BECOMING "SMART" ABOUT RELATIONSHIP BUILDING:

Foster Care Youth and the Use of Technology

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OVERVIEW

Children and youths who are involved in the foster care system are like all children and youths: they want and deserve to experience healthy interactions with people who care about them and who are able to be supportive guides, helping them to successfully navigate through life. Such protective mechanisms as high self-esteem, emotional self-regulation, good coping and problem-solving skills, engagement and connections with peers and community, supportive relationships with family members, presence of mentors, support for the development of skills and interests, future orientation, and achievement motivation are the building blocks for normal growth and development. However, for too many foster youths, protective factors are often absent or underdeveloped.

Foster children in general are a high-risk population because of family and environmental conditions that caused their entry into the child welfare system, but those children who age out of care may be even more vulnerable. These children face a host of challenges. For example, Courtney and Piliavin (1998) and Reilly (2003) found that youth transitioning out of care experience the following challenges:

- Mental health disorders (38% suffer emotional disturbances); homelessness (a significant proportion of the young people who are homeless were once involved in the foster care system);
- Substance abuse (50% use illegal drugs);
- Juvenile or criminal justice systems involvement (25% experience an arrest);
- Under education (52–67% do not complete high school);
- Unemployment (2 to 4 years after leaving the system, 62% are not employed); and
- Public aid dependency (a higher proportion of youths who have been in foster care receive public aid and they are at a higher risk for poverty).

Foster youths are more likely than non-foster youths to become pregnant (Kerman, Fredundlich, & Maluccio, 2009), and one study found that 77% of female foster youths become pregnant by age 23 or 24, compared with only 40% of their peers in the general population (Courtney et al., 2005). Even younger cohorts of female foster youths become pregnant 2.5 times the rate of their peers and 56% of male foster youths report that they have made someone pregnant as opposed to less than 20% of non-male foster youths (Boonstra, 2011; Courtney et al., 2005; Dworsky, 2009; Dworsky & DeCoursey, 2009).

About the DREAMR Project

Mindful of the tremendous risks that foster youths face and guided by proven evidence-based practices, national studies, local needs assessments, and the input of foster youths, community providers, and community stakeholders, the Determined, Responsible, and Empowered Adolescents Mentoring Relationships (DREAMR) project was created in 2012. DREAMR is a demonstration project located in Clark County, Nevada, administered by the Clark County Department of Family Services (DFS) and funded by the U.S. Department of Health & Human Services Children's Bureau.

The DREAMR project seeks to help youths create relationships and to reclaim those from their past after they are emotionally competent enough to know what that entails. Relational competence must be addressed from two parallel service perspectives: (a) the field must address the socioemotional issues that prevent youths from forging and sustaining safe and meaningful relationships and help them to build protective mechanisms; and (b) the field must simultaneously work to prevent, address, and counter destructive and risky behaviors (such as pregnancy) that result from not having relationships and that ultimately produce poor outcomes for youths. These imperatives guided the design and implementation of the DREAMR project. Youths are eligible for participation in the DREAMR project if they are between the ages of 12 and 20 and are currently or formerly have been in the foster care system. Collectively, a team of providers (public and private) administer a service array that includes: mentoring; pregnancy prevention and reproductive health courses; caregiver education, training, and support focused on talking to the youths about positive relationships and pregnancy avoidance; trained, coached, and mentored youth specialists who work with youth one-on-one to facilitate a loss and grief model (Henry, 2005)[1]; and for those participants who are already pregnant or parenting, a program to increase parenting skills.

[1] The 3-5-7 Model is an emerging science that is predicated on the belief that youths cannot move forward to forge healthy relationships because they have not had the opportunity to reconcile their past and to work through issues of grief and loss. A variety of activities are used to help foster youths reconcile feelings of separation and the trauma they have experienced by completing three tasks: clarification (assisting a youth to understand what has happened in his or her life), integration (helping a youth understand his or her membership in multiple families), and actualization (helping a youth to start to visualize himself or herself in one specific family).

Key Findings

- Youth participants reported satisfaction with services and positive feelings about the smartphone.
- The youth participants felt that the smartphone gave them a "voice" and control over the people with whom they wanted to talk
- Certain phone restrictions developed by project leadership were unenforceable
- Youth had certain expectations about the phone and its use but when the phone did not work or was "locked" (e.g., for data overuse) it created friction between the youth and their service provider
- Service-providers report that the phones help to create a sense of normalcy for the youth. Youth "were able to be normal kids ... they were able to do the things with those phones, that their classmates, that their peers ... do with those phones."
- Some caregivers felt that the phones usurped their parental authority and that the expectations for how the youth would (or would not) use the phone was not realistic.

