Research Bulletin

Implementing digital technologies in prisons: A qualitative study of inmate experiences

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Aims

To examine inmates' experiences of the implementation of digital tablets in NSW correctional centres. The study examines inmates' use of the tablets and the issues affecting their use, as well as their views on the impacts of the tablets on their lives and the prison environment.

Methods

A narrative qualitative approach was used to examine inmates' reflections on their experiences. Data was collected through semi-structured face-to-face interviews with 20 inmates in two pilot centres where the tablets were introduced.

Results

The tablets were widely accepted and utilised; however, initial support and training for using the tablets was reportedly limited and inconsistent. Inmates saw the tablets as an important part of the nightly post-lock-in routine, with the phone feature noted as the most popular and heavily used feature. Implementation issues such as unreliable Wi-Fi connectivity and poor-quality headphones were a cause of frustration for some inmates but did not discourage them from using the tablets. Inmates reported that access to the tablets had both direct and indirect positive impacts on their experience of life in prison, including improving their relationships in and out of prison, providing them with a greater sense of autonomy, and enhancing their overall wellbeing.

Conclusion

The study provided an in-depth understanding of inmates' experiences of the implementation of tablets and the perceived benefits associated with tablet use. Several identified implementation issues have the potential to affect some of the benefits provided by the tablets. Both the benefits and complexities of implementing digital tablets are likely to increase with the ongoing development of tablet features and content, therefore consideration should be given to similar technical and administrative issues that may arise with a focus on developing best practices for continued implementation of tablets.

INTRODUCTION

The ongoing development of digital media and information technologies have changed the way we communicate and connect to our communities and to society more broadly (Smith, 2012). The increasing importance of these technologies has further transformed many of the functions of governments, leading to the process of greater 'smartification' of service delivery in many jurisdictions (Kaun & Stiernstedt, 2020). While this change has led to greater accessibility of online services and information, those without access to digital technology are cut off from its benefits, with people from low socio-economic or remote areas, the elderly, Indigenous groups, ethnic or linguistic minorities, and people with disabilities often most affected (United Nations (UN), 2020).

Researchers have identified that incarcerated people had also been excluded from the 'smartification' process for many years due to limited access to computers and communications technology in correctional centres (e.g., Jewkes & Reisdorf, 2016; Kerr & Willis, 2018; Rice, 2021). Reisdorf and Jewkes (2016) point out that such "digital exclusion" during incarceration can exacerbate the social and economic exclusion that ex-prisoners face after release. This means that a lack of opportunity to use and 'keep up' with new digital technology, and with people in the community who use it, can hamper inmates' ability to reintegrate and successfully develop a pro-social life outside of prison.

In recent years, however, there has been a shift towards smartification taking place in corrections as well. The initial focus of digital enhancements in the corrections context has been on improving security and the management of inmates (Mufarreh et al., 2021; Reisdorf & Jewkes, 2016). Many jurisdictions have further expanded this process to directly provide inmates with access to technology, with the aim of reducing digital exclusion and improving their rehabilitation prospects, as well as improving the overall experience of life in prison (Kaun & Stiernstedt, 2020; Krikorian & Coye, 2019).

In keeping with the expansion of access to digital technology for inmates, jurisdictions around the world have in recent years introduced touchscreen 'kiosk' style machines in correctional centres, and internet-connected digital tablet devices assigned to inmates (Krikorian & Coye, 2019). These technologies provide inmates with access to methods of communicating with family and friends, such as phone or video calling, as well as self-service administration, including account management, request forms and personal legal information (Krikorian & Coye, 2019; Palmer et al., 2020). Devices in various jurisdictions also provide access to entertainment resources, e-learning and public service information (Krikorian & Coye, 2019; McDougall et al., 2017).

In outlining the aims of self-service technologies, both industry professionals and researchers have focused on a variety of outcomes. These include reducing the administrative and inmate management burden on staff, increasing inmate autonomy, improving the relations between staff and inmates, and de-escalating friction between inmates (Krikorian & Coye, 2019; McDougall et al., 2017; Palmer et al., 2020). Others have highlighted the value of tablets for incentivising good behaviour, arguing that inmates avoid behaviour that could cause them to lose access to the tablets (Coppola, 2017).

Tablets have also been identified as providing an opportunity to increase access to, and dosage of, behavioural interventions through online delivery of programs and education during incarceration (Krikorian & Coye, 2019; McDougall et al., 2017). Some have also argued that access to technology during incarceration helps inmates develop and maintain skills in using technology for self-service

administration (Krikorian & Coye, 2019; Palmer et al., 2020). Researchers have highlighted the importance of inmates developing and maintaining skills for helping them manage their lives pro-socially in the increasingly digitally dependent community upon their release, where services are often delivered online and accessed via similar devices (Blomberg et al., 2021; Palmer et al., 2020).

Previous research into the use of similar technology in international custodial settings, especially in Western Europe, has identified various improvements associated with inmate access to some features. For example, a significant benefit identified by several studies is how access to in-cell phones has improved interpersonal interactions within the centre, as well as between inmates and their family and friends outside the centre (e.g. Palmer et al., 2020). Studies have also found associations between access to self-service administration technology and improvements in inmate feelings of agency, autonomy and overall wellbeing (Lindström & Puolakka, 2020; McDougall et al., 2017; Palmer et al., 2020). McDougall et al. (2017) also found that the ability to self-manage their enrolment in education and behaviour change programs via digital devices increased inmates' program completion.

Evaluations have further identified broader outcomes of the introduction of self-service digital technologies. For example, in their review of the impact of self-service kiosks available to inmates in a custodial setting, McDougall et al. (2017) identified significant reductions in both prison disciplinary offenses and proven reoffending after the introduction of the technology. Coppola (2017) also reported reductions in inmate suicides, and altercations among inmates and between inmates and staff following the introduction of digital tablets. Taken together, these findings highlight a range of benefits associated with inmate access to digital technology.

Digital tablets in NSW correctional centres

One of the key initiatives under the NSW Premier's Priority to reduce adult reoffending was the introduction of digital technologies in NSW correctional centres. Digital tablets were introduced in John Morony and Dillwynia Correctional Centres in October 2020 as part of a pilot program.

