Exhibit 1

HRDC, June 19, 2017 Comment on Report and Order and Further Notice of Proposed Rulemaking, Fed. Comm. Comm'n, In the Matter of Promoting Technological Solutions to Combat Contraband Wireless Device Use in Correctional Facilities, GN Docket 13-111

Human Rights Defense Center

DEDICATED TO PROTECTING HUMAN RIGHTS

July 17, 2017

The Honorable Ajit V. Pai, Chairman
Federal Communications Commission
445 12th St. S.W.
Washington, D.C. 20554

Re: Reply Comment on Report and Order and Further Notice of Proposed Rulemaking, GN Docket 13-111

Dear Chairman Pai:

The Human Rights Defense Center (HRDC), which publishes *Prison Legal News*, respectfully submits this Reply Comment for GN Docket No. 13-111 in response to comments filed in response to the Further Notice of Proposed Rulemaking: Promoting Technological Solutions to Combat Contraband Wireless Device Use in Correctional Facilities, issued by the Federal Communications Commission (FCC or the Commission).[1]

As noted in our initial comment,[2] HRDC supports the legitimate efforts of correctional agencies to promote public safety. We do not, however, support initiatives that are implemented due to the corruption and wrongful acts of correctional employees who are allowed to willfully create those potentially dangerous situations and, as such, we disagree with Cell Command, Inc.'s assessment that "only the FCC can ensure the safety of the public again" with respect to contraband cell phones in detention facilities.[3] Prisons and jails in this country are charged with and funded to ensure public safety, and to the extent that correctional employees create safety issues that may arise through the use of cell phones by prisoners, those facilities are responsible for any costs associated with the identification and disabling of illicit wireless devices.

[1] FCC Report and Order and Further Notice of Proposed Rulemaking, GN Docket No. 13-111, adopted March 23, 2017.
[2] Human Rights Defense Center Comment on Report and Order and Further Notice of Proposed Rulemaking, GN Docket 13-111, filed June 19, 2017.
[3] Cell Command, Inc.'s Comments in Response to the Commission's Further Notice of Proposed Rulemaking, GN Docket 13-111, filed June 19, 2017.

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Multiple examples of guards smuggling cell phones into correctional facilities, as well as the FBI supplying a prisoner with a cell phone as part of an investigation into the Los Angeles County jail system, were submitted with our initial comment.[4] On July 6, 2017, yet another corrections officer pleaded guilty to smuggling cell phones and drugs into the California Department of Corrections and Rehabilitation's Richard J. Donovan Correctional Facility over a two-year period, in exchange for approximately $45,000. **See Attachment 1.**

In its comment, the American Correctional Association (ACA) purports to be "vitally concerned, as a matter of life and death for our members and as a matter of public safety," and stresses that a technological solution is possible "if the FCC is able to view this as a public safety matter that trumps the FCC's traditional modes of operation."[5] The ACA goes on to "insist" that the FCC use "utmost efforts" to implement a system that "employs existing technology to protect the public and our members from contraband cell phones." *Id*. While the ACA contends that the number of phones being smuggled into correctional facilities is on the rise, it fails to mention that the smugglers are usually correctional employees – and then complains the efforts required to combat this issue are becoming "burdensome for corrections." Ensuring public safety that is threatened by the acts of correctional employees should not be "burdensome" to prison and jail officials; it should be dealt with at the source of the problem – guards who smuggle cell phones to prisoners. The refusal to address systemic corruption by public employees is a matter of lack of political will on the part of detention facilities, not a technological issue.

As leaders of the national Campaign for Prison Phone Justice fighting for FCC regulations that will result in comprehensive reform of the prison telecom industry, HRDC finds it interesting that the ACA believes that leaving the selection of specified technologies to the marketplace is an "inappropriate" concept and speaks to "the failure of the market to arrive at a meaningful solution" over decades – much like the complete market failure that has resulted in the price gouging of prisoners and their families for prison phone calls.

HRDC believes that it is totally inappropriate at every level to have prisoners and their families shovel yet more of their limited money into the coffers of the largely hedge fund-owned ICS industry due to widespread corruption by corrections employees and the complete inability and unwillingness of correctional administrators to control and discipline their corrupt staff. To be clear, if these were government procurement contracts where the government agencies were using their own funds to experiment in the boondoggle of MAS technology, we would not be submitting this comment. Rather, our concerns center exclusively around who is going to pay for it and to date it is clear that the corrections agencies and their collaborators in the ICS industry expect prisoners and their families to foot the bill for a problem that is largely caused by corrupt government employees, through elevated ICS phone rates and fees.

This is not surprising, as some of the same companies that provide Inmate Calling Services also have a stake in the technologies that have been developed to combat contraband wireless devices in correctional facilities. Some ICS providers like Global Tel*Link (GTL) stated that fact openly in a comment filed on this docket, in addition to publicly stating that prisoners and their families will incur the cost to combat the greed of correctional facilities and employees:

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[4] Human Rights Defense Center Comment on Report and Order and Further Notice of Proposed Rulemaking, GN Docket 13-111, filed June 19, 2017 (Attachments 1, 2, 3 & 8).

[5] American Correctional Association Comments on Combating Contraband Wireless Device Use in Correctional Facilities, GN Docket No. 13-111; FCC 17-25, filed June 23, 2017.

> Finally, the Commission should address how solutions to combat contraband devices will be funded. There is a growing trend to require inmate calling service providers to include MAS-like services in the bundle of services provided to correctional facilities. In light of the high cost to implement the technologies needed to fight against contraband devices, without a Commission-sanctioned cost recovery mechanism, the rates for inmate calling services are likely to increase when such solutions are required by correctional facilities. It is therefore essential for the Commission to address directly the funding of MAS and other solutions for combatting contraband wireless devices in correctional facilities.[6]

Other companies aren't as transparent. CellBlox Acquisitions, LLC makes no mention in its comment that it is owned by Securus Technologies, Inc. **(Attachment 2)**, and does not address cost at all.[7] In fact, one of the CellBlox comment authors, Dan Wigger (Vice President and Managing Director, Wireless Containment Solutions), was a panelist selected to discuss Managed Access Systems at the FCC's Field Hearing on Contraband Cellphones conducted in Columbia, South Carolina on April 6, 2016, where he also failed to mention that Securus had hired him to "be responsible for the day-to-day management of *our* Managed Access Systems (MAS) business that installs proprietary high tech software preventing contraband wireless device use in prisons and jails in the United States" (emphasis added).[8]

The government, correctional agencies and employees, and guard unions are mainly responsible for the corruption that has been allowed to exist with respect to contraband cell phones; they are the ones who have profited from smuggling phones into facilities. Prisoners and their families should not be required to pay for the greed of correctional employees. Should the FCC move forward with this issue, it should require correctional facilities to bear the cost of any systems implemented to detect cell phones, and ensure that new regulations only benefit those facilities that are doing all they can to deal with this issue as detailed in our initial comment.[9]

Thank you for your time and attention to this important matter.

Sincerely,

Paul Wright
Executive Director, HRDC

Attachments

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[6] Comments of Global Tel*Link Corporation, GN Docket 13-111, filed June 19, 2017.
[7] Initial Comments of CellBlox Acquisitions, LLC, GN Docket No. 13-111, Filed June 19, 2017.
[8] Human Rights Defense Center *Ex Parte* Submission, Failure to Disclose Identify of a Securus Technologies Employee, Docket No. 13-111, filed April 7, 2016.
[9] Human Rights Defense Center Comment on Report and Order and Further Notice of Proposed Rulemaking, GN Docket 13-111, filed June 19, 2017 (e.g., Attachment 9).

Exhibit 2

Ex Parte Letter from HRDC to Former FCC President Ajit Pai, In the Matter of Rates for Interstate Inmate Calling Services, WC Docket No. 12-375

Human Rights Defense Center

DEDICATED TO PROTECTING HUMAN RIGHTS

www.humanrightsdefensecenter.org www.prisonlegalnews.org

September 6, 2019

Federal Communications Commission
443 12th St., SW
Room TW-A325
Washington, DC 20554

Re: WC Docket No. 19-232

To the Federal Communications Commission:

The Human Rights Defense Center (HRDC) is the co-founder of the national Campaign for Prison Phone Justice[i], which is committed to reducing barriers to communication between prisoners and their support networks. HRDC submits this comment for the administrative record and states our support for National Communications International Corporation's (NCIC) petition for Inmate Calling Services (ICS) forbearance from the application of Universal Service Fund (USF) contribution requirements.

The Federal Communications Commission (FCC) maintains responsibility for ensuring fair and equitable access to communication services across this country. There are currently 2.3 million people incarcerated in the United States[ii] who are generating a combined estimated $1.2 billion annual revenue for private ICS companies[iii]. As NCIC has outlined in its petition, the costs associated with ICS are excessively onerous for the people who use ICS and must therefore be regulated.

Although FCC capped the costs of interstate telephone calls in 2015[iv], lax USF guidelines have enabled ICS companies to circumvent the intended caps and increase the costs for every jail and prison telephone call. In order to preserve their core revenue in the face of the FCC cap on interstate telephone rates, ICS companies now include a universal service line item to cover the costs of USF contributions; NCIC estimates that this line item adds $58 million to the annual cost burden on prisoners and their loved ones.

Individuals who are forced to use ICS already pay the highest costs for telephone calls in the country. In 15 states, a single 15 minute telephone call can exceed $15.00[v]. In the state of Washington, jail telephone rates have been increasing steadily[vi] despite public attention to the injustices of expensive ICS. These costs disproportionately impact low-income families—the very people intended to benefit from the USF into which the extra fees are being deposited. As yet another fee that has been allowed to inflate these costs, the implementation of the USF contribution requirements has demonstrably injured its intended beneficiaries.

It is clear that excessive fees collected under the pretense of USF contribution requirements must be overturned to facilitate fair and equitable jail and prison telephone access. In this petition, NCIC has effectively argued that abolishing USF contribution requirements will minimally impact the FCC budget, successfully reduce financial encumbrances on prisoners and their families, and present an opportunity to remedy the intended purpose of USF contributions. HRDC fully supports this petition and asks FCC to

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keep actively improving the terms of ICS moving forward as well. Prison phone justice demands nothing less than clear and immediate action from the highest authorities in this country.

Sincerely,

Paul Wright
Executive Director, HRDC

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[i] https://www.prisonphonejustice.org/
[ii] https://www.prisonpolicy.org/reports/pie2019.html
[iii] https://www.bloomberg.com/news/articles/2012-10-04/prison-phones-prove-captive-market-for-private-equity
[iv] https://apps.fcc.gov/edocs_public/attachmatch/DOC-335984A1.pdf
[v] https://www.prisonpolicy.org/phones/
[vi] https://www.prisonlegalnews.org/news/2018/oct/12/washington-state-jail-phone-rates-increase-video-replaces-person-visits/

Exhibit 3

Lindsey Cramer, Margaret Goff, Bryce Peterson, and Heather Sandstrom, Parent-Child Visiting Practices in Prisons and Jails: A Synthesis of Research and Practice (April 2017)

RESEARCH REPORT

Parent-Child Visiting Practices in Prisons and Jails

A Synthesis of Research and Practice

Lindsey Cramer *Margaret Goff* *Bryce Peterson* *Heather Sandstrom*

April 2017

URBAN INSTITUTE · ELEVATE · THE · DEBATE

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Contents

Acknowledgments

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The authors also thank Margaret Simms, institute fellow, and Jocelyn Fontaine, senior research associate, at the Urban Institute for their review of this paper and their thoughtful insights and feedback. Finally, the authors thank the researchers and practitioners who were gracious with their time and participated in informant interviews.

Introduction

Recent estimates indicate that 2.7 million children in the United States have a parent incarcerated, and more than 5 million—7 percent of all children in the United States—have had a parent incarcerated at some point in their life (Murphey and Cooper 2015; The Pew Charitable Trusts 2010).[1] Black children and children from economically disadvantaged families are more likely to experience parental incarceration (figures 1.A and 1.B). In fact, nearly twice as many black children (11.5 percent) have had a parent who lived with them go to jail or prison compared to white children (6 percent). And a child living in poverty is three times more likely (12.5 percent) to have experienced parental incarceration than a child whose household income is at least twice the federal poverty level (3.9 percent) (Murphey and Cooper 2015).

FIGURE 1.A

Minor Children with an Incarcerated Parent, by Race

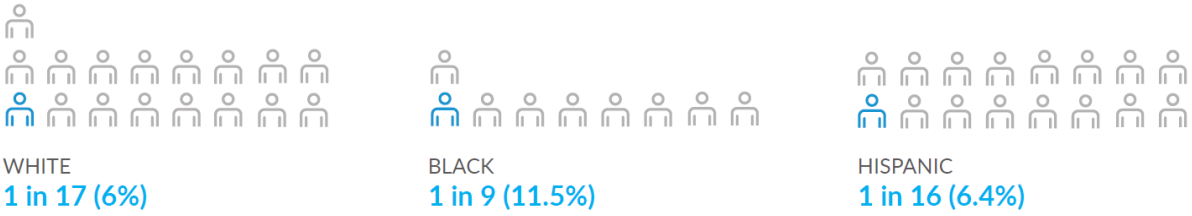
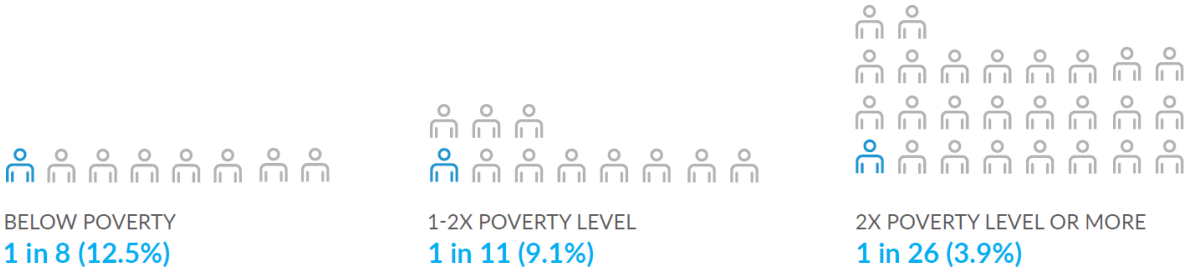


FIGURE 1.B

Minor Children with an Incarcerated Parent, by Income



Source: 2011–12 National Survey of Children's Health, as analyzed in David Murphey and P. Mae Cooper, *Parents Behind Bars: What Happens to their Children?* (Bethesda, MD, Child Trends, 2015).

Despite these statistics, research on the true scope and nature of parental incarceration remains lacking for several reasons:

- Most studies have focused on measuring the number of parents in *prison*, but less is known about how many parents have spent time in *jail*. Therefore, it is likely that many more children are affected by parental incarceration than what researchers have estimated.
- Prior research has been unable to accurately quantify how many children have incarcerated mothers compared to incarcerated fathers, resulting in a limited understanding of the differential effects of paternal versus maternal incarceration.
- Finally, there has been little research on how parental incarceration affects children over their life course or how length of incarceration affects a parent's ability to communicate with their children and maintain contact after release.

Still, it is clear that the millions of children affected by parental incarceration are a vulnerable population. Losing a parent to incarceration is traumatic, and the disruption of the parent-child relationship and attachment is considered an adverse childhood experience. Adverse childhood experiences are associated with an increased risk of trauma and the potential for lasting effects such as risky health behaviors, chronic health conditions, and early death.[2] Parental incarceration has also been associated with children who exhibit antisocial behavior and poor school performance (Murray, Farrington, and Sekol 2012). The negative effects of parental incarceration are often compounded by other adverse experiences these children are more likely to experience, including poverty, parental divorce or separation, and exposure to violence (Murphey and Cooper 2015).

To mitigate these risks, some correctional agencies offer parent-child visits in prisons or jails, often with the help of community-based organizations. Parent-child visits are consistent with one of the central tenets of the Children of Incarcerated Parents Bill of Rights, specifically that children have the right to speak with, see, and touch their parents (see box 1). Developed by the San Francisco Children of Incarcerated Parents Partnership in 2003 and based on young people's experiences with parental incarceration, the bill of rights identifies a child's need for and right to a relationship with their parent involved in the justice system. The bill of rights has been widely accepted and used by several organizations working with children of incarcerated parents and their families.

BOX 1

Children of Incarcerated Parents Bill of Rights

1. I have the right to be kept safe and informed at the time of my parent's arrest.
2. I have the right to be heard when decisions are made about me.
3. I have the right to be considered when decisions are made about my parent.
4. I have the right to be well cared for in my parent's absence.
5. I have the right to speak with, see, and touch my parent.
6. I have the right to support as I face my parent's incarceration.
7. I have the right not to be judged, blamed or labeled because my parent is incarcerated.
8. I have the right to a lifelong relationship with my parent.

Source: San Francisco Children of Incarcerated Parents Partnership (2003).

Correctional agencies typically offer different types of parent-child visits, including video visits, in-person visits with or without contact, and extended family visits. Video visits allow visitors to communicate with loved ones through video conferencing. Some jurisdictions require visitors to drive to the facility, but others offer video visits in central, off-site locations or even in the family's own home through a web-based application similar to Skype. In-person, noncontact visits place a barrier, such as Plexiglass, between incarcerated parents and their children. Contact visits allow children and parents to physically interact with each other, often in a designated visiting room. Some facilities offer contact visits as the standard form of visiting for all incarcerated people, but it is more commonly offered specifically to parents as part of a larger family strengthening program. Extended family visits allow children and immediate family members longer visits, which may last overnight in facilities designated for this purpose.

Research on the effectiveness of different types of visits is limited, but many experts believe that contact visits conducted in supportive, safe, and child-friendly environments are likely the best option to help most families mitigate the harmful effects of parental incarceration. Further, a growing body of research supports the use of contact visits, which allow children to see that parents are safe and healthy while in prison or jail (Tasca et al. 2016). Spending time together as a family through play, conversation, or sharing a meal can also help mitigate children's feelings of abandonment and anxiety (Hairston 2007). Parents and children can use these activities to work on existing relationships, establish new bonds, or repair strained relationships (Hairston 2007; Tasca et al. 2016). This type of relationship building can help children feel more attached to their parents and benefit their well-being, emotional adjustment, self-esteem, and school behavior (Arditti 2008; Fraser 2011; Poehlmann et al. 2010; Sack and Seidler 1978).

expertise. These interviews gathered perspectives on why visiting is important and what makes it beneficial. Interviewees also highlighted additional areas of research or practice that would benefit from further study. We then synthesized our notes and identified key takeaways from each conversation. We incorporate insights from the interviews throughout the paper to help supplement findings from the literature and fill gaps that remained after our review.

This paper presents key findings on what is known about the design, implementation, and effectiveness of parent-child visits. Though we use terms such as "effective" and "effectiveness" to describe aspects of parent-child visits, these terms only reflect the perspectives we heard from the subject matter experts and the information we gathered from our literature review. We did not collect any new data or conduct any new research to measure the effects of any visiting practices. It is also worth noting that we use the terms "visits" or "visiting" in this paper rather than "visitation." The experts informed us that "visitation" has negative connotations among families affected by incarceration because of its association with government systems and agencies. By using "visits" and "visiting," we hope to foster a more natural dialogue around parent-child visiting.

We begin with an overview of the importance of parent-child visiting and the known effects of visits on children and parents. We then discuss six key components of designing and implementing parent-child visiting programs in correctional settings and propose a set of recommendations for practitioners. We conclude with a proposed agenda that identifies areas warranting further research.

Background

Importance of Parent-Child Relationships

To fully understand the harmful effects of incarceration on the parent-child relationship, we must first recognize the importance of that relationship to a child's healthy development, which is underscored by attachment theory. Attachment theory is rooted in the idea that children should experience warm, intimate, and continuous connections with their parents or parental figures in a way that elicits satisfaction and enjoyment (Bowlby 1951). These relationships are crucial to a child's lifelong physical and psychological well-being. Attachment theory positions the parent-child relationship as the foundation on which children learn how to form and sustain healthy relationships with others: when a child's caregiver is warm and responsive to their needs, they learn to trust and depend on others.

Supportive relationships with adult caregivers help buffer children from environmental stressors, such as poverty, neighborhood violence, and unstable housing. When those relationships are disrupted, children are less likely to trust and feel strongly connected to their parents and caregivers (Bowlby 1960). This lack of attachment can have long-term, potentially devastating effects. When children are too young to fully understand why they are separated from an incarcerated parent, feelings of abandonment and rejection are often magnified (Flynn 2014). Without an opportunity to maintain a relationship with their parents, children will continue to experience harsh consequences (Gjelsvik, Dumont, and Nunn 2013). Some research suggests that, as a result, children of incarcerated parents are more likely to have insecure attachments to their incarcerated parents and primary caregivers (Poehlmann 2005; Poehlmann-Tynan 2015).

Parental incarceration is more than a temporary separation of child and parent, and incarceration affects children differently than other forms of parental loss (e.g., death, divorce, military deployment) because of the associated social stigma and the uncertainty surrounding the length of the separation (Arditti 2012; Murray, Farrington, and Sekol 2012; Phillips and Gates 2011). Caregivers and children affected by parental incarceration experience more trauma than other families (Arditti and Salva 2015), which can manifest as depression, anxiety, irritability, aggression, social isolation, difficulty sleeping, behavioral regression (especially in younger children), and an inability to regulate emotions and behaviors (Arditti, Lambert-Shute, and Joest 2013; Poehlmann 2005; Sack and Seidler 1978).

Role of Parent-Child Visits

Parent-child visits can help mitigate the effects of parental incarceration (Arditti 2012; Fraser 2011; Johnston 1995; Poehlmann et al. 2010; Sack and Seidler 1978). Experts we interviewed indicated that many parents with substance abuse or mental health issues can receive treatment while in prison that allows them to better connect with their family members. This offers a clean slate for incarcerated parents and their families to work through the past and begin to move forward. Family members can also help the incarcerated parent plan for their future after release.

In-person, noncontact visits allow parents to speak to their children or other visitors behind a barrier that prevents physical contact. Experts maintain that noncontact visits make it difficult for family members to see or hear their loved ones, which combine with the general lack of privacy to create a poor experience. Further, a child might not understand why they cannot touch their parent, leading them to cry or otherwise misbehave in a way that prevents them from engaging with their parent. Children may also be exposed to negative interactions through visits occurring beside them.

Noncontact visits are stressful and potentially traumatic for children. Beckmeyer and Arditti (2014) conducted structured interviews with 69 incarcerated parents enrolled in a family strengthening program who received visits from a child between the ages of 5 and 18. They found that child misbehavior during visits led to parents reporting lower ratings of parent-child closeness, negating the potential benefits of the visits. This can be doubly harmful to children because many state correctional policies stipulate that children whose behavior cannot be controlled during visits may lose visiting privileges (Boudin, Stutz, and Littman 2013).

Contact visits allow parents to physically interact with their children (and possibly other family members). Research indicates that parent-child visits are most beneficial when they allow for physical contact, are offered in a child-friendly setting, are part of a family strengthening program, and provide proper emotional preparation and debriefing before and after (Arditti 2012; Fraser 2011; Johnston 1995; Peterson et al. 2015; Poehlmann et al. 2010; Sack and Seidler 1978). Experts also find that physical contact and privacy during visits benefit both children and parents and help them cope emotionally and reconnect with each other. For children specifically, contact visits can reduce feelings of abandonment and anxiety and promote emotional security by letting children know their parents are okay (Hairston 2007). This can benefit children's overall well-being and social adjustment by letting them express their feelings about being separated from their parent while receiving reassurance they are still wanted and loved (Arditti 2008; Poehlmann et al. 2010; Sack and Seidler 1978). Experts also report that children who participate in contact visits behave better in school.

We forget about the opportunity costs to children and their families and going to these places to go to a visit. I think the more we can build in opportunity, it's not just reducing risk. In what way, for example, is enhanced visitation an opportunity for youth?
—Joyce Arditti, professor, Virginia Polytechnic Institute and State University

But if implemented improperly, parent-child visits can harm or retraumatize children (Arditti 2008; Fraser 2011; Hairston 2007). For example, visits to high-security facilities, where children are often subjected to invasive search procedures, can be a traumatic experience (Arditti 2008; Fraser 2011; Hairston 2007). Experts noted that some visits may not provide a setting or amount of time conducive to addressing underlying issues between parents and children, negating any potential benefits. Frequent visits may also set unrealistic expectations for a parent's level of involvement after release. Experts also said that the more children visit a prison or jail, the more normalized the experience of incarceration becomes, which can be potentially harmful.

