Exploring the Impact of Technology-Facilitated Abuse and Its Relationship with Domestic Violence: A Qualitative Study on Experts’ Perceptions

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Abstract
Technology-facilitated abuse can be a serious form of domestic violence. Little is known about the relationship between technology-facilitated abuse and other types of domestic violence, or the impact technology-facilitated abuse has on survivors. The aim of this interpretative descriptive study is to understand domestic violence specialist service providers’ perspectives on the impact of technology-facilitated abuse, and the link between technology-facilitated abuse and other forms of domestic violence. A qualitative approach using 15 semi-structured interviews were undertaken with Australian domestic violence specialist practitioners, and three themes were identified through data coding using inductive thematic analysis. Another form of control describes technology-facilitated abuse behaviors as enacting controlling behaviors using new mediums. Amplifies level of fear characterizes the impact of technology-facilitated abuse. A powerful tool to engage others describes opportunities technology offers perpetrators to abuse through engaging others. Findings highlight technology-facilitated abuse’s complexity and integral role in domestic violence and can assist clinicians to understand the impact and harm that can result from technology-facilitated abuse.

Keywords
domestic violence, technology-facilitated abuse, qualitative research, coercive control, social media, Australia

Introduction
Domestic violence (DV) poses a significant societal issue with lifetime prevalence rates indicating a third of women globally will be physically or sexually abused by a current or former partner (World Health Organization, 2013). Over the last few decades research exploring physical, sexual, financial, emotional, and psychological abuse has provided evidence regarding the experience and impact of various forms of DV (Ayre et al., 2016; Garcia-Moreno et al., 2006). Evidence suggests that these commonly recognized forms of abuse contribute significantly to poor physical and mental health outcomes, particularly for young women (Garcia-Moreno et al., 2006; Ayre et al., 2016). Yet, a relatively new form of DV—technology facilitated abuse (TFA)—has been comparatively under-explored (Dimond et al., 2011; Freed et al., 2017; Maher et al., 2017; Southworth et al., 2007; Woodlock, 2017) and mostly undertaken with quantitative research methods.

Technology Facilitated Abuse in Intimate Relationships
Technology-facilitated abuse is also known as digital dating abuse (Brown & Hegarty, 2018), technology facilitated coercive control (Dragiewicz et al., 2018, 2019), digital coercive control (Harris & Woodlock, 2018; Woodlock et al., 2019), and technology misuse (Dragiewicz et al., 2018, 2019). Recent evidence suggests that TFA is common (Harris & Woodlock, 2018) with the majority of DV specialist providers

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seeing TFA being used in the violence perpetrated on survivors (Harris & Woodlock, 2018). TFA can be described as controlling and coercive behaviors used by intimate partners through the use of technology (Dragiewicz et al., 2019; Hand et al., 2009). TFA behaviors include but are not limited to: stalking and omnipresence, tracking, intimidation, impersonation, humiliation, threats, consistent harassment/unwanted contact, sexting and image-based sexual abuse (Brown & Hegarty, 2018; Dragiewicz et al., 2018, 2019; Drouin et al., 2015; Hand et al., 2009; Henry et al., 2019; Woodlock, 2017). The impact of these forms of abuse are not well recognized by practitioners or researchers but pose challenges for survivor’s mental health and wellbeing and their sense of safety and security (Brown et al., 2020; Dragiewicz et al., 2019; Drouin et al., 2015; Harris, 2016; Harris & Woodlock, 2018; Powell & Henry, 2019; Woodlock, 2017). Surveys have reported the prevalence of TFA in intimate relationships (Australian Bureau of Statistics, 2017; Brown & Hegarty, 2018; Cardiade et al., 2019; Fernet et al., 2019; Wood et al., 2015), however there is a lack of evidence highlighting the link between TFA and other forms of domestic violence. Importantly, there is little known about what types of harms TFA behaviors causes for survivors (Brown & Hegarty, 2018). The evidence that does exist prioritizes the voices of survivors, and while this is beneficial to understanding this complex issue, there is a need for service providers to learn from each other’s experience and knowledge. Furthermore, the majority of research undertaken in TFA has utilized survey design, which neglects to offer rich, contextualized data on an area requiring deep understanding. Failing to understand how TFA is used within the broader extent of domestic violence behaviors and its ongoing impact means that many service providers are ill-prepared to respond appropriately in their care of survivors. To respond to this gap, the aim of this study was to explore DV specialist practitioners’ views on the context of TFA in intimate relationships to examine their perceptions of (a) the link between TFA behaviors and other forms of domestic abuse and (b) the impacts of TFA on survivors.

