Havard, T. and Lefevre, M. (2020, in press) Beyond the Power and Control Wheel: How abusive men manipulate mobile phone technologies to facilitate coercive control. *Journal of GenderBased Violence*, accepted for publication 10.3.20.

Abstract

Mobile phone ownership has become almost universal, with smart phones the most popular consumer electronics device. While the role of technologies and digital media in the domestic abuse of women is gaining international attention, specific information regarding how mobile phones, and their various 'apps', may assist perpetrators in the coercive control of their current or former partners is still a relatively unexplored area in the research literature. This study with women survivors was able to identify that perpetrators use mobile phones in ways that go beyond the traditional tactics of abuse identified through the globally used feminist theorisation, the Power and Control Wheel (developed by the Duluth Domestic Abuse Intervention Programme). The portability and diverse capabilities of mobile phones have been manipulated by abusive men to develop strategies of 'agile technological surveillance', which allow them to track and monitor their partners in various ways 'on the go' and irrespective of physical proximity. An adaptation of the Power and Control Wheel has been developed and licensed to account for these new opportunities for surveillance, manipulation and control. Proposals are made for integrating this revised framework into professional practice to inform assessment and management of risk in abusive relationships.

Keywords

mobile phones, domestic abuse, coercive control, risk assessment, digital technologies.

Key messages:

- 1. Mobile phones are being used by male perpetrators as a tool for coercive control within domestic abuse.
- 2. While some of the phone-mediated abuse strategies identified in this research correspond with those established through the Duluth model, the Power and Control Wheel does not yet account for the agile technological surveillance that mobile phones afford, which transcends boundaries of physical location.
- 3. An adapted Power and Control Wheel is presented here, which can inform professionals' assessment and management of risk in the context of domestic abuse.

Introduction

While the role of technologies in the domestic abuse of women is gaining momentum and attention (Woodlock, 2013; Women's Aid, 2014; Woodlock, 2017; Dragiewicz *et al.*, 2018; Douglas *et al.*, 2019; Harris and Woodlock, 2019; Woodlock *et al.*, 2019), there remains limited understanding and conceptualisation of how mobile phones provide perpetrators with new and enhanced opportunities for the coercive control of

their current or former partners. This is a substantial gap in knowledge, given the global prevalence of mobile phone ownership (Statistica, 2018) and the increasing popularity of smartphones (Wigginton and Brodeur, 2017). Our paper seeks to address that gap, through a qualitative study with women who experienced their mobile phones being manipulated as a tool for coercive control within their abuse by a male partner. Some of the tactics identified by the participants correspond with strategies of control identified through existing feminist theorisations, namely the Duluth Domestic Abuse Intervention Programme's Power and Control Wheel (Pence and Paymar, 1993). However, our research identified additional patterns of surveillance, manipulation and control facilitated by what we have termed 'agile technological surveillance'. The findings have enabled an adaptation of the Power and Control Wheel to be developed which, we propose, should be integrated into assessment and management of risk in abusive relationships. **Mobile phone**-

mediated coercive control

Historically, the emphasis has been on physical violence within domestic abuse (Straka and Montminy, 2008) but, more recently, there has been an international shift, with increasing recognition of a pattern of domination called coercive control which emphasises the deleterious effects of emotional/psychological manipulation and subjugation (Stark, 2007; Day and Bowen, 2015). Legal frameworks to protect those being abused have been slower to follow; the UK¹ is currently one of a few countries to legislate against coercive control.

Much of the existing research base agrees that the consequences of emotional/psychological abuse and coercive control are similar to, or worse than, physical violence, with women survivors reporting that overcoming the former is far more difficult than the latter (Follingstad *et al.*, 1990; Crossman *et al.*, 2016; Hester *et al.*, 2017). Dynamics of emotional and psychological abuse within a relationship are also predictive of an enhanced risk of future physical violence (Straka and Montminy, 2008; Felson and Messner, 2014). In England, perpetrator risk is believed to be under-estimated in 71% of domestic abuse cases, indicating that current intervention is insufficient to protect survivors and any children living with them (HMI Inspectorate of Probation, 2018). It is essential, then, that professionals working within the field of domestic abuse are able to identify strategies of emotional/psychological abuse and coercive control at an early stage if they are to assess and

manage the risks posed effectively and to keep women (and, where relevant, children) safe.