Parent-child visits can also have differential effects on parents. Experts noted that opportunities for parents to see their children while incarcerated can support parental attachment and promote a continued bond after release. They also explained that visits can motivate parents to comply with facility rules, leading to fewer disciplinary reports, and participate in correctional programming. Extant research shows that parents who receive more visits from their children have lower rates of recidivism after release (Cochran 2012, 2013; Duwe and Clark 2013; Hairston 1991; Pierce 2015; Poehlmann-Tynan 2015). Cochran (2013) examined the visiting patterns of over 2,000 people convicted of felonies serving at least 12 months in Florida state prisons between November 2000 and April 2002. He identified four patterns of visiting that had disparate effects on recidivism: (1) no visits (the person did not receive any visits while incarcerated), (2) near-entry visiting (visits were most frequent when someone was first incarcerated then tapered off), (3) near-release visiting (visits increased in the months before release), and (4) sustained visiting (visits occurred regularly throughout incarceration). Though most incarcerated people received no visits at all, people who received sustained visits were least likely to recidivate. Given the promising correlations between regular parent-child visits and reduced institutional misconduct and recidivism, visits could be an important motivator for improving parent outcomes during and after incarceration.

Conversely, experts indicated that some parents do not welcome visits and view them as potentially harmful to their relationship with their children. Parents may not want their children to see them in a correctional setting and might prefer to avoid in-person visits or to sever communication with their children entirely while incarcerated. Visits may cause them to feel shame for being incarcerated, and they may also have concerns about exposing their children to the stressful prison environment and the trauma of repeated separation. Programs can address these concerns by incorporating parent-child visits into a comprehensive family strengthening program, discussed in more detail below, that instructs parents, their children, and primary caregivers on the importance of visits and offers a therapeutic visiting environment for contact visits.

In sum, previous research and our interviews with experts suggest that parent-child visiting is neither innately harmful nor therapeutic. A confluence of family dynamics and systematic issues determines whether visits mitigate or exacerbate the separation and trauma a child experiences when their parent is incarcerated.

Recommendations for Practice

Based on our literature review and conversations with experts in the field, we identified several recommendations for implementing parent-child visiting. Experts largely agreed that although more visiting opportunities are needed in correctional facilities, we must also improve how visiting is implemented.

Facilities should offer more opportunities for parent-child visits, especially contact visits. Because of the potential of parent-child visiting to affect positive outcomes, experts cited a need to offer contact visits more frequently in jails and prisons and to make these visits available to more parents. Practitioners and correctional staff should work together to create more welcoming environments for parents and children through child-friendly visiting rooms and search procedures, clearly communicated visiting policies, and family-focused and developmentally appropriate activities.

Programs should offer more support to children and caregivers. A significant gap still exists in the support offered to children and caregivers before, during, and after visits. Experts urged programs to offer more therapeutic support for family members alongside material support such as transportation assistance and child care. This would help reduce the stress children and caregivers experience when visiting incarcerated family members and would help maximize the benefits of visits. Experts also encouraged programs to provide more services to families in the community rather than in program offices to make services more accessible to families.

To improve visiting practices, listen to incarcerated parents and their families about their needs and what types of services they find helpful. Programs may want to consider interviewing family members and tailoring their services accordingly. However, experts noted that visits can be improved simply by making them more therapeutic and natural. This can be done by providing professional health or psychological resources during visits to coach families through the experience and help them address trauma or stress, improve communication, and set realistic expectations for reunification.

Practitioners and correctional agencies should provide ongoing staff training. Correctional staff members should be trained to appropriately communicate and engage with incarcerated parents, their children, and the children's caregivers. For example, staff members should be cognizant of the confusion many families face when trying to navigate visiting policies and work with them to help them understand the rules and procedures. Program staff members should also be trained to interact with children in an age-appropriate manner.

Practitioners and correctional agencies should understand how families function and be prepared to work with families experiencing trauma and stress. All families are different and experience different levels of dysfunction, and programs should understand that visits may not always be the best intervention. Therefore, staff members should be trained in alternative interventions. If visits are deemed helpful, staff members should know how to intervene and provide appropriate support.

Practitioners should engage with research and evidence to help inform and guide implementation and continuous quality improvement of parent-child visiting. This can be done by reading the extant literature on parent-child visits and through program evaluations or assessments. Programs should always be improving their data collection and evaluation efforts to better document outcomes. This will help practitioners continuously adapt and modify their services to help strengthen family relationships, improve parent-child communication, and provide opportunities for appropriate interaction.

Exhibit 4

Rafael Ballagas, Joseph ‘Jofish’ Kaye, Morgan Ames, Janet Go, and Hayes Raffle, Family Communication: Phone Conversations with Children (June 2009)

Family Communication: Phone Conversations with Children

Rafael Ballagas, Joseph 'Jofish' Kaye, Morgan Ames, Janet Go, Hayes Raffle
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ABSTRACT
We interviewed and observed families in their homes to understand how they communicate across generations and across distances. The phone is still the most common way for keeping children in touch with distant relatives. However, many children can't talk on the phone by themselves until 7 or 8 years old. This paper examines the challenges children have with phone conversations, and looks at how families are currently working around these issues. These findings can help inform the design of future family communications technologies.

Categories and Subject Descriptors
H.5.2. User Interfaces: User-centered design

General Terms
Design, Human Factors

Keywords
Intergenerational, mobile, phone, children, grandparents, design, user interfaces, family communication

INTRODUCTION
Children and grandparents typically have the most time and motivation for communication, but currently lack the tools to communicate together satisfactorily. Technologies have the potential to improve communication across generations and distances to foster a greater sense of family togetherness. To inform the design of such technologies, we studied existing family communications patterns in a total of 23 families in the San Francisco Bay area.

STUDY DESIGN
In this paper, we briefly discuss two consecutive studies of families in the Bay Area: a study of 18 families across a broad socio-economic spectrum in which we focused on their communication technology use, and a follow-up study of 7 families (including two families from the original study) in which we looked at videoconferencing using Skype or iChat. [6]

In the first study, we began by asking families to fill out some background information with their children, about typical days and the structure of the family. Then we spent a "typical evening" with our participants: we would bring dinner as part of the study which we'd eat with the family, discuss the background information and have the children give us a tour of their room. Later we'd talk with the parents about their interactions with their children, and their thoughts on children, toys, technology, and any rituals, rules, regulations or other limitations on technology use. These visits typically took around three hours.

In the second study, we conducted field studies and interviews with 7 families who used videoconferencing to communicate between grandparents and grandchildren. We visited these families in teams of two. Researchers sat with the family and observed a "typical" video call with remote grandparents, which had been previously arranged for our visit. In five of the seven interviews, the two researchers then split up separately to interview the local parents and the remote grandparents. We asked how the family started using video chat, what they think of it now, and how it fit into their broader communication patterns and the work they do to create a sense of "family." In two of the family interviews, we were not able to interview the remote grandparents. We video- and audio-taped all calls for later analysis. These visits typically took around an hour and a half.

In each case, we would take notes, transcribe video and audio recordings, identify salient points, and work as a team to identify points of interest for further observation.

FINDINGS
Unsurprisingly, the most common way for keeping children in touch with distant relatives was through the phone. Through our observations, we uncovered several sets of challenges that children have with communicating over the phone.

Cognitive Challenges
Children under 5 years old have a hard time understanding how to communicate with a remote person using a telephone [3]. During conversation, young children tend to forget about the special circumstances of the phone conversation and communicate as if the person were in the room with them. Typical behaviors include incidents of gesturing to objects in the room where both the gestures and the objects are unseen by the remote conversation participant (see Fig. 1). Children sometimes forget that they need to hold the phone in a certain posture to hear the remote participant or be heard by the distant family members. Young

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children also have difficulties articulating clearly with words alone: they rely on body language and facial expressions as a critical part of the communication process.

Many of these findings are consistent with the literature on child development. The difficulty to imagine the point of view of another party seems to require both a theory of mind [4] and an ability to take another's perspective [7]. When talking on the phone, a child must hold an inert piece of plastic and imagine that the other person is present. This is inherently an abstract and rather strange idea. Compounding this is the fact that the speakers do not share context and cannot read typical cues like tone of voice, posture and subtle gestures that are usually such valuable communication skills for children.

Figure 1. Illustration of cognitive challenges in phone conversation: this study participant (age 4) is gesturing to items in the room that are unseen by the remote participants (left and center) as well as sometimes forgetting to hold the phone up to her face while talking (right).

Furthermore, language is not always the easiest way for children to communicate. Children generally have an easier time expressing their knowledge and ideas through action rather than through words. Bruner [1] theorized that all knowledge begins with action, progresses towards iconic representations, and then can be expressed with language. His theory suggests that a language-based medium like telephone would be more complex for children than a medium that leveraged action, bodily movement, or imagery.

Gardner's theory of multiple intelligences [2] allows us to look at this challenge from another perspective. While children with a high "verbal intelligence" were most successful with the phone, other children preferred to communicate with co-located parties who were not limited to words alone. One four year old boy illustrated the active, mobile and physical character of so much of children's communication and play:

> Mother: *"Son, do you want to call somebody?"*
> Son: *"Nope, I just want to hit somebody"*
> (son breaks into a sprint chasing his older sister around the house)

There is a clear mismatch between children's needs and the opportunities afforded by telephony.

Social Challenges

The *art of conversation* is a skill that slowly develops. Important aspects of conversation like turn-taking, asking questions, listening skills, and storytelling are often lacking in children leading to significant breakdowns in the phone conversation. By 5 years old, children already seem to be able to carry on conversations in person, and may understand how to use the phone, but need help with conversation. We observed that even children that are normally talkative face-to-face can regress to yes and no responses in phone conversations.

This is not surprising. Phone conversations introduce an artificial constraint of one-to-one communication; normal conversation is not usually structured in this way. While speakerphones help to alleviate this problem, few participants in our study used this feature. Without speakerphone, children's ability to learn telephony skills is limited: children often learn by observing and copying people older and more experienced than they are. [8] But children can not easily learn from more experienced users if they hear only one half of a phone conversation. The co-present mentor's dialogue lacks any meaningful context for the learner.

Attentional / Motivational challenges

The cognitive and social challenges with telephony lead children to be unmotivated to talk on the phone. In our studies, children up to 9 years old had difficulties staying engaged in the phone conversation. Although most phones are portable today, children are often expected to sit still and "be on good behavior" while talking to a remote grandparent or other family member. This was difficult for many children. Children's words and actions suggested that they didn't feel connected with the remote party, and typically perceived talking on the phone to be a chore.

MAKING PHONE CALLS SUCCESSFUL

There were a variety of strategies that we observed to overcome these challenges. The most common strategy was *parental scaffolding* where parents directly helped the children to overcome the various challenges they experienced. For example, parents for children under 7 reported that they need to help children initiate the phone call by dialing the number and even prepping the remote family members before handing off to the children. Parents would monitor the child's conversation progress closely and would step in when breakdowns were occurring. For

example, it was very common for parents or family members of younger children to hold the phone in the correct posture (see Fig. 2). Similarly, when children started to gesture, parents would remind them that the other party couldn't see them.

Figure 2. Parental scaffolding is a common way to overcome various issues. Here are two examples of family members holding the phone for the child to help them speak clearly into the microphone.

To overcome the social challenges we saw a variety of strategies. Some families would prepare for an upcoming conversation by posing questions like: "What do you want to tell grandma today?" This would allow them to discuss potential topics and prime the children for a successful call. Additionally, we saw a lot of instances where parents would prompt children with things to say during the conversation. Here is an example from a 3 year old boy.

> Son (talking on the phone): *"Christmas!"*
> Mother: *"Say cars"*
> Son: *"Cars"*
> (Son begins kissing the phone speaker)
> Mother: *"Say bye-bye Ti-Ti"*
> Son: *"bye-bye Ti-Ti"*
> Mother: *"Say we love you... we love you"*
> (Mother reaches for the phone to make sure the son doesn't hang up)
> Son: *"love you"*
> (Son abruptly closes the clam-shell phone, hanging up the call)

To overcome the attentional challenges, we saw an interesting trend of remote relatives using silliness to engage the children in the conversation. For example, one set of grandparents would ask deliberately wrong questions to provoke their grandchild into conversation.

> *It's the typical thing, you say something totally inaccurate and Kate says "No!...I'm 5!" So you can tell they're saying "I hear you're turning 26." or "I hear you lost a finger." "No, a tooth!" And then you can get them starting talking.*

Silliness seemed to improve enjoyment from both sides of the conversation as well as leading to generally longer phone encounters between children and grandparents. In general, adults engage with children through play (not "conversation"). While phones are accessible and ubiquitous, it is not obvious how to "play" with someone over a phone.

THE EMERGENCE OF VIDEO CONFERENCING

Some families in the first study used Skype or iChat for children and remotely located grandparents to communicate. We took the opportunity to interview a total of seven families who used home videoconferencing and observe a videocall [6].

Home videoconferencing allowed the families we studied to overcome many of the challenges of phone conversation. The primary advantages to grandparents are that children are willing to videoconference for much longer than they are willing to talk on the telephone, and that videochat is more enjoyable. This enables grandparents to keep up their relationship with their child in a way that can be hard over the phone. To form relationships with young children, conversation is not successful in itself: families must be able to play together.

Play is supported by the physicality video allows, including richer physical expression through facial expressions and body language. Physicality manifests itself in several ways: children use the video camera to show-and-tell their new lunchbox - or lizard, or rocks, or nightlight. Others take advantage of the opportunities for performance: we saw grandchildren singing songs or playing the trumpet to perform for appreciative grandparents. We witnessed many "skype kisses", where family members leaned towards the camera and made kissing sounds and gestures (sometimes including family pets). Less formal performance also occurred: we saw children being told off by their parents for 'acting out' for the camera. Video heightens shared context and provides opportunities for social interaction around the situation; the visual awareness also affords different conversation topics where users can show rather than tell.

> Grandfather: *"What's that on your cheek?"*
> Granddaughter: *"It's an ice cream, we went to the carnival"*
> (referring to her fake tattoo)

The third aspect of interest is the role of groups. The videocalls we observed frequently at least began as group activities, with the

whole family assembling in a group in front of the screen, as if for a family portrait. This provided opportunities for parental scaffolding in a variety of ways: making sure children stayed within the field of view of the camera, prompting questions, or even fixing the children's hair in the "mirror" provided by the local video feed.

While videoconferencing provided these (and other) advantages, it also has significant problems. The first and most apparent is the technical work that needs to go into using a video call. We saw families rebooting computers and routers at both end of the conversation, coordinating by (reliable) cellphone to connect by (unreliable) video conferencing. Bandwidth is scarce: one thirteen-year-old was scolded by her parents for trying to download a large file (a demo version of a game) while the family was trying to videoconference. In addition, it was often necessary for the most technically savvy member of the family to set up the videoconferencing system in the first place, typically while on a visit such as Christmas or Thanksgiving. There was also a significant amount of social work that went into videoconferencing. For example, one grandparent would always put on her jewelry before a call; another family hypothesized that they would never be able to videochat with one of their grandparents because she was ashamed of her cluttered and messy house.

Video provides more opportunities to play, including showing (not telling) things or skills, the ease of sharing the communication with multiple parties, and a greater sense of shared perspective. However, the technical challenges of videoconferencing could hinder this, as video chat tended to be a more precious, and thus more formal, affair.

CONCLUSION

Given these findings, we provide the following takeways for the design of family communication interfaces for children.

Modify the rules of exchange: Make communication more simple and easier to initiate. Interfaces should also elicit sharing or storytelling and support building connections through interactive play (not just conversation).

Replace the one-to-one communication model: Interfaces for family communication are likely not going to be used by the child in isolation, we should design these interfaces to be used collaboratively with child and parent together enabling a shared group communication exchange.

Make interactions more engaging: Technologies need to provide opportunities for silliness to help keep children engaged. Some family members are naturally silly, while others may need some support through prompting or assistance of fictional characters that are familiar to the children.

Although video conferencing is a promising development in improving family communications, it is clearly only one point in the design space. It is probably part of the answer, but not the only answer. We should learn from its successes to explore new interfaces with different properties. For example, what might an asynchronous media sharing interface look like? How can tangible interfaces [5] help support children's needs? We plan to explore these new interfaces for family communication as a part of future work.

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Exhibit 5

Joanne Catherine Tarasuik, Roslyn Galligan, and Jordy Kaufman, Almost Being There: Video Communication with Young Children (2011)

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Almost Being There: Video Communication with Young Children

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Abstract

Background: Video communication is increasingly used to connect people around the world. This includes connecting young children with their parents and other relatives during times of separation. An important issue is the extent to which video communication with children can approximate a physical presence such that familial relationships can be truly maintained by this means.

Methodology/Principal Findings: The current study employed an adaptation of the Separation and Reunion Paradigm with children (17 months to 5 years) to investigate the potential for video communication with a parent to afford a sense of proximity and security to children. The protocol involved a free-play session with the parent, followed by two separation-reunion episodes. During one of the separation episodes the parent was 'virtually available' to the child via a video link. Our results revealed three important differences. First, children left alone played longer in a strange room when their parent was virtually available to them compared to when the children were left alone with neither physical nor video contact with their parent. Second, younger participants sought physical contact with their parent less at the end of the video separation episode compared to when they were left entirely alone. Finally, the comparison between free play with video and free play with parent, revealed that the children exhibit a similar level of interactivity with their parent by video as they did in person.

Conclusions/Significance: For young children a video connection can have many of the same effects as a physical presence. This is a significant finding as it is the first such empirical demonstration and indicates considerable promise in video communication as a tool to maintain family relationships when physical presence is not possible.

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Introduction

Since Bowlby [1] first introduced attachment theory, it has been accepted that physical proximity is necessary for young children to form and maintain a secure attachment with an adult. The notion that physical proximity is necessary for attachment seemed obvious (if not tautological) since a sufficient degree of interactivity seemed necessary for a child to form a close relationship with another person, and there was no modality for inter-activity other than physical proximity. The apparent case that physical presence is needed is strengthened by previous research indicating that young children have difficulties with traditional telephone conversations [2]. Now, with video communication, it is feasible for people to have real-time enriched communication without physical proximity. This interaction opportunity raises important and interesting questions about the extent, if at all, to which virtual proximity is enough for young children to maintain or possibly create relationships and establish a feeling of security with others.

Communication via the internet is a particularly popular means of maintaining contact with family members. In a recent survey of online users, almost half of over 6000 respondents indicated that the internet has improved relationships with their family overall, with 42% reporting that they had engaged in video communication with family or friends [3]. With more than 443 million active members of just one internet communication service [4], the popularity of this phenomenon for adults in society is undeniable.

Video communication is also increasingly prevalent in connecting young children and their relatives. Encouraging and supporting such interactions has been the development of purpose-built internet software and the marketing of specially designed devices [5]. A number of popular media reports attest to the burgeoning popularity of video communication for this purpose [6–8].

Advances in technology are often credited with dramatic social changes with potentially widespread (and often unpredictable and/or negative) effects on children's psychological and physical development [e.g. 9,10]. Presumably, this is partially due to a shift away from patterns of behavior established over periods measurable in evolutionary time. Arguably however, video communication permits a greater amount of intergenerational contact more akin to what our forebears experienced than what is typical in modern society. Indeed, Western societies experienced pronounced changes in family and living arrangements during the 20th century [11], and in today's society family members are

often geographically separated [12,13]. Many grandparents, for example, do not reside in close proximity to their grandchildren, and have limited face-to-face contact due to time and monetary restraints [14]. Research indicates that grandparent-grandchild relationships are beneficial and important for both generations [For a review see 15] and for those that are geographically separated, video communication may make such relationships possible.

Of potentially greater relevance to the focus of this paper, children are also separated from their parents for a variety of reasons. Almost half of divorces involve children, and more than half of young children (<5 years) from separated families see their non-custodial parent less than once a fortnight [12]. Extensive business travel also separates many families [16] as do the 'Fly-in Fly-out' work practices that are increasingly being implemented within the mining industry [17]. Longer-term separations can also arise when a parent is on a military tour of duty. With hundreds of thousands of Military Personnel from the US alone on Active Duty in foreign Countries [18] an increasing number of children await their parent's return, just to see them leave once again [19]. Furthermore, through the incarceration of a parent, many children are also separated from their mother [20] and/or father [21], and often for considerable periods of time. With many custodians unable or unwilling to take young children into the prison environment, a considerable number of these children have little or no contact with their incarcerated parent [22].

During such times of separation, video communication may provide these young children with the connection to their parent(s) and assist the children by psychologically lessening the distance caused by geographical separation.

Video communication is a seemingly rich experience, however a large body of research exists illustrating that young children treat people on video differently than people that they see face-to-face [E.G 23], and therefore it is important to establish the extent to which children that engage in video communication with someone that they have an emotional bond to, such as their parent, behave as if they are proximal to that person during the interaction. The answer to this question will provide insight into the potential of video communication as a means of establishing and maintaining relationships between young children and absent parents. Significant similarities in how children react emotionally to a virtual and physical presence would be suggestive of such potential. In contrast, if children respond to a virtual connection as if the children were physically alone, then maintaining relationships with children via video would be problematic at best.

Our experimentation strategy involved a modified version of the Separation and Reunion Paradigm [24]. Such paradigms have been used for decades to examine the behavior of children when they are separated from their parent [25], and can therefore be employed to investigate if a child feels separated from their parent when they are physically alone, but virtually connected via a video link. Establishing whether a virtual connection to their parent attenuates typical separation behaviors in a child will be an initial step in determining the extent to which the virtual connection can serve as a proxy for physical presence. We expected that for children as young as 17 months-of-age, the presence of their parent by video link would have effects similar to having a parent physically present. Therefore we hypothesized that children would remain content to be alone in the room for longer if their parent was virtually available to them and that children would use the virtual presence of their parent as a secure base for exploration [1,24]. Children were also expected to behave differently during the reunion if they had virtual access to their parent during the separation and would be less inclined to seek comfort from or close proximity to their parent than when they did not have contact during the separation.

Conversely, an alternative hypothesis was that the presence of the parent via the video link would serve only as a reminder to the child that their parent was not actually present, and that children of some ages would find the virtual presence of their parent distressing rather than reassuring. This later hypothesis reflects previous research findings that demonstrate that toddlers treat face-to-face and online interaction differently [23].

Materials and Methods

Apparatus and Materials

The experiment was conducted in two adjoining lab spaces; a playroom and a computer room. A 175 cm×300 cm lab was set up as the play room and contained a couch and age appropriate toys including a drawing easel and pens, blocks, a train set and soft toys. The computer monitor sat on a shelf 1 m high positioned across the front wall with the computer box located out of reach of the children. An Ethernet cable connected the computer in the play room to a computer in the next room.

Three cameras were positioned within the play room: Camera A was attached to the wall in the back left corner of the room, behind the couch; Camera B was attached to the couch arm in the back right corner of the room; and Camera C was attached to the computer monitor. See Figure 1(a). The video communication sessions were accomplished and recorded using the Apple Inc. software application iChat. The picture-in-picture feature was activated, resulting in the parent's webcam footage occupying the full screen of the playroom monitor with the playroom webcam footage presented in a small box in the top right corner of the monitor and the reverse on the parent's computer monitor. See Figure 1(b).

A sub-set of participants (n = 28) completed a questionnaire based on the Attachment Q Set (Waters, 1995). The questionnaire asked parents to rank on a 5 point Likert scale (−1, −.5, 0, +.5, +1) ranging from −1 = "not at all like my child", to 1 = Very much like my child, the degree to which statements (borrowed from the Attachment Q Set cards), are generally characteristic of their child. For the current study only the specific behavioral characteristic that would be most descriptive of the prototypically secure child, have been considered and a *security score* was obtained by averaging those item scores. Comparable to the Q Set scoring, a score of +1 would reflect a perfect positive correlation to a prototypically secure child whereas a score of −1 would reflect a perfect negative correlation to a prototypically secure child. Positive scores would therefore indicate a child is securely attached. Results for the subset of participants whose parent completed this questionnaire revealed that all security scores corresponded to that of a secure child ($M = .40$, $SD = .21$). The findings of the current study are likely reflective only of securely attached children.