Inmates in both centres received mid-sized Android-based tablets with a full-colour touchscreen. Tablets have been configured for wireless access to the internet via a secure Wi-Fi connection specific to each centre and provide inmates with access to a variety of paid and free services. During the early stages of the pilot rollout, the only paid service available to all inmates was voice calls to approved phone numbers. Free services available to inmates included:

- Pre-approved websites, including news and entertainment sources, education resources, and information about health and wellbeing, and welfare services (read access only)
- Games
- Information about centre administration, and
- 'Facility messaging', which allows centre management to send messages directly to inmates' devices

Inmates in both correctional centres are issued a tablet every afternoon shortly before they are locked in their cells. The phone calls feature of the tablet is available until 10pm; inmates may otherwise use the tablets freely until the morning, when they are collected by staff and placed in charging bays.

Corrections Research, Evaluation and Statistics (CRES) was asked to evaluate the rollout of tablets as part of the initial pilot program. The first study in the evaluation used quantitative data collected through a survey administered to inmates via the tablets in July and August 2021 to examine inmates'

initial uptake of the tablets (see Barkworth et al., 2022). The survey asked inmates questions about their experiences using the tablets and their perceptions of potential outcomes that may be associated with access to tablets, including the social climate in the centre, their sense of autonomy and their general wellbeing.

Inmates who responded to the survey reported using the tablets frequently and for extended periods of time, with even inexperienced users of digital technology reporting substantial use (Barkworth et al., 2022). Inmates reported using the phone feature most often, followed by news and entertainment. In general, they felt that access to tablets improved both their ability to connect with family and friends, and their overall experience of life in gaol.

When considering specific outcomes of interest, a series of multiple hierarchical regression analyses were conducted to examine how inmates' views of the tablets related to their perceptions of social climate, autonomy and wellbeing. The analyses indicated that inmates' perceived value of tablets for improving their overall experience of life in gaol was positively related to their perceptions of social climate in the centre (Barkworth et al., 2022). It was also found that inmates' perceived value of tablets for improving their connection with family and friends was positively related to their perceived sense of autonomy and general wellbeing.

The current study

The current study is complementary to, and expands upon, key findings from the previous survey study (Barkworth et al., 2022). It draws on in-depth interviews with inmates to report on the implementation of tablets in the two pilot centres, as well as inmate experiences of using the tablets.

The study first aims to understand inmates' experiences of the implementation of tablets, including both the facilitators and barriers that

affect inmates' use of the tablets and their ability to benefit from them. Previous research has identified implementation issues, such as network outages, as having substantial impacts on the experience of inmates and the benefits of the technology (e.g., McDougall et al., 2017; Palmer et al., 2020; Reisdorf & Jewkes, 2016). Inmates participating in this study were asked about their access to, and ability to enjoy, different aspects of the tablets, as well as both the technical and practical issues that affect this.

Second, the study aims to develop a more nuanced understanding of inmates' use of the tablets and the mechanisms through which they see the tablets affecting their experiences of life in gaol. In doing so, we also ask inmates to reflect on new tablet features introduced after the completion of the survey administered in the first study (Barkworth et al., 2022).[1] The additional features include a function for inmates submitting 'buy-up' orders and one for accessing personal information such as court dates, sentencing information and their prison trust account balance. We were also interested in how inmates specifically felt the tablets affected the overall social climate or atmosphere of the centre, their perceived sense of autonomy and their general wellbeing.

In line with the main aims of the current study, there was a particular focus on:

- Inmates' experience of the introduction and availability of tablets

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[1] The evaluation of digital tablets was originally designed to utilise a mixed-methods approach, whereby key findings from inmate surveys informed the focus of interviews to take place soon after completion of the surveys. Due to COVID-19 restrictions in NSW correctional centres there was an unexpected delay between survey completion (July and August 2021) and interview site visits (December 2021), during which several features were added to the tablets. Due to the delays and the changes, it was necessary to disaggregate the two phases of the evaluation into separate but related reports.

- The support available to help inmates use the tablets
- Inmates' confidence and ability to use the tablets
- How and when inmates use the tablets
- Facilitators and barriers to successful implementation of the tablets
- Inmates' perceptions of how tablets impact relationships and the general atmosphere in the centre
- Inmates' perceptions of how tablets impact their general wellbeing and overall experience in gaol, and
- Inmates' perceptions of how tablets impact knowledge and efficacy in relation to the use of technology and accessing administrative information.

METHOD

Design

The study employed a qualitative narrative approach, focusing on the perspective of inmates using the tablets in John Morony and Dillwynia Correctional Centres. Face-to-face semi-structured interviews were conducted with inmates at both centres. Interview questions were developed in line with the key areas of focus and associated findings from the previous survey study (Barkworth et al., 2022). The questions therefore focused on inmates' experiences of using the tablets and their perspectives about the impact of the tablets on their lives and the atmosphere in the centres where they reside.

Sample and data collection

The two pilot centres are part of the Francis Greenway Correctional Complex near Sydney, NSW. John Morony Correctional Centre is a medium security correctional centre for remand and sentenced men, while Dillwynia Correctional Centre

is a minimum/medium security correctional centre for women.

The survey used in the first study (Barkworth et al., 2022) provided inmates with information about the follow-up interviews and asked them to indicate their interest in participating. Survey respondents who signalled their interest were randomly selected for participation in the interviews using a random number generator. For each centre, 10 respondents were selected as primary interviewees, with an additional 10 selected as possible substitutes if any of those from the primary group were unable to participate. Experienced interviewers visited the correctional centres twice in December 2021 to conduct interviews. Local contacts at each centre assisted in coordinating and notifying prospective participants when interviews were taking place.

The final sample consisted of 10 male inmates from John Morony Correctional Centre and 10 female inmates from Dillwynia Correctional Centre. At the time of the site visits, a number of the randomly selected interviewees, from both the primary and substitute lists, were unavailable for participation or did not consent to interviews. As a result, the research team invited several inmates to participate in interviews via a convenience sampling approach on the day of the site visit. All interviewees had used the tablets for at least one evening prior to their participation, and therefore had knowledge of its various features.