Knowledge regarding the role of technologies and digital media (such as email, video, and social media) in stalking and abuse of partners, ex-partners and children

¹ Legislation recognizing coercive control was introduced in England and Wales under s76 of the Serious Crimes Act 2015, with Scotland following suit through the Domestic Abuse Act in February 2018. In the Republic of Ireland coercive control was legislated for in s39 of the Domestic Violence Act 2018 and in Northern Ireland a Domestic Abuse Bill was introduced in July 2019. Various political upheavals in the UK parliament means that at the time of writing the Domestic Abuse Bill, England and Wales 2019 had not progressed beyond its second reading.

is evolving, with a new typology recently constructed termed 'technology facilitated domestic violence' (Douglas et al., 2019) which encompasses 'digital coercive control' (Harris and Woodlock, 2019). Mobile phones are central to these new abuse and control strategies, due to their ubiquity, portability, and diverse capabilities. Smart phones (internet-enabled, with capabilities beyond calling and texting) have become the most popular consumer electronics device amongst adults, with a 7% lead on laptops and 17% on tablets (Wigginton and Brodeur, 2017). The technological capabilities they afford provide perpetrators with new opportunities to monitor and track their partners, surreptitiously and irrespective of location (Woodlock, 2013; Woodlock, 2017; Dragiewicz et al., 2018; Douglas et al., 2019; Harris and Woodlock, 2019). The safety and wellbeing of women and children is significantly impacted as a result with survivors describing long-lasting anxiety from the sense that they could never be free from scrutiny (Woodlock et al., 2019). While the existing research cited here has called for professionals to consider whether mobile phones might be playing a role within domestic abuse, the field remains under-theorised, with much of the new knowledge gained through survey methods rather than in-depth qualitative exploration. Limited guidance is available for practitioners on how to incorporate new knowledge into risk assessment.

Survivors of coercive control are predominantly women (Myhill, 2015) and it is estimated that one third of adult women worldwide will experience domestic abuse in their lifetime (WHO, 2017). Feminist explanatory theories of domestic abuse have been developed in response, becoming one of the two key paradigms in the field over the past few decades (the other being a general family violence perspective) (Lawson, 2012). The Duluth Domestic Abuse Intervention Programme (DDAIP), developed in the 1980s in the USA, is used extensively across the world to work with perpetrators and survivors and is the predominant intervention in countries including the United States, Canada and New Zealand (Corvo et al., 2009; Rankine et al., 2017). While there is a lack of clear evidence of the effectiveness of DDAIP overall in halting recidivism (Bohall et al., 2016), the central framework of the 'Power and Control Wheel' is generally recognised as providing a helpful explanatory model for recognising and theorising the coercive control of female partners within its social, economic and cultural contexts (Ali and Naylor, 2013). Underpinned by structural feminist analysis, the hub of the Wheel signifies how patriarchal beliefs about the role and position of women within the family and society perpetuate inequalities between men and women and can be manipulated by abusive males to sanction and facilitate their abuse. The spokes represent behaviour exerted by the abuser as a means of keeping the woman in a submissive state; the underlying assumption is that tactics such as denying, minimizing or excusing the abuse, blaming, intimidation, isolating, monitoring and controlling the survivor, and the use of coercion and threats are not isolated incidents, but part of a wider motive to exert male control (Pence & Paymer, 1993).

The original Wheel was criticised for its narrow focus on male-to-female abuse and DDAIP has permitted various adaptations to take account of different populations as long as these were based on meaningful engagement with those communities (www.theduluthmodel.org/wheels/). Adaptations have been licensed for: people in same-sex relationships; trans people; disabled women; street sex workers; trafficked

women; and various cultures, including Native American, Islamic and Pacific peoples (Rankine *et al.*, 2017).

We now move to discuss the relevance of the DDAIP Power and Control Wheel to the findings of our qualitative study with women survivors. After identifying some limitations with the standard model, we then go on to discuss our own adaptation of the Wheel, and the potential it offers to help professionals identify mobile phonemediated strategies of coercive control when assessing risk and intervening within abusive relationships.