Participants

Forty-five children participated in the experiment, however, as a result of technical problems in our apparatus four participants have been excluded from the analysis. Participants included in the analysis were 41 children aged 16.9–64.8 months ($M = 35.2$, $SD = 14.3$), including 21 females and 20 males. Ten children were aged 17 months <2 years, 7 were aged 2<2.5 years, 8 were aged 2.5<3 years, 8 were aged 3 years, 6 were aged 4 years and 3 were aged 5 years. The majority of children (85%) participated with their mother rather than their father. Participants were recruited through various avenues including advertisements online and in newsletters, and word-of-mouth referrals.

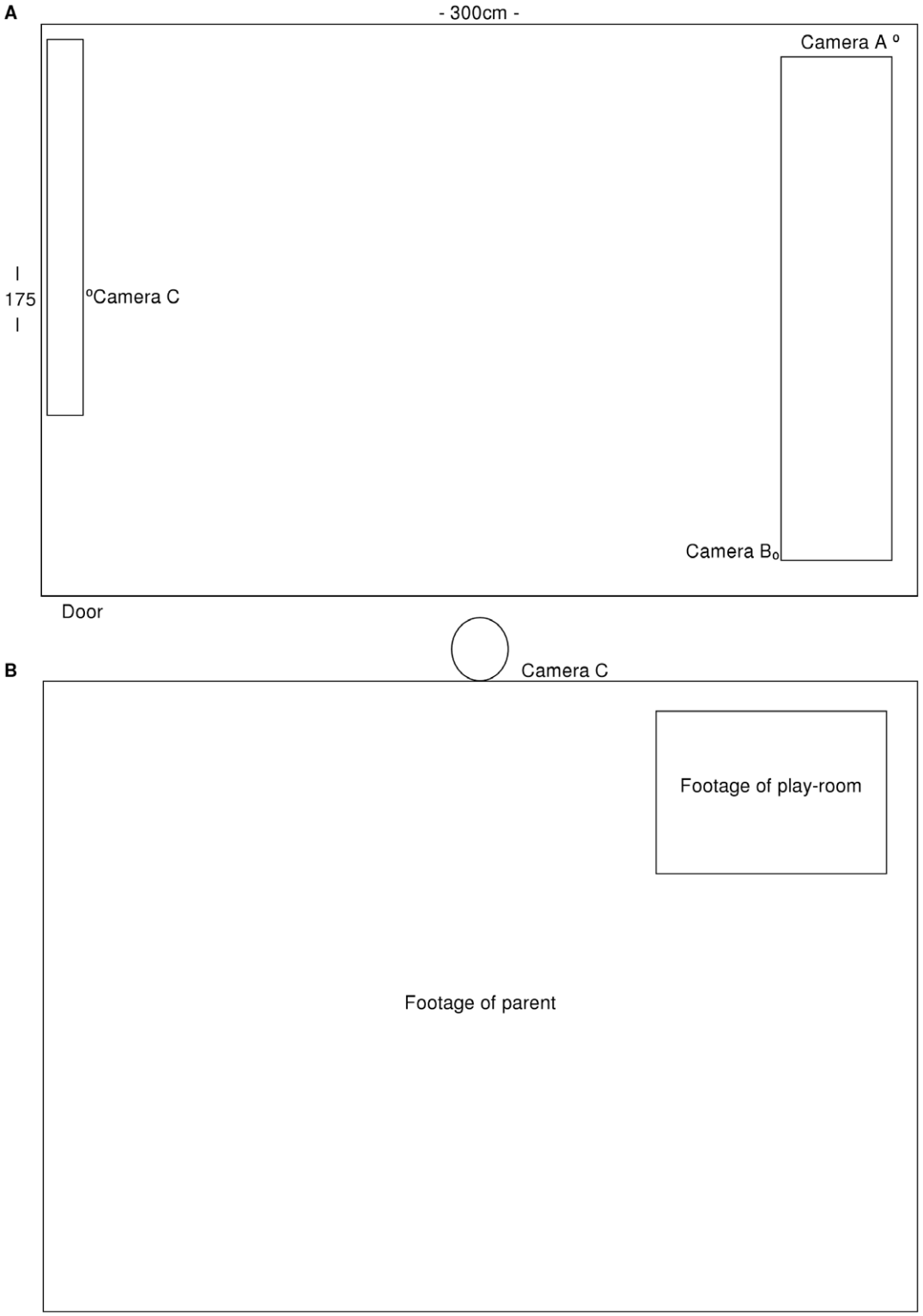

Figure 1. The physical arrangement of the playroom (A). Camera C was attached the computer monitor through which the video communication occurred (B).
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Procedure

Each parent-child dyad participated in a separation and reunion protocol, which was based on that used previously by Ainsworth, Bell and Stayton [24]. The current protocol involved a free-play session followed by two separation-reunion episodes. During one of the separation episodes the parent was 'virtually present' to the child via a video link, allowing audio and visual real-time interaction. This will be termed the *Video separation episode*, and

was counter-balanced to occur during either Separation 1 or Separation 2.

Free-play session. The parent and child were left alone in the play room for 10 minutes with no instructions other than to interact normally, and that the researcher would return after 10 minutes.

Video separation episode. The researcher entered the play room and asked the parent for their assistance in another room. The parent told their child that they would return soon and left the room. The researcher then took the parent into the next room from where they could communicate via the video link with their child. The parent was not provided with any further instructions and left to interact with their child via the video link for up to five minutes, or until the child showed signs of distress. The parent then returned to the playroom for the reunion episode.

Reunion episode 1. The parent returned to the play room without any further instructions. The reunion episode lasted five minutes before the researcher again entered the room and used the same instructions as before to facilitate the second separation episode.

Non-video separation episode. This episode was the same as the *Video separation episode* except that the child could not see or hear the parent. However the parent could see and hear the child.

Reunion episode 2. The parent returned to the play room without any further instructions. This episode lasted five minutes before the researcher then entered the room to conclude the session.

Coding

Separation Episodes. From the video recordings of the episodes, the measure *contentment duration* was calculated to indicate the period of time that the child was content to be physically alone in the playroom, with and without virtual access to their parent via the video link. This was defined as the period of time (in seconds) that the child was physically alone in the room until they began to cry and continued crying for 10 seconds, or tried to leave the room. This variable had a maximum value of 300 seconds, as this was the maximum duration of each separation episode.

Reunion Episodes. To compare the reunion episodes following the video and non-video separation episodes, a *proximity* variable was created, noting whether or not the child moved towards the parent when they entered the room after each separation. This variable was only investigated in children under 3 years of age, as proximity seeking behavior is normal for such children and less usual for older children in Phase 4 of the development of attachment [1].

Comparison Across Episodes. To investigate the amount of time that the child played with toys and/or interacted with their parent, each 10 second period of the free-play, the video separation and the non-video separation episodes were coded. Only the first five minutes (I.e. 300 seconds) of the free-play session was coded to allow comparisons to be drawn between the free-play session and the separation episodes. Thus there were thirty 10-second intervals in each of the three periods (or less in the cases when the child remained in the room for less than the full 300 seconds of the separation episode).

Using the results of the 10-second interval coding the *play* criterion and the *interaction* criterion were defined as the number of 10-second periods during which the participant touched/played with the toys or otherwise interacted with their parent, respectively. The maximum score for any episode was 30. Variables were also computed to investigate the percentage of each episode that participants played, and percentage of each episode that participants interacted with their parent, since separation episodes were not all of equal duration. For example if a child played for 15 of the thirty 10-second intervals for which the child was in the room, the play percentage was 50%.

Inter-rater Reliability. Cohen's Kappa was computed to determine inter-rater reliability for *proximity* ($\kappa = .77$, $p < .001$), and *play* ($\kappa = .72$, $p < .001$) with 40% of cases. Additionally there was an inter-coder correlation of 99% on *contentment duration* ($p < .001$).

Results

Preliminary statistical analyses indicated that the child's gender and previous video communication experience did not have any effects on the dependant variables. Therefore these variables have been eliminated from further analysis. Individual participant data can be found as Data S1.

Table 1 shows the median values of behavioral indicators for each episode, and results of statistical tests. All cases where participants were distresses immediately on separation, and thus the episode was terminated, are treated as having a duration of zero. Analyses where these cases were counted as missing did not alter the pattern of results.

The duration of contentment showed a marked difference across the two separation conditions with participants content to remain separated from their parent for significantly longer during the video separation episode compared to the non-video separation episode. In entirety, 85% of the participants were content for the whole video separation interval; whereas only 37% remained content when there was not a video link available.

We compared the amount of time that participants played during the free-play session, the video separation episode, and the non-video separation episode. A Friedman test indicated these conditions differed, $\chi^2(2,\ n = 41) = 35.86$, $p < .001$. Median values showed that participants played most during the free-play session, followed by the video separation episode and least during the non-video separation episode. Further planned comparisons using Wilcoxon Signed Ranks tests indicated that participants played significantly more during the free-play episode than during either the video or non-video separation episodes, and participants played significantly more during the video separation episode than during the non-video separation episode.

To control for the differences in the amount of time that participants remained in the room across the free-play and the two separation episodes, the percentage of time periods during which participants played while they were in the room was compared across conditions. A Friedman test showed that the percentage of time spent playing varied significantly, $\chi^2(2,\ n = 41) = 35.58$, $p < .001$. Median values showed that participants played for the greatest percentage of time during the free-play session, whereas they played for only about half the time in both separation episodes. Further planned comparisons indicated that participants played significantly more during the free-play episode than both the video and non-video separation episodes, however the separation episodes did not significantly differ.

Comparing the amount of time that participants spent interacting with their parent during the free-play and video separation episode showed that participants interacted to the same degree with their parent during the video separation episode as the free-play episode.

For the children under three years-of-age, we also tested for proximity seeking behavior after each separation episode. Significantly more children of these ages moved towards their parent during the reunion that followed the non-video separation than the reunion that followed the video separation.

To examine other possible age differences Kruskal-Wallis tests were performed to compare results across different age groups

Table 1. Medians of the Behavioral Indicators for Each Episode and Results of Wilcoxon Signed Rank Tests used to compare Behaviors across Episodes.

Measure	*P- value*	Condition	*Mdn*	*Z*
Duration of contentment	<.001	Video separation episode	300 sec	−3.81
		Non-video separation episode	79 sec	
Amount of play	<.001	Free-play episode	28 periods	−4.42
		Video separation episode	12 periods	
Amount of play	<.001	Free-play episode	28 periods	−5.26
		Non-video separation episode	4 periods	
Amount of play	<.001	Video chat separation episode	12 periods	−3.20
		Non-video separation episode	4 periods	
Percentage of play	<.001	Free-play episode	97%	−4.89
		Video separation episode	40%	
Percentage of play	<.001	Free-play episode	97%	−5.08
		Non-video separation episode	50%	
Percentage of play	.46	Video chat separation episode	40%	−0.74
		Non-video separation episode	50%	
Amount of interaction	.02	Free-play episode	27 periods	−2.4
		Video separation episode	24 periods	
Percentage of interaction	.162	Free-play episode	87%	−1.40
		Video separation episode	87%	
Proximity (Age <3yrs old)	.034	Non-video separation reunion	41.2%	−2.121
		Video separation reunion	5.9%	
Continued for the entire 300 s of the video separation episode	.033	Participants aged 2<2.5 yrs	42.9%	−2.135
		Participants not aged 2<2.5 yrs	82.4%	

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(Gp1, $n = 10$: 1.5<2 years, Gp2, $n = 7$: 2<2.5 years, Gp3, $n = 7$: 2.5<3 years, Gp4, $n = 7$: 3<4 years, Gp5, $n = 9$: 4<6 years). No significant age differences were found for three of the variables: the percentage of interaction during the video separation episode; the difference in contentment duration between the video and non-video separation episodes; and the duration of contentment for the non-video separation episode.

Age groups differed significantly on *duration of contentment* for the video separation episode, $\chi^2(4,\ n = 41) = 10.531$, $p = .032$. The 3<4 year-old and the 4<5 year-old participants were content equally for the longest period of time ($Md = 300$ s) and the 2<2.5 year-old participants were content for the shortest period of time ($Md = 70$ s). See Figure 2.

Moreover, there was a significant difference across age groups in the number of participants who were content for the entire 300 seconds of the video separation, $\chi^2(4,\ n = 41) = 10.676$, $p = .030$. The 3<4 year-old and the 4<5 year-old participants were most likely to continue for the entire 300 seconds and the 2<2.5 year-old participants were the least likely.

Discussion

The fundamental contribution of this research is the discovery that a parental presence via video link is sufficient to allow young children to feel secure in an unfamiliar environment. This empirical verification is crucial in considering the potential of video communication to play a role in the maintenance or formation of secure attachments.

Our conclusions are based on four measures of child behavior: duration of contentment, interaction with the parent, engagement in play, and response to reunion, all of which are common indices of attachment security [24].

Firstly, we consider duration of contentment, as that is arguably the most direct measure of how secure our participants felt when they were in the room. Children of all ages were content to be alone without a parent physically present significantly longer in the video separation than the non-video separation episode. Further, a greater percentage of children were content for the entire five-minute video separation than non-video separation. Interestingly almost all of the participants that did not remain content for the entire five minutes of the separation, showed signs of distress within two minutes of their parent leaving the room. Despite the brevity of the separations, it is probable that provided the opportunity, the content participants would have remained content far beyond the given five minutes, however future studies should address this question.

Secondly, our interaction measures revealed that children interacted slightly (though not significantly) more with their parent during the time that the parent was in the room than during the video separation episode. Notably however, there was no significant difference between the two episodes in the percentage of time that children interacted with parents. Thus, when children were content in the room they interacted with their parent as much in the video separation as they did when the parent was actually present. This is important because it suggests significant similarities between the quality of the virtual presence compared with real presence.

Thirdly, play was also an important measure in our study as it is an indicator of the extent to which a virtual parental presence can

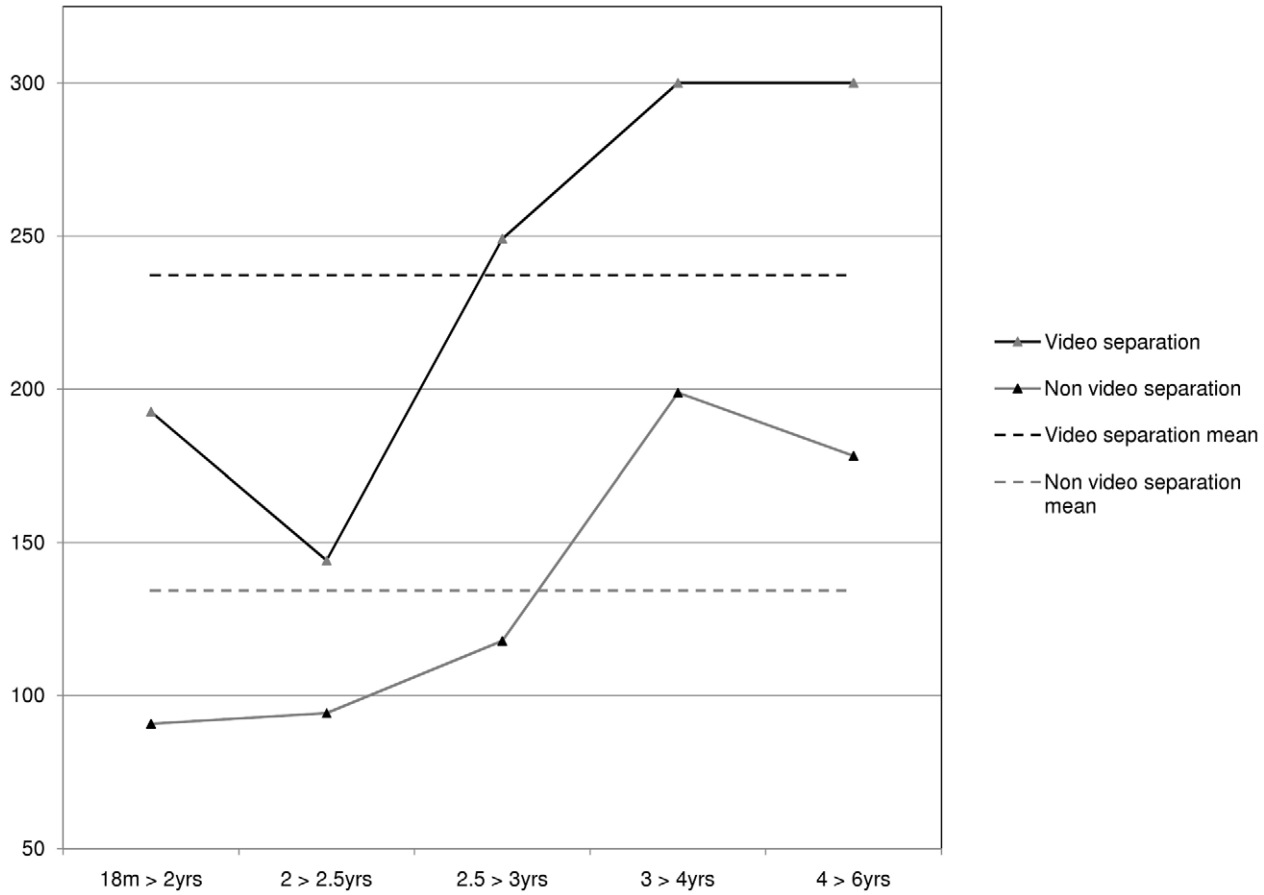

Figure 2. Age differences of the duration of contentment (in seconds) during the separation episodes.
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substitute for a physical secure base for exploration. Results indicated that children across all ages played for longer during the video separation than the non-video separation. However this result may arise, at least in part, because children could only play for the duration that they were in the room. Children who are content longer will have more time to play in the room and thus did so. Conversely, children who feel secure enough to use the video as a secure base for exploration will also be likely to stay in the room longer (and consequently play for longer).

In an attempt to partially control for duration of contentment we compared the percentage of time that they played for while they were content to be in the room. However, results revealed that children only played for about half of the time that they were in the room during both separations compared to when they were present with their parent. The failure to find differences in percentage of play between the video separation episode and the non-video separation episode may, however, be due to other differences in the nature of interaction in these two separation episodes.

Furthermore, the interaction measure should be considered in any interpretation of how much children played. Since video communication is still a relatively unusual activity in most households, the novelty of talking to a parent over a video link could be interpreted as "play" for many children. This might explain why the play percentage was not higher in the video separation condition than the non-video condition. That is, the play measure may be underestimating play during the video separation episode since we did not include video interaction with their parent within the measure play. Collapsing across interaction and play measures may be considered an option to overcome this discrepancy, however this variable would not allow comparison with the non video separation as there was no opportunity for interaction during that episode.

Additionally, there may be subtleties of how one interacts, plays and talks with a parent when they are actually present rather than virtually present that accounts for differences in play between these conditions. When playing and interacting within the presence of the parent, a child can interact, talk and play simultaneously and can readily assume that their parent is watching them. However, during the video separation, children may have paused more often in their play to turn and look at their parent on the monitor to interact with them. This may be especially so when children are not familiar with this medium, or when the video separation is occurring in a strange situation.

Finally, observations of the reunions demonstrated that the younger participants (under 3 years), were significantly more likely to move to contact their parent following the non-video separation than the video separation. This result is consistent with the literature that suggests that a child tends to seek proximity when attachment behavior is intensely activated [26], and that the non-video separation appears to have activated this behavior in the younger participants.

In sum, our results form compelling evidence that a parent's virtual presence is sufficient to increase the level of security felt by young children with pre-existing strong attachments in an unfamiliar environment. This is an important finding as it suggests

that relationships between children and their parents could benefit from video communication when face-to-face contact is not possible.

It is conceivably possible that some children were happier during virtual communication because they were distracted from their separation by the novelty of talking to a parent via video. Although studies are underway to assess this possibility, it is important to note that a video of a person could also remind the child of the person's absence, rather than distract them from it. To some extent, the novelty issue was addressed through our analysis of the children's prior experiences with video communication. Children with less video communication experience would arguably be more likely to be subject to such a "novelty effect." However, our results did not reveal effects of previous video communication experience on any dependent variable.

However, as video communication becomes more commonplace in society the role of prior experience with this medium may change, particularly if children are exposed to video communication at a very early age. These children may develop a level of expertise that allows them to better understand the precise extent to which a video can stand in for an actual person and where it suffers limitations. This might affect results in studies such as ours by attenuating the effect of age on duration contentment, or how play and interaction with the parent is negotiated via video. Investigation of which aspects of this communication medium are the most beneficial or problematic for young children is also required. As previous research has shown that young children have difficulties with traditional telephone conversations [2], it would be beneficial to extend the current protocol to investigate differences in a child's behavior with the availability of their parent via a video link compared to an audio stream and compared to actual presence. Future studies should also include children younger than those included in the present study, and also involve extended relatives rather than parents. Numerous anecdotal accounts report babies being introduced to absent grandparents and parents from an early age with regular interactions occurring via video link [8]. Many other such questions remain to be answered on how children negotiate and use this virtual medium when it has always been part of their life, and how it enables them to develop and maintain relationships with important others.

The study described here investigates the developmental effects of a relatively new technology, but somewhat ironically its usage has the potential to bring us closer to societal norms that existed in the past. Whereas only a few decades ago multiple generations often lived under one roof (or at least within the same neighborhood), extended families are increasingly separated by large distances so face-to-face contact is limited [11]. The evidence presented in this paper indicates that these video episodes may be sufficient for interaction that is meaningful to a young child. Continuing forward, researchers must ecologically determine if video communication provides a "real enough" experience to maintain relationships during longer-term separations, and ascertain the unrealized benefits to the children and parents, and potentially other members of the extended family. Our research paves the way for future studies that examine more directly the impact of video communication with children who may otherwise feel completely separated from relatives during times of physical absence.

Supporting Information

Data S1 Supporting data.
(XLS)

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Author Contributions

Conceived and designed the experiments: JK JT. Performed the experiments: JT. Analyzed the data: JT JK RG. Wrote the manuscript: JT JK RG.