Methods

Informed by an epistemology of constructivism/interpretivism, the methods selected for this study were chosen from acknowledgment that reality is subjective and informed by experiences and interactions (Liamputtong, 2019). Qualitative data collected through interviews were chosen to provide meaning and context to the impact of TFA. DV specialist practitioners were recruited because of their collective knowledge and expertise gained through multiple interactions with survivors experiencing TFA, and because understanding service providers’ perceptions is vital to the provision of professional development programs for professionals working in the field. Qualitative methods offer researchers an opportunity for in-depth exploration when seeking experience-based knowledge to inform clinical practice (Hammarberg et al., 2016). Interviews are the most widespread form of qualitative data collection (Jamshed, 2014) and were chosen for the current study because they generate opportunities for the safe and comprehensive exploration of topics that are social or emotive in nature (DiCicco-Bloom & Crabtree, 2006). To ensure the data emerging from the semi-structured interviews was relevant to the research questions, of appropriate quality and trustworthy, a semi-structured interview schedule was developed (Kallio et al., 2016). Semi-structured interviews offer a format that inspires the interviewer to pose pre-established questions as well as follow-up questions, enabling further examination of data stemming from answers offered by the interviewee (Kelly et al., 2010).

Recruitment, Data Collection and Management

Participants were recruited from a larger existing study involving a survey of DV specialist practitioners, the purpose of which was to assess the content validity of a new scale measuring technology-facilitated abuse in relationships (Brown & Hegarty, 2021). At the end of the survey participants were asked if they would like to participate in further research via an interview. Individuals who expressed interest in participating were telephoned by a research team member to explain the purpose and conditions of participation. Although 16 specialist practitioners expressed interest and were contacted, only 15 asked to receive more information. These 15 were then emailed a Participant Information Sheet and Consent Form which were signed and returned via email prior to the arrangement of an interview time.

Participants were informed that TFA behaviors included but were not limited to: stalking and omnipresence, tracking, intimidation, impersonation, humiliation, threats, consistent harassment/unwanted contact, sexting and image-based sexual abuse. This definition included all digital mediums. Using the following questions as examples, the interview schedule explored TFA behaviors, their harm and links with other forms of DV:

What technology-facilitated behaviors concern you most when it comes to survivor safety and why?

What is the most serious harm that concerns you from the behaviors you have identified?

What do you perceive as the relationship between TFA and other forms of DV?

Individuals participated in a semi-structured interview over the phone with researcher one. Participants were not offered any incentive to participate. Signed informed consent for participation and recording of interviews was obtained. Fifteen interviews took place from January to March 2019. The interviews ran for an average duration of 36 minutes. Interviews were recorded digitally and transcribed verbatim through a specialist transcription service. To ensure that the
interviews were generating data relevant to the research question, three interview transcripts were reviewed early into the research process by two authors (Fiolet and Hegarty).

**Ethics**

Although participants were highly experienced in working with DV and discussing traumatic topics, a distress protocol was developed by the research team in case any participants became distressed during the interviews. The distress protocol outlined the process the researcher should follow for pausing or ceasing the interview and arranging immediate additional support for the participant. All participants were also supplied a list of resources, and if they felt they required additional support, offered confidential counseling services. The study was approved by the University of Melbourne’s Human Research Ethics Committee (HREC).