Methodology

The qualitative in-depth study was conducted with twelve women who had identified that mobile phone technologies were a significant factor in the abuse they experienced from their male partners. A large provider of refuges acted as gatekeeper to provide a convenience sample of women with experience of domestic abuse. The study was advertised at eight refuges and the first author met with groups of women survivors at each to outline the focus and process of the research. If a woman expressed an interest in participating, a note was made of her contact details and she was subsequently sent a copy of the information sheet and consent form. Those who were still interested were contacted for an individual interview. The sample offered demographic diversity, as shown in Table 1.

A narrative approach was taken, with a broad and open question to participants about any ways in which mobile phones featured within their domestic abuse, and follow-up prompts exploring details of both perpetrator strategies and the impact on the participant. Each interview was audio-recorded and transcribed immediately to generate focused codes which would enable comparisons across interviews (Birks and Mills 2011). The data were initially analysed using grounded theory (Charmaz, 2014) and organised using NVivo version 11. Findings relating to the impact of mobile phone-mediated abuse on the participants are discussed elsewhere (Havard, 2019). Here, our focus is on the extent to which perpetrator strategies are consonant with the predominant feminist theorisation of coercive control: the DDAIP Power and Control Wheel. Hence, we have here reorganised the data thematically to reference, firstly, where there are crossovers with the Wheel and, secondly, what data is not sufficiently accounted for within that existing framework. We have quoted extensively from the participants throughout, both to keep the analysis grounded in data and to respect the women's voice and agency in constructing new theorisations of male abusive strategies. As many of the participants had English as their second language, where deemed necessary, words have been added to help clarify the meaning. These are denoted by [].

Ethical approval for the project was provided by the University of Sussex and standard ethical principles were followed regarding informed consent, anonymity, conditional confidentiality, safety, right to withdrawal, data protection compliance, and – importantly, given the sensitive nature of the topic and potential risks to participants – a feminist ethic of care (Burgess-Proctor 2015). This included provision of a post-interview information sheet on how the participants could keep

Table 1 Demographic features of the participants

Name	Age	Ethnicity	Religion	Children	Length of time with partner	Time at the refuge.	Time since leaving partner
Katherine	25	Not stated	Not stated	Two pre-school children	6 years	12 months	12 months
Sofia	24	Asian	Muslim	None	Abuse began 1 year ago	Three months	3 months.
Suzie	50	White	Not stated	Adult (independent) children	5 years. Abuse began after 4 months.	9 months	1 year
Francesca	29	White	Catholic	One primary school child and one baby	6 years	1 month	1 month
Caprice	28	Black African	Christian	Two primary school children	7 years	9 months	2.5 years.
Christina	40	Bangladesh	Muslim	Two primary school children	9 years. Abused 4 years	9 months	9 months
Donna	38	Moroccan	Muslim	One primary school child	5 years	27 months	27 months
Joanna	30	Black African	Christian	None	12 months	18 months	18 months
Matilda	32	British/Bangladesh	Muslim	One primary school child	4 years	4 months	5 months
Indie	32	Asian	Buddhist	Two primary school children	11 years	5 months	9 months
Peaches	37	Jamaican	Christian	One primary school child	13 years	6 weeks	3 months
Josephine	30	Black African	Christian	One baby	2 1/2 years	6 months	6 months

themselves safe in relation to their mobile phones, and arrangements being made for keyworkers at the refuges to provide follow-up support to the women if appropriate and required.

Perpetrator strategies of mobile phone-mediated coercive control

This section considers the participants' perceptions of how their male partners manipulated their mobile phones as a tool within their abuse, exposing perpetrators' underlying strategies of coercive control. The data are thematised according to the segments of the DDAIP Power and Control Wheel: intimidation; emotional abuse; isolation; denial, minimization and blame; using children; using male privilege; economic abuse; coercion and threats. However, it is important to note that there are 'fuzzy boundaries' (Alexander and Enns, 1988) between these categories, with overlapping impacts of behaviours across the segments.