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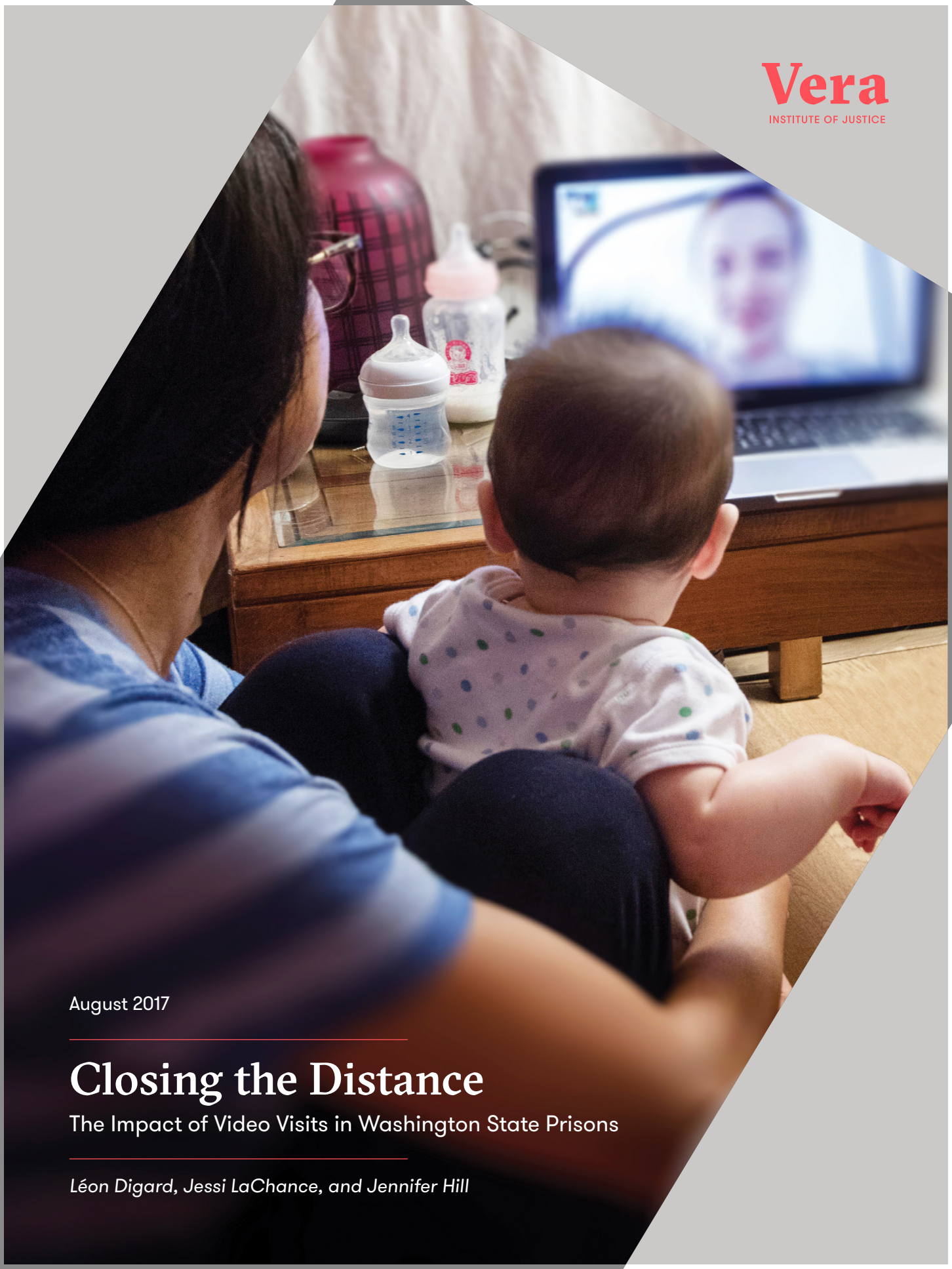
Exhibit 6

Léon Digard, Jessi LaChance, and Jennifer Hill, Closing the Distance: The Impact of Video Visits in Washington State Prisons (August 2017)



Vera
INSTITUTE OF JUSTICE

August 2017

Closing the Distance

The Impact of Video Visits in Washington State Prisons

Léon Digard, Jessi LaChance, and Jennifer Hill

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From the Director

Research has shown that continued connection to family and friends is a critical factor in incarcerated people's successful post-prison outcomes. Because many prisons around the country are in remote locations, far from the communities where the majority of incarcerated people live, in-person visits present often-insurmountable logistical and financial challenges. For corrections officials looking to keep those in prison in touch with those in the community, video visiting offers a new route. Given its ability to bridge physical separation, this technology lends itself to addressing the difficulties incarcerated people and their loved ones in the community face to keep in touch.

In 2016, the Vera Institute of Justice (Vera) published a national study of state corrections systems' adoption of video telephony as a way to visit incarcerated people. The study found that many state prison systems were weary of adopting video visiting, given security concerns and implementation costs. One early adopter of the technology was the Washington State Department of Corrections, which introduced video visiting using computers in its prisons in 2014.

The current study examines the impact of video visiting in Washington on incarcerated people's in-prison behavior and analyzes their experience of the service. The principle finding was that using the service had a positive impact on the number of in-person visits the video visit users received. In at least one significant sense, the findings follow what we know about the digital divide: Younger people tended to adopt the new technology more than older people. And video visit users also had the most in-person visits both before and after introduction of the service, suggesting that those with strong social bonds tend to sustain them in as many ways as possible. Vera's researchers found no significant correlation between video visiting and people's in-prison behavior, as measured by the number of infractions they committed during the period under study.

Overall, the analysis drew a sobering big picture: Nearly half of the people in Washington's prisons do not have visitors of any kind. And those who do don't have many. One factor was constant across sub-groups: The distance from home had a negative effect on visiting. Travel is expensive and time-consuming; video calls, while cheaper, cost more than a lot of people can spend and are rife with technical glitches. Those who used the service despite its costs and limitations told poignant stories of its benefits: the opportunity for parents and children to bond; the possibility for people in prison to show their families and friends that they are doing well; the chance to talk in a setting less stressful than a prison.

Given the importance of sustained human ties for people reentering the community from prison, it behooves corrections officials and policymakers to devote ongoing attention to promoting successful family and community ties while reducing the factors that strain these vital connections.

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Director, Center on Sentencing and Corrections
Vera Institute of Justice

Contents

Introduction

Of the many difficulties incarcerated people face, losing contact with loved ones may be among the most damaging. Research has shown that maintaining community ties can improve their health and well-being, decrease their sense of isolation, reduce symptoms of anxiety and stress, and improve their feelings of control and involvement in family life.[1] Furthermore, research suggests that receiving any visit at all during incarceration reduces the risk of someone committing a new offense or violating conditions of parole when they are released.[2] Thus, visits with loved ones form a lifeline to the outside world for incarcerated people and help pave the way back into society. As the number of visits a person receives increases, so do their chances of success in the community.[3]

One of the most significant barriers to prison visits may be the long distances visitors generally have to travel to the facilities where their loved ones are incarcerated.

Despite the value of in-person visits, people in prison receive few. A survey conducted in 2003 and 2004 by the federal Bureau of Justice Statistics (BJS) showed that in any given month, nearly 70 percent of incarcerated people in state prisons had no visitors.[4] There are many reasons why loved ones do not or cannot visit incarcerated people, including the financial strain (such as the cost of travel, missed workdays, and childcare); rules and regulations governing visits (such as ID requirements, limited visiting hours, and background checks); and the anxiety-producing experience of enduring metal detectors and personal searches.[5] One of the most significant barriers to prison visits may be the long distances visitors generally have to travel to the facilities where their loved ones are incarcerated. According to the same survey by BJS, approximately 63 percent of state prison inmates were held over 100 miles from their residence at arrest.[6]

More recently, departments of corrections have been turning to computer-based video technology to try to ameliorate the burden of those distances and create opportunities for families to stay in touch with incarcerated loved ones. However, opinions about the value of video visiting to date are mixed. Some corrections professionals and advocates for incarcerated people have expressed concern that the technology may replace in-person visits—an outcome that could have negative impacts on both incarcerated people and their loved ones in the community.[7] In many local jail systems, those fears have been realized: they have eliminated in-person visits in favor of on-site video links.[8]

In 2016, the Vera Institute of Justice (Vera) reported on the availability of video visitation in state prisons, and the process and cost of implementing the system by one recent adopter: the Washington Department of Corrections (WADOC).[9] Vera's research showed that, at the time of implementation in 2014, Washington was one of 15 state corrections agencies deploying this technology. WADOC reported that it did not intend video visits to replace in-person visits, and hoped that, by enabling more sustained contact between incarcerated people and their loved ones, the introduction of video visits might even increase in-person visit rates. Video calls to people incarcerated in Washington State prisons are made by pre-approved visitors using a home computer or public terminals set up in the community. (At the time of the study, video calls were not available via smartphones or tablets.)

A private vendor, JPay, provides the service. Washington's decision to provide video visits to increase contact opportunities for incarcerated people seemed prudent in its attempt to address the needs of a geographically dispersed population: 50 percent of respondents to a survey Vera conducted of people incarcerated in Washington State prisons in 2014 were in facilities at least 129 miles from their home communities.[10]

Since the publication of that survey's findings, Vera's researchers have been studying the use of video visits in Washington State prisons to understand whether it is successfully providing a means for incarcerated people to contact loved ones more regularly, and whether its use has affected the number of in-person visits that they receive. Below, Vera presents the findings of this recent study.

First, the study sought to assess who received video visits and how frequently. Next, researchers assessed whether participating in video visits affected in-person visit rates, and whether it affected incarcerated people's in-prison behavior. Interviews with incarcerated people about the experience and perceived benefits and challenges of the video visit

system supplemented the data analyses. Last, to contextualize the findings of the evaluation and to identify the unmet visitation needs of incarcerated people, the study looked at the prevalence and frequency of in-person visits across the system. While previous studies have noted that distance from home may inhibit in-person visits, Vera sought to identify the specific nature of the relationship between being housed far from home and incarcerated people's ability to maintain contact with their loved ones.[11]

Methodology

Vera set out to answer the following research questions using the methods and sources outlined below. (A detailed description of the study's methodology can be found in Appendix A.)

Did video visit use affect in-person visit rates?

To understand who received video visits in Washington State prisons, and how often they received them, Vera researchers analyzed administrative data from both WADOC and JPay. WADOC introduced video visits in its prisons gradually throughout 2013. Vera researchers identified the date on which video visitation was first made available to each incarcerated person, from a full dataset that included people incarcerated for any length of time between January 1, 2012, and November 30, 2015. To estimate the impact of using the video visit service, Vera researchers compared pre- and post-video visit implementation outcomes of service users and nonusers. For the analysis, the researchers chose all 9,217 people who were in WADOC custody for at least one year prior to and at least one year following service implementation. From this sample, the researchers identified 1,058 users of the video visit service. Under the assumption that people who rarely used the service were unlikely to be affected by it, the researchers identified a group of 459 very low users—people averaging fewer than 1.5 video visits per year during the study period—and removed them from the analysis. They also identified a group of high users, comprising those who were in the 90th percentile of service use, each receiving an average of nine or

more video visits per year. This resulted in a total sample of 8,758 people, divided into three groups: 8,159 nonusers; 488 users; and 111 high users.

The researchers compared nonusers, users, and high users of the service to identify demographic differences between the groups; Vera then used two statistical methods to estimate the impact of participating in video visits on subsequent in-person visits, while controlling for those differences—Inverse Probability of Treatment Weighting, with Difference in Differences tests (IPTW/DID) and Bayesian Additive Regression Trees (BART). Using two methods allows the researchers to have greater confidence in the findings when the results of the analyses agree. The first method, IPTW/DID, reweighted the control group so that it looked like the treatment group, and then compared changes in in-person visits over time between the groups. The second method, BART, capitalizes on a machine-learning-based approach to adjust for the sample characteristics. The BART analysis allowed the researchers to predict, for each person who had video visits, how many in-person visits they would have received if they had not participated in the program. See Appendix A for a more detailed description of these methods and the variables controlled for.

What were the strengths and weaknesses of the video visit experience?

To better understand how users of the video visit system experienced the service, Vera conducted interviews with 20 incarcerated people who had used the service within the previous month. The participants (10 men and 10 women) were asked open-ended questions about their satisfaction with the service, why they chose video visits, and their perceptions of the benefits and challenges associated with using the system.

Did video visits affect users' in-prison behavior?

Using the same sample and methods used to determine the impact of video visits on service-users' in-person visit rates, Vera researchers conducted analyses to determine whether using the service affected in-prison behavior. Researchers compared the groups to identify any significant changes between the periods of time before and after video

visits were introduced in the overall number of infractions of prison rules service users committed, the number of serious infractions (as defined by WADOC policy), or the number of general infractions they committed. To supplement these analyses, they drew upon the experiences of incarcerated people, as reflected in the 20 interviews described above.

How frequently did people have in-person visits?

To understand how often people in Washington State prisons received in-person visits and determine the extent to which long distances from home created a barrier to such visits, Vera analyzed administrative data from WADOC about all people who were incarcerated during a one-year period (11,524 people incarcerated from November 30, 2014 to November 30, 2015). The data included demographic information, home ZIP Codes, and information on in-person visits. Vera analyzed the data to describe demographic variation in visit rates and conducted statistical analyses to identify the relationship between being incarcerated far from home and in-person visit rates.

Video visitation in Washington State prisons

People incarcerated in Washington State prisons can make video visits in addition to their standard phone-call allowance, which varies by their security level. A video visit takes place at a kiosk installed in a housing-unit day room. Depending on the prison's security level, the kiosks may look like computer monitors, with a webcam and a headset for the person to speak into and listen to his or her visitor. The visit, which an approved visitor must schedule in advance, lasts 30 minutes at a cost to the person who is incarcerated of $12.95. For an additional $12.95, participants can extend the visit to an hour at the time of the call if no one else has reserved the kiosk for that time slot. While the hours during which people can access kiosks vary by prison facility, some visits take place as late as 10 p.m., substantially expanding the time for families to connect beyond in-person visiting hours. The visitor participates in the visit using any computer with Internet access and a webcam. The vendor records all video visits, which the WADOC staff can review following completion of the visit. Corrections staff can also opt to monitor the visits in real time, and can end a call immediately if they witness prohibited behaviors or interactions, such as gang signs or nudity.

The first video visitation pilot began in February 2013 at the Washington Corrections Center for Women. By June 2014, all 12 of the state's adult prison facilities offered video visitation. JPay, a private vendor that also provides prison services such as e-mail, music, and commissary accounts, operates the video visitation program. Securus Technologies, a large criminal-justice technology and prison telecommunications company, acquired JPay in July 2015.

The use of video visits and their impact on in-person visiting rates

Video visit rates

Overall use rates were low. In Vera's sample, 11.5 percent of incarcerated people (1,058) participated in at least one video visit. On average, people who used video visits had 3.6 video calls per year. However, a substantial proportion of this group could be considered very low users; the researchers averaged each person's video visits over the time the option was available to them and found that 43 percent (459) of people who tried the service made fewer than 1.5 video visits per year. Of Vera's total sample (N=9,217), only 6.5 percent (599) could therefore be considered regular users of the service. Possible reasons for the low usage rate are described below. The 459 very-low users were dropped from the impact analysis.

User demographics

The researchers observed some notable differences between nonusers, users, and high users.[12]

Table 1

Demographics

	Nonusers (n=8,159)	Users (n=488)	High users (n=111)
Average age when admitted	34 years	28 years	27 years
Black	19%	39%	43%
Member of a security threat group (a gang)	29%	54%	56%

As Table 1 shows, users of the video visit service tended to be slightly younger than nonusers when they were admitted to custody for their current sentence (though all groups had, on average, been in custody for similar lengths of time—seven years—at the time of the study). It is possible that younger people are more familiar with the technology and have greater experience and ease connecting to people through video. It is also possible that people incarcerated at a younger age are leaving behind stronger or larger social networks. Users and very high users of the system were slightly less likely to have used mental health services (14 percent and 12 percent, versus 28 percent of nonusers), were less likely to be white and more likely to be black, and were more likely to have been identified as belonging to a security threat group (a gang).

There were also clear differences in the sample members' incarceration experiences in the year prior to the introduction of video visits. (See Table 2.) Users of the service were moved between facilities more often and held, on average, further from home than nonusers. It is noteworthy that, despite these challenges, during the year prior to implementation, service users already received more in-person visits from more visitors. In the year before implementation of video visits, nonusers had an average of seven in-person visits per year, while moderate users received over double this rate of visits, averaging 15.6, and high users had an average of 19 visits. From the data available, the researchers were unable to determine the cause of these differences. It is possible that financial capacity accounted for the relationship between in-person visit rates and subsequent video visit use—that is, family members who could afford the cost of the video service were also better able to handle the expense of traveling to their loved one's facility. The higher rate of in-person visits may also

Table 2

Pre-exposure variables

	Nonusers (n=8,159)	Users (n=488)	High users (n=111)
Average number of facility moves	5.3	6.6	7.8
Weighted average distance from home (miles)	128.3	149.4	160.6
Average number of in-person visits per year	7.0	15.6	19.3
Average number of in-person visitors per year	12.4	26.8	31.6

Note: "Average number of visits" refers to the number of visit "events" that a person experienced, regardless of how many visitors were present at the same time. A "person visit" means that the same person is counted each time he or she visits during the year.

Table 3

Pre-exposure conduct

	Nonusers (n=8,159)	Users (n=488)	High users (n=111)
Average number of general infractions (all)	1.9	2.1	2.0
Average number of serious infractions	0.8	0.8	0.8
Average number of segregation infractions	0.4	0.4	0.5

indicate that users of the video service had stronger relationships with people in the community before video visits were introduced. (See "The effect of video visits on in-person visiting rates" below for more information.)

There were few meaningful differences in the average number of infractions committed by people during the year prior to service implementation. The average number of infractions, serious infractions, and infractions that resulted in a segregation sanction (commonly known as "solitary confinement") were low for all subgroups (see Table 3, above).

The effect of video visits on in-person visiting rates

Vera researchers conducted two analyses to determine whether engaging in video visits affected the number of in-person visits incarcerated people received. They used two analytic techniques to control for the differences between users and nonusers and to allow for an apples-to-apples comparison. In both analyses, users and high users of the video service saw a significant increase in the number of in-person visits they received following implementation of the service, as compared to nonusers. The IPTW/DID analyses show that use of the service resulted in a 40 percent increase in the number of in-person visits, while very high use resulted in a 49 percent increase. The results of the BART analysis were similar (finding a 48 percent increase for users and a 49 percent increase for very high users). For both users and high users, these findings held true regardless of how far from home people were incarcerated. (See Appendix B for the results of the IPTW/DID and BART.)

The video visit experience

To help understand the results of the data analyses, Vera interviewed 20 people (10 men and 10 women) incarcerated in Washington State prisons who had used the video service within the previous month. The information the interviewees provided illuminates how the system benefited users and what mechanisms might explain the increase in in-person visits Vera identified. The interviewees stressed the system's technical challenges and costs, which may account, at least in part, for the low use rates.[13]

Seeing and connecting

While Vera's data analysis suggested that users of the video visit service were already better connected to the community than nonusers, there was still a high level of need among this group for more contact with loved ones. Video visits helped ameliorate this need. Interviewees spoke expansively of the video service's benefits, and 18 of the 20 participants reported that they would continue to use it. Video visits allowed users to connect with people who would otherwise struggle to make an in-person visit because of the distance. Participants noted long travel times, gas and hotel expenses, loss of earnings, and child-care requirements as significant barriers to in-person contact. Loved ones with limited mobility or in poor health faced additional challenges to in-person visits. Indeed, one participant who was incarcerated far from home reported that, prior to his first video visit, he had not had any form of visit for 19 years.

While most interviewees preferred in-person visits to video calls, they still found the opportunity for greater contact with loved ones to be highly meaningful. Video visits allowed incarcerated parents to participate in and connect to their children's lives. One mother said that her young daughter had not recognized her at the start of in-person visits for the first few years of her incarceration. The more consistent visual contact made possible through video visits helped to relieve the estrangement: "Now she does [recognize me] and writes more and talks on the phone more." Incarcerated parents felt that opportunities to stay actively involved in their children's lives were mutually beneficial. As another woman said, "This would be harder for *both* of us without [video visits]. I get to see my little monsters

Video visits provided loved ones with visual reassurance that they were physically and emotionally well—something phone calls and letters could not do.

grow." Another participant reported that, through video visits, he could counsel and support his son, who was struggling with drug addiction.

Interviewees said that video visits were a more comfortable mode of communication for young children than phone calls. A father explained that his young daughter, who struggled to talk over the phone, had started asking questions about his prison sentence: "It's easier to answer her questions face-to-face—to look at her when I'm talking to her." Via video, he said, his daughter played while they talked and showed her father her room, toys, and drawings: "I get to see her grow." Similarly, participants noted that video visits provided loved ones with visual reassurance that they were physically and emotionally well—something phone calls and letters could not do.

Video visits built a foundation for in-person visits

Interviewees described video visits as providing a space to reconnect with loved ones that was free from many of the pressures and stresses of in-person visiting. They described in-person visits as highly important, but also as an emotionally difficult experience—especially for young children, who had to endure long travel times and who may have been overwhelmed by the noise and stress of the prison environment. The relative ease of video visits removed some of these pressures. A male interviewee said that he found in-person visits with his family to be "very emotional because they're all nice people," while he considered himself to be "the bad apple." He went on to say, "I like that video visits aren't like that—there's not enough time to go into that. It's all laughs and giggles." Video visits provided a less pressured medium through which people could relax in each other's virtual company. As one interviewee explained, "Having the opportunity to video visit can make the first in-person visit less awkward, particularly for women like me who've been separated

from their kids for a long time." Video visits created a safe space for people to strengthen their bonds before moving on to in-person visits.

Additionally, for loved ones in the community who were uncertain about visiting an incarcerated person, video visits may have been a medium for the incarcerated person to demonstrate *why* they should visit. One man said that through participation in cognitive-behavioral group therapy while in custody, he had developed as a person since he last saw his family. Video visits allowed him to communicate this to them. "Contact is important," he concluded. "I try to let people know that I've changed."

Users faced significant technical challenges

Through its 2014 survey of people incarcerated in Washington State's prisons, Vera identified high levels of dissatisfaction with both the cost and quality of the video visiting system.[14] While the interviews described here happened a year after the survey, most participants reported frequent problems with their video visits' picture and sound quality. Twelve of the 20 interviewees said they had experienced occasional or frequent problems with the picture quality: Sometimes the image would flash, sometimes it would freeze, and sometimes there would be no picture at all. Seventeen participants reported poor audio quality, with voice delays making it difficult to have a natural conversation. Interviewees said that if they lost the connection entirely, they could usually get credit toward another visit.

These technical problems were a source of great frustration and upset for the interviewed incarcerated people and their families, potentially undermining the positive aspects of the service. As one interviewee recounted, "When it didn't work, my husband told me that my son was sitting outside in the yard, totally crushed." Another explained that, "When I talk to my younger kids, sometimes they think I'm mad because I'm not saying anything, but it's because I can't hear."

The interviewees expressed dissatisfaction with the service cost, especially given the problems with its quality. As one person said, "For what we're actually getting, it's ridiculous." Nine of the 20 interviewees said that they would use the service more if it were more affordable. Nevertheless, another person concluded, "It seems pretty expensive, but it's all we've got."

In-prison behavior and video visits

While research has demonstrated the positive impact of in-person visits on post-release recidivism rates, fewer studies have questioned whether in-person visits similarly influence incarcerated people's behavior while in custody. One recent study of people incarcerated in Florida state prisons showed mixed results, including short-lived and quickly reversed decreases in infraction rates associated with the anticipation of a visit.[15]

Using the same methodology described above to identify the impact of video-visit use on in-person visit rates, Vera researchers sought to determine whether video visits affected the number of infractions people in the sample committed. The researchers conducted BART and IPTW/DID analyses to determine whether regular users of the service exhibited a change in the number of infractions they committed, the number of serious infractions they committed (as defined by WADOC policy), or the number of general, non-serious infractions during the year following the video service's implementation. Neither analysis found any significant impact of video visiting on any of the outcomes. It should be noted, however, that infraction rates were already very low for all groups prior to implementation.

Infraction rates are a narrow and limited metric with which to assess people's conduct; they do not capture increases in positive behavior. However, the interviews with incarcerated people suggest that video visits may have some positive impacts. One interviewee explained, "[Video visiting] makes you reconnect with society... Even though it's only a video, it makes you remember there's something outside of here." Other interviewees suggested that these glimpses into life outside of the prison, into the daily lives and homes of their loved ones, motivated them to improve their lives; as one participant stated, video visiting "supports my positive change, it reminds me *why* I'm trying to be a better person... even though I've got life without parole, there is still a chance for me."

Yet some participants cautioned that frustrations with video service glitches could worsen people's behavior. As one interviewee said, "When you're incarcerated and you expect something and don't get it, it can be really bad. If you let it get to you, you can end up back in [solitary confinement]."

Additional research can help to clarify the positive or negative effects of both video and in-person visits on video service users' in-prison behavior. Vera's analysis shows, as the findings below reveal, that during the study period both video visit and in-person visit rates were low throughout Washington's prison system. Furthermore, visit rates varied by the demographic characteristics of the people who were incarcerated. Because staying connected with supportive people in the community fosters good post-prison outcomes, the disparate visit rates for various groups in the Washington prison population merit further scrutiny.

In-person visits in Washington State prisons

Vera's analysis established that participating in video visits increased the number of in-person visits that incarcerated people received, but also showed that only a small proportion of the prison population used the service. To give context to these findings, Vera analyzed the statewide prevalence and frequency of in-person visits in the year following the implementation of the video visit service.