As shown in Table 1, 15 of the 20 total interviewees had previously completed the survey and had been randomly selected to participate in an interview; the remaining 5, all from John Morony, had not completed the survey and were invited through convenience sampling on the day of the interviews.

Table 1. Number of interviewed inmates by centre

Correctional centre	Completed survey	Did not complete survey
John Morony CC	5	5
Dillwynia CC	10	0
Total	**15**	**5**

Data analysis

All interviews were recorded with the consent of the interviewee and transcribed to enable text-based analysis. Interview transcripts were analysed in QSR NVivo, using a coding framework developed based on the interview questions and focus areas of research. Data was coded into categories covering important discussion topics by an experienced researcher who was involved in the project development and data collection.

Inter-coder reliability (ICR) was conducted among two researchers to confirm the robustness and appropriateness of the categories, as well as coders' understanding of the categories. The process involved breaking down all interview texts into paragraph-sized units and double-coding each unit in ~10% of interviews, and then comparing the codes in each to produce a Cohen's Kappa score. Codes were updated and changed based on discussions between the coders, and then re-tested to ensure consistency. The coders reached a final agreement level of K=0.69, judged as 'substantial agreement' according to Landis and Koch's (1977) widely accepted standard.

The coded data was analysed using a simplified version of the framework matrix approach (Smith & Firth, 2011) to identify common themes across all interviewees, as well as similarities and differences between different groups of interviewees. The small number of interviewees, and the semi-structured nature of interviews, would have made a traditional thematic analysis, involving a complex coding framework and quantification of references, unsuitable.

RESULTS

Key themes identified from analysis of the qualitative data are presented in the following section and are aligned with the focus areas of the study. Results are reported in reference to the introduction and management of the tablets, including information, training and support provided to inmates; tablet usage, including overall engagement with the tablets and each of the main tablet features; the privacy associated with the phone feature of the tablets; issues identified during the implementation of tablets; suggestions for additional features or apps; and inmates' perspectives about the impacts of access to tablets, such as relationships with family and friends, changes to the atmosphere within the centres, and inmates' self-efficacy and preparedness for reintegration.

Introduction and management of the tablets

Inmates were first asked about their initial experiences with the introduction and availability of tablets. They were also asked about the management of the tablets in their centre, including access to information and training during the initial rollout of tablets, and to ongoing information and support about using the tablets and addressing any technical issues that arose.

Availability of tablets

Interviewees who were at one of the two centres when tablets were introduced reported that tablets were initially widely available, but were assigned to each cell/unit, rather than to each inmate personally. Inmates noted that this policy led to some confusion and discord among cellmates. The

lack of direct assignment was seen by some as leading to disagreements about responsibility for damage, which led to tablets being assigned to individual inmates.

Interviewees who arrived at the centres after the introduction of the tablets reported mixed experiences of tablet availability at the centre. While most reported receiving one when they arrived, several noted that they had to wait for days and even weeks before receiving their own tablet, often noting that their cellmates allowed them to use theirs for important functions in the meantime. Several interviewees whose tablets were faulty or broken also reported having to wait for long periods to have their tablet fixed or replaced.

Initial information and training

Many interviewees in both centres stated that they received no training or information to help them set up and log in to their tablets. Some reported that they received a short, printed page with instructions on how to log in to the tablet. Several further noted that a usage guide was available in PDF format once they had logged in to the tablet, but that this was not helpful for gaining initial access to the device. While several interviewees noted that they were able to identify a staff member who had a good understanding of the tablets and could answer their initial questions informally, most reported receiving little formal information or training to help understand how to use the tablets after the initial set-up.

When asked whether they needed more training or support for using the tablets, interviewees had mixed views. Most felt that the information available to help them log in to the system was sufficient, or that none was necessary. Many interviewees explained that they had substantial experience using digital communication technology in the community, especially smartphones and tablets, and that the tablets were not very different from devices they had previously used.

Several interviewees who were experienced in using digital technology, however, felt that more information or support for initial log-in and set-up could be beneficial for inmates with limited technology skills or poor literacy. Several interviewees noted that some inmates, particularly older ones, were intimidated by the tablets until they received information and support from other inmates on how to use them. Several interviewees who saw themselves as less experienced with digital technology felt that information on how to complete the log-in and set-up process was unclear or not available and noted that they had some difficulty figuring out how to complete the process. These interviewees commonly reported having to use trial and error or to seek advice from others.

"*I know of a lady… she was 63, and it was the first time ever that she used a tablet, and she had no clue what she was doing, but she picked it up really quick because somebody had the patience to sit with her and show her.*"

Some interviewees also felt they could benefit from clearer and more detailed information about all available features, including how to access and use them. For example, inmates noted that they would have benefitted from a clearer understanding of how different news and media websites work, including parts of the ABC website that did not show images or otherwise appeared unavailable. Inmates further highlighted the importance of having information on how to locate and use some of the 'unofficially available' features of these sites, especially radio and music video streaming. Those who discussed learning how to use these features explained that undocumented features available on these websites were discovered spontaneously by inmates, and that information about how to access and use them was shared with other inmates by word-of-mouth.

Ongoing support and information

Interviewees generally saw other inmates as the first point of contact for helping them deal with most issues related to the operation of the tablets after initial set-up. This kind of support is particularly important for inmates with poor literacy or technology skills, who needed ongoing support to ensure that they understand how to use all functions relevant to them. Interviewed inmates commonly noted that they were aware of other inmates who were particularly good with the tablets, and that they would, at times, seek help from them, especially in the event of functions not working as expected.

Most interviewees were satisfied with the support available from staff to solve issues after the initial set-up. Interviewees, however, mostly saw staff as available to help fix faults or technical issues, and not to provide information about how to use the tablets. Several inmates did note the need for more up to date 'official' information about the status of restrictions and faults related to different apps and functions. Inmates, for example, were eager to receive a comprehensive list of all websites where some media was restricted, and the reasons for these restrictions.