Use of the phone to intimidate

The most common use of the phone as a tactic of coercive control was intimidation through abusive or threatening texts and voice calls:

"...texting me...a lot, like he text me about 30 texts all at once...just, saying really horrible and degrading things to me". [Katherine]

Katherine's ex-partner would turn up uninvited at her home and expect her to be in, even on a Saturday, when one might expect her and the children to be out. The photos he sent of himself standing outside, with texts demanding an explanation for her whereabouts indicated his clear intention to intimidate.

Perpetrators displayed their physical power, intimating the credible threat (Stark, 2007) of violence, through damaging the women's phones:

"It was quite a very nasty period of stuff... a lot of phones got broken in our relationship and it's five or six literally because when we'd have an argument the first thing, he'd do was pick up my phone and just smash it; he'd always go for the phone". [Caprice]

A more insidious version of intimidation was through the perpetrator's capacity to track and monitor the woman when she was out of the house either overtly or surreptitiously. GPS surveillance was the most common tactic, either to locate where she was in the moment, or to check her movements subsequently:

"He's trying to portray that he doesn't want anything to do with you but meanwhile he's using that [GPS] on me. He doesn't want you to know that he is following you or tracking you to see things about you." [Josephine]

As Suzie found, switching off the location capability on her phone didn't help, as this just raised her partner's suspicions further and led to enhanced interrogation. Once gregarious, Suzie stopped going out and speaking to people, preferring instead to stay at home alone, just to avoid accusations of infidelity. If the women didn't comply with the phone-related checks on them, they were accused of lying:

"Even if I'm not lying, immediately I'm a liar because I didn't answer the video call, to show him and he would use that video calling a lot." [Joanna]

Emotional abuse connected to phones

Most of the data discussed under other headings could be additionally classified under the heading of emotional or psychological abuse as, ultimately, the perpetrators' behaviour was designed to undermine, intimidate, frighten and distress the women. We note additionally in this section the prevalent use of insulting and offensive (including sexually) text-based messages and images:

"...when I was in Australia, he would just be sending me abusive messages [pause]. He would text me things like that...saying I should get back to work, I'm being lazy, because I'd put some weight on as well, I was getting fat." [Suzie]

Use of phones to isolate the women

Perpetrators used mobile phones creatively to isolate their partners from family and friends. As noted elsewhere in this analysis, this included damaging the women's phones and withholding money for her to buy her own. But general monitoring and control of the women's access to and use of mobile phones, whom they could speak to, when, and for how long was most common:

"Before ten [pm] and depending on who I was talking to. If it was people he was comfortable with me talking to he would let me talk. If he wasn't, he would do certain things or start arguments when I'm on the phone and I would have to come off the phone". [Caprice]

Micro-regulation (Stark, 2007) like this contributed to the women's isolation since maintaining contact with their friends and family became too stressful:

"...all my friends not call me because when I talk my friends, he shout me, and my friends they think 'oh my gosh, what he doing, he crazy', and they say 'goodbye' and that's it". [Francesca]

When out socialising, Katherine would turn off her phone to avoid the onslaught of texts and calls from her partner, but he would circumvent this and bombard her friends with texts and calls instead. The embarrassment this caused resulted in her isolation from the group:

"...if he can't get hold of me, messaging my friends and obviously my friends would try and block the number, but he would just call off a different number instead and keep doing that. And make not just me feel uncomfortable but everyone around me feel uncomfortable. So, it's like those people they don't really want to be that close with me anymore". [Katherine]

Use of phones to deny, and minimize their behaviour, and blame the women

Indie's husband deliberately self-harmed then took pictures of these injuries on his phone, threatening to show them to the police as 'evidence' of her violence against him should she ever disobey him. Sometimes, unable to cope with the emotional abuse, Indie would beg her husband to stop and let her return to her home abroad. She only learned he was videoing her pleas on his phone when he threatened to share the recordings with the police and social services as evidence she was an 'unfit parent' should she ever try to leave him.