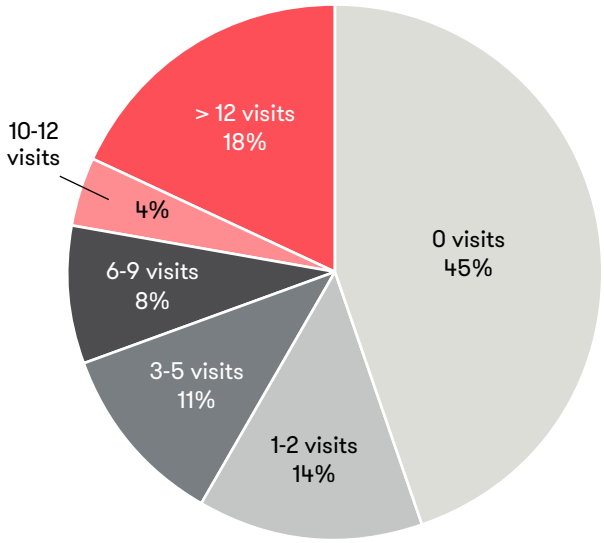
The analysis of WADOC administrative data revealed that nearly half (45 percent) of incarcerated people did not receive in-person visits during the year ending November 2015. As described below, visit rates varied: Women and people under 45 were more likely to receive visits than men and older incarcerated people. For all groups, however, the further people were held from their homes, the fewer visits they received.[16]

In-person visits, from few to none

Nearly 45 percent of people incarcerated in Washington State's prisons had no visits during the year-long study period. Of those who had in-person visits, the average number per person was between eight and nine. As Figure 1 shows, over 13 percent of the sample received one to two in-person visits, 11 percent received three to five, and 18 percent received more than 12 in-person visits during this one-year period.

Figure 1

Number of in-person visits received between November 30, 2014 and November 30, 2015



n = 11,524

Demographic disparities in visit rates

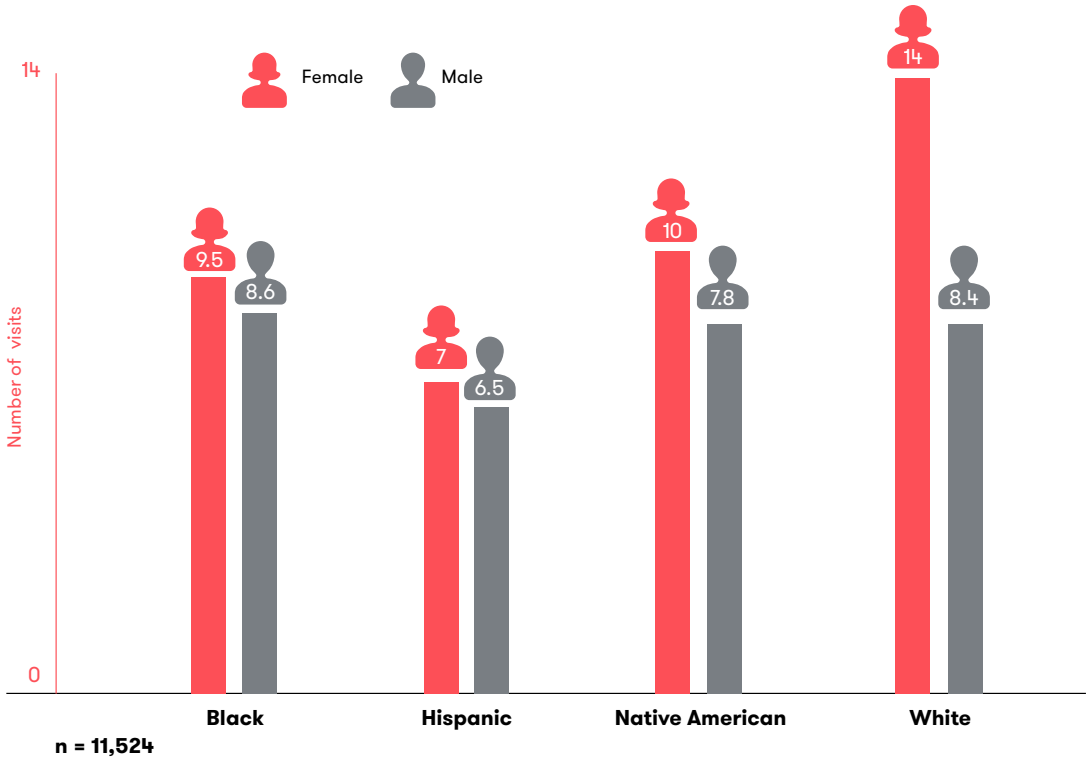
Vera analyzed the demographics of people who received in-person visits during the study period. The findings below show that many of the people who were least likely to receive video visits—such as older people or those with mental health needs—were also less likely to receive in-person visits, meaning the service was not benefiting those who needed it the most.

Women had more in-person visits than men

While 54 percent of men in the sample received visits during the year, 74 percent of the women had visits. Consistent with national trends, women received more visits on average than men—12.5 per year compared to 8.3.[17] Vera's analysis found that women received more visits than men independent of the distance they were held from their homes. However, Washington State's two women's prisons are located near Seattle and Tacoma—the state's largest and third-largest cities, respectively—making them more accessible than the more remote male facilities. Factors such as the availability of public transport or direct routes to the facilities may correlate with the number of visits people receive, in addition to physical proximity.

Figure 2

Average number of in-person visits by gender and race



n = 11,524

There were racial disparities in visiting rates among women

White women, on average, received about 14 in-person visits throughout the year, while black women received 9.5, and Hispanic women received approximately seven in-person visits. This disproportionate pattern was less pronounced for men.

Younger people received more in-person visits

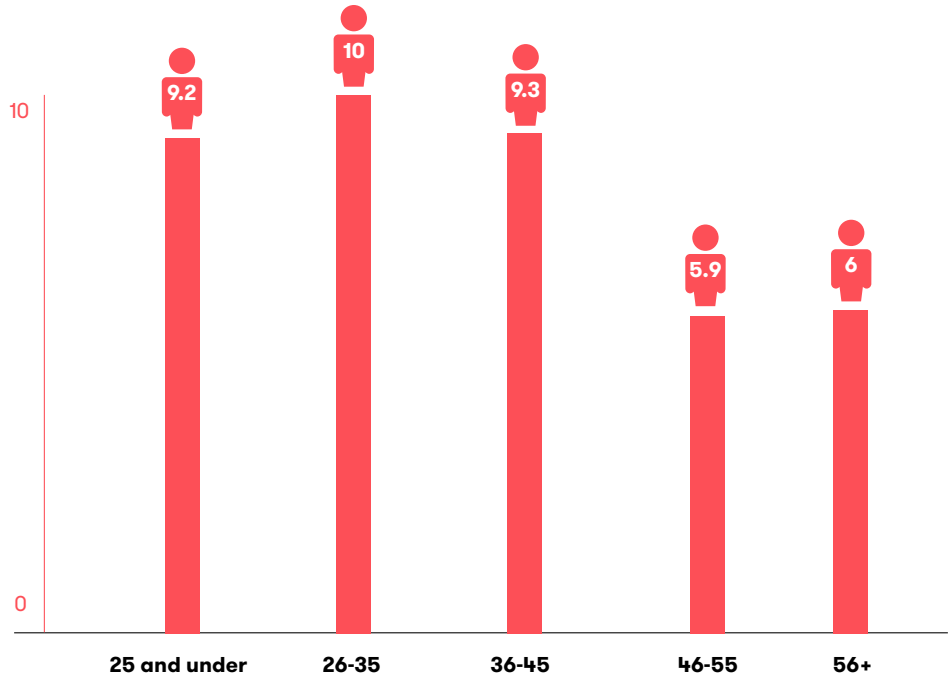
The average number of in-person visits decreased among people over the age of 45.[18] People in age groups under 45 received an average of between nine and 10 in-person visits; however, those over 45 received six in-person visits on average. (See Figure 3.)

People with mental health disorders received fewer visits

On average, people living with mental health disorders received six in-person visits during the year, compared to members of the general prison population who did not have a diagnosed disorder, who received between nine and 10 visits on average.[19]

Figure 3

Average number of in-person visits by age



n = 11,524

Visit rates were higher for people who had been incarcerated for long sentences

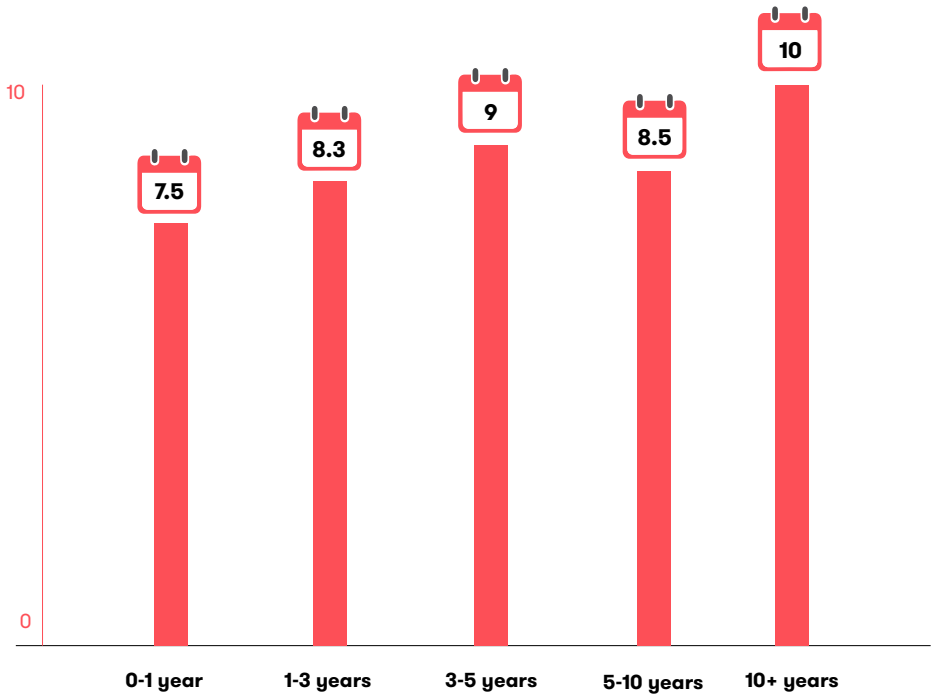
Researchers found a slight upward trend in the number of visits that people received in relation to the length of time that they had been incarcerated. Those in the first year of their sentence received an average of eight in-person visits, while those who had already served 10 or more years received an average of 10 in-person visits a year. (See Figure 4.)

People received fewer visits the further they were incarcerated from their homes

Vera found that, in Washington State, the mean distance from home for incarcerated people was nearly 130 miles (median = 113 miles)—about a two-hour car ride. Because Vera researchers calculated distance using straight-line measurements (or "as the crow flies"), actual distances by road and the associated travel times are greater. Further, for people without access to a car who rely on public transportation, with the constraints of timetables and fixed routes, traveling this distance would likely take even longer.

Figure 4

Average number of in-person visits by length of incarcertion



n = 11,524

Vera researchers created a model that would test the significance of the relationship between in-person visits and individual-level characteristics, including distance from home, gender, race, age, mental health status, and length of incarceration. Each of these variables was found to be significantly correlated to the number of visits people received ($p<0.001$). The model is presented in Appendix C.

The model shows that the number of in-person visits people received decreased by about 1 percent for every additional mile in distance from home they were incarcerated. For men, all else being equal, the predicted average number of visits for someone held 58 miles from home is eight per year; for men held 184 miles from home, this number drops to three, and at 327 miles from home the model predicts 1.5 visits per year.

Gender differences in visiting rates remained even when controlling for distance from home, with women being more likely than men to receive visits. Consistent with the descriptive statistics presented above, the model also found that, for every year increase in a person's age, the rate of in-person visits decreases by about 2 percent. However, there was a 2 percent increase in the number of visits received for every year a person had been incarcerated.

Conclusion

Staying connected to loved ones outside of prison is important to the well-being and success of incarcerated people in leading safe and crime-free lives after release. Video visits provide another avenue for incarcerated people to reconnect with family and friends. Vera's analysis shows that use of the service may strengthen people's relationships to those on the outside, as demonstrated by a subsequent increase in the number of in-person visits they received. However, only a small portion of incarcerated people used the service during the period under study, and even those who did reported that the service's cost limited their use. Although the $12.95 fee is less than the cost of a long-distance trip, the calls are short and the sound and video quality are often poor. Furthermore, $12.95 is a significant sum for incarcerated people, who may rely on friends and family to send them money to supplement the small amounts they can earn in prison-based jobs.

In-person visit rates were low across the state, and the small proportion of incarcerated people who used video visits on a regular basis indicated that the service alone cannot be relied on to increase contact with their loved ones. Further, Vera's analysis of in-person visits shows that some of the very groups within the prison population who may be most in need of additional support from family and friends, such as older people and those with mental illness, received both the fewest in-person visits and the fewest video visits. It does not appear that video visits themselves can reverse disparities in outside support for some of the most vulnerable people in prison.

While research has demonstrated that in-person visits can benefit incarcerated people, their families, and the wider community by increasing well-being and decreasing recidivism, structural factors in U.S. corrections systems impede efforts to encourage this connection. Throughout most of the country, people convicted of crimes wind up incarcerated in facilities in remote locations. The fact that typically people are held at great distances from their home communities continues to be a significant barrier to meaningful contact. Although video visits contribute to easing the separation, it would be far preferable if corrections departments nationwide eliminated this factor entirely. Housing people in their custody in facilities that are close to, and accessible from, their home communities could go a long way toward supporting people during their incarceration and as they reenter society and seek to build stable, connected lives.

Exhibit 7

Susan D. Phillips, Ph.D., Video Visits for Children Whose Parents are Incarcerated: In Whose Best Interest? (Oct. 2012)

THE SENTENCING PROJECT

Video Visits for Children Whose Parents Are Incarcerated:

In Whose Best Interest?

Susan D. Phillips, Ph.D.

October 2012

THE SENTENCING PROJECT
RESEARCH AND ADVOCACY FOR REFORM

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"If video visits are an addition [to in-person visits] they will be a help to all and a God-send to many. But, if video visits are a replacement for the current visitation, their implementation would be a painful unwelcomed change that would be impersonal and dehumanizing."[1]

On any given day, approximately 2.6 million children (or about 1 in every 33) have a parent in jail or prison.[2] Until relatively recently, few people paid attention to what happens to children when their parents are incarcerated, but as the number of parents in jails and prisons grew during the 1980s and 1990s there began to be an appreciation that incarcerating parents can have a profound and enduring effect on their children.[3]

The circumstances and experiences of individual children whose parents are sent to jail or prison differ markedly,[4] but collectively this group of children experience greater childhood adversity on average than other children. The causes of that adversity are varied, including parental (e.g., addiction, mental illness), familial (e.g., poverty, violence, disrupted ties), and community problems (e.g., community violence, exposure to drug markets, inadequate schools, delinquent peers).[5,6,7]

Sending parents to jail or prison can exacerbate the adversity in children's lives and negatively affect their well-being independent of other factors. For example, the arrest and incarceration of parents can affect children's ability to form relationships with other people, precipitate feelings of grief and anxiety, and spawn symptoms of post-traumatic stress.[8,9,10] A parent's incarceration can also result in children being socially isolated from peers, contribute to disruptive behaviors, reduce school performance, and exacerbate poverty and instability within families and communities.[11,12,13]

As a society, we recognize the need for children who are separated from their parents to maintain personal relations and have direct contact with their parents on a regular basis unless compelling evidence indicates that doing so is contrary to a child's best interests.[14] But children whose parents are sent to jail or prison are treated differently than children who are separated from their parents for other reasons such as divorce, hospitalization, death, adoption, foster care placement, or military deployment. The loss of a parent to jail or prison is often overlooked,

unacknowledged, and dismissed. There are no rituals to mark the child's loss and no outpouring of community concern when a parent is incarcerated.[15]

In the last 20 years, there have been growing efforts to support and nurture children when their parents are incarcerated. Those efforts include, among other things, facilitating opportunities for children to visit their parents in jails and prisons, increasing opportunities for children to have physical contact with their parents during visits, and instituting programs that allow children to take part in normal parent-child activities with their parents during visits.[16,17,18]

BARRIERS TO CHILDREN VISITING THEIR PARENTS

It is not easy for children to visit their incarcerated parents, particularly if their parents are in prison rather than in local jails. A majority of parents in prison are housed more than 100 miles from their children.[19] Distance, along with the high costs of transportation, food, lodging, and the time involved make it difficult for families to take children to visit their parents.[20, 21] Roughly half of all parents in prison (59% of those in state prison and 45% in federal prison) have never had a visit from any of their children.[22]

Security procedures can make visiting stressful. Visitation procedures are often strict, arbitrarily enforced, and include subjecting children to searches. In some facilities, children can only communicate with their parents through a glass barrier. In others, they meet with their parents in crowded, noisy visiting rooms. Interactions between children and their parents are strictly regulated, with watchful correctional officers close by causing parents concern that their children's normal behaviors might unintentionally violate rules.[23,24] Some facilities have special programs for a limited number of parents that allow children and parents to visit together in child-friendly environments and engage in normal parent-child activities, but these are not the norm.[25]

The opportunity for children to visit their parents is further limited by facility visiting hours. Many facilities only have daytime visiting hours, making it difficult for school-age children and people who are employed to visit their family members.[26]

"Growing Up with a Father in Prison: Part II"
Emani Davis, http://youtube/8DlfwLRtmjQ

"You never get used to it and you always know you don't have any control over anything so there's just a level of anxiety that's always going to be there. Are they going to give me a hard time about these shoes? Am I allowed to do this? Is there going to be a problem if I wear this? Even though you know what the rules are, they can be interpreted however they want depending on the day and the officer at the front."

THE ADVENT OF VIDEO VISITATION

Even as advocacy groups and community organizations are pushing to remove barriers to children visiting their incarcerated parents, changes are occurring in correctional visitation practices: jails and prisons are shifting to video visitation – visitation using real-time video conferencing technology similar to Skype. Correctional facilities have been using video systems since the 1990s. Based on interviews with system vendors, criminal justice officials, legal experts, and news reports, the *New York Times* estimates that correctional facilities in at least 20 states already have video capability or have plans to adopt the technology.[27]

The benefits of video visitation for correctional facilities are described as reducing the risk of contraband entering facilities, cost savings because fewer staff are needed to oversee visits and, in some cases, increased revenue from fees paid by inmates or visitors.[28,29] In Idaho, Sheriff Gary Raney of the Ada County Sheriff's Office claims that the virtual visitation system put in place there will have produced over $2 million in revenue over the course of two years. [30] The companies that provide the equipment and software that correctional facilities need to retool for and manage video visitation are also benefiting. In fact, these companies have been referred to as "the newest player in the prison-industrial complex."[31]

But, what about the 2.6 million children whose parents are in jail or prison? Are they benefiting?

Possibly.

Children may benefit from video visitation if it increases opportunities for them to communicate with their parents. But video visitation is not a substitute for in-person contact visits, particularly for infants and young children.

POTENTIAL BENEFITS AND LIMITING FACTORS OF VIDEO VISITATION FOR CHILDREN

To the best of our knowledge, children's experiences visiting their incarcerated parents via video have not yet been studied, but video visitation has been used to help children maintain relations with parents who are absent under other circumstances. Military families, for example, use video calls and other forms of *e*-communication to help children stay connected with their parents when they are deployed.[32] Family courts also sometimes include virtual visitation in divorce decrees as a way for children to maintain relations with their absent noncustodial parents. [33,34] Experience in these areas suggests that video visitation may make separation from a

parent who is incarcerated more tolerable by reducing family stress and helping parents and children stay connected, [35] but that it is not a substitute for face-to-face contact. [36]

Children stand to benefit from correctional facilities transitioning to video visitation if such visitation increases the frequency with which they can communicate with their parents. Video visitation policies, however, vary markedly with respect to whether visitors are required to travel to facilities to visit via video or can visit from their homes or communities, the frequency and duration of visits, and costs.

Facility versus community based visits

In some instances (typically jails) families have to take children to correctional facilities to visit via video. Rather than parents being brought to a visiting area to meet with their children, parents remain on their units and children see and speak to them via video.[37,38,39]

In other jurisdictions, families are able to visit via computers in their homes[40] or other community locations.[41,42] Some jurisdictions make arrangements with community organizations (e.g., churches, not-for-profit organizations, bail bond companies) to host computer stations so families without internet access are not excluded from video visitation.[43] In Pinellas County, Florida, the Sheriff's Office outfitted a bus with video visitation equipment, which travels to four cities.[44] Some community organizations that host video visitation couple visits with other

"Visiting a Detainee in DC is Now Done by Video"
P. Hermann, July 28, 2012, *The Washington Post*

"When Ciara Jackson visited her boyfriend at the D.C. jail three weeks ago, her 5-year-old daughter Talia reached out and touched the glass partition separating her from her father. He pressed back from the other side.

'It seemed real,' said Jackson, 20.

That intimacy, though restricted is now gone. Jackson and other visitors must chat by video, with cameras aimed at detainees in the jail and at their loved ones a few hundred yards away in a building attached to the former D.C. General Hospital Complex in Southeast D.C.

Prisoner rights groups complain that the video visits – a growing trend at jails across the country – deprive the detained of interacting with flesh-and-blood people and contradict a long-held philosophy that family visits are vital to rehabilitation and morale."

programming for children and their incarcerated parents so that the visit becomes a supportive, therapeutic intervention to improve parent-child relationships. [45,46]

Fees

Anyone with a computer or cell phone with a camera and an internet connection can make video calls at no cost using readily available free software such as Skype, but some correctional facilities and community sites charge fees for video visitation.[47,48] In some cases the fees go to the correctional facility and in others they go to the community organizations that host remote visitation sites.[49]

Fees vary widely. The Ada County Jail in Idaho allows visitors to register for two free 25-minute video visits per week and charges a small fee for additional visits.[50] In contrast, Indiana's Rockville Correctional Facility charges families $12.50 for 30 minutes of virtual visitation, which is only slightly less than the $15 charge for a 30-minute local phone call.[51]

The Virtual Visitation Program in Pennsylvania allows one 55-minute virtual visit a month for $15, with the fee going to the not-for-profit hosting the program. Priority for virtual visitation is given to inmates who participate in parenting skills classes and other family-oriented programs.[52] In Virginia, the Department of Corrections recently expanded its virtual visitation program and charges $15 for a 30-minute and $30 for a 60-minute visit with the fees going to community churches that host visiting sites.[53]

SUMMARY

Jail and prison administrators are often attracted to video visitation for its potential cost savings and profits as well as security benefits. Video visitation can be managed with fewer personnel than regular visitation and the risk of contraband entering facilities is reduced. Video visitation is also a potential source of revenue for facilities and for the companies that provide video visitation equipment and software. Renovo Software, a company that specializes in video communication software, frames the use of virtual visitation as a profitable business venture complete with the potential to use advertisements on the computer stations.[54]

The potential for video visitation to benefit children will largely depend on the policies of the facilities in which their parents are housed. Video visitation can be expected to have the greatest benefits when:

- used as an adjunct to rather than a replacement for other modes of communication, particularly contact visits;
- children can visit from their homes or nearby sites;

- facility policies allow for frequent visits; and
- fees are not cost prohibitive.

The Vermont Legislative Research Services office cut to the heart of the matter when it concluded:

> *Corrections administrators should be cognizant that traditional contact visitation is the best means of communication between children and their incarcerated parent; however, in many circumstances it is impractical for families to visit their loved ones in prison. Virtual visitation helps if the prison is too far, transportation is too expensive, or the prison environment is inappropriate for a child. In-person visitation is regarded as the most effective form of child-incarcerated parent visitation.*[55]

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[2] Estimate uses data published by the Bureau of Justice Statistics (Glaze, L.E. & Maruschak, L.M. [2008], *Parents in prison and their minor children,* and Glaze, L.E. [2011], *Correctional populations, 2010*). An estimated 53% of all people in prison are parents with an average of 2.1 children. The total number of children with incarcerated parents (2.6 million) was derived by applying these estimates to the total number of people in jails and prisons in 2010 (2.3 million). That number was then divided by the number of children under age 18 based on 2010 Census estimates (74.1 million) to arrive at the estimated percentage of children with parents in jail or prison (3.1%).

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Exhibit 8

Stacie Anne Deslich, MA, MS; Timothy Thistlethwaite, MD; Alberto Coustasse, DrPH, MD, MBA, MPH, Telepsychiatry in Correctional Facilities: Using Technology to Improve Access and Decrease Costs of Mental Health Care in Underserved Populations, The Permanente Journal (Summer 2013).