Tablet usage

Interviewed inmates consistently reported extremely high levels of tablet usage, both their own and among their fellow inmates. They commonly saw the tablets as an important part of their current experience of life in prison, often reporting missing them greatly when they are not available or not working.

Usage times and access

Almost all interviewees reported using the tablets during the afternoon, evening and night after lock-in. Interviewees commonly reported using the tablets immediately after lock-in for entertainment and buy-ups, while making phone calls in the evening when family and friends are likely to be available. Several interviewees noted that they continue to use other tablet features, especially games, until late at night, as they remain available after the shutdown of the phone function at 10pm. A small number of interviewees noted that they used the tablets to make phone calls in the morning before muster to reach family members who are not available at other times.

Most interviewees reported that their tablets are taken from them at morning muster and placed on charge during the day, and they are not able to access them during this time. Several noted that they are allowed to use the tablets during the day, but they often choose not to, preferring to ensure the battery is fully charged before the afternoon lock-in.

Tablet features

Inmates were asked about the ways they used different features of the tablets, including the timing and frequency of use, as well as the role of each feature in their daily routine.

Phone calls

Interviewees in both centres very commonly mentioned the phone feature as the most important function of the tablets. Many highlighted this feature as the main reason that the tablets are important to them. Interviewees appreciated the ability to make phone calls in the evening, long after lock-in, as well as the ability to call people back soon after the end of each 6-minute limited phone call, without having to wait for other inmates to complete their calls. Almost all interviewees who made phone calls reported calling their partner, children, and immediate family, while several reported also calling friends and extended family. Few mentioned calling lawyers or other support providers.

Buy-ups

Almost all interviewees noted using the tablet for arranging their buy-up orders, with many explaining that digital buy-up orders are the main accepted form since the introduction of the tablets. Several interviewees in both centres reported that paper-based buy-up forms are only accepted when tablets are unavailable. Many also felt that the online buy-ups form was much more convenient than the paper-based form. This is mainly due to the interface detailing product prices, showing users' available balance, and completing the calculations automatically for the user as they select each item.

Several interviewees noted that the new buy-up system requires arranging some support for inmates with poor literacy or technology skills, noting that this was usually arranged informally by fellow inmates. Others, however, noted that the system is, in fact, better for inmates with poor literacy and maths skills, as it displays images of the products and automates much of the ordering process.

News

Most interviewees reported that they 'check out' the news regularly, with many stating that this is part of their afternoon or evening routine when using their tablets. According to interviewees, inmates read about current affairs on both BBC and ABC News websites, with several noting that the BBC website provides information about niche topics and regions that would not be covered by the evening TV news report. Only a small number though reported reading the news heavily.

Many interviewees reported using the news websites for more than current affairs, noting that inmates scour both websites for different features to access like music, games and documentaries, notifying other inmates of found features. Interviewees commonly reported using these features, especially

music/radio and games, more frequently than reading the news.

> "I've only had a little flick through it, but also just for a bit of therapy and… being able to get onto the BBC pages, the radio, all that kind of stuff, listen to some music and watch some videos, tutorials, education stuff, it's amazing, it's awesome."

Games

Almost all interviewees report playing games at times, with a large number reporting playing them nightly, up to several hours each night. Many, however, noted that they have grown tired of the small number (and questionable quality) of games officially available as installed applications, complaining that there are no exciting or well-known games, like 'Angry Birds' or 'Candy Crush', available. Interviewees most commonly reported playing card games, especially Solitaire, as well a puzzle game called 'Alchemy'.

Interviewees reported that a large proportion of inmates play games that are not available as apps, but rather on news websites, especially the ABC website (e.g., ABC Me). Interviewees felt that these games were usually more aimed at young children rather than adults but still appreciated their availability and felt they substantially expanded the selection of games beyond those available as apps.

Administrative information

A large proportion of interviewees in both centres reported checking administrative information related to their situation. Interviewees highlighted the value of being able to check available funds in their phone and buy-up accounts, as well as their upcoming court dates. Interviewees also mentioned the value of being able to check their approved contact phone numbers, although several noted that they are still not able to request a new phone number via the tablet. Several interviewees also

mentioned that they checked their own sentencing information and offences in custody.

Music

Although no official websites or apps specifically dedicated to music are available on the tablets, many interviewees noted that they like to listen to music, watch music videos and listen to streaming radio stations available through the ABC and BBC websites on the tablets. Interviewees appreciated the opportunity to access music, which had previously been rarely available in a custodial setting. Many, however, noted that the access was often problematic, as technical issues and other limitations meant music was inconsistently available and often stopped unexpectedly. Several interviewees noted that JailBreak Radio, which appears to be officially available on the list of approved websites, was not working for them at the time of the interviews.

Inmates who do not use the tablets

While all interviewees who participated in the current study reported regular use of the tablets, they were also asked about other inmates' tablet use, particularly those who may not use the tablets. Most interviewees reported that almost everyone they know in the centre use the tablets to some extent, with phone calls, buy-ups, games and news being the main features accessed. Interviewees noted that inmates with limited experience using digital technology – usually older inmates – still used the tablets, often supported by more experienced inmates.

> "...especially the older [inmates], they're not tech-savvy, some of these women have been in here [many] years, they don't know how to work smartphones [or] tablets. They'll come to me and they're like... can you help us do buy-up, or... can you help me do this, because they don't know how to do it."

Most interviewees indicated they were not aware of anyone who does not use the tablets at all, commonly reporting that inmates will almost always at least use the phone and buy-ups features. Several, however, did mention that they are aware of inmates who do not even use these features.

The most common reason given for why some inmates did not use the tablets to make phone calls was having no one to call outside the centre or not having enough funds to make calls. Interviewees, however, noted that due to the requirement to use tablets for ordering buy-up purchases, even inmates who do not use the tablets themselves were assisted by other inmates to fill in the requisite forms using the tablets.

In discussions regarding some inmates' non-use (or very limited use) of other features, interviewees argued that these were usually inmates with very poor literacy, lack of confidence with technology (especially due to age) or a fear of being blamed for breaking the device.

> "...she's not comfortable with technology, and she really doesn't want any part of it... and she just doesn't see the point."