Similarly, Josephine's partner would provoke her into arguments and, when she reacted, he would record the conversation with his phone, careful to manage his tone and limit his contribution to the 'argument':

"He would first start the conversation, or he would start the quarrel...Sometimes I talk back at him so it was there to prove that he will record it and then he will, he will send it to them...Meanwhile he knows what he was doing so he would try to talk less, or he would try say less". [Josephine]

Manipulation of children through the phones

Some perpetrators used mobile phones to extend their power and control over the participants by manipulating their position as a father. Caprice's ex-partner bought their four-year-old daughter the most up-to-date iPhone, allegedly to maintain contact with her. However, it transpired that he did this to glean as much information as possible about Caprice:

"He would call her [daughter] and doesn't say nothing, and because she's a child sometimes, because he's not saying nothing, that's why she's constantly just leave the phone [switched on]. This guy could be there all day, the phone will be on, [until] the phone would die, and he will just be there listening to my background, listening". [Caprice]

Many of the perpetrators were determined to maintain contact and persist in oppressing their former partner even after the relationship had ended. Blocking their ex-partner's number or changing mobile phones were common practice for the women in this study but their ex-partners regularly pretended to be someone else or involved family or friends to achieve contact. When Donna got a restraining order, her ex-partner persuaded his child to send a 'friend request' through a social media site to try to bypass her security. Later, the police moved Donna and her child into bed and breakfast accommodation for their safety. When her young daughter turned on her tablet, as she had done hundreds of times before, Donna was surprised to find an alert saying that the iPad was stolen. Concerned she contacted the police, who she understood to have told her that:

"...when you report it to Apple store an iPhone or iPad is stolen, the Apple store they localize the iPad, so they have, we saw with policeman that they have got [pause] the email was been sent to him with the address of the bed and breakfast, yeah, where I was. Where the iPad is." [Donna]

Thus, Donna's ex-partner had used his child and technology to find their location, circumventing attempts by the police to keep both mother and child safe.

Enforcing male privilege through phones

Without exception, the women interviewed had their mobile phones regularly and frequently checked by their partners for unauthorized contact with friends and family via calls, messaging apps and social media: "He'd go through my phone and see my cousin's name and say, 'who's this?'. I'd say, 'it's my cousin, you know it's my cousin' [pause]. Just anything to try and pick...he would go through my Snapchat¹. He'll say that [pause], 'Who's this? Who's that? Who's this person?' [Katherine]

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¹ An instant messaging app

Men would monitor when, to whom and for how long their partners spoke on their phones:

"I text but he all the time, check me. I can't talk too much with friends. When I talk 10 minute he say, 'Stop, how long you can talk with your friends, stop". [Francesca]

Caprice's mother tongue was French and is the language she used to communicate with her family. She explained that, because her partner didn't speak French:

"...I was not allowed to speak French in the house. So, if I wanted to speak to my mum [on the phone] I would have to go in the garden...he'd ask me 'I've told you not to be on the phone after hours; after ten o'clock in the evening, no one should be calling your phone". [Caprice]

The perpetrator never accepted the women's denial of 'misbehaviour' and demanded more concrete 'evidence', such as them switching on a video connection to prove where they were at that time and who they were with or enabling their location tracking to verify their position.

Abusive men saw their partner's mobile phone (and the information contained within it) as something that belonged to them; something that they had a right or even a duty to check. This was reminiscent of the UK Married Woman's Property Act 1870, where a wife was deemed to be her husband's property and everything she owned (her children, her estate etc.) belonged to him.

"...he will just be going through, as if it was his phone, looking at pictures". [Peaches]

This was rendered particularly powerful by the sheer range and volume of personal information that phones made available, including access to online accounts, data in the cloud, and online banking. The perpetrators imposed ownership of the women's online accounts by demanding or stealing the woman's log-in details so they could monitor their activity:

"...if I changed my password so that he couldn't, he would then quiz me as to why I haven't, why he can't get into my phone. Why have I put a password on it that he doesn't know?". [Suzie]

This continued after the relationship had ended; when a woman 'blocked' her partner on social media, he might spy on her using a mutual friend's account or try to 'friend' her through pretending to be someone else.

Economic abuse enacted through the phone

The way the perpetrators used mobile phones to control their partner's financial independence was subtle. Matilda was not allowed a smart phone so, without access to the internet, she could not download apps that would enable her to contact her family abroad free of charge. Without paid employment, Matilda was economically dependent on her husband and she had to beg him for a phone card or access to his smart phone to keep in touch with her family. In the end, Matilda stopped asking to use his phone: "I don't want to [pause] give me the pain, because I have to beg for the card.