REVIEW ARTICLE

Telepsychiatry in Correctional Facilities: Using Technology to Improve Access and Decrease Costs of Mental Health Care in Underserved Populations

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Abstract

Objective: It is unclear if telepsychiatry, a subset of telemedicine, increases access to mental health care for inmates in correctional facilities or decreases costs for clinicians or facility administrators. The purpose of this investigation was to determine how utilization of telepsychiatry affected access to care and costs of providing mental health care in correctional facilities.

Methods: A literature review complemented by a semistructured interview with a telepsychiatry practitioner. Five electronic databases, the National Bureau of Justice, and the American Psychiatric Association Web sites were searched for this research, and 49 sources were referenced. The literature review examined implementation of telepsychiatry in correctional facilities in Arizona, California, Georgia, Kansas, Ohio, Texas, and West Virginia to determine the effect of telepsychiatry on inmate access to mental health services and the costs of providing mental health care in correctional facilities.

Results: Telepsychiatry provided improved access to mental health services for inmates, and this increase in access is through the continuum of mental health care, which has been instrumental in increasing quality of care for inmates. Use of telepsychiatry saved correctional facilities from $12,000 to more than $1 million. The semistructured interview with the telepsychiatry practitioner supported utilization of telepsychiatry to increase access and lower costs of providing mental health care in correctional facilities.

Conclusions: Increasing access to mental health care for this underserved group through telepsychiatry may improve living conditions and safety inside correctional facilities. Providers, facilities, and state and federal governments can expect increased savings with utilization of telepsychiatry.

Introduction

Substantial growth in technology has improved the delivery of medical care and increased access for patients seeking care. One area in which technology has made meaningful contributions is telemedicine, the delivery of health care across distance via the use of technology and communication modalities.[1] Telemedicine has been used for medical information interchange and to facilitate diagnosis, referral, monitoring, and interventions to offset higher costs associated with hard-to-access patients.[2] Telepsychiatry has been one area of telemedicine that has continued to grow and improve. Telepsychiatry has been defined as using telecommunication modalities, including teleconferencing software, hardware, and supporting infrastructure, to provide mental health care.[3] Telepsychiatry has the potential to improve patient access to care and lower costs of providing mental health care.[4] This technology has been shown to be used effectively in rural areas, schools, forensic practices, and correctional facilities.[5]

This subspecialty of telemedicine has shown potential for expanded use in correctional settings such as jails and prisons.[6] The nation's correctional facilities in 2007 held approximately 7.1 million inmates, and around half of these inmates had some sort of mental illness.[7] As the number of incarcerated individuals increases, the need for effective and appropriate psychiatric treatment has continued to grow as well. Telepsychiatry has begun to fill this need.[8]

Inmates in correctional facilities have long received substandard health care, including mental health care.[9] Lack of proper psychiatric services has led to untreated mental illnesses such as depression, anxiety, bipolar disorders, and schizophrenia being common in the inmate population.[7] Access to appropriate psychiatric care has been limited in correctional facilities for several reasons. In some cases, such as in West Virginia, Ohio, and Georgia, various providers have been hesitant to provide mental health treatment inside correctional facilities because of safety concerns.[3] In addition, costs for providers traveling to distant facilities have been a deterrent to providing adequate care to inmates. Besides transportation costs, there is an "opportunity cost" of not seeing more patients in the clinic because of the long trip to the prison.[10]

It can be noted, however, that cases do exist in which the practice of psychiatry in the correctional systems in some states, such as California, is lucrative enough to offset such limitations. It has been reported that 1 psychiatrist earned more than $820,000 in 2011 working for 1 prison in California. Also according to the same authors, 14 prison psychiatrists earned more than $400,000 in this state, a level matched by only 12 other states.[11]

Transporting inmates outside correctional facilities for treatment has not been effective, either. The costs of transporting an inmate, in actual transportation costs, person hours, and

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increased risk to public safety and security, have been a major barrier to bringing inmates to providers for treatment. Additionally, prisons usually use two prison staff members to transport inmates, which generates a need to replace those two officers in the prison to avoid a security risk because of understaffing the facility. Furthermore, many providers have been unwilling to provide treatment to inmates in a private practice setting because of increased danger to the providers and the other patients.[12] Telepsychiatry in correctional facilities has been effective in overcoming these barriers.

The National Bureau of Justice has reported that more than 50% of inmates in correctional facilities had a diagnosable mental illness, including substance abuse.[7] Recidivism, or reoffending and reentering the correctional system within 3 years of release, has been high among offenders with mental illness; approximately 25% of those inmates surveyed by the Bureau of Justice who had been incarcerated 3 or more times had diagnosable mental illnesses, specifically mania, depression, or a psychotic disorder.[7] With so many mentally ill inmates being released and reoffending, correctional system administrators and providers have had to examine ways to effectively treat mental illness and to decrease recidivism among the mentally ill. Telepsychiatry has been examined for its potential to do that.[10]

Several studies have examined the efficacy of telemedicine, and telepsychiatry in particular, in correctional settings.[1,9,13,14] Less research has been performed to examine the effect of telepsychiatry on inmate access to mental health treatment or the impact of telepsychiatry on costs of providing mental health treatment in correctional facilities. This may have been because of the difficulty in quantifying access or cost in providing this treatment.[15] The research that has been done, however, has indicated that telepsychiatry may play a pivotal role in providing psychiatric treatment inside correctional facilities.[16]

Methods

The purpose of this review was to determine the effect of telepsychiatry utilization on inmate access to mental health services and on the cost of providing mental health care in correctional facilities.

The method used was a literature review complemented with a semistructured interview of the second author, Timothy Thistlethwaite, MD, an experienced practitioner of telepsychiatry who has used telepsychiatry in correctional facilities for more than 17 years (see Sidebar: Questions asked in semistructured interview of telepsychiatrist). This interview was tape recorded, and only relevant answers were used to support the information found in the literature review to provide a contextualized and more comprehensive overview of this technology and its utilization in prisons.

Electronic databases of PubMed, Academic Search Premier, ProQuest, PsycARTICLES, and Google Scholar were searched for the terms *telepsychiatry* or *tele mental health* and *prison* or *access* or *cost*. Reputable Web sites of the National Bureau of Justice and the American Psychiatric Association were also mined. Only articles that were written in English were included for review. In an attempt to stay current in research, all articles that were older than 12 years (starting from 2000) were eliminated from the search. References were reviewed and determined to have satisfied the inclusion criteria if the material provided accurate information about telepsychiatry with a particular focus on prison mental health.

The results presented were extracted from journal articles, case studies, and different Web sites from diverse sources, as well as from the semistructured interview, to illustrate several aspects of telepsychiatry in prisons that should be considered, such as inmate access to mental health care and costs involved with it. Academic articles and practitioner health information technology sources were analyzed, and relevant categories were identified.

Results

Forty-nine sources were selected for this review. Findings are presented in the categories of access and savings.

Increased Access

Leonard[17] cited limited access to appropriate mental health care as a difficulty faced by many inmates. Inadequate access to care has often led to prisoners having untreated mental illness, which, in turn, has increased rates of violent behavior in correctional facilities as well as substantially increased recidivism.[18] According to the World Health Organization Mind Project, 24% of inmates with a mental illness have assaulted another inmate in a correctional facility, and those with mental illness are 2 times more likely to be injured in a fight than inmates without mental illness.[19] On the other hand, Hilty et al[20] found that using telepsychiatry as the means for mental health treatment increased access in rural, suburban, and urban settings. Similar results have been supported in a 2005 study of telepsychiatry in a correctional setting in New York as well.[21] Furthermore, telepsychiatry has been shown to increase access to mental health treatment for patients in schools and for veterans.[22,23]

Questions asked in semistructured interview of telepsychiatrist[a]

- How have you implemented telepsychiatry into your practice in correctional facilities?
- What method do you use to provide telepsychiatry to your patients in prisons, ie, software, hardware, and Internet connections?
- Who is involved in a typical telepsychiatry session in a correctional facility?
- What services are provided via telepsychiatry?
- How have inmates reacted to the utilization of telepsychiatry?
- How has telepsychiatry benefited your practice?
- How has the utilization of telepsychiatry affected inmate access to mental health care?
- How has the utilization of telepsychiatry affected the cost of providing mental health services to inmates in your practice?
- Are there any other significant advantages or disadvantages to telepsychiatry utilization in correctional facilities that we have not discussed?

[a] Timothy Thistlethwaite, MD, on March 28, 2012.

Utilization of telepsychiatry has been shown to overcome travel and cost barriers, allowing inmates to meet with a treating psychiatrist via teleconference, thus allowing greater access to treatment for the inmate and continuity of care without compromising public safety and security or incurring increased transportation costs.[24]

… use of telepsychiatry in conjunction with electronic medical records that have been implemented in correctional facilities has allowed for more effective provision of health care to inmates.

Mental health treatment teams in correctional settings in the US normally include a psychiatrist, psychologists, therapists, and psychiatric nurses. Access to the team is facilitated by living-unit supervisors and correctional caseworkers who have direct contact with the general population of the prison. The psychiatrist provides telepsychiatric services from a remote setting to inmates in the penitentiary. Services provided include psychiatric consultation, initial treatment evaluations, crisis intervention, medication management, and patient education.[25] Psychotherapy, although available via telecommunications devices, is often provided face to face by a therapist or psychologist in the facility.

Several states have effectively implemented telepsychiatry programs into their correctional facilities and have been able to increase access to appropriate mental health care for inmates. Arizona, California, Georgia, Kansas, Ohio, and West Virginia have begun to use telepsychiatry in their correctional facilities with some success (Table 1).

The Ohio State University Medical Center in Columbus, OH, has partnered with the Ohio Department of Rehabilitation and Correction to provide telepsychiatry services to inmates in Ohio prisons, providing evaluation, patient education, and medication management to more than 4000 inmates each year since 1998.[26] Similarly, as of 1997, St Mary's Hospital and the University of Arizona in Tucson have collaborated with the Arizona Telemedicine Program to provide telemedicine and telepsychiatry to the Arizona Department of Corrections. The University of Arizona Medical Center and Maricopa Medical Center in Phoenix, AZ, provided the base for this program to use telepsychiatry in rural prisons in the state, thus reaching more inmates and encouraging increased access to inmates who otherwise would have had lengthy waits for mental health services and evaluations for treatment.[27]

In 1998, the University of Kansas Center for Telemedicine & Telehealth implemented a telepsychiatry program that has served the state prison system since then and has provided an average of 70 telepsychiatry consultations each month. Telepsychiatrists have provided care and been reimbursed on a fee-for-service basis, and have delivered psychiatric services such as evaluation, treatment planning, medication management, and crisis intervention.[14]

In California, the California Department of Corrections and Rehabilitation Division of Correctional Health Care Services implemented a telepsychiatry program using contracted providers to meet the mental health needs of the inmates in 27 of the prisons in that state, and more than 4000 inmates have received appropriate psychiatric care annually.[28] This program has increased public safety by preventing inmate transports, decreased costs associated with those transports, and increased inmate access to effective psychiatric treatment in the form of psychiatric evaluations, medication management, and crisis intervention.[28] Johnston and Solomon[29] found that the implementation and utilization of this telepsychiatry program saved about $850 in inmate transportation costs, a savings of $4 million in 2004 because of decreased travel and transportation costs, as well as decreased costs for providing correctional officers to facilitate the transport.

The University of Texas Medical Branch at Galveston has a telemedicine program, in service since the early 1990s, providing telepsychiatry services including medication management and crisis intervention to correctional facilities at the county, state, and federal levels in Texas. The program has grown to be one of the largest providers of telepsychiatry worldwide (S Shelton, MBA PA-C, personal communication, June 11, 2012).[a] This program, while providing vital services to the inmate population in Texas, faces funding difficulties. Survival of the program will depend on adequate and appropriate funding (S Shelton, MBA, PA-C, personal communication, June 11, 2012).[a]

In West Virginia, mental health services are provided to inmates housed in the state's prisons by an independent subcontractor, PsiMed Corrections LLC, under the contract of Wexford Health Services with the state of West Virginia.[30] PsiMed has used a telepsychiatry system set up in the state's only maximum security prison to provide telepsychiatric care such as initial treatment evaluation, medication management, crisis interven-

Table 1. States that implemented telepsychiatry programs in correctional facilities

Author, year	State	Provider	Population treated
Nelson et al,[14] 2004	Kansas	University of Kansas Center for Telemedicine & Telehealth	Treatment provided to 1 jail in a pilot program with all 62 participating inmates
Venable,[33] 2005	Georgia	Augusta Correctional and Medical Institute	Treatment provided to 5 prisons
Ohio Department of Rehabilitation and Correction,[26] 2006	Ohio	Ohio State University Medical Center	Treatment provided to > 5000 inmates annually
California Legislative Analyst's Office,[28] 2007	California	Office of Telemedicine Services, California Department of Corrections and Rehabilitation Division of Correctional Health Care Services	Treatment provided to 4400 inmates annually in 27 prisons
Hincapie et al,[27] 2011	Arizona	Arizona Telemedicine Program	Treatment provided to 11 rural prisons
PsiMed Corrections LLC,[31] 2012	West Virginia	PsiMed Corrections LLC	Treatment provided to 4200 inmates annually in 31 correctional facilities across West Virginia

tion, and education about mental health to inmates throughout 31 of West Virginia's correctional facilities.[30] From 2003 to 2007, PsiMed Corrections' telepsychiatry program effectively provided psychiatric treatment to more than 4000 inmates annually, thus increasing inmate access to mental health treatment and decreasing travel costs for the treating psychiatrist.[31]

Gramlich[32] identified that approximately 70% of telemedicine visits provided in the Georgia correctional system were for mental health treatment. Georgia's telepsychiatry program has increased access to psychiatric care in 5 prisons in Georgia since the mid-1990s.[33]

According to Dr Thistlethwaite, the interviewed telepsychiatric practitioner, this technology has provided increased access to mental health services for inmates, and this increased access, in turn, has been instrumental in improving quality of care for inmates by ensuring no disruption in continuity of care. Incarcerated individuals have experienced greater consistency with medication management and have had less delay in receiving appropriate care. As inmates are transferred from facility to facility, psychiatric care and medication management can be disrupted. Telepsychiatry can prevent such disruptions.

Inmates have further experienced greater access to care because practitioners and clinical staff involved in patient care have been able to use the same videoconferencing capabilities to coordinate care. For example, in the central hub, a psychiatrist and an assistant gather information about an inmate, while a counselor, psychologist, or nurse in the facility sits with the inmate to facilitate communication between the treating psychiatrist and the inmate. This increase in communication has been beneficial when more than one provider is involved in inmate care, because the clinicians also have utilized teleconferencing to communicate with each other and to provide better quality and continuity of care. Furthermore, use of telepsychiatry in conjunction with electronic medical records that have been implemented in correctional facilities has allowed for more effective provision of health care to inmates. Not only are two treating mental health care practitioners able to communicate via teleconference, psychiatrists and internists or specialists are also able to utilize this technology to discuss ongoing care of inmates.

PsiMed Corrections uses Polycom Solutions, a high-definition videoconferencing technology package (Polycom, Polycom Inc, San Jose, CA) for each telepsychiatric session, which is encrypted for privacy and for compliance with the Health Insurance Portability and Accountability Act (HIPAA). The contract with the prison system is managed with a private contract that the state bids out for medical care every three years. PsiMed gets its reimbursement as a subcontractor on a capitation basis.

It has been the experience of the psychologist first author of this review (SD) that the telepsychiatric session differs from a face-to-face psychiatric session in only the method of delivery. Most telepsychiatric interactions occur with a mental health practitioner present with the inmate. Only in cases of particularly violent or dangerous inmates are correctional officers present during the session. Inmates have been provided identical treatment via telepsychiatry as they would have in a more traditional setting. Additionally, more prisoners have been able to be seen, as travel time has been decreased. These inmates have been able to discuss medication management as well as ongoing mental health treatment issues with the psychiatrist and the prison medical team. Inmates have been able, via telepsychiatry, to continue to receive psychiatric services from the same provider, regardless of the prison in which they have been incarcerated, thus avoiding a period of adjusting to and developing therapeutic rapport with a different provider after transfer to a different prison.

According to Thistlethwaite, drawbacks to utilization of telepsychiatry in correctional facilities are mostly technical. Many providers who use the correctional facilities' Internet access must gain access past the facilities' firewalls. This demands the ongoing cooperation of the prison administrators, which has not always been offered,[32,34] as well as an adept team in the information technology department. Furthermore, Gramlich[32] notes that the prison servers are not always reliable, and connections may be inadequate for providing telepsychiatric care. Lee[35] noted concerns of some researchers, such as lack of nonverbal communication or confidentiality issues. Thistlethwaite disagreed with this, noting that proper placement of the videoconferencing equipment to adequately capture the movements of the inmate allows for visual identification of clinically significant motor movements and body language, and confidentiality agreements are signed, as well as informed consent to treatment, upon inmates entering a facility.

Thistlethwaite also noted that inmate satisfaction has not appeared to suffer with the use of telepsychiatry. In fact, in his personal experience, many inmates seem to prefer this form of treatment because of increased access to the psychiatrist. The notion that the use of telepsychiatry is supported by inmates has been reinforced by findings in the literature. Lexcen et al[36] found, in a study of 72 patients in a forensic setting, similar scores of satisfaction and outcomes using telepsychiatry as with face-to-face interventions. Similarly, Tucker et al[37] found that inmates were satisfied with telepsychiatry treatment for services including consulting, initial treatment evaluation, medication management, and psychotherapy. In addition, inmates actually preferred telepsychiatry in some situations, such as treatment for sexual abuse and sexual dysfunction.[37] As inmates have little confidentiality or privacy in general, it has been found that patient acceptance of and satisfaction with providers and multiple staff being involved in treatment via telepsychiatry remain high in comparison with face-to-face treatment.[36] Thistlethwaite noted that treatment confidentiality is no more at risk than in face-to-face interactions in mental health care in correctional facilities because secure software and Internet connections are used to provide this service.

Additionally, Ross et al[38] and Morland et al[39] examined patient outcomes of telepsychiatry and found them to be equivalent to those of face-to-face psychiatric treatment. At times, telepsychiatry was found to be more effective in treating mental illnesses such as depression.[40]

Increased Savings

Several studies have explored the financial benefits of implementing telepsychiatry programs. Cost-benefit analysis has been recommended as the most efficient and effective economic evaluation used for telepsychiatry implementation[41] (Table 2).

Although initial costs to start a telepsychiatry practice may reach several thousand dollars to acquire the software, hardware, and required infrastructure, these programs have been shown to cut overall costs by reducing travel for the provider, decreasing overutilization of other medical services such as laboratory work, increasing medication compliance, and speeding diagnosis via reduced waiting or consultation time.[41]

… inmates were satisfied with telepsychiatry treatment for services including consulting, initial treatment evaluation, medication management, and psychotherapy.

A literature review by Hyler and Gangure[42] identified seven studies that indicated substantial cost savings via the utilization of telepsychiatry. One study found increased costs, and three studies identified situations in which utilization of telepsychiatry had similar costs as face-to-face psychiatric treatment. The seven studies that identified savings with the implementation and use of telepsychiatry prompted these researchers to determine that the utilization of telepsychiatry has led to a decrease in cost for providing psychiatric treatment in some settings.[42]

Similarly, in a prospective test-retest (pretest-posttest) design study, Shore et al[43] determined that utilization of telepsychiatry for clinical interviews saved more than $12,000 compared with face-to-face clinical interviews over an 11-month period in 2006.

Harley, in 2006, examined the cost of providing tertiary mental health care via telepsychiatry compared with traditional methods.[44] It was found that initial costs to begin a telepsychiatry service were around $6800; however, after providing telepsychiatric care for 6 months, costs remained under $7000 total for providing telepsychiatric services. The author estimated that the costs to provide traditional face-to-face psychiatric services to the same population over the same period would have been more than $25,000, primarily because of travel expenses.[44]

These findings have been supported by actual utilization of telepsychiatry in correctional facilities. For example, the aforementioned Arizona Telemedicine Program reported a savings of more than $1 million in transportation costs since its inception in 1996, and a savings of $106,000 between July 2003 and December 2003 alone.[45] The program identified further savings in administrative costs, as well as an added benefit of government incentives for the utilization of telemedicine. These savings and benefits amounted to approximately $2.6 million.[45]

An examination of the actual costs of providing services—specific and individual costs of sessions—using telepsychiatry vs using traditional face-to-face methods yielded results. Reimbursement for telepsychiatry has been typically on a fee-for-service basis and does not cover maintenance and infrastructure costs. These extra costs often have been covered by grant funding to the provider's organization.[46] A review of the costs of providing telepsychiatric services have indicated substantial savings, even when hardware costs are figured in. It was found in a randomized controlled trial in 2006 that a face-to-face psychiatric session cost providers $315 per visit, whereas a telepsychiatric visit had a cost of $265, a savings of $50 per visit.[47]

Discussion

The purpose of this research was to determine the effect of utilization of telepsychiatry on inmate access to mental health services and on the cost of providing mental health care in correctional facilities. The results of this review suggest that telepsychiatry has had a positive impact on mental health care in prisons by increasing access for inmates to effective psychiatric treatment and by maintaining continuity of care. In addition, substantial savings for providers and facilities was noted.

With a high prevalence of mental illness among inmates, adequate psychiatric care is imperative. In fact, appropriate care may have reduced aggressive inmate behavior inside correctional facilities, and well-managed mental illness has been shown to decrease recidivism upon release, as well as decrease victimization inside the facility.[48] Telepsychiatry is a way to provide this much needed care that is cost-effective, easily implemented, and accepted by providers and inmates.

As noted, a number of states, including Arizona, California, Georgia, Kansas, Ohio, Texas, and West Virginia, have implemented telepsychiatry programs in their correctional facilities with much success, both in increasing inmate access to providers and in decreasing costs. Furthermore, New Mexico and Michigan have also begun using telepsychiatry in prisons and have found similar positive results as in the other states.[49] Whereas the literature review identified one study that found increased costs with the implementation of telepsychiatry, the other studies reviewed found either similar costs as with face-to-face treatment or an increase in savings.[42] Studies examining the effect on access to care have all demonstrated substantial increase in inmates' access to care.[26,27,30,32]

Table 2. Studies of cost-effectiveness of telepsychiatry programs in US correctional facilities

Author, year	Study design	Outcome of utilization of telepsychiatry	Methods by which savings were achieved
Hyler & Gangure,[41] 2003	Literature review	Decrease in costs in some settings	Decreased provider travel, decreased use of other medical services
Harley,[43] 2006	Prospective design	Savings of $18,000	Decreased provider travel, greater medication management
O'Reilly et al,[46] 2007	Case-control design	Decreased costs from $315 to $265, a savings of $50 per visit	Decreased provider travel
Shore et al,[42] 2007	Prospective test-retest design	Savings of > $12,000	Decreased provider travel, decreased client travel
Johnston & Solomon,[29] 2008	Review of government documents	Savings of $850 per visit, or $4 million annually	Decreased inmate transportation costs, decreased provider travel

The semistructured interview with a telepsychiatric practitioner (TT) supported some of the findings of this review, including the advantages of increased access and decreased costs with the utilization of telepsychiatry, and potential disadvantages of lack of support by prison administration[32,34] and technical difficulties. The involvement of the correctional facilities' administration and their cooperation has been imperative for effective mental health treatment to take place via telepsychiatry. Thistlethwaite contradicted, however, some of the potential drawbacks identified in previous research studies such as lack of nonverbal communication or confidentiality issues.

This study was limited by the restrictions in the search strategy used, such as the number of databases searched, and publication bias may have affected the availability and quality of the research identified during the search. In addition, although much research exists about telepsychiatry in general, and a large number of studies have examined telepsychiatry in prisons, most of those studies have examined efficacy or acceptance of telepsychiatry. Research about the benefits or drawbacks of utilization on inmate access or cost to provide care is sparse. Also, the quality of care received through telepsychiatry was not measured through the reporting of any use of standardized scales or assessments.

Telepsychiatry can be "the wave of the future" in psychiatric care in correctional facilities because it can decrease the cost for facilities and increase access for inmates; however, further research in this area is needed. A prospective case-control examination of the cost to provide care via telepsychiatry in corrections compared with face-to-face psychiatric treatment would be beneficial. A comparison of the types and quantity of services provided to inmates through the use of telepsychiatry also would advance this new field of psychiatry.