The Role of the Smartphone

In the program, youths are issued a smartphone. The smartphones serve as an incentive to participate in the project and in the related research activities. However, the greater purpose of the smartphones is to use technology to increase communication between foster youths, their service providers, and their mentors. In collaboration with a software development company, unique applications were designed and beta tested with a group of foster youths. The software enables the youths and their providers to maintain contact and work together in every aspect of a foster youth's involvement in the project. The smartphones provide youths and their providers a web-based application designed to send appointment reminders, service and attendance updates, alerts about any program changes, and general updates and information. Additionally, the original phone design included surveys that were automatically sent to the youths' phones; however, the survey apps were later removed from the phones. The phone applications were designed to provide youth specialists a mechanism for sending their assigned youths electronic "learning points" that reinforced content from the education and training sessions in which they participated. The software system was built on the Android platform and was accessible via hand-held devices (i.e., the phone) and computer programming that was installed on all service providers' desktop computers. In addition to the apps, the phones contained texting, calling, and Internet features that were originally designed to be phased in and released to the youths after case worker approval and after the youths reached various project participation milestones.

Technology Use and Vulnerable Youth

Pew Internet Research data for 2013 show that just over three quarters of youths (78%) have cell phones, and nearly one half (47%) have smartphones. Among youths aged 12–17, just over one third (37%) have a smartphone, which represents an increase of 14% in just 2 years. Not surprisingly, almost 75% of teens report being "mobile Internet users" who use phones, tablets, or other devices to access the Internet at least occasionally. Mobile usage was reported as the main mode of Internet access for one quarter (25%) of 12–17-year-olds.

It is still unclear how many vulnerable youths, including foster youths, own or use cell or smartphones. States such as California have recognized the potential benefits of foster youths owning phones. In 2013, the California Public Utilities Commission (PUC) approved a policy that provided free cell phones and up to 250 minutes of phone service monthly for individuals 18 and up who receive public assistance, or foster or former foster youths (Alameda County Foster Youth Alliance, 2013). While earlier efforts to increase skills and decrease the digital divide for vulnerable youths have largely been computer or Internet based (for example, see Finn, Kerman & LeCornec, 2005; O'Donnell, Tan & Kirkner 2012), cell phone and smartphone technologies are also being used with these populations for their case management capabilities, their assistance at building and maintaining positive relationships, and their usefulness as a research device. Connecting with foster youths in their technological comfort zone, such as through texting and social media sites, includes youths in conversations and increases their capabilities in planning their own lives (Lofts Jarboe & Agosti, 2011). Such technologies have been used with a variety of case-managed and vulnerable youths, such as those who are homeless (Bender, Begun, DePrince, Haffejee, & Kaufmann, 2014; Rice, Milbrun, & Monro, 2010) or in the juvenile justice system (Burraston, Cherrington, & Bahr, 2012); youths at risk of medical issues such as heart disease (Rempel, Ballantyne, Magill-Evans, Nicholas, & Mackie, (2014); teen pregnancy (Katz et al., 2011); substance abuse (Dennis, Scott, Funka, & Nicholson; 2014); HIV (Cornelius et al., 2012); and foster youths (Kuka, 2014).

Building and Maintaining Relationships

In addition to facilitating case management goals, some early studies looked at ways the phone and Internet could help promote connections and stability for foster youths. For example, Mapp and Steinberg (2007) discussed how foster youths could maintain contact with birth families along a continuum of communication methods depending upon the needs and abilities of both the youth and the birth family. Also, alternative programs have been suggested to help youths maintain electronic records to build a sense of identity and stability throughout multiple placements (Gustavsson & MacEachron, 2008). Both youths and case workers create electronic entries to help youths remember their stories and biographies, in an attempt to help in the construction and maintenance of the youths' identity with multiple placements. Case workers used a software management system, and youths created monthly entries via email.

More recent studies also illustrated how positive connections can be strengthened via the Internet and phones. In a review of health and social science literature from 2008–2013, Francomano and Harpin (2015) determined that the use of social networking sites for adolescents was discussed as a primary theme in 79% of the 19 articles, describing how youths used social networking sites to connect with others in similar situations or share resources. In addition to youths with health needs, homeless youths also relied upon both Internet and cell phones to connect them to friends and family at home (Rice, Milbrun, & Monro, 2011).

METHOD

It is clear from the literature that programs are engaging with vulnerable youths in a number of different ways using technology. The innovative ways programs use technology must be better understood, particularly the extent to which outcomes can be associated with the use of technology. An implementation study was undertaken to better understand the use of smartphones with foster youths. Using a mixed method approach, four stakeholder groups were engaged to examine the use of smartphones in helping foster youths: the foster youths themselves; caregivers; stakeholders (i.e., project advisory board members, administrators, and managers); and providers (i.e., individuals who provided services to foster youths).