**Data Analysis**

According to Braun and Clarke (2006, 2020), thematic analysis is a flexible method, that when used rigorously is helpful in identifying and organizing themes, particularly in areas where little research previously exists. Thematic analysis was used in the current study because of limited existing evidence on practitioner’s perceptions about TFA behaviors and the impact they have on survivors. An inductive thematic data-driven approach allows themes to emerge from patterns of meaning and unpredicted perceptions (Braun & Clarke, 2006, 2020). Following Braun and Clarke’s steps for data coding (Braun & Clarke, 2006, 2020), one member of the research team (Fiolet) drew descriptive codes from the data using NVIVO software (NVivo, 2018). Descriptive codes were then checked and validated by two others (Wellington and Hegarty) before all three researchers worked together to determine the final coding structure. These descriptive codes were then discussed and collated into themes with the assistance of two experts (Brown and Bentley). These descriptive codes were then examined in depth by Fiolet, Wellington and Hegarty to identify interpretive coding. Interpretive coding assisted in the identification of themes, which were then reviewed by the entire research team.

**Findings**

Interviews were undertaken with 13 women and 2 men; all had experience working as frontline service practitioners in domestic violence organizations. Participants had a range of experience in domestic violence support which spanned from 2 to 30 years, with an average of more than ten years. Among the many programs on offer across most organizations, the majority also delivered specific support for women who identify as Aboriginal or Torres Strait Islander, as well as assistance dedicated to Culturally and Linguistically Diverse (CALD) populations. There were three nurses among the interviewees but most participants described themselves as domestic violence counselors, support workers or case managers. There was also a support worker and a manager from DV refuges, a domestic violence court advocate, a specialist counselor in children’s services, a housing support worker, and a family law solicitor. Although the participants represented a variety of specialist service backgrounds who undertook a substantial amount of work with people of other cultures, the stories they told were consistently similar. After analysis, three main themes described DV service provider’s perceptions of TFA; another form of control, amplifies level of fear, and a powerful tool to engage. An over-riding concern was expressed by all participants regarding the amount of TFA they encountered in their work in the domestic violence sector.

**Another Form of Control**

Many participants held perceptions that the behaviors exhibited by people using technology to abuse partners or ex partners were similar to “traditional” methods of coercive control in face-to-face exchanges. Like in-person forms of DV, TFA appears to be grounded in the attainment of power and control however technology is offering innumerable new ways to facilitate the abuse. In this way the behaviors are “business as usual,” although made easier by technology’s increasing functionality to reach partners. Thus, most participants see TFA as an extension of other DV behaviors, as expressed by Participant 1 “The technology abuse, it’s really just another one, another form of control. Like it’s another thing that he can use to try to gain control over her and her life really.” These views were also highlighted by Participant 6 who described the extension of abusive behaviors through the use of technology “I think tech facilitated abuse is a continuation, where someone can physically, verbally abuse you while you’re in their presence or by talking to family and friends, whatever, the abuse allows this to continue on.”

The majority of participant’s perceptions were related to the control that technology offers those who use it, highlighting the power perpetrators have “Look, I think it’s interlinked, and I think that with all abuse it’s power over and it’s controlling another person’s life” (Participant 3). Although most participants acknowledged the ease with which technology enables perpetrators to access survivors, many perceived that behaviors such as constant intimidation or harassment would still occur if the internet or messaging didn’t exist. However, it is the ease of use and constant access afforded by the technology medium which raised concerns “It’s an extension of their power. It allows the perpetrator the power to be reaching into their private space, no matter where they are. Because it’s boundary-less” (Participant 10). An extension of power is considered to be particularly threatening when the perpetrator does not need physical presence to maintain control:
It just is a way for it to keep continuing so even though it may be different to being. . . in a sense they could almost still be there because they’re still continuing the same behaviors in a different way. . . I think that’s part of the relationship is that they’re still able to intimidate and control in a sense what she does, where she goes. . . through the technology. (Participant 15)

Online stalking was identified as a particularly harmful behavior as survivors may not be aware of this form of abuse compared to in person stalking for example, monitoring social media use, placing GPS devices on cars, with survivors sometimes being unaware how their perpetrator was repeatedly finding them, “I don’t see it as anything other than just a more progressed version of stalking, harassment, threats and intimidation. The majority of it is that” (Participant 14). Further, some participants described survivors as experiencing a feeling of never being able to escape the perpetrator, even after they had left the relationship:

It [the ongoing presence of the perpetrator] really is one button away and for these people that flee . . . doesn’t mean they’ve fled the relationship, because that abuse is able to be continued through technology. So together, the relationship with technology and abuse, is the fact that it can be continued when the person has left the household and it’s a continual way to control them. (Participant 8)

This extension of abuse and the pervasiveness of TFA as perceived by most participants was thought to have serious impact on survivors.