Conclusion

Telepsychiatry has been demonstrated to have substantial ability to transform the way psychiatric services are delivered in mental health care. This literature review has revealed that utilization of telepsychiatry in correctional facilities has increased access to effective mental health care for inmates and has decreased the costs of providing such care. ❖

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Healing That Can Last

When depression, hopelessness, and lack of help do hurt,
healing that can last may still be achieved by a kindly word.

— Johan Wolfgang von Goethe, 1749-1832, German author, artist, and politician

Exhibit 9

Substance Abuse and Mental Health Services Administration, Telehealth for the Treatment of Serious Mental Illness and Substance Use Disorders at pp. 20-23 (2021)

EVIDENCE-BASED RESOURCE GUIDE SERIES

Telehealth for the Treatment of Serious Mental Illness and Substance Use Disorders

SAMHSA
Substance Abuse and Mental Health Services Administration

Telehealth for the Treatment of Serious Mental Illness and Substance Use Disorders

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FOREWORD

Evidence-Based Resource Guide Series Overview

The Substance Abuse and Mental Health Services Administration (SAMHSA), and specifically, its National Mental Health and Substance Use Policy Laboratory (Policy Lab), is pleased to fulfill the charge of the 21st Century Cures Act to disseminate information on evidence-based practices and service delivery models to prevent substance misuse and help people with substance use disorders (SUDs), serious mental illness (SMI), and serious emotional disturbances (SEDs) get the treatment and support they need.

Treatment and recovery for SUD, SMI, and SED can vary based on several factors, including geography, socioeconomics, culture, gender, race, ethnicity, and age. This can complicate evaluating the effectiveness of services, treatments, and supports. Despite these variations, however, there is substantial evidence to inform the types of resources that can help reduce substance use, lessen symptoms of mental illness, and improve quality of life.

The Evidence-Based Resource Guide Series is a comprehensive set of modules with resources to improve health outcomes for people at risk for, experiencing, or recovering from SMI and/or SUD. It is designed for practitioners, administrators, community leaders, and others considering an intervention for their organization or community.

A priority topic for SAMHSA is increasing access to treatment for SMI and SUD using telehealth modalities. This guide reviews literature and research findings related to this issue, examines emerging and best practices, discusses gaps in knowledge, and identifies challenges and strategies for implementation. While this guide is focused on the needs of people experiencing SMI and SUD, readers can broadly apply its resources and lessons from the field for the treatment of any mental illness.

Expert panels of federal, state, and non-governmental participants provided input for each guide in this series. The panels included accomplished scientists, researchers, service providers, community administrators, federal and state policy makers, and people with lived experience. Members provided input based on their knowledge of healthcare systems, implementation strategies, evidence-based practices, provision of services, and policies that foster change.

Research shows that implementing evidence-based practices requires a comprehensive, multi-pronged approach. This guide is one piece of an overall approach to implement and sustain change. Readers are encouraged to visit the SAMHSA website for additional tools and technical assistance opportunities.

Content of the Guide

This guide contains a foreword and five chapters. The chapters stand alone and do not need to be read in order. Each chapter is designed to be brief and accessible to healthcare providers, healthcare system administrators, community members, policy makers, and others working to meet the needs of people at risk for, experiencing, or recovering from SMI and/or SUD.

The goal of this guide is to review the literature on the effectiveness of telehealth modalities for the treatment of SMI and SUD, distill the research into recommendations for practice, and provide examples of how practitioners use these practices in their programs.

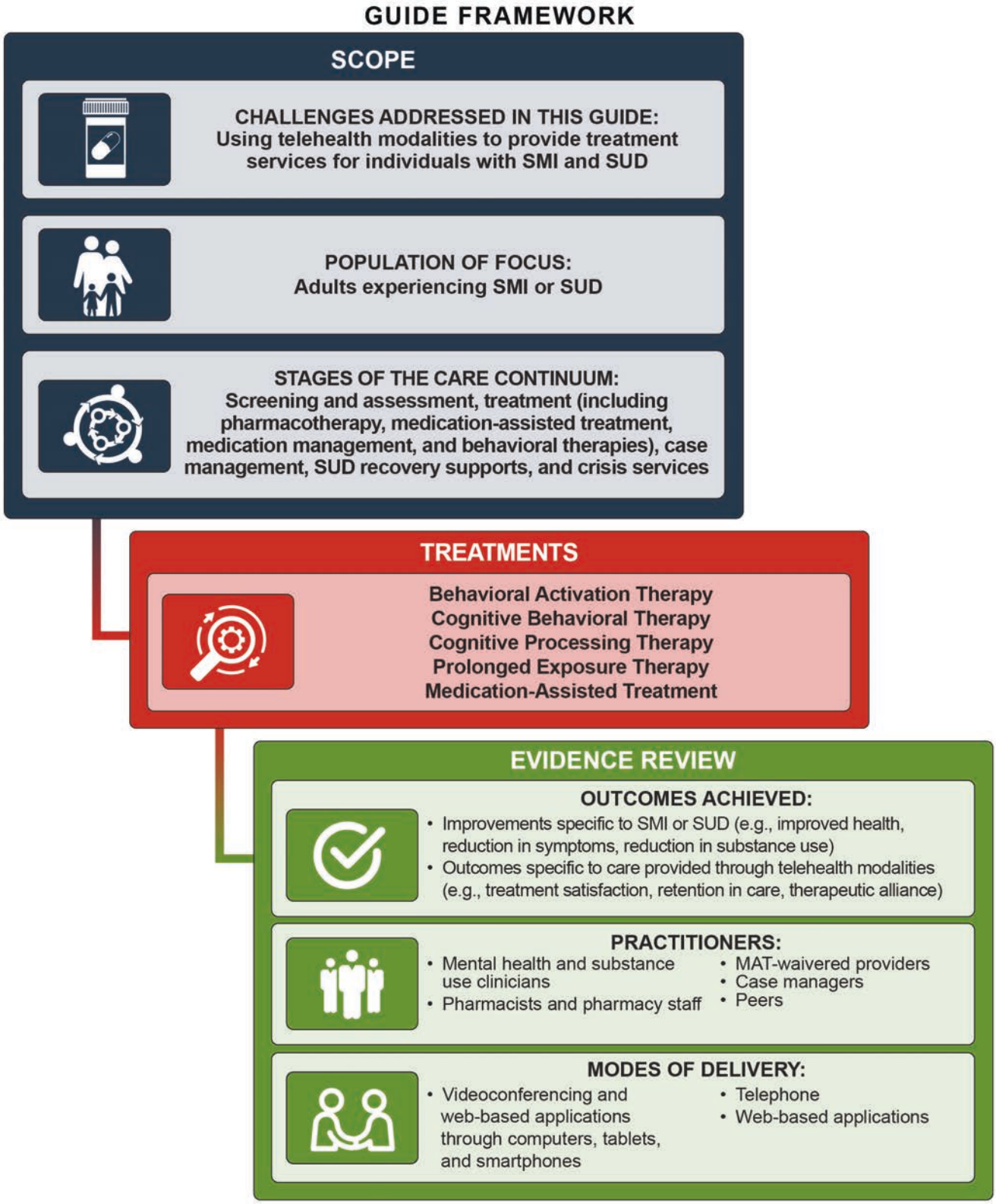
FOCUS OF THE GUIDE

SMI and SUD impact millions of Americans. Barriers to accessing care include access to appropriate services and providers, stigma associated with SMI or SUD, and competing priorities (e.g., employment and caregiving responsibilities).

Telehealth is the use of two-way, interactive technology to provide health care and facilitate client-provider interactions. Telehealth modalities for SMI or SUD may be synchronous (live or real time) or asynchronous (delayed communication between clients and providers).

Telehealth has the potential to address the treatment gap, making treatment services more accessible and convenient, improving health outcomes, and reducing health disparities.

The framework below provides an overview of this guide. The guide addresses the use of telehealth to provide SMI and SUD treatment. The review of these treatments in Chapter 2 of the guide includes specific outcomes, practitioner types, and modes of delivery.



CHAPTER

1

Issue Brief

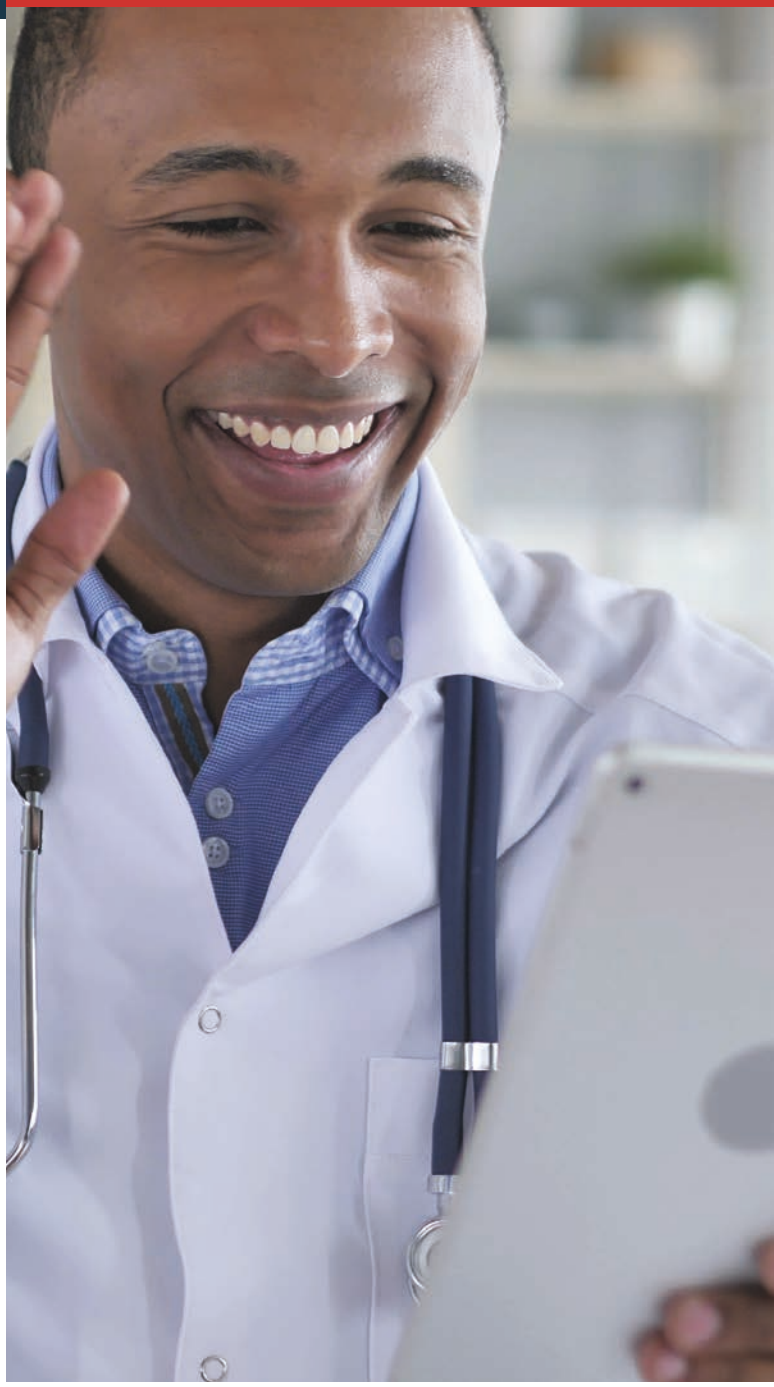
Telehealth is the use of telecommunication technologies and electronic information to provide care and facilitate client-provider interactions. It is comprised of two forms:

1. Two-way, synchronous, interactive client-provider communication through audio and video equipment (also referred to as telemedicine)
2. Asynchronous client-provider interactions using various forms of technology (further described in the chart below)[1, 2]

Serious mental illness (SMI) is defined as a mental, behavioral, or emotional disorder among adults aged 18 and older resulting in serious functional impairment, which substantially interferes with or limits one or more major life activities.[3]

Substance use disorder (SUD) is a diagnosis that applies when the recurrent use of alcohol or drugs causes clinically significant impairment, including health problems, disability, and failure to meet major responsibilities at work, school, or home.[4]

Co-occurring disorder (COD) refers to the coexistence of both a substance use and mental disorder.[4]



Telehealth is a mode of service delivery that has been used in clinical settings for over 60 years and empirically studied for just over 20 years.[5-7] Telehealth is not an intervention itself, but rather a mode of delivering services. This mode of service delivery increases access to screening, assessment, treatment, recovery supports, crisis support, and medication management[8, 9] across diverse behavioral health and primary care settings. Practitioners can offer telehealth through synchronous and asynchronous methods.

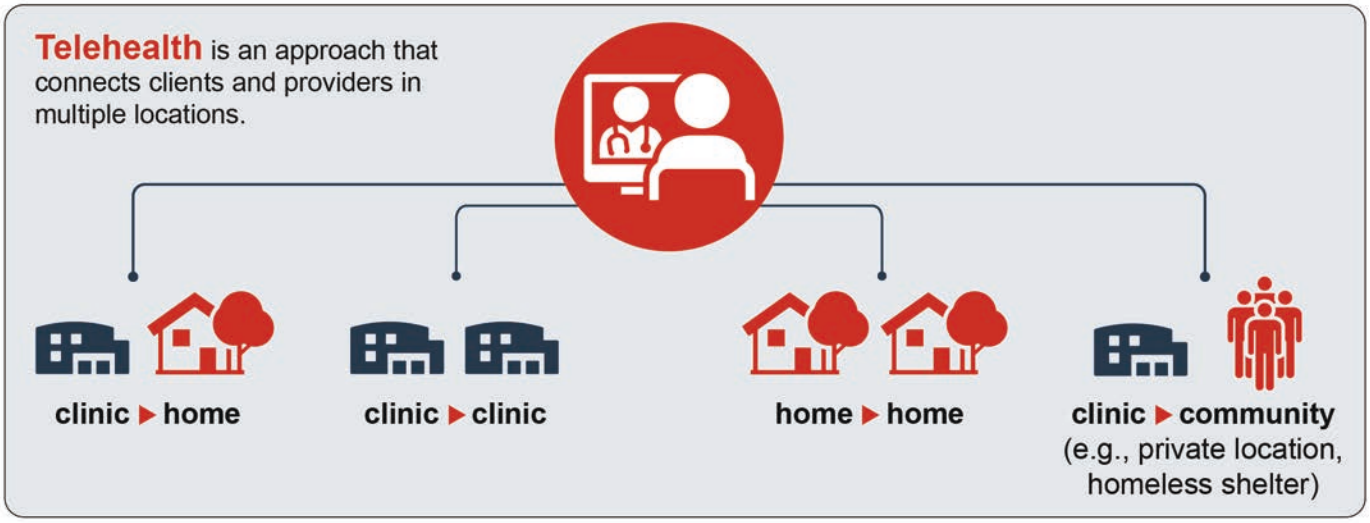
	Timing	Application	Technology Options
Synchronous	Real-time interactive client and provider interactions.	Clinical assessments, ongoing care and treatment, and triage of emergency service needs (e.g., for clients with suicidal ideation).[10]	Telephone, video calls, and web-conferencing platforms.[11]
Asynchronous	Sharing of health information that is collected at one point in time and responded to or interpreted at a later time to direct the next steps of a client's treatment or care plan and complement synchronous treatment.[12] Methods can be interactive (i.e., the client actively sending information to the provider) or passive (i.e., client data transmitted to providers through portals, sensors, or peripherals).	Clinical assessments, symptom management, client education, and treatment reminders that complement synchronous client-provider interactions and inform updates to treatment plans through methods such as: • Store and forward (i.e., client uploads and transfers medical information, such as health histories, to identify or refine a treatment plan) • Remote client monitoring (i.e., collecting medical and health data in one location and transmitting to another) • mHealth (i.e., capture of health information by the client and transmission of the information to a provider through mobile applications, mobile devices, smartphones, tablets, or computers) • Client education (e.g., online psychoeducation sessions and workbooks)	Web-based portals (i.e., client portals), email messages, text messages, mobile applications, symptom management tracking, sensors, peripherals, client education modules, or electronic medical record data.[13-19]

While telehealth is used in health care for a broad range of ages and presenting problems, this guide focuses on synchronous, direct to consumer (sometimes referred to as "D to C") applications of telehealth for the treatment of SMI and SUD among adults.[20]

Furthermore, this guide focuses on the needs of people experiencing SMI and SUD, but readers can broadly apply its resources and lessons for the treatment of any mental illness.

Background

Telehealth can connect clients and providers in multiple locations such as at a home, private space in a clinical setting, or another location in the community. The graphic below depicts examples of ways to connect using telehealth, but there are many ways to deliver and receive care that address connectivity barriers and client preferences.



A variety of providers (e.g., psychiatrists, primary care providers, mental health counselors, social workers, psychologists, addiction counselors, case managers, opioid treatment providers, peer workers) can implement telehealth methods. In addition, practitioners can use telehealth with a hybrid approach for increased flexibility. For instance, a client can receive both in-person and telehealth visits throughout their treatment process depending on their needs and preferences.

Telehealth methods can be implemented during public health emergencies (e.g., pandemics, infectious disease outbreaks, wildfires, flooding, tornadoes, hurricanes)[21-25] to extend networks of providers (e.g., tapping into out-of-state providers to increase capacity). They can also expand capacity to provide direct client care when in-person, face-to-face interactions are not possible due to geographic barriers or a lack of providers or treatments in a given area. However, implementation of telehealth methods should not be reserved for emergencies or to serve as a bridge between providers and rural or underserved areas. Telehealth can be integrated into an organization's standard practices, providing low-barrier pathways for clients and providers to connect to and assess treatment needs, create treatment plans, initiate treatment, and provide long-term continuity of care.

SMI and SUD impact millions of Americans. However, for a variety of reasons and despite a perceived need, many do not seek treatment.

- Among adults aged 18 or older in 2019, 5.2 percent (13.1 million people) had an SMI. Of those, 47.7 percent (6.2 million people) reported an unmet need for mental health services in the past year.
- Among people aged 12 or older in 2019, 7.4 percent (20.4 million people) reported experiencing a SUD. Among people aged 12 or older in 2019, 7.8 percent (21.6 million people) needed substance use treatment in the past year. Of these 21.6 million people, 12.2 percent (2.6 million) received substance use treatment at a specialty facility.[26]

Telehealth has the potential to address this treatment gap, making treatment services more accessible and convenient, improving health outcomes, and reducing health disparities. Clients experiencing SMI and SUD have traditionally been excluded from both treatments delivered through telehealth and research evaluating the efficacy of telehealth among people experiencing SMI and SUD. However, telehealth is a tool that providers can use for all clients.

Appropriate and additional upfront work, provider-client agreements, and safeguards can ensure that clients experiencing SMI and SUD benefit from services delivered via telehealth. Providers can use assessments (further discussed in Chapter 3) to identify their clients' specific barriers to participating in telehealth appointments (e.g., access and comfort with technology, ability to have private or confidential conversations, safety of the home environment) and inform conversations with their clients on strategies to address these barriers.

Implementation and use of telehealth as a mode of service delivery has been increasing in recent years. Between 2016 and 2019, use of telehealth doubled from 14 to 28 percent.[9] This trend continued between 2019 and 2020, due in large part to the COVID-19 pandemic. Telehealth visits for mental health increased by 556 percent between March 11 and April 22, 2020.[27]

The use of telehealth was steadily increasing prior to the COVID-19 pandemic. Between 2016 and 2019, SUD treatment offered through telehealth increased from 13.5 to 17.4 percent. Greater adoption of telehealth was associated with rural locations, as well as those that provided multiple treatment settings, offered pharmacotherapy, and served both adult and pediatric populations.[28]

Telehealth visits increased among rural Medicare beneficiaries, including a 425 percent increase for mental health appointments between 2010 and 2017. Among these beneficiaries, people living with schizophrenia or bipolar disorder in rural areas were more likely to use telehealth for mental health care than those with any other mental illness or those living in urban areas.[29]

Benefits of Telehealth

Telehealth supports team-based care and its interrelated care objectives. The Quadruple Aim is a conceptual framework to understand, measure, and optimize health system performance. The Quadruple Aim organizes benefits of telehealth into four categories:[30]

- Improved provider experience
- Improved client experience
- Improved population health
- Decreased costs

1. ***Provider experience.*** Providers may improve the quality of care they provide and experience the following benefits from implementing telehealth methods:

   - **Provision of timely client care.** Providers may have increased flexibility in appointment scheduling by using telehealth. They can extend care beyond a clinic's normal operating hours and its four walls and leverage "virtual walk-in visits." Increased flexibility can help clinics to more effectively manage client "no-shows" and cancellations.[34-37]
   - **Effective and efficient coordination of care.** An estimated 40 to 60 percent of civilian clients (not inclusive of military populations) with mental and substance use disorders are currently treated in primary care offices rather than specialty care settings.[31] Providers can use telehealth methods for tele-consultation, tele-supervision, and tele-education to coordinate, integrate, and improve care (e.g., through the "hub and spoke" model).[11, 38-40]
   - **Reduction in workforce shortages**. This is especially true for underserved and rural areas.[7-9, 41]
   - **Ability to assess client's home environment.** Rather than rely on a client's report of their home and living conditions, telehealth makes it possible for providers to see, with appropriate permission, inside a client's home, meet family support systems, and determine if an in-person visit at a person's home is needed.[42]

Rural Workforce Shortages

Approximately 80 percent of rural areas in the United States are classified as medically underserved and in health professional shortage areas (HPSAs). These regions are lacking the physicians, dentists, registered nurses, and other health professionals needed to care for a client throughout the lifespan. HPSAs also often have shortages in behavioral health providers (including psychiatrists, psychologists, and therapists).[31]

Shortages in the rural healthcare landscape disproportionately impact rural Americans who tend to be older, have lower socioeconomic status, are more reliant on public insurance, and have worse health outcomes.[32, 33]

   - **Ability to share information for psychoeducation and assessment.** Psychoeducation, or the didactic communication of information to the client about therapeutic intervention or diagnosis, can be done through screensharing, thus allowing the clinician to seamlessly display videos, slideshows, and other visuals to the client. Mental health and substance use assessments can also be done this way, allowing the clinician to track the client's responses in real-time.[43]
   - **Efficient connections to crisis services.** In emergencies, telehealth providers can instruct clients to call emergency response systems (e.g., 911, 988) while the providers remain connected via telephone or video. Enhanced 911 (E911) automatically provides emergency dispatchers with the location of the client, rather than the client needing to provide their address to the dispatcher.
   - **Reductions in provider burnout.** Provider burnout is a pervasive issue in the healthcare field and exacerbated by numerous factors, including time pressures, fast-paced environments, family responsibilities, and time-consuming documentation.[44] Telehealth may lead to reductions in provider stress and burnout through promoting more manageable schedules, greater flexibility, and reductions in commute time.[44-46]

2. ***Client experience.*** Clients may experience many benefits receiving mental health and substance use treatment by telehealth:

   - **Increased access to experienced providers and high-quality care.** Through telehealth, clients can access experienced providers that may be geographically distant from their homes. Through telehealth modalities, clients can access providers with expertise in their particular conditions and treatment plans that can provide care appropriate for their culture, race, gender, sexual orientation, and lived experience.[20, 47, 48]
   - **Improved access to and continuity of care.** Telehealth provides a mechanism to increase access to quality care and reduce travel costs for clients, increasing the likelihood that clients will see their provider regularly and attend scheduled appointments.[36, 49]
   - **Increased convenience that removes traditional barriers to care, including:**
     - **Geographic barriers** (e.g., transportation and distance to providers). Telehealth increases the opportunity for individuals in remote locations to access the care they need.[8, 9, 50-55]
     - **Psychological barriers**. Clients who experience anxiety about leaving their homes to access treatment (e.g., clients experiencing panic disorder or agoraphobia) are able to receive care in a safe environment.[56, 57]
     - **Accessibility**. Individuals with physical, visual, or hearing impairments and clients who are isolated (e.g., older adults) or incarcerated are able to access needed health care through use of telehealth.[8, 58]
     - **Employment**. The use of telehealth allows clients to receive care while not requiring them to take significant leave from employment or other essential activities.[37, 38]
     - **Childcare and caregiver responsibilities**. Receiving home-based telehealth can help to reduce the burden of finding childcare.[59] For family caregivers, telehealth technologies, such as remote monitoring, can relieve some caregiver responsibilities, thereby decreasing stress and improving quality of life.[60]
     - **Team-based services and group-based interventions.** Team-based and coordinated care is critical to high-quality client treatment. However, geographic distances between providers and clients can limit communication. Telehealth enhances team-based care across geographic barriers by remotely connecting multiple providers with a client, promoting provider collaboration and the exchange of health information.[61] Similarly, telehealth improves access to group-based interventions, which demonstrate similar treatment outcomes as in-person groups.[62]

