neglect are under investigation.

DISCUSSION

We examined the benefits and barriers of integrating the DCFS Needs Portal, an internet-based service referral tool into child welfare practice. We also report specific actions taken to adjust the Needs Portal to better serve user needs. User feedback indicates although most caseworkers generally perceived the Needs Portal as beneficial, others less familiar with internet technology were initially anxious about adopting technology. Similar to prior studies the level of computer anxiety varied by caseworkers’ experience (Choi, 2002). More experienced caseworkers were apprehensive about learning new technology over traditional paper-based methods that were more familiar. Unfamiliarity with computer technology may lead to fear and anxiety such that investigators report having to teach computer skills at the most basic level (Drumm, McCoy, & Lemon, 2002; Cronley & Patterson, 2011). More effort should be put into identifying ways in which Social Workers can incorporate internet technology to improve practice (Giffords, 2009; National Association of Social Workers [NASW], 2004; Parker-Oliver & Demiris, 2006). Caseworkers comfortable with internet technology but accustomed to traditional referral methods may have had difficulty re-envisioning the Needs Portal as a key aspect of their daily routines. Because resistance to change increases when employees believe change is imposed rather than self-initiated (Oreg, 2003), it was particularly important to encourage this group of caseworkers to take psychological ownership of the intervention by inviting feedback to shape the content and functionality of the Needs Portal itself. Soliciting feedback and using this information to improve the Needs Portal may ultimately lead to greater engagement with the Needs Portal to ultimately increase motivation to adopt (Bennet & Glasgow, 2004).

The human service literature consistently cites the importance of open, consistent and responsive communication in the coordination of services (Lee et al., 2012). The transition from traditional referral methods to the Needs Portal revealed differences in communication

styles by user-type. Although service providers responded to support tickets, caseworkers were failing to inform service providers when clients chose to use their services. One possible explanation for the observed differences in communication behavior is differences in how the two types of users view the utility of the Needs Portal. Caseworkers saw the Needs Portal primarily as a timesaving tool to link families to services. Once referral information was communicated to families, caseworkers felt their job was complete and did not routinely spend additional time to close the communication loop by informing service providers which agencies clients had selected. Service providers, on the other hand, did not see the Needs Portal primarily as a timesaving tool but instead as a way to access new clients. Consequently, when service providers were not notified, they were unable to track which clients were referred to their agencies through the Needs Portal, thus undermining providers' perception of the utility of the Needs Portal. For developers, failure to notify service providers also presented difficulties in evaluating the intervention as a whole. Since caseworkers and service providers often report a desire for greater collaboration between agencies (Darlington, Feeney & Rixon, 2005), continued refinement of the Needs Portal as well as ongoing user training may aid in improving communication, service coordination and ultimately inter-agency collaboration between caseworkers and service providers (Richardson & Asthana, 2006).

The observation that a lack of hardware and internet access during TDMs was a barrier to adopting the Needs Portal is consistent with prior literature stating that structural barriers hinder the implementation of technology based interventions in social services (Drumm, McCoy, & Lemon, 2003). While developers provided caseworkers with tablets and internet hotspots, lack of technological infrastructure remains an important barrier to adopting the Needs Portal. The final barrier to adopting the Needs Portal was high caseloads and lack of available time to become familiar with the Needs Portal. Because caseworkers have to prioritize emergencies, they believed they could not spare the time to learn a system that may or may not improve outcomes for families. The intense workload and stress associated with high caseloads generally means caseworkers have less time for each family. Consequently, adopting a new technology may not be an immediate priority, even if it saves time in the long run. Developers, with the help of DCFS managers may need to provide initial evidence to caseworkers that the Needs Portal does save them time in the long run in order to get complete buy-in.

Overall, working with caseworkers and service providers to adopt the Needs Portal was as didactic as it was interactive. Ongoing communication with users allowed the Needs Portal team to incorporate the day-to-day needs of users into the technical innovation of the Needs Portal (Cybluski, Zantinge & Abott-McNeil, 2006). Moreover, it was the interaction between developers and users that refined the Needs Portal to better fit the needs of users. This level of interaction between users and developers however required more effort in the form of on-site presence than expected. In addition to initial trainings, the Needs Portal team increased weekly presence at each of the two sites, incorporated one-on-one trainings as well as a hotline system to engage users to adopt this new technology. In person and one-on-one trainings in particular helped build trust between developers and users and provided a safe place for caseworkers to voice frustrations and work with the Needs Portal team to find

solutions. Similar interventions that require caseworkers to adopt new systems may need to include significant staff presence as part of implementation strategies.

LIMITATIONS

We acknowledge several limitations of this initial case study. First, since we use a convenience sample of respondents, there may be bias in favor of those who feel strongly about the intervention. This study also uses a small sample of respondents such that further research with a larger sample may elaborate the extent to which the observations discussed here vary across different set of caseworkers and providers. That said, the case study is a sufficient and necessary method in its own right. For example, it is the case study's illustration of context-specific information that is critical to develop nuanced solutions to complex problems (Flyvbjerg, 2006). Finally we acknowledge that although information sharing between agencies may improve access to services (Bai, Wells, & Hillemeier, 2009), improved communication alone may not be sufficient for improving the quality of service linkages (Chuang & Wells, 2010). Therefore, more research is needed to ascertain whether the DCFS Needs Portal has met its goal of improving the quality and speed of service linkages.

IMPLICATIONS

Despite the aforementioned limitations, this case study offers an in-depth understanding of the reality of implementing a new technology in the child welfare system. Our findings suggest when users are not merely passive but active participants in the ongoing implementation and refinement of new technology, information sharing between developers and users has the potential to better meet the needs of users and ultimately maximize utilization. Further, allowing users to communicate barriers as well as their day to day needs can help foster critical adjustments when implementing new technologies. A major advantage of the Needs Portal is the built-in flexibility to link to existing database systems. Statewide, the Los Angeles Department of Children and Family Services uses the Child Welfare Services Case Management System (CWS/CMS) for casework services. One of the long-term goals of the intervention is to link to CWS/CMS to import case specific information thus relieving caseworkers from re-entering information into a separate system. Child Welfare agencies may be able to capitalize on the potential of Internet technology and increase usage by linking to existing management systems. Having linked to CWS/CMS, the second long term goal is to adopt the Needs Portal in each DCFS office in Los Angeles, and eventually across the state of California. Through continued solicitation of information from users, process evaluations, and implementation of changes, we hope to continue improving the Needs Portal and ultimately realize expansion goals.

This Internet-based intervention was designed to inexpensively and effectively link families to social services. As noted, emerging interventions may require in-person assistance and modifications in order to succeed. Future interventions should aim to continue to understand the benefits and barriers to adopting internet-based technology, not only in the two regional offices involved in this pilot intervention but in county Child Welfare agencies as a whole.

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Table 1**Lessons Learned: Major Barriers and Actions Taken to Improve Functionality**

1. Apprehension over new technology	1.1 Weekly on-site visits to conduct one-on-one and small group trainings 1.2 Developed a set of Frequently Asked Questions (FAQ)
2. Variation in communication styles by user type	2.1 Shared communication best practices with caseworkers 2.2 Introduced new feature: Auto generated emails notifying agencies when referrals are made.
3. Lack of technological infrastructure	3.1 Provided tablets and hotspot devices to be housed in DCFS regional office
4. Competing workplace demands	4.1 Created a 2-page desktop user guide