DATA COLLECTION

Four 90-minute focus groups of 10 individuals were held. Two groups were held with foster youths, one with providers, and one with caregivers. Multiple in-depth interviews were held with project managers, project administrators, and advisory board members. Additionally, the purpose of the interviews was to study how the devices (i.e., smartphones, the apps, and the software developed for the providers) were implemented. Finally, a smartphone questionnaire was administered to foster youths. The survey was developed by Negahban and Chung (2014).

Results

Survey data were collected on 16 youths, most of whom had been involved in the project for 12 months. Survey respondents were racially and ethnically diverse: 43.8% (n = 7) were Hispanic, 18.8% (n = 3) were African American, 18.8% (n = 3) were European American, and 6.3% (one) was American Indian or Alaskan Native. The remaining two participants identified themselves as "other." The sample was balanced with respect to gender: 50% (n = 8) were female and 50% (n = 8) were male. The youths averaged 17 years of age. Another subsample of 15 youths, 9 caregivers, and 14 providers and managers provided qualitative data for this study through their feedback and responses during focus group sessions and in-depth interviews.

The youth subsample in the focus groups mirrored the background of survey respondents. In terms of the caregivers, there were 6 female and 3 male caregivers, and their mean age was 53 years. Most of the sample 44.4% (n = 4) were African American, 33.3% (n = 3) were European American, and 22.2% (n = 2) were Hispanic. More than half of the sample (55.6%; n = 5) reported being a foster parent. Two participants (22.2%) reported being the biological or adoptive parent of the youth, 11.1% (n = 1) reported being the grandparent, and one (11.1%) reported having another relationship type.

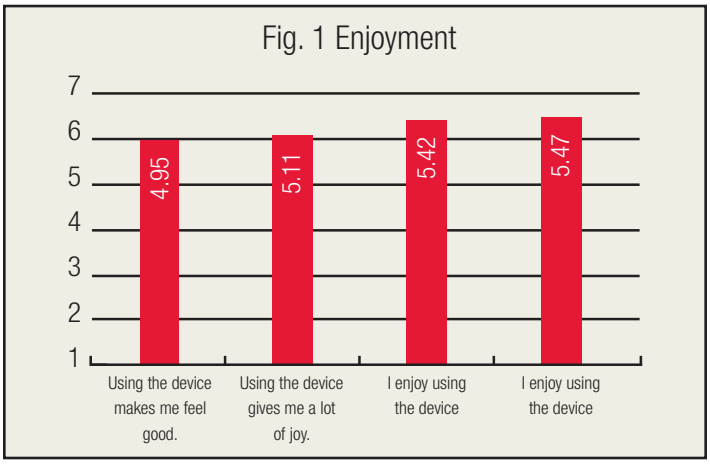
All 14 service providers/managers were female, and their mean age was 39 years. Most participants reported being European American at 42% (n = 6), followed by African-American or Hispanic at 21.4% each (n = 3), and Asian or American Indian/Alaskan Native at 7.1% each (n = 1 each). Most participants were social workers 35.7% (n = 5), whereas four participants (28.6%) worked in education and one participant (7.1%) worked in public health. Four participants (28.6%) reported working in "other" categories.

The smartphone survey used in the study was a tool adapted from a study conducted on perceived mobile device functionality fit (PMDFF). The tool was not developed specifically for the evaluation of smartphones; however, it provides an insight of the youth's perception about the gadget. The tool consists of 38 items that focus on perceived enjoyment, perceived ease of use, perceived usefulness, symbolic value of the phone, perceived device functionality fit, and functional use of the phone. Examples of survey items include: "The device is easy to use" and "Using the device makes me look more important." Responses to PMDFF items range from 1– Strongly disagree to 7– Strongly agree.

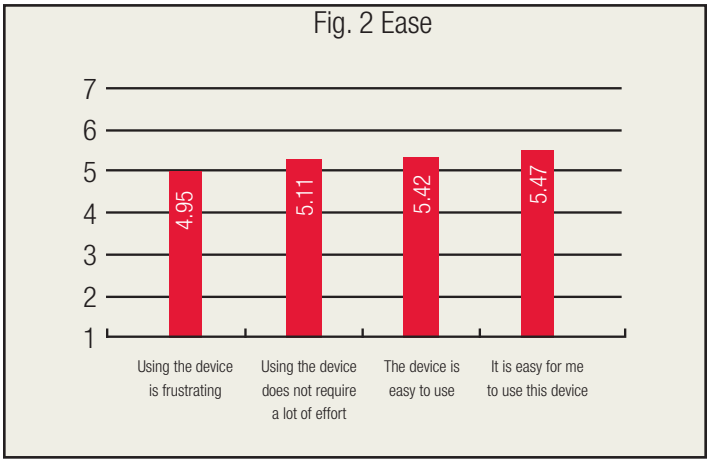
At the end of the survey there is a functional use section containing items that specifically focus on smartphone usage. These items position the youth to rate the frequency with which they use particular features on the phones. For example, participants selected a response ranging from 1 (Never) to 7 (Every time) to items such as "voice calling" and "posting on social network sites."