Amplifies Level of Fear

The second theme describes participant’s perceptions of the impact TFA has on survivors. Participants described the ubiquitous nature of TFA as elevating the level of fear experienced by survivors. “But if you are talking about a direct impact of the tech abuse, it just really amplifies this level of fear and pervasiveness that the perpetrator is kind of omnipresent” (Participant 5).

Most participants described the fear caused by the constancy of control, likening it to a constant hyper-awareness. The fear was described as being ever-present in the lives of survivors, as omnipresent as the abusive behaviors:

I suppose that’s probably one of the most concerning things, and just monitoring of somebody’s activities on a regular basis, so that they feel that there is no way out, or no privacy. So I think that’s a really big power and control technique that people use to just ramp up the fear factor. (Participant 12)

There is this continual fear that they are looking over their shoulder and that in itself is such a controlling behavior, it evokes fear within someone. Whether it’s real or not, once they have that fear of being stalked and someone finding them who has caused damage for them, whether its emotional or physical, it’s frightening; absolutely frightening for them. (Participant 2)

Many participants described report of some perpetrators as deliberately crafting their messages in ways that would appear innocent to a bystander, but insidious, threatening and fear-inducing to the survivor. History, context and personal prior communications within relationships are referenced symbolically or innocently to manipulate or control survivors:

It can appear to be benign. What you and I might look at and think, what’s the problem? It can be a threat. You send the person a picture of their dog that to me is a picture of their dog. To them, that’s him threatening to hurt the dog. (Participant 10)

Some participants described how perpetrators would use technology to besiege their partners or ex-partners by constantly sending technology facilitated communications, rendering the situation inescapable and the survivor feeling overwhelmed, distressed, and afraid:

It was like she just couldn’t get away from it which could be I guess quite overwhelming. Like she was quite overwhelmed that he just kept calling her and kept messaging her, because at that stage she was looking at leaving the relationship. I guess overwhelmed, she’s quite fearful of where that will lead to. (Participant 1)

In addition to recognizing the impact these abusive behaviors have on survivors, many participants identified the seriousness of the risk associated with perpetrators’ actions:

I’ve had clients where they’ve had up to 100 emails a day, missed calls, texting and it’s just so kind of persistent and obviously, that’s really distressing for her, but to me, that gives me concern for his level of commitment to the abuse and ownership over her. (Participant 5)

Practitioners describe survivor’s experiences of fear that result from TFA as significant and inescapable. Concerningly, they identify that these impacts could be further exacerbated through the technological engagement of others in the abuse.

A Powerful Tool to Engage Others

This third theme centers around how perpetrators use social media and other technologies to engage others outside the relationship to amplify and facilitate their abuse. Many participants described how the ability to reach a large audience via social media enables perpetrators to engage others to unknowingly attack the survivor through posting negative comments that encourage others to contribute. “Anything that’s put online that’s derogative about someone can absolutely damage not only their reputation, but their business if they have one. So it’s a really powerful tool; extremely powerful in every aspect of their life” (Participant 2).

Some participants also discussed perpetrators’ use of social media to shame survivors by threatening or actually posting private images or videos with the intention of the
images being seen by the survivor’s family and friends. In some cases perpetrators were understood to have incited people known to the survivor to engage in character attacks, causing even further distress. One example of this was where a perpetrator intentionally shared naked, intimate pictures of a young Bhutanese woman with members of her community, knowing that it would bring shame on her culture and she would be outcast as a result:

They’d been put online, and they’d gone right out to all of the community members and she was told she would have to commit suicide because she shamed the community. (Participant 3)

Some participants reported yet another way technology was used maliciously, that being perpetrators using social media to garner support from others to harass partners or ex-partners. “Sometimes it’s ‘I’m going to get the community involved’ or ‘I’m going to get my mate to contact her’ or ‘I’m going to get people to drive past and beep the horn’. It’s organizing that stuff through social networks” (Participant 4). Participants described perpetrator’s use of social media to humiliate and exclude survivors, as heightening the isolation that permeates the lives of some DV survivors:

A lot of gaslighting, she’s making it all up, she’s crazy. How can you listen to this crazy woman? She’s trying to keep my kids from me. All of those sorts of things, which just means that the people that she might turn to for assistance, she’s ashamed to. (Participant 10)

Finally, many participants detailed how some perpetrators used the children of the relationship to further perpetrate forms of abuse. In some instances, the child had been gifted a device which covertly stalked the survivor’s activities:

He was using the children’s PlayStation. It was one of those new generation PlayStations. He was using that – he’d gifted it to the child and then he was using that to monitor her television use. You can watch programs through it. (Participant 14)

Other participants spoke of how, under the guise of custody access rulings, perpetrators used children’s mobile phones to track their whereabouts and locate their mother (the survivor) post-separation:

We had a situation where we had a woman in the shelter and her son, who was 12, and even though she was trying to keep separate, it was the son he was targeting. Where are you? Where are you? You’re my boy, where are you? Sort of thing, to try and find out – and he did find out where she was eventually. (Participant 10)

Some participants spoke of the need to alert survivors to examine their children’s devices. “When we’ve got kids, it’s like, okay, so has dad given them an iPad? Has dad given them a phone? Okay, well we need to look at the technology at—what’s happening with that? Is dad tracking through that” (Participant 6). On the other hand, some participants acknowledged how children became wise to manipulative behavior:

Her daughter decided to block him (her father) on Facebook as well because he started threatening and harassing and then saying I’m sorry, I’ll change, it won’t happen again and then he’d start harassing again, intimidating. . .it had this impact on the whole family. (Participant 15)

In summary, participants described technology as used to control survivors, make survivors afraid and to engage others in TFA.

Discussion

This study aimed to explore DV specialist practitioner’s views on the context of TFA in intimate relationships, examining their perceptions on the link between TFA behaviors and other forms of abuse, and the impacts of TFA on women. Participants perceived that technology offers another medium for DV perpetrators to gain control in their relationships and is an extension of the other commonly recognized forms of DV such as physical, sexual and emotional abuse. Practitioners also perceived that the ongoing access to survivors afforded by technology means that few survivors are able to escape the fear it generates. In fact, practitioners described survivor’s experiences of fear as intensified by the pervasive and constant perpetrator presence enabled by technology. Practitioners also described technology as a formidable weapon when used by perpetrators to engage others in their abuse.

Practitioner’s descriptions of TFA as an extension of other forms of violence support scholarship that describes TFA as incorporating similar in-person tactics including stalking, threatening behaviors, and negative messaging (Woodlock, 2017). The fact that technology has allowed controlling behaviors to be digitized has been captured in international literature also (Flores & Browne, 2017). A large-scale study involving US college students, suggests that stalking behaviors described by participants in our study is consistent with the high rates reported by young women more globally (DeKeseredy et al., 2019). Practitioner’s perceptions that technology offers perpetrators new ways to access survivors also supports Woodlock’s (2017) suggestion that “this tactic erodes the spatial boundaries of the relationship” (p. 592). A recent study focusing on the experiences of refugee and migrant women experiencing TFA suggests that the incessant nature of abuse afforded by technological means reported by service providers is experienced by survivors of all backgrounds (Henry et al., 2021). Technological facilitated abuse has been connected to fear and distress previously (Dragiewicz et al., 2019), particularly with female adolescents and young women (Brown...
et al., 2020; Lindsay et al., 2016; Reed et al., 2017). It is possible that the sense of inescapability resulting from TFA serves to exacerbate the experience of fear in some survivors. Our findings are consistent with other studies that have reported how survivors of TFA can experience abuse and its impacts long after leaving the abusive relationship (Dimond et al., 2011; Dragiewicz et al., 2019; Drouin et al., 2015; George & Harris, 2014).