Privacy offered by the tablets

Interviewees had mixed views regarding the level of privacy provided by the tablets for the purpose of making phone calls. Only around one third of interviewees saw the tablets as providing better privacy than the unit public phones, with many noting the critical importance of headphones for enabling this privacy. Another third of interviewees saw the tablets as providing equal levels of privacy, while the remaining third saw them as providing worse privacy than the unit public phones. Several interviewees explained that due to the requirement to make phone calls in shared cells, cellmates were privy to the conversation, but that this could be

limited to only their side when they are able to use the headphones.

> "Of course, it's less private. Because everybody hears what… you say and what the other people said… Even if you go into the room, you have to speak loud because the microphone for the other person, they don't hear you properly."

In considering the issue of privacy when using the tablets, most interviewees saw their privacy as less important than late access to phone calls. They were often unhappy about privacy issues, but were willing to deal with them to be able to call family and friends after lock-in. Many interviewees further noted that they are not concerned about privacy in general, as they know that the phone calls were being listened to, and even recorded, by authorities anyway. Very few interviewees explicitly preferred to use the public phones, despite the privacy issues they identified with the tablets.

Issues identified with implementation of tablets

Connectivity issues

The most significant issue mentioned by interviewees in both centres that affected their ability to use their tablet was inconsistent Wi-Fi connectivity. Interviewees noted that tablets disconnect from the network in different parts of the centres at different times, for anywhere between a few minutes and a few days. Several interviewees also reported that Wi-Fi reception at times was weak in different areas of their unit, but that this was not consistent. They reported that poor connections and outages can cut off phone calls without notice, often preventing them from calling contacts back for some time. Interviewees further noted that when phone calls are cut short, their cost is not refunded.

> "Sometimes the signal isn't the best. Like you'd be on a call or something and it will drop out, and then you've just got to keep trying, trying, trying. Sometimes you can't even get in at all. And then other times it will just lock you out and you can't get in."

In some situations, interviewees reported engaging officers to fix the Wi-Fi issue, with some noting that specific officers in their centre were particularly helpful for resolving the issue when it required only a simple technical solution. Interviewees commonly stated that they are aware of some staff members who know more about the tablets and the Wi-Fi system than others and have learned that it is best to speak with those staff directly. Many interviewees reported, however, that it was often not possible to get in touch with specific staff, and instead waited until the issue fixed itself, which many reported as very frustrating.

Hardware issues

Interviewees also noted issues with the tablet battery, which led to tablets lasting no more than a few hours before needing to be recharged. This meant that heavy tablet users often only got a short period of use out of them each night. Such interviewees noted that they often ask cellmates who do not use their tablets as much to borrow theirs. These issues prompted several interviewees to highlight the need for charging docks to be made accessible at night.

Interviewees reported a number of different technical faults with the devices, including difficulties charging, overheating hardware, and unexpected system 'crashes'. They noted that these faults were frustrating and could lead to them being without a tablet for days or even weeks. They noted that staff were sometimes able to immediately replace their tablets. When such replacements were not available, they reported that staff arranged for tablets to be sent away to be fixed.

Many interviewees further noted that the headphones they received with the tablets worked for only a short time, commonly breaking after no more than 1-2 months of use. Interviewees reported using the tablet 'speakerphone' mode instead. They saw it as particularly problematic for making phone calls and argued it diminished much of the privacy afforded by the tablets when cellmates could hear both sides of the conversation. This issue substantially changed the experience of using the tablet for many, leading interviewees to reconsider having some phone conversations in their cells. Several interviewees noted that due to the poor microphone in the tablets, they needed to speak loudly, allowing even inmates in adjoining cells to hear their conversations. Almost all, however, reported that they continued to use the tablets to make at least some phone calls regardless.

In considering the cause of most faults to the tablet hardware, inmates reported intentional damage was rare. Interviewees argued that inmates usually protect the tablets from harm as they see having a working tablet as very important to their lives. Several noted that the agreed replacement cost of $400 also discourages many inmates from intentionally damaging the tablets.

Other issues

Most interviewees who discussed accessing the news websites on their tablet noted that restrictions and software limitations led to some poor and inconsistent experiences using these websites. The most common issue mentioned was the blocking of all images and videos on the ABC website, which led many to prefer to use the BBC website, despite the lack of local Australian content on it. Several interviewees also mentioned audio streams such as radio stations (e.g., on the BBC website) working very inconsistently.

Many interviewees also noted the cost of phone calls, especially international phone calls, was very

high, to the point of making it difficult for them to make use of the tablets to call the family and friends they wanted to. As such, despite having increased access and availability to make phone calls, they were still limited in how often they could make those calls.

Suggestions for tablet apps and features

When asked about what they would like changed or improved about the tablets, most interviewees requested a greater variety, and improved quality, of games. Interviewees also requested improved access to streaming media, especially music and movies/television. Several noted that a paid streaming service had been recently promised, and that some had even paid for it, but that it was not yet provided.[2]

Interviewees also requested more communication methods, especially text-based, with several mentioning Instant Messaging or email as good methods of fast communication that would be cheaper and more accessible for many compared to phone calls. Some suggested making educational resources available through the tablets, especially TAFE or university courses. They noted that they would appreciate the opportunity to use idle time in gaol to complete courses that could be valuable to their life post-release. Others mentioned the need for improvements to navigation in the tablets, especially a search function, or otherwise clearer navigation to every feature with information about what is accessible and what is restricted.

Impact of tablets

Inmates were asked about their views of the direct and indirect impacts that access to tablets have had on their experience of life in gaol. Discussions

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[2] Informants have confirmed that these inmates have since had their payments refunded.

focused on different impacts identified in previous literature as well as in the previous survey study (Barkworth et al., 2022; McDougall et al., 2017; Palmer et al., 2020). Therefore, there was a focus on how the tablets impacted inmates' relationships with family and friends and with other inmates and staff in the centre, as well as their general wellbeing, sense of autonomy, overall experience of life in gaol and their prospects for reintegration once released.