Quantitative Survey Results

Enjoyment. Respondents were asked a series of questions about their enjoyment of using the phone. More than half of the youths agreed or strongly agreed that using the device made them feel good and using the device gave them a lot of joy.



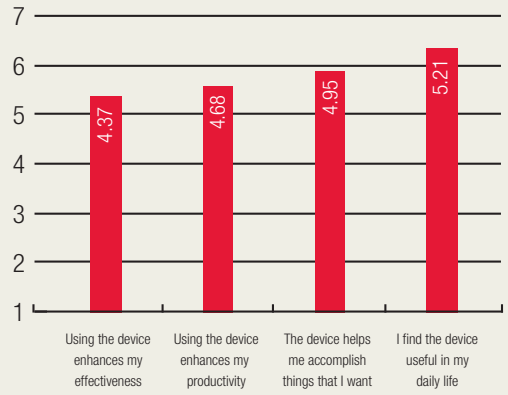
Ease. Nearly three quarters of the youths agreed or strongly agreed that the device was easy to use, and that using it did not require a lot of effort (73.7%, n = 14), whereas nearly two thirds of youths agreed or strongly agreed that using the device did not require a lot of effort (63.1%). Just under half of the youths disagreed or strongly disagreed that using the phone was frustrating (46.3%, n = 9).



**Note: The question "Using the device is frustrating" was reverse-coded*

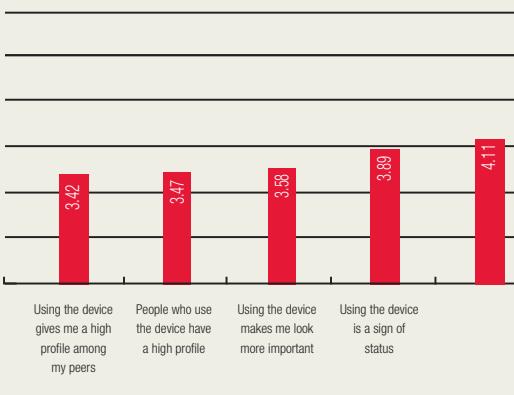
Usefulness. About one half of the youths agreed or strongly agreed that they found the device useful in their daily life (47.4%, n = 9) and that the device helped them accomplish things they wanted (47.3%, n = 9). Just over one third of the youths agreed or strongly agreed that using the device enhanced their effectiveness and their productivity (36.9% each, n = 7 each). The means of the ranked variables around the indicator of enjoyment show that "I find the device useful in my daily life" scored the highest (μ = 5.21), while "using the device enhances my effectiveness" scored the lowest (μ = 4.37).

Fig. 3 Usefulness



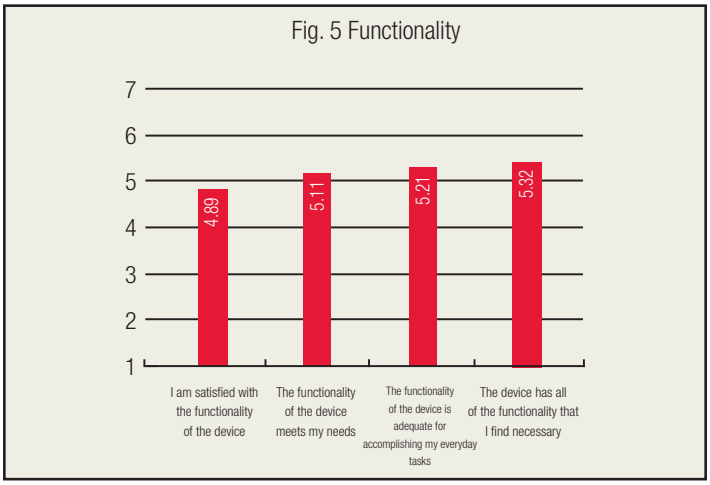
Symbolic Value. This item poses questions that relate to the smartphone as a status symbol for the youths. On each indicator, youths selected the neutral "neither agree nor disagree" a majority of the time. This becomes also apparent by reviewing the means for these questions, as overall they are lower than the other indicators. The variable with the highest mean in this section was "using the device enhances my image" (μ = 4.11), whereas "using the device gives me a high profile among my peers" scored the lowest (μ = 3.42).