Similarly, practitioner’s perception that other people can be engaged in the online abuse social media platforms is similar to findings from other Australian scholarship (Douglas et al., 2019). Douglas et al.’s research provides survivor reported examples of Facebook being used to harm the reputation of survivors, with perpetrators using the platform to post negative comments (Douglas et al., 2019). Further, perpetrators “overtly and covertly” draw on their social networks to contribute to the abuse (Douglas et al., 2019, p. 364). Although the tendency for perpetrators to engage other men in online abuse has been addressed in previous literature (DeKeseredy & Schwartz, 2016), there needs to be more focus on the use of children as identified by service providers in our study. Other scholars have found that children are frequently recruited by the perpetrator or “innocently” gifted devices in ways that perpetuate the abuse of the survivor (Douglas et al., 2019; Woodlock et al., 2019), but the impact that has on those children is worthy of further exploration. As previously recognized, involvement of others in technology-facilitated abuse makes it a formidable weapon that has the potential to affect not only the survivor herself, but also other often innocent individuals (Douglas et al., 2019).

Despite global evidence confirming technology can have benefits for survivors, particularly via online resources specifically designed for survivors (Fiolet et al., 2020; Ford-Gilboe et al., 2020; Glass et al., 2017; Hegarty et al., 2019; Koziol-McLain et al., 2018), the current study highlights practitioner’s perceptions of technology enabling and facilitating abuse, and impacting survivors in profound ways (Woodlock et al., 2019). More research on safe access to technology is needed so that the benefits of using technology as a means for empowerment, outweigh the harm inflicted by partners and others using it to abuse.

**Strengths**

This study drew on the voices of a variety of DV specialist practitioners located over several States and Territories of Australia. The intimate knowledge and experience these specialist practitioners offer regarding DV provides a unique insight into their perceptions of the nature and impact of TFA. As DV specialist practitioners are informed by survivors, colleagues, and their own observations, it is assumed that we have obtained insightful and educated perspectives. The analyses were carefully conducted by researchers with a range of DV knowledge, practice and expertise.

**Limitations**

The small number of participants (15) recruited from one country is a limitation despite the qualitative methods used. We did not hear directly from survivor voices, rather from those who speak regularly with survivors; providing a different perspective on the impact of TFA and TFA’s interaction with in-person relationship abuse. Participants self-nominated their participation in the study which could result in response bias, problems of memory recall and variations in how participants interpret research questions. Further, our interview questions did not restrict responses to survivors of any specific genders, and participants appeared to speak only about women survivors, thus the current study does little to advance knowledge of practitioners’ perceptions about male and LGBTQ survivors.

**Implications for practice.** While participants in the current study came from a range of DV related vocations, this does not preclude the findings from being of value to nurses involved in the care of survivors of TFA. Nurses and midwives are uniquely positioned to work closely with women in all stages of the illness-wellness continuum and can therefore benefit greatly from an understanding of the significant role TFA behaviors have in causing fear. All clinicians responding to DV-specialist and non-specialist—need to understand the pervasiveness and impact of TFA on survivors so that during response they can be alert to and ask about its presence. This is particularly relevant to clinicians who may have traditionally encouraged survivors to avoid the use of technology. It is unhelpful to encourage survivors to evade technology, especially given the benefits to accessing online resources and support (Al-Alosi, 2020; Douglas et al., 2019; Woodlock, 2017). Instead, nurses and midwives need to explore how they can safely and appropriately respond to a perpetrator’s use of TFA to deter future perpetration (Powell & Henry, 2018), while creating a safe environment for the woman. Given how frequently TFA occurs in relationships (Harris & Woodlock, 2018), the requirement for raised awareness among clinicians is crucial.

**Conclusions**

Technology facilitates abuse and makes it easier for perpetrators to exercise control and create fear, thus there is an urgent need to ensure that all clinicians involved in the provision of DV services are adequately trained to identify and respond to TFA. This training should involve awareness of TFA as an extension of existing DV behaviors rather than as a unique set of behaviors, and acknowledge technology as a new means by which a perpetrator can abuse. The unique ability TFA has in prolonging the survivor’s experiences of fear beyond relationship dissolution should also needs to be addressed within training, as clinicians need to support survivors in their experience of the perpetrator’s omnipresence.
during and after the relationship. Training should also target appropriate ways to discuss the potential that children and others may knowingly or unwittingly be implicated in the tactics of abuse.

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Supplemental Material
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