Relationships with family and friends outside gaol

Almost all interviewees reported that access to the tablets has had a substantial positive impact on their relationships with family and friends in the community. Interviewees noted that access to in-cell phones meant they were able to make calls at times their family and friends were more likely to be available and they were able to make multiple calls without waiting for other inmates to first make their calls.

Interviewees reported that the ability to make calls at night, especially to their immediate family, allowed them to maintain greater involvement in the family. They reported that frequent conversations with school-aged children, who were previously not available at times when they could call (before lock-in at 2.30pm), improved their connection with their children and strengthened their role in the family. Several noted helping their partner put children to bed with bedtime stories or even to discipline them, when required. Interviewees also pointed out that they can maintain regular contact (and all the emotional connection that involves) with their partner by making phone calls at a time of their choosing. They attributed improvements in their relationships with the greater flexibility that the tablets provided them with for making calls, and the greater time they were able to spend on a conversation (even with breaks due to call time limits). Several interviewees argued that the tablets

also improve feelings of family connectedness by allowing them greater access to family dynamics and helping maintain their role within it while in custody.

> "[I call my] partner and kids. [It] makes it a lot less strain on her, because if the kids are mucking up or whatever, I can tell them as well to behave and be good for their mum, and they usually listen to me... It keeps you talking to your family, keeps everything up to date... with what's going on, on the outside."

Relationships and atmosphere within the centre

Most interviewees also saw the tablets as having a positive impact on relationships between inmates in their centre. They associated this positive change with a reduction in the friction that is caused by inmates having to line up or book a time to access the public phone in their unit. They also noted a reduction in the subsequent clashes and bullying that often continued to occur between inmates following friction that arose over the use of phones.

Many interviewees mentioned the impact of news, media and games giving inmates something new to talk about when interacting. Interviewees explained that previously, the main topics of discussion in the centre were internal "drama" and interpersonal relations, which they saw as extending such drama and increasing friction. Many interviewees felt that changes to their conversations following the introduction of tablets had a substantial impact on the overall atmosphere in the centre, subsequently reducing violence and improving connections between inmates.

While most interviewees did not see access to the tablets as having any impact on relationships between inmates and staff, several felt that the availability of administrative information on the tablets did improve these relationships by removing sources of discomfort and friction. Some also saw

improvements to their feelings of autonomy by being able to access information and manage administrative issues directly, without the need for staff involvement. They explained that using tablets to access information like their available account balance, court dates, sentence information and approved contact numbers substantially reduced their need to 'bother' staff for such information. Interviewees also saw this as reducing the workload of staff and improving their outlook and readiness to interact positively with inmates.

Impact on personal experience of incarceration

Almost all interviewees felt that tablets had a substantial positive impact on their overall experience of life in gaol. They detailed a variety of different, yet related, impacts that focused on tablets making their time in prison more enjoyable (or less painful) and making them happier overall. They noted that access to the tablets helps time pass quickly and reduces boredom and stress. Many associated such impacts with activities on the tablets (e.g., games) and with increased opportunities to speak with family and friends.

The positive impacts mentioned by inmates are further highlighted by their statements regarding the impact on their wellbeing when tablets are unavailable. Several inmates reported that they can feel anxious and particularly unhappy when tablets are not working, mainly due to technical faults with the tablets or with the Wi-Fi in their unit. Other inmates noted that such situations can even damage relationships between inmates and their family and friends outside the centre.

> "…gives you a bit of access to the outside world. So it's probably better, it gives you better access to family and friends over the phone. So it probably does help, I would say. But it can have the adverse reaction as well. When it doesn't work, then there's frustration, and anxiety over it not working. Because then they're locked in their cell, and they can't get hold of their family."

In many cases, interviewees mentioned interactions between several of the impacts of the tablets, such as increased access to family and friends and reduced friction among inmates. They argued that the different impacts enable, enhance, and sustain each other, further enhancing inmates' experiences in gaol. For example, access to tablets means inmates are better able to help deal with issues on the outside and help their family and friends, which in turn can enhance feelings of autonomy and reduce inmate stress, further limiting friction and even violence between inmates.

Impact on inmate efficacy and reintegration

When asked about the impact of access to the tablets on their own knowledge of how to use technology and manage their own affairs, most interviewees felt that access to the tablets would not impact their ability to use technology after release. Most interviewees explained that they saw themselves as experienced and even native users of similar digital technology and felt that they are unlikely to learn anything new from their experience using the tablets. A small number of interviewees, however, argued that the opportunity to continue using digital technology while in prison would help them keep pace with developments in technology and prevent them from falling behind while removed from the community.

Several interviewees also felt that having the opportunity to access administrative information and manage administrative matters digitally would

help inmates improve their experience in doing this on the outside. Interviewees rarely referred to their own experience and abilities but noted that some inmates only have experience using the technology for personal communication, not for managing their affairs, and that it could be helpful to give them experience with this before release.

Several interviewees further saw the tablets as possibly benefitting the small proportion of inmates who had little previous experience with technology by helping improve their capacity to use digital technology. Such statements focused on improving their confidence and ability to use the tablets in gaol, but one noted that this could extend to use of technology in the community after their release. Others felt the tablets could help them and other inmates in their reintegration, specifically mentioning the impact of opportunities to learn skills through online courses that will help in their reintegration, especially getting a driver's license.

DISCUSSION

The current study aimed to examine inmates' experiences of the implementation of digital tablets and the impact tablets have had on inmates, including how they communicate with family and friends and their overall experiences of life in gaol. The study sought to understand what inmates viewed as the critical features of the tablets that relate to such experiences, and how issues associated with the implementation of tablets may affect those experiences. The key findings detailed in this report highlight the common themes raised by inmates when considering the introduction of tablets and how they have changed their time in gaol.

Tablet uptake and support for using the tablets

In general, the introduction of tablets in the two pilot centres was enthusiastically welcomed by inmates. In line with the survey results from the previous study (Barkworth et al., 2022), they reported regular tablet use, often for long periods of time, with very few inmates identified as not using the tablets at all, or even using them sparingly. Most inmates saw the tablets as an important part of their evening routine after lock-in, both for communication with loved ones and for generally passing the time before bed. As noted in previous research (e.g., Barkworth et al., 2022; McDougall et al., 2017; Palmer et al., 2020), in-cell phone access was identified as the most important feature of the tablets and was the most frequently used feature. Most other tablet features were also regularly used by inmates and were seen to have important implications on inmates' experiences of life in gaol.