Fig. 4 Symbolic Value



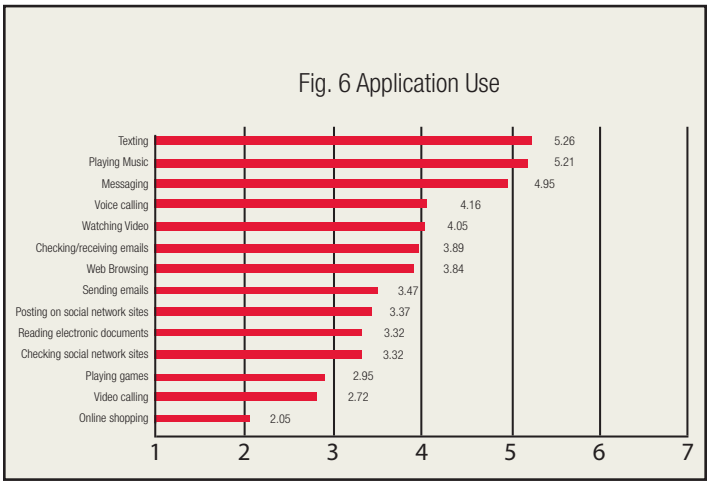
Functionality. Respondents were next asked a series of questions about the functionality of the smartphone. Nearly two thirds of youths agreed or strongly agreed that the functionality of the device met their needs (63.2%, n = 12). Just over half of youths agreed or strongly agreed that the device has all the functionality they found necessary and that they were satisfied with the functionality of the device (57.9% each, n = 11 each), whereas just 52.6% of youths agreed that the functionality of the device was adequate for accomplishing their everyday tasks (n = 10). When ranking the variables, "the device has all the functionality that I find necessary" scored highest (μ = 5.32), and "I am satisfied with the functionality of this device" scored the lowest (μ = 4.89).

Fig. 5 Functionality



Application Use. Finally, youths were asked about which applications or functions they used on the phone. Converting responses to means, it is apparent that youths used the phones most often for texting (μ = 5.26), playing music (μ = 5.21), voice calling (μ = 4.16) and watching videos (μ = 4.05). The least-used functions reported were playing games (μ = 2.95), video calling (μ = 2.72) and online shopping (μ = 2.05).

Fig. 6 Application Use



Qualitative Results

The qualitative analysis uncovered five themes: challenges and barriers, relationship building, normalization, communication breakdown, and youth empowerment. The themes address both smartphone-related feedback, as well as general project implementation feedback.

THEME 1: PHONE CHALLENGES/BARRIERS

Challenges related to the smartphone emerged as a prominent theme in all focus groups and interviews. Participants discussed a variety of factors that impeded the development of trust and a positive working relationship among providers and service users. For instance, some caregivers reported occasions when their youths used the phone to contact people or "family members that they were not supposed to speak to"; somehow their youths had "figured out how to work the phone and talk to people" who were not on the approved contact list. As mentioned before, the project team planned to use the software built into the phone to allow the user to access only certain features. The phone was intended to be used only so the youths could connect with a group of people approved by their caseworker regardless of the youth's age. Several youths, especially those that were over 18 and parenting, were frustrated with the contact list restrictions. They felt that the process of having their youth specialist put a long list of people on the phone was time consuming, particularly because they have other commitments such as work and child care that needed immediate attention and the phone was their only form of communication.

The project team realized that these restrictions were unenforceable because the software of the smartphone often crashed, allowing the user to access all features, resulting in several problems including excessive data usage. Several youths determined that it was relatively simple to "unlock" the phone. One youth respondent explained that it was convenient when the operating system would crash, and it would reboot its old one, because then he could actually use it and reset the phone to its original factory mode. When this happened, service providers had to take the phones back from the youths in order to correct the problems.

Caregivers noted that providers should have had more realistic expectations about the use of the phone. One caregiver stated, "You don't give a kid something, that you know they gonna abuse, and then tell 'em "why are you abusing this?" According to some caregivers, their youths had certain expectations about the phone and its use, but when the phone did not work or was locked (for data overuse) it created some friction between the youths and service providers.

THEME 2: RELATIONSHIP BUILDING

When the phone worked properly, it seemed to help youths establish and strengthen relationships. Several examples of youths connecting with family members were given. For example, one youth stated: "We were like limited, from talking on the house phone, and then when we came into DREAMR, we got our own phone, and we were able to talk to our families for like hours." Another participant reported that they could reach out to service providers at any time for anything. Youths reported that the smartphone was a good incentive in the beginning of the project, but above all, it was the relationship they formed with their service provider that made them stay in the project (and the phone helped to facilitate this).