Health Equity and Telehealth

While telehealth has many benefits, concerns around access to telehealth and telemedicine services, especially for those with low technology literacy or disabilities, remain.[71-73]

- Americans aged 65 and older (18 percent of the population) are most likely to have a chronic disease, but almost half (40 to 45 percent) do not own a smartphone or have broadband Internet access.[71]
- People experiencing poverty report lower rates of smartphone ownership (71 percent), broadband Internet access (59 percent), and digital literacy (53 percent) compared to the general population.[74, 75]
- People who are Black or Hispanic report having lower computer ownership (Black: 58 percent; Hispanic: 57 percent) or home broadband Internet access (Black: 66 percent; Hispanic: 61 percent) than White respondents (82 and 79 percent, respectively), although smartphone access is nearly equal (Black: 80 percent; Hispanic: 79 percent; White: 82 percent).[76]

Due to these limitations, some clients may not benefit from telehealth.[77, 78]

- **Reduction in stigma associated with experiencing SMI and SUD and accessing treatment.** Through telehealth, clients can disclose their SUD and/or SMI from the privacy of their own home.[63] In rural communities with fewer behavioral health providers, telehealth can connect clients with providers in other geographic locations, which can increase their privacy and protect their anonymity when accessing care.[38, 64-66]
- **Satisfaction with care consistent with in-person treatment.** Despite some initial client hesitancy towards using telehealth, clients often report comparable satisfaction between telehealth and in-person care.[67-70]

3. ***Population health.*** Treatments delivered through telehealth have been shown to improve health outcomes, including improved quality of life and access to health care. For people experiencing SMI, telehealth has the potential to improve quality of life and general mental health, reduce depressive symptoms, build more confidence in managing depression, and increase satisfaction with mental health and coping skills (when compared to treatment offered in-person only).[8, 79-83] For people experiencing SUD, treatments delivered through telehealth have resulted in reductions in alcohol consumption, increased tobacco cessation, and increased engagement and retention in opioid use disorder treatment.[84]

4. ***Costs.*** In rural communities in particular, implementing telehealth services reduces organizational costs by replacing the budget for a full-time, onsite behavioral health provider with as needed hourly fees.[36]

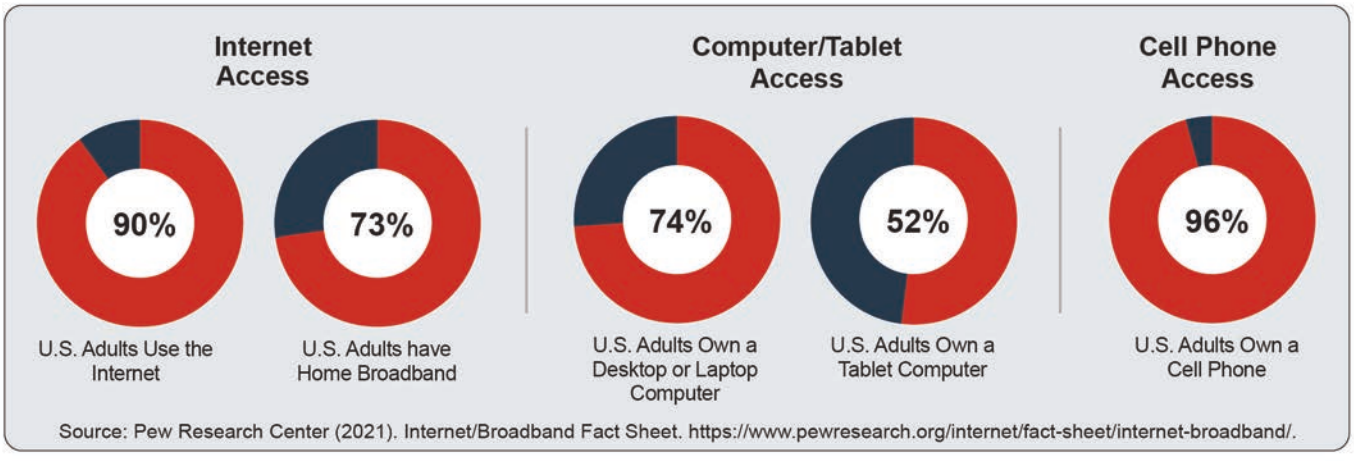
Implementation of Telehealth

While the use of telehealth as a mode of service delivery is increasing, providers, clients, and healthcare settings continue to experience challenges related to adoption and implementation. For example, uptake of telehealth can be hindered by disparities in access to appropriate and needed technology.

Recent advances in technology and access to personal computing devices and mobile phones have led to a rapid increase in the application of telehealth across the continuum of care (i.e., assessment, treatment, medication management/monitoring, recovery supports). Both providers and clients need access to appropriate technology to benefit from synchronous or asynchronous telehealth. Practitioners can provide synchronous SMI and SUD treatment through relatively low-tech options, including telephones, smartphones, tablets, and laptops.[10, 14]

The age, usability, and functionality of clients' devices may inhibit their use (e.g., ability to utilize various mHealth applications, appropriate data plans). Additionally, clients may be sharing devices with family members or others in a household, limiting the types of data a client would want to store or share through a device. For providers, some clinics struggle to have enough laptops to support staff working from home or outside of typical shared office space,[73, 85-88] and may not have updated devices or software systems to utilize available telehealth applications.

Barriers associated with access to technology are compounded by challenges experienced on multiple, interrelated levels (further discussed in Chapter 3).



Source: Pew Research Center (2021). Internet/Broadband Fact Sheet. https://www.pewresearch.org/internet/fact-sheet/internet-broadband/.

Individual client and provider	• Increasing access to and comfort using telehealth
Interpersonal client-provider relationships	• Preparing clients to use telehealth • Building a therapeutic relationship
Organizational	• Assessing organizational needs • Increasing organizational readiness and workforce capacity to participate in telehealth • Ensuring security and confidentiality
Regulatory and reimbursement environments	• Complying with federal, state, and local regulations

Future of Telehealth

The use of telehealth has increased substantially in recent years and has accelerated rapidly with the COVID-19 pandemic. While the landscape of telehealth is continually evolving, and provider, client, population, and cost benefits are emerging, the practices and programs included in Chapter 2 have demonstrated efficacy in improving client mental health and SUD outcomes in multiple settings and contexts.

Medication management via telehealth ranges from automated, non-specific text messages to adherence counseling conducted over the telephone.[7, 30] Examples of telehealth modalities for conducting medication management are described below:

- **Text message** interventions, designed to remind clients to take their medication, have been found to be effective for people experiencing SMI even if the messages were not customized or specific to the dosage, timing, or medication prescribed.[31, 32]
- **Smart pill containers** remind clients to take their medication, provide alerts about taking the wrong medication, and are linked to programs for the client to report side effects to providers. Used together with telephone support, smart pill containers have shown statistically significant improvement in medication adherence.[33]
- **mHealth apps** have been used in combination with smart pill containers, in-home dispensing devices, or other systems to dose medications. These apps remind clients to take medications and communicate medication use information to their healthcare provider through a client portal.[34]
- **Treatment support over the phone** from case managers, nurses, or other health professionals offers clients prescribed medications for SMI and SUD information and adherence support. These approaches have shown statistically significant improvements on medication adherence rates.[35-37]

Medication monitoring, including both support for medication adherence of the prescribed treatment and prevention of non-prescribed or illicit substance use that may cause dangerous interactions, is an essential component of MAT. Clinics or other agencies without a local, trained MAT provider have used telehealth to link clients to a remote MAT provider. The local clinic and agency can provide in-house medication monitoring and urine toxicology screening while providing space for the client to meet with the MAT provider using telehealth technology.[25] In some treatment models, monitoring visits are conducted using telehealth, but the client is required to report in-person for regular urine toxicology screening.[20, 23, 38]

Behavioral Therapies

Practitioners can implement psychotherapy[39] and behavioral therapies through synchronous telehealth modalities while adhering to clinical specifications and producing clinical improvements similar to treatment outcomes from in-person care.[40]

This evidence review identified four interventions that met evidence review criteria (described above and in Appendix 2) and improved health outcomes for people experiencing SMI, including Behavioral Activation (BA) Therapy, Cognitive Behavioral Therapy (CBT), Cognitive Processing Therapy (CPT), and Prolonged Exposure (PE) Therapy. Each behavioral therapy is described below, including associated health outcomes, populations that may benefit, and other important information for implementing these therapies using telehealth.

Behavioral Activation (BA) Therapy via telehealth

BA is a treatment component based on changing behavior to change one's mood. It involves identifying, scheduling, and completing positive reinforcement activities.[41, 42] *Behavioral Activation-Therapeutic Exposure (BA-TE)* is an integrated, evidence-based treatment for Post-Traumatic Stress Disorder (PTSD) and Major Depressive Disorder (MDD). BA-TE combines BA with exposure-based therapy. It involves weekly BA activities along with situational exposure to clients' avoided stimuli and imaginal exposure to past traumatic events.[42, 43]	
Health outcomes	• Reduction in depression[41] and major depression[42, 43] symptoms • Reductions in PTSD symptoms[42, 43] • Reduction in anxiety[42]
Telehealth-specific outcomes	When compared to in-person treatments: • Reduction in Veteran's Affairs health utilization costs one-year post-telehealth intervention[44] • Similar rates reduction in PTSD symptoms (e.g., disturbing memories/thoughts about military experience, avoidance of external stimuli, nightmares, and re-experiencing)[43, 45]
Populations that benefit from the treatment	People experiencing MDD, including: • Older veterans (58+)[41] • Rural veterans[41] • Black/African American veterans[41] • Male veterans[41] People experiencing PTSD, including: • Male and female veterans of Operation Enduring/Iraqi Freedom[43] and the Vietnam War, the Persian Gulf War, and Operation New Dawn[43]
Providers who can offer intervention services	• Master's-level clinicians with over five years of experience who participate in a two-day training and who receive weekly supervision throughout the trial[41] • Master's-level counselors who completed an eight-hour workshop and shadowed a senior-level clinician administering the treatment[43] • Mental health therapists who completed a week-long training, shadowed a senior-level clinician, and received weekly supervision[42]
Technology used	• In-home videoconferencing technology, set up via an analogue telephone[41] • Computer, tablet, or smartphone with encrypted videoconferencing software similar to Skype or FaceTime[42, 43] • A landline-based videoconferencing program which functions like a typical touch-phone but includes an adjacent video screen[42, 43]
Intensity, duration, and frequency	• Eight 60- to 90-minute weekly sessions[42, 43]
Lessons learned transitioning from in-person care to telehealth	• Telehealth treatment was effective even though the in-home videoconferencing technology used in the studies has become somewhat obsolete; researchers believe new technology can only improve communication between clients and providers, thus easing future implementation[41] • Home-based telehealth has potential advantages over hub-and-spoke models (e.g., where a client is treated in an office setting by providers at another office setting) for addressing treatment barriers, including cost, stigma, and travel logistics[46]
Four studies met criteria for review (three RCTs and one single sample pre-post), resulting in a rating of Strong Support for Causal Evidence.	

Cognitive Behavioral Therapy (CBT) via telehealth

CBT is a goal-oriented psychotherapy that seeks to modify an individual's thought patterns, beliefs, and behaviors. CBT programs use a variety of cognitive and behavioral techniques in group and individual settings while remaining structured and time-limited.[46] Through cognitive restructuring, CBT may be used to help clients re-evaluate their negative thought patterns that include overgeneralizing or catastrophizing negative outcomes.[47, 48] CBT techniques can be used to help clients address traumatic experiences and develop more effective thought patterns and realistic perspectives on the trauma.[47]	
Health outcomes	• Reduction in severity of depression symptoms[49, 50] • Reduction in symptoms of PTSD[51] • Reductions in self-reported depressive and general anxiety symptoms[51]
Telehealth-specific outcomes	When compared to enhanced usual care (defined as conversations with primary care physicians): • Higher level of client satisfaction[50, 51] • No significant difference in therapeutic working alliance between provider and client[51] When compared to in-person treatment: • Higher level of treatment completion[49]
Populations that benefit from the treatment	People experiencing major depressive disorder, including: • Primary care clients[49] • Rural, Latino/Latina clients[50] • People experiencing PTSD, including: – College women who are survivors of rape[51]
Providers who can offer intervention services	• Doctoral-level therapists[49, 51] • Students working towards master's in social work degree [50] • Master's-level social workers[50] • Licensed social workers[50]
Technology used	• Telephone[49, 50] • Computer-based online program facilitated by a therapist[51]
Intensity, duration, and frequency	• Participants were offered 8 to 18 sessions of CBT; sessions (offered in both English and Spanish) were designed to be 45 to 50 minutes[49, 50] • Through an online, therapist-facilitated CBT program, clients completed nine modules over the course of 14 weeks[51]
Lessons learned transitioning from in-person care to telehealth	• Lack of telephones was not a significant barrier to participation[50] • Providing culturally tailored CBT via telephone has the potential to enhance access to care for Latinas/Latinos living in rural areas[50] • Providers and clients developed a strong therapeutic working alliance despite the largely asynchronous nature of communication[51] • Future research is needed to assess the effectiveness of delivering similar therapist-facilitated online programs to diverse populations and in multiple practice settings[51]
Four studies met criteria for review (four RCTs), resulting in a rating of Strong Support for Causal Evidence.	

Cognitive Processing Therapy (CPT) via telehealth*

CPT is a trauma-focused cognitive therapy aimed at reducing symptoms of PTSD.[52] CPT has been found to be effective in reducing symptoms of PTSD developed as a result of experiencing traumatic events, such as child maltreatment, sexual assault, and military-related stressors.[53-55] CPT consists of four main components: 1) Education; 2) Processing; 3) Challenging thoughts about the trauma to restructure thought patterns; and 4) Focus on trauma-related themes of safety, trust, power and control, esteem, and intimacy.[55-57]	
Health outcomes	• Greater or equivalent reduction in severity of PTSD symptoms [55, 58-60] • Reduction in symptoms of depression[59, 60]
Telehealth-specific outcomes	When compared to in-person treatments: • Increased access to care for underserved rural populations[58] • No significant difference in client treatment adherence (homework completion) and retention[55, 58] • No significant difference in client satisfaction[55, 58] • No significant difference in therapeutic alliance between provider and client[55, 58, 60]
Populations that benefit from the treatment	People experiencing PTSD, including: • Veterans[55, 59, 60] • Civilian women[55] • Male combat veterans living in rural areas[58]
Providers who can offer intervention services	• Licensed psychologists[59] • Doctoral-level psychologists[58, 60] • Licensed social workers[59] • Master's-level and doctoral-level social workers[58, 60] • Family therapists[59] Although formal CPT training is not required for practitioners, resources are available, including a program delivery manual and certification trainings[52]
Technology used	• Videoconference[55, 58-60]
Intensity, duration, and frequency	• Participants received CPT over 12 sessions, conducted once or twice a week for approximately 50 to 90 minutes each [55, 58-60]
Lessons learned transitioning from in-person care to telehealth	• Videoconference is a familiar format for many users[59] • Participants encountered few disruptions using videoconferencing (e.g., no sessions were canceled due to technological difficulties)[58] • Smaller technology screens may reduce rapport and communication[59]
Four studies met criteria for review (four RCTs), resulting in a rating of Strong Support for Causal Evidence.	

*Originally, the primary version of CPT was administered with a written account of trauma and cognitive-only CPT was administered without a written account of trauma. Research comparing the efficacy of the two versions found that both versions are as effective, and, notably, the cognitive-only version led to a decrease in dropout rate. As a result, the terminology changed and CPT without a written account of trauma became the primary version implemented. For the purpose of this evidence review, this guide uses the terminology as CPT delivered with or without a written account of trauma.

Prolonged Exposure (PE) Therapy via telehealth

PE is a type of CBT that focuses on helping individuals confront their fears from traumatic experiences.[61] First developed as an intervention to treat sexual assault survivors suffering from PTSD, PE has been shown as effective for treating survivors of varied traumas, including combat, accidents, and disasters.[62] Through weekly sessions of PE, individuals learn how to gradually approach their trauma-related memories and feelings.[61, 63] Exposure therapy through imaginal exposure (describing the traumatic event) and in vivo exposure (confronting feared stimuli) also helps reduce symptoms of PTSD.[48,61]	
Health outcomes	• Reduction in the severity of PTSD symptoms[64-69] (compared with both no treatment and in-person PE therapy) • Reductions in symptoms of anxiety[64, 68, 69] • Reductions in symptoms of depression[64-69]
Telehealth-specific outcomes	When compared to in-person treatments: • Increased access to care for rural veterans[68] • No statistical differences in client satisfaction, although participants in the in-person group reported a higher level of comfort when communicating with their therapist than participants in the telehealth group[64] • High acceptability of telehealth modalities[66] • Reductions in the extent to which PTSD interferes with activities of daily living (including health, diet, and work)[69]
Populations that benefit from the treatment	People experiencing PTSD, including: • Veterans, predominantly male [64-67, 69] • Rural veterans[68]
Providers who can offer intervention services	• Clinical psychologists[66, 68,69] • Psychiatrists[68] • Master's-level therapists and counselors[64, 65, 67] • Master's-level social workers[68, 69] • Psychology interns/fellows[68] • Although formal PE training is not required, practitioners of PE often received training and supervision in the form of: – Weekly supervision from a licensed clinical psychologist who was a certified PE trainer[64] – 32-hour workshop training program in PE[65] – Observation of a senior-level clinician through a complete course of prolonged exposure, both in-person and via telehealth[65] – Recordings of therapy sessions for treatment fidelity[67] – Extensive training and supervision in exposure therapy for PTSD[69]
Technology used	• Videoconferencing via computer[64-69] or smartphone[68]
Intensity, duration, and frequency	• Participants received PE once a week ranging from approximately 60 to 90 minutes;[65-69] they were typically offered between 6 to 12 sessions depending on treatment response,[64, 65, 67-69] and up to 21 sessions in one case[66]
Lessons learned transitioning from in-person care to telehealth	• Clients express general interest and acceptability in using PE delivered via videoconferencing[68] • Telehealth-delivered PE can help overcome geographic barriers to care and help providers reach underserved populations[68, 69] • Providers can make small adaptations to telehealth-delivered care to increase adherence to PE; some small, yet useful changes in care include using smartphone calendar reminders, scheduling an initial in-person client meeting to build rapport, and using the PE Coach app to augment and supplement treatment[66, 68] • During telehealth visits, the quality and positioning of video cameras and monitors can reduce providers' ability to notice and respond to clients' nonverbal communications[69]
Seven studies met criteria for review (four RCTs, two QEDs, and one single sample pre-post), resulting in a rating of Strong Support for Causal Evidence.	

Exhibit 10

American Psychiatric Association, Committee on Psychiatric Dimensions of Disaster and COVID-19 and the Council on Psychiatry and Law, The Impact of COVID-19 on Incarcerated Persons with Mental Illness (2020)

AMERICAN PSYCHIATRIC ASSOCIATION

COVID-19 Pandemic Guidance Document

THE IMPACT OF COVID-19 ON INCARCERATED PERSONS WITH MENTAL ILLNESS

Prepared by the Committee on Psychiatric Dimensions of Disaster and COVID-19 and the Council on Psychiatry and Law

The findings, opinions, and conclusions of this guidance document do not necessarily represent the views of the officers, trustees, or all members of the American Psychiatric Association.

THE IMPACT OF COVID-19 ON INCARCERATED PERSONS WITH MENTAL ILLNESS

Background

The presence of mental illness leads to more frequent incarceration, on average, as well as longer periods of incarceration when compared to those without mental illness.

Prior to the COVID-19 pandemic, persons with mental illness (PwMI), and people of color with mental illness in particular, were disproportionately represented in the jail and prison system.

The COVID-19 pandemic has exacerbated the systemic inequalities that lead to PwMI being treated differently than other prison populations. The opportunities for system improvement suggested in this document, while focused on the impact of COVID-19, may have more generalized application beyond the pandemic.

Issues

1. Courts and parole panels have been recessed, and because PwMI have fewer access to resources needed to pay for bail, PwMI remain incarcerated at higher rates relative to other prison populations.
2. In many correctional settings, therapeutic groups have been canceled, access to routine care is reduced or eliminated, and greatly needed admissions to psychiatric inpatient facilities are even more limited than prior to the advent of COVID-19.
3. In addition, crowding and movement restrictions in jails and prisons may exacerbate mental illness leading to symptomatic exacerbation.
4. Access to reliable technology/wi-fi/cell phone service has been limited, affecting all who are incarcerated and work in these settings.
5. Rapid turnover of inmates and generally reduced access to stable care in jails have been currently exacerbated.
6. Prejudice and discrimination related to COVID-19 contagion is especially directed towards PwMI and jail and prison staff, exacerbating preexisting stigma associated with religious, ethnic, gender, and racial minority status.

Opportunities

Diversion of PwMI:

1. Develop protocols to prevent incarceration for those unable to pay bail/bond.
2. Implement functional crisis teams for referral at time of police contact and expand technology for such teams.
3. Expand or create crisis respite/drop-in centers.
4. Eliminate incarceration for misdemeanor convictions.
5. Implement expanded electronic monitoring as an alternative to incarceration.

6. Develop infection control protocols to enable community programs (e.g., supported housing, group homes, shelters) to continue accepting new referrals from court or prison/jail.
7. Ease challenges for meeting parole or probation requirements and eliminate incarceration for technical or non-violent violations of parole or probation.
8. Increase use of court diversion programs.

Treatment of PwMI who remain incarcerated:

1. Ensure updated and accurate information is actively given to all incarcerated people and correctional setting staff members on preventative measures to reduce the spread of COVID-19.
2. Institute enhanced cleaning protocols, following CDC guidelines, for all correctional institutions to reduce the presence of the coronavirus on surfaces inside the jails or prisons.
3. Establish formal disaster planning protocols; implement rapid COVID-19 screening, triage, containment (e.g., alternate housing areas) and management protocols.
4. Ensure that jails and prisons have adequate PPE for both staff and inmates stored in the event of a pandemic and that the supplies are up-to-date.
5. Coordinate care within facilities and significantly expand telehealth wherever possible and clinically appropriate.
6. Allow visitation via video visits, including professional visits for court-ordered psychiatric evaluations.
7. Where possible, modify mental health programming to conform with infection control measures (e.g., smaller groups for a shorter time in order to accommodate social distancing) rather than cancelling.
8. Ensure continued access to acute psychiatric and medical hospitalization for patients who need that level of care.
9. Establish written protocols and provide training for collaboration by mental health staff, medical personnel, and custody/operations staff to ensure adequate, timely, and appropriate assessment and treatment services.
10. Balance infection control measures (e.g., social distancing, group cancellations) with measures to maintain psychiatric stability, recognizing that in some cases the exacerbated mental illness may pose a greater threat than COVID-19.

Early release:

1. Establish criteria for PwMI who have reached their minimum dates and are now parole-eligible, including a presumption of parole for individuals who have been free of misconduct for a designated time or have demonstrated rehabilitation in other measurable ways. Expedite parole hearings for all incarcerated PwMI. Waive hearings for PwMI meeting the categories of presumption of parole.
2. Utilize video hearings to avoid delays in necessary legal proceedings.
3. Implement emergency measures to release those with severe mental illness with lower level charges, including those found incompetent to stand trial, as quickly and safely as possible.

Transition to community:

1. Coordinate with local health and mental health services for community-based care prior to release.
2. Include emergency measures to make sure people released from incarceration have access to enhanced re-entry support, including housing and other critical supports.
3. Facilitate Medicaid suspension, rather than termination, to reduce delays in accessing healthcare and healthcare benefits upon release.
4. Improve medical record exchange between the correctional institution and the community provider.
5. Provide COVID-19 screening upon release.

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