Whether already residing in the centres during the initial introduction of tablets or being a fresh reception into the centre following the introduction of tablets, inmates' initial experiences with the tablets once issued were similar. While many generally understood how to use the tablets, there was limited formal information and support available, especially for initial log-in and set-up of the tablets. Information about using the tablets, and support for inmates with poor technological abilities, was generally informally provided by other inmates. This feedback suggests that additional information about using the tablets and the available features, as well as ongoing support for those who require it, may be beneficial to support introduction of the technology at other correctional centres and new intakes of inmates.

Implementation barriers and avenues for continuous improvement

A number of issues with the initial rollout and ongoing use of tablets were identified as impacting inmates' experience with the tablets and the benefits they were seen to provide. The two most significant issues identified were faults in the device and network, and poor-quality headphones.

Poor or inconsistent Wi-Fi reception, including complete system outages, and other technical faults with the tablets, were exacerbated by either long or inconsistent repair timeframes; a lack of, or infrequent updates on the progress of repairs; and limited staff capacity for troubleshooting. Such issues limited inmates' access to administrative functions, including buy-ups, as well as their ability to use the tablets for contacting family and friends, creating tension among inmates, and negatively impacting their emotional wellbeing. Research on in-cell phones and self-service kiosks in public prisons in England and Wales identified similar issues and the potential for unrest when outages occurred or inmates were otherwise not able to use their devices (Palmer et al., 2020). Palmer et al. (2020) noted the need for sufficient reporting procedures and response times to address the device and network faults to reduce inmate frustration and negative reactions.

One of the benefits of tablets identified in previous research is the increased privacy associated with inmates being able to make phone calls in their cells rather than crowded communal areas (Jewkes & Reisdorf, 2016; Palmer et al., 2020; Robberechts & Beyens, 2020). The previous survey study also identified that more than a third of inmates were either mostly or completely satisfied with the privacy that the tablets provide for making calls (Barkworth et al., 2022). While not all inmates felt the level of privacy the tablets offered them was an improvement on the unit phone, those who did often argued that in-cell privacy was dependent on

the use of supplied headphones. However, the headphones were widely considered to be poor quality, rarely lasting more than a couple of months before they broke. As a result, inmates reported having to resort to using the tablet speaker when making calls, which largely affected the level of privacy they felt tablets did afford them. Subsequently, inmates' ability to connect freely with family and friends was compromised when those around them were privy to both sides of the conversation. Palmer et al. (2020) found that inmates in centres where practical and technical issues diminished the privacy available for in-cell phone calls were less likely to see them as helping keep in touch with family and friends.

While inmates noted several issues that impacted their ongoing use of tablets, it was these issues with device and network faults and with low-quality headphones that reportedly had the largest impact on the quality of their experience with the tablets. Text-based communication, such as email or instant messaging, was suggested as an alternative means for maintaining real-time, or near-real-time, communication with family and friends. Inmates saw such communication as less likely to be affected by reception outages (as the conversation can continue soon after an outage) or a lack of physical privacy (as it is text-based).

Additional suggestions inmates felt would improve their experience with using the tablets included clearer information about accessibility of tablet features and how to navigate them; greater access to better quality games, music and videos; and the ability to access educational resources. Plans to implement the Learning Management System (LMS) across inmate tablets in the future may be expected to address inmates' desire to access more educational resources. Providing inmates with more information about how to access and navigate the current features of the tablets would also assist in their ability to maximise use of all features,

particularly for those who have limited experience using digital technology.

Benefits associated with access to tablets

Inmates' views and experiences of the direct and indirect impacts that access to tablets has had on their experience in gaol and their expectations for the future after release were further examined. Inmates identified a variety of tablet features as positively impacting the different relationships that affect their experience in gaol, as well as their overall wellbeing.

Improved relationships, autonomy and wellbeing

Access to the tablets was viewed to substantially improve a group of interconnected aspects of inmates' lives, including relationships both in and out of prison, as well as their sense of autonomy and overall wellbeing. Inmates associated these improvements with a variety of tablet features they saw as working both directly and indirectly to impact all three issues in independent as well as interconnected ways. The feature most commonly and directly associated with improvements in these areas was the in-cell phone.

In line with findings from the previous survey study (Barkworth et al., 2022), the tablets' phone feature, particularly its ability to provide enhanced opportunities to connect with family and friends outside the centre was seen as improving inmates' experience of incarceration in a variety of ways. Interviewees viewed this feature as important for reducing anxiety, improving inmates' moods, and leading to an overall improved sense of wellbeing. Importantly, access to the phone feature meant inmates also had a greater ability to maintain their role in the family structure. In turn, inmates felt a reduced sense of helplessness and disconnection that often stemmed from an inability to help family and friends when needed. Previous research has

highlighted the value of connection with family and friends for inmate wellbeing, as well as the association between feelings of family connectedness pre-release, including active and pro-social family roles, and better post-release outcomes (e.g., Folk et al., 2019; Visher & Travis, 2003). Therefore, the increased opportunities for inmates to strengthen connections with family and friends provided by access to tablets could subsequently enhance their ability for successful reintegration upon release.

An important mechanism by which the tablets were seen as improving both relationships within the centres and inmates' wellbeing is through the reduction of negative interactions that would otherwise have led to ongoing disagreements and feuds. Previous research has identified that when inmates have access to meaningful or purposeful activities, they are less likely to experience boredom and idleness that can often trigger negative interactions resulting in violence and misconduct (e.g., Boone et al., 2016; Bosma et al., 2020; Rocheleau, 2013; Thaler et al., 2022). With little else to focus on prior to the introduction of tablets, time spent in cells creates space for inmates to ruminate on conversations that have taken place throughout the day. When the focus of these conversations is on internal "drama" and interpersonal relationships within the centre, there may be a tendency for inmates to experience angry rumination, whereby they are unable to let go of an interpersonal transgression that has taken place, subsequently resulting in expression of aggression (Denson, 2012). The introduction of tablets has provided inmates with access to news, media and games that is both able to occupy their time in cell, while also being the catalyst for changing the conversations between inmates away from discussions of internal drama and interpersonal relationships. The increased access to activities that occupies previous idle time in cells, and the re-focusing of conversations that take place throughout the day,

alleviates opportunities for interpersonal transgressions to take place and for inmates to ruminate on those transgressions, which in turn reduces the likelihood of negative interactions escalating into instances of aggression or violence.