One youth shared her experiences in the project by saying, "I mean, it was good to know, you know, 'ok, I am gonna get something for it', but it was the relationship I built with [my worker] that made me want to stay."One parent also spoke to this theme by saying that with the smartphone her child "gained a little bit of responsibility" because the youth was "able to call her or text her to get a hold of her when the youth needed her." A service provider stated that some youths had become committed and responsive to the services, and the smartphone had served as a tool for interpersonal skill building. The provider stated that it "took a really long time, but it finally got to a point where the youth was able to commit. The youth became dependable to the point of where if the youth needed to cancel a visit, the youth [would] actually call or text."

THEME 3: NORMALIZATION

Despite the series of challenges the program faced, a number of positives were experienced by the youths, including the fact that smartphones, data usage, and texting with friends gave the youths opportunities to feel like every other teenager in their community. One participant reported that foster youth "were able to be normal kids…they were able to do the things with those phones, that their classmates, that their peers…do with those phones."

Caregivers and stakeholders both talked about how the youths used the phones to text with friends, take photographs, and use the Internet, even when they were not supposed to. A stakeholder saw this behavior in a different way by saying, "If a 16-year-old has gone all of her life without a cell phone when all her peers…have had 'em for [years], of course they're gonna stay up all night, that's what they do!"

THEME 4: COMMUNICATION BREAKDOWN

One area that challenged the envisioned implementation of the smartphone was a communication breakdown across various groups involved in the project. For example, the lack of involvement from caregivers and the youths' CAP (Children's Attorney Project) representatives during the planning phase of the program threatened the proper

implementation of the cell phone service. Caregivers did not clearly understand nor favor the use of phones in their houses, and CAP representatives were often concerned about their clients' privacy (falsely believing that DFS and providers would monitor the youths' conversations, messages, and pictures). Also, several youths expressed their desire for greater involvement in the planning process. For example, some of the phone applications that were intended as incentives for the youths were not the apps they wanted. One youth reported: "I think it would be kind of better if we got kids who were using the smartphone [to say] what kind of application they like, or at least listen to what they don't like."

Another area that seriously affected communication among providers was the issue of staff turnover. For example, new managers who were assigned to coordinate the program were typically attempting to juggle several other programs at once, when a large and complex program such as DREAMR needed a leader. According to a stakeholder, these changes in leadership caused some tension among the partners involved. The same stakeholder explained that as a new manager, "If you do not understand the role of the phone not only as an incentive but a component to some of the relationship building [aspects]…and maybe don't have the institutional knowledge about how that developed from the beginning… then you could miss the opportunity to really take a step back and say 'how could we make this work?"

There were also several areas of communication breakdowns with the technology partner and the resulting phone service that was available. All participants discussed the differences between what they were told the smartphone would be able to do (or not do), and what actually happened. The resulting service was often quite different from what was expected. One stakeholder felt that the team was so excited to use this new technology and felt so hopeful of what it could accomplish that they failed to consider and evaluate the efforts needed to achieve their goals, "not only from a programmer standpoint" but also "from a timeline standpoint, from a financial standpoint, and really looking at all those issues" before moving forward with an implementation plan.

In response, the technology partner expressed: "[our] system was a new technology that was not designed specifically for [the project]; it was designed for universal use." According to the technology partner, the project had certain needs "that really didn't apply to universal use…so this created some challenges for software developers." The programmers were constantly creating "patches in the system…to address the needs of the project."

THEME 5: YOUTH EMPOWERMENT

Across the focus groups, participants reported satisfaction with services and positive feelings about the smartphone. The youth participants felt that the smartphone gave them a "voice" and control over the people with whom they wanted to talk. Service providers reported that the smartphone provided an opportunity for youths to stay in touch with family or previous caregivers. This freedom of phone usage decreased the youths' reliance on the landline telephone where they lived.

Also, many stakeholders believed the smartphone allowed the "youth to make their choices and decisions, and do what they want…in the whole process." This was corroborated by a youth when she said, "Usually if we didn't [have the phone] then it would just be people telling us what do and where to go, like always…but when you have the phone you're actually talking to them, so you're putting in your input."

Discussion and Lessons Learned

The current study explored the perception of the use of the smart phone in the DREAMR project from different groups involved. The survey results demonstrated that overall, youths found the smartphones to be useful and enjoyable, and provided them with the functions that they needed for their daily lives. In particular, the texting and messaging components of the phone were important features for them. These findings are comparable to a recent Pew Internet Study on cell phone usage (Duggan, 2013). Adults were most likely to use their phones to send or receive text messages (81% of adults), access the Internet (60%), send or receive email (52%), download apps (50%), or listen to music (48%).

The review of qualitative data related to the DREAMR project identified a number of strengths and areas for further focus. Although several of the components of the smartphone did not meet the intended goals, the phones did expand knowledge about how to use technology to connect with vulnerable youths and to help them build meaningful relationships. Furthermore, caregivers and stakeholders were also supportive of the program, although both groups would like to see some important changes made to the project moving forward.

First, given that staff turnover is an issue that pervades the child welfare system, it becomes essential to establish, share, and carry out a vision of innovative programs like DREAMR. As discussed above, the smartphone was originally intended to serve not only as a research incentive but also to enhance youths' relational competence. This vision of the smartphone dissipated every time the program faced the leadership of a new manager who often handled an unmanageable number of projects. It is then important to have strong agency support that can ingrain demonstration projects like DREAMR in their organizational culture; subsequently, these values can be shared with caseworkers, caregivers, and other service providers.

Second, many stakeholders believed caregivers perceived

the phone as an "outside" influence that "impacted [the] parenting of the kids." It is important to note that in the early phase of phone implementation, service providers discouraged caregivers from taking the phone away as a disciplinary measure because they felt that this would inhibit the relationship building component of the phone, and in some cases prevent the resolution of grief and loss for some youths.

It was mentioned several times in the interviews and focus groups that "inappropriate" behaviors were occurring with unlocked phones. This speculation is bolstered by several quotes from the qualitative results in which caregivers expressed concerns about having their youths contacting other people or overusing the phone. The data, however, did not offer any insights into the nature and extent of this problem. For example, were youths using the Internet to access inappropriate websites or were they just doing "typical teenager" things, such as being excessive in the amount of Internet data they were using by streaming movies or music videos, or downloading applications?

Also, there was a difference of opinion among participants in the caregiver group with respect to the use of the phone. Some caregivers encouraged the use of the phone by giving their youths their own non-DREAMR phone; while others were not very open about the idea. It is unclear if this difference in attitudes has an effect on the way their youths connected with their mentors and service providers. Future studies should examine the attitudes of caregivers and also of caseworkers (a group excluded from this study) about having a foster youth access a phone. This type of information can help prevent or lessen implementation challenges in using smartphones.

Currently, DREAMR staff provide better guidance to caregivers on how to create and enforce rules and boundaries around cell phone usage in their home. This may be enabling caregivers to feel empowered about having "outside" influences in their home, and helping demonstrate a level of respect for the role of the caregiver in controlling unwanted behaviors in their home.

Third, a reported suggestion for change was related to improving communication, so that all parties involved have the ability to share in the decision-making process related to the project. Breakdowns in communication led to feelings of distrust and "being lied to," which was something stakeholders and caregivers were very clear that they did not want to see happen in the future.

All parties involved in the project expressed some level of frustration when the smartphones and applications did not work properly, crashed repeatedly, or required updates that were both time consuming and inconvenient. Some respondents encouraged the use of tablets instead of phones; others suggested simplifying the programming of the smartphone or maybe using an older model phone with just texting and calling capabilities. This last recommendation challenges previous research findings suggesting that smartphones with complex multimedia applications and functions can be successful and are enjoyed by the youths (Cornelius et al., 2012; Dennis et al., 2014). This is another area that requires further investigation to ensure that technology usage and service needs are in agreement.

All of these suggestions also attempt to get at another potential drawback of the program; mainly, what do program youths do after the project ends and they have a smartphone for which they cannot afford to buy a service plan on their own? The tablet would enable youths to access free Wi-Fi, while the simpler cell phone without a data plan might be more within their finances.

In future instances, when implementing new software and/or hardware, the project team will need to identify clear goals and expectations of the technology. Based on the data, it appears that project goals were often changing, especially because the technology partner's resources did not match the needs of the project. This leads to a second action, which is to understand the resources available. This would entail meeting with actual software programmers and understanding their work timeline, costs, and so on.

Implications and Summary

Acquisition and daily use of smartphones proved rewarding and challenging on several fronts. It has been documented that some youth in foster care feel added restrictions are placed on them due to their out-of-home-care status (Alford, 2003; Denby & Curtis, 2013). They may feel inhibited in gaining a sense of independence while also experiencing vulnerability linked to their self-worth (Alford, 2003). Whereas implementation of the smartphone posed early concerns, the overall impact proved positive for youth empowerment, relationship building, and helping foster teens gain a greater sense of individuality. For teens, owning a cell phone is a rite of passage. Having a smartphone in their possession enhanced the youth's self-esteem, sense of camaraderie with peers, and normality associated with being a teen. More trusting relations between social service workers and foster teens were attributed to accessibility of the smartphone as well. Various user-friendly applications on the phone (e.g., appointment reminders, forms to be completed) served to keep workers and teens regularly connected.