Access to individual in-cell phones was also considered particularly important for reducing the friction and violence often associated with the public phones in the units, as has been identified in previous research (e.g., Palmer et al., 2020). The reduction of this friction contributed to ongoing positive relationships between inmates, which in turn enhanced their overall wellbeing. This finding may also contribute to understanding the survey results reported by Barkworth et al. (2022) whereby inmates' perceived value of tablets for improving connections with family and friends was positively related to their sense of autonomy. When inmates can connect with family and friends at a time of their choosing, that is not restricted by the use of unit phones prior to being locked in their cell or by the need to share access to those phones with other inmates, they are likely to feel a greater sense of freedom.

Inmates also highlighted the impact of increased self-service administration, enabled by the tablets with features like buy-ups and access to personal information. Access to such features helped inmates feel more able to manage their needs themselves, without the intervention of staff. Reducing inmates' reliance on staff for simple administrative issues was seen as limiting friction between staff and inmates, meaning when interactions occurred, they were more likely to be positive. Previous research into the use of digital devices in prison settings also found an association between increased inmate self-administration and more positive staff-inmate relationships (e.g., Palmer et al., 2020; Robberechts & Beyens, 2020). The introduction of tablets therefore could afford staff the opportunity to spend less time on dealing with the administrative aspects of interactions with inmates while focusing

on more meaningful and rehabilitative interactions such as 'Five Minute Interventions' (Barkworth et al., 2021).

Developing the abilities of inmates with limited technological literacy

Maintaining and improving inmate efficacy in using technology and in managing their own administrative needs is a central aim of digital self-service technology in custodial settings (Blomberg et al., 2021; McDougall et al., 2017; Palmer et al., 2020). Given many inmates who participated in the current study reported having previous experience with similar technology, they did not credit the tablets with improving their ability to use digital technology. However, findings from the previous survey study demonstrated that even inmates with little-to-no experience in using digital devices reported extensive use of the tablets (Barkworth, 2022). Interviewees in the current study backed this up and suggested that informal one-on-one support provided by more experienced users of technology was critical for improving the abilities of inexperienced users, as well as their interest in using digital technology.

Those with the least experience generally lacked the confidence to use technology due to their age. Reisdorf and Jewkes (2016) found that older inmates, with longer sentences and less technological ability, commonly develop entrenched aversions to technology, and fear the technological environment they will face upon release. Seo et al. (2021) further reported that older inmates who have not had regular access to technology before and during their incarceration had particularly poor self-efficacy in using technology, which acted as a barrier to using, and learning how to use, technology post-release. Access to tablets, and support for learning how to use them, provides inmates who had limited previous experience using digital technology with the opportunity to develop the skills needed to access services and manage

their lives in a technologically developed world once released, with potential lead-on effects for their prospects of successful reintegration. This highlights the potential value of providing targeted support and resources to inmates identified as having limited skills and experience in using digital technology.

Limitations

Some limitations of the current study are noted. One such limitation is a lack of representation of inmates who had never used the tablets. Our recruitment strategy was based on identifying inmates who gave consent to follow up contact in the final question of the survey administered via the digital tablets in the first study (Barkworth et al., 2022). Therefore, inmates who did not use the tablets would not have completed the survey and indicated their interest in participating in an interview. The design of the interviews used in this study was intended to partially account for this limitation, by including several questions asking interviewees to discuss their knowledge of other inmates' use of tablets, especially inmates who use them sparingly or not at all.

Furthermore, all interviewees were based in one of the two correctional centres participating in the pilot of the digital tablets. Although there are substantial differences between the centres and the units within them, especially related to gender and remand status, findings across the centres were mostly consistent. However, the pilot centres reflect a small set of contexts and inmate cohorts, thus the results of the study may not generalise across CSNSW centres that house different cohorts of inmates. Neither centre, for example, houses inmates classified as maximum-security, which means that views and experiences discussed in this study may not be representative of inmates who would be placed in maximum-security centres.

Finally, the current study has only examined the views and experiences of inmates. While we gained insights from key operational staff who are involved with the tablet program, outside of the scope of this study are the views and experiences of staff who work in the centres where tablets have been introduced. Future evaluations could consider staff views about the impact of tablets on inmates' lives, the atmosphere in the centres, and their own workload.

Conclusion

This study provided an in-depth examination of the initial implementation of digital tablets in two NSW correctional centres. The results suggest that the tablets have become an important part of inmates' daily post-lock-in routine, as a way to connect to the outside world and a way to reduce the boredom and interpersonal friction associated with otherwise idle time. From inmates' feedback there appears to be significant scope for digital tablets to improve their experience in gaol both directly and indirectly, through improvements to their relationships within the centre and within the community, enhancing their sense of autonomy, and improving their overall wellbeing. Widespread uptake of the tablets may also serve as a mechanism for improving the abilities and interest of a minority of inmates with limited technological skills to use technology after their release.

Interviewees identified a range of technical and administrative issues associated with implementation of the digital tablets at pilot sites, which may inform focus areas for improvement as the technology is established at other centres across NSW. Whereas such issues are not unexpected during the initial introduction of new technologies, the results of this study highlight their potential impacts on inmates' wellbeing, their access to basic everyday needs and functions, and the order of a correctional centre. While clearer procedures for dealing with these issues and access

to alternative methods of communication were desired, inmates were still quick to acknowledge the many benefits of having access to the tablets and would continue to use them. It is likely that both the benefits and complexities of implementing digital technologies in NSW correctional centres will increase as more tablet features and content are released over time, with implications for ongoing evaluation and development of implementation best practice.

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