A stark lesson learned was to never engage smartphone usage and dissemination without ensuring full input and acceptance from foster parents at the ground level. Decisions about usage and overall parameters of the smartphone are best done from a team perspective with all interested and contributing parties at the table. It was clear that some foster parents felt they (not foster teens) should have control over when the smartphone could be used. Many foster youths had a different perspective.

It is a given that we are more technologically savvy today than ever before; however, problems can and often surface. There

were glitches associated with smartphone implementation and usage. Foster teens were not pleased when these malfunctions occurred. A critical lesson learned was that dialogue vis-à-vis providers and stakeholders must be a priority at the outset. The purpose of the smartphone and ensuing by-product of its social-behavioral benefit should be shared and vetted with all members of the service team and other contributing parties. By doing so, the full breath of this technology is jointly understood and appreciated.

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SUGGESTED RESOURCES

The Chronicle of Social Change. This report includes detailed information about how the California Public Utilities Commission signed off on expanding the state's emergency phone plan. The expansion enables young adults between the ages of 18 and 26 who receive Medi-Cal or CalWorks benefits to have access to a free cell phone plan. Under the Affordable Care Act, foster youths retain in-state Medicaid eligibility until the age of 26, meaning that almost all youths aging out or staying in foster care will qualify for the cell phone plan.

Kelley, J. (2014). California provides free or cheap cell phone options for low-income, foster youths. Retrieved from https://chronicleofsocialchange.org/news/california-oks-cheap-cell-phone-plans-for-low-income-foster-youths/4936

Wireless News. This report includes detailed information about how AT&T signed a $1.5 million contract with Our Kids of Miami-Dade/Monroe, Inc., the lead agency for child welfare in Miami and the Florida Keys. Our Kids planned to deploy 2,000 AT&T high-speed Internet lines to provide foster homes with access to the Internet.

AT&T helps kids of Miami-Dade leverage wireless technology to advance foster care in Florida. (2008). Wireless News. Retrieved from http://ezproxy.library.unlv.edu/login?url=http://search.proquest.com/docview/210216448?accountid=3611

U.S. News & World Report. This report provides information regarding how mentoring and relationship skills programs can improve the mental health of foster children. It includes statistics on how many foster care children meet criteria for mental health disorders yet do not receive services. This publication also includes information on a study involving foster children who received mentoring by graduate students in social work.

Foster kids gain from mentoring, relationship skills. (2010). U.S. News & World Report.

Retrieved from http://ezproxy.library.unlv.edu/login?url=http://search.proquest.com/docview/759646822?accountid=3611

The Kansas City Star. The report provides information on how KVC Kansas will start providing iPads to 550 foster families that the agency serves. Furthermore, they are going to equip each tablet with a program called MyLink, a video conferencing system that allows foster kids to talk to their therapists in a private chat room.

Bauer, L. (2015). Technology to close distance between foster children, therapists in rural

Kansas. The Kansas City Star. Retrieved from http://www.kansascity.com/news/local/article16149005.html

Sociological Methods & Research. Smartphone-augmented methods are discussed. The authors examine the use of technologies for observations of human behavior and communication with researchers. They explore the cost-effective nature of accessing data through the use of cell phones.

Raento, M., Oulasvirta, A., & Eagle, N. (2009). Smartphones an emerging tool for social scientists. Sociological Methods & Research, 37(3), 426-454.

Military Medicine. The authors explore the effectiveness of a self-management tool, the PTSD Coach. The PTSD Coach is a mobile application (app) that was created to help individuals manage post-traumatic stress disorder (PTSD) symptoms through self-paced education.

Kuhn, E., Greene, C., Hoffman, J., Nguyen, T., Wald, L., Schmidt, J., Ramsey, K. M., & Ruzek, J. (2014). Preliminary evaluation of PTSD Coach, a smartphone app for post-traumatic stress symptoms. Military Medicine, 179(1), 12-18.

Professional Psychology: Research and Practice. The authors discuss three case studies in which electronic tools (digital pictures, smartphones) were incorporated into psychotherapy. Ethical considerations are discussed.

Eonta, A. M., Christon, L. M., Hourigan, S. E., Ravindran, N., Vrana, S. R., & Southam-Gerow, M. A. (2011). Using everyday technology to enhance evidence-based treatments. Professional Psychology: Research and Practice, 42(6), 513–520.

Youth Work Mobile 2.0. Youth Work Mobile 2.0 is a website that organizes a blog, electronic resources, publications, and various other resources about youths and their use of smartphones and the social media. It addresses the significance of cell phones and social media in the lives of young people and offers a competence framework for professionals who work with them. Various aspects of technologies and smartphones use by young people are discussed on the site at https://yowomo2.wordpress.com/

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