You feel like you are begging someone just to call [pause] and you feel disappointed, just for one pound you need to call". [Matilda]

Controlling the finances to deny Matilda a smart phone meant that her husband increased his power over her and isolated her from those she cared about, and who could have supported her.

After the relationship had ended, Caprice's partner used his mobile phone to deposit a penny into her online bank account just so that he could leave an abusive message on her bank statement:

"When I moved to the refuge he couldn't text or call me so he used to email me and put pennies into my account because, you know when you put money in somebody's account you can message them, leave a message or reference? So, I was getting abused via references like that: 'Fucking bitch'. He put 1p in my account and it will come with a message like, 'You're a bitch. You're going to die". [Caprice].

His underlying message to Caprice in doing this seemed to be, 'no matter how hidden you are, I will find you'.

Coercion and threats enacted through phones

The phone-mediated coercion was often subtle and seemingly part of a longer-term plan, such as when manipulating a woman to cede access to her mobile phone. Initially the men modelled a willingness to share *their* phones, implying that only those with something to hide would refuse access:

"Slowly, slowly, [abusive partner] showing me, [abusive partner saying] 'Look you can see my phone. Yeah, you can see my phone, you can see my phone. Why don't you trust me? You have trust issues". [Joanna]

The women were thus persuaded that they should be sharing their own phones freely. But, ultimately, the perpetrators' willingness was not upheld, and gradually the rules they placed on the women to share their phones were no longer applied to themselves. That these perpetrators believed they had a non-reciprocal right to override their partner's privacy again reflects the historical context of male ownership as a result of patriarchy and the centuries of female oppression associated with this.

Perpetrators would also use mobile phones to complement and reinforce other threatening behaviour:

"He would break into my house and then move things around in my house, and then call me and message me and let me know that he's been in my house". [Caprice]

Again, the underlying message from this ex-partner was that nowhere was safe; he could intrude upon Caprice in her most intimate spaces – her home and her digital world – even if he wasn't face-to-face with her.

Beyond the Power and Control Wheel: techniques of agile technological surveillance

We have so far shown how perpetrator strategies of mobile phone-mediated coercive control and abuse, as revealed by these women participants, can be classified through the framework of the DDAIP Power and Control Wheel. However, the Wheel's existing categories did not sufficiently account for the degree and nature of perpetrator monitoring and tracking behaviours which were enabled through the mobile phone, such as the tracking of women's locations through GPS, control or scrutiny of various forms of physical or virtual contact with others, and virtual spying at a distance through audio or video links. We have termed these 'techniques of agile technological surveillance' and distinguish them as a subset of the recently coined terms of 'technology-facilitated domestic violence' (Douglas et al., 2019) and 'digital coercive control' (Woodlock et *al.*, 2019) which encompass behaviour related to a wider range of technologies. The phone's size and portability, internet access, and diverse technological capabilities enabled this surveillance to be affordable, on the move, surreptitious where needed, and, signal permitting, to occur without reference to physical proximity.

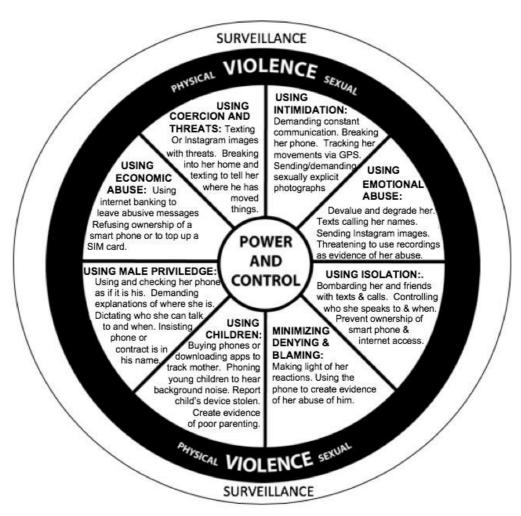
Techniques of agile technological surveillance served multiple inter-related purposes for the perpetrator in his overall strategy of coercive control: in particular, to assert his privilege and ownership of all aspects of the woman's self and life; to intimidate and threaten; to coerce and manipulate; and to harm the woman emotionally and psychologically. The techniques were commonly subtle and hard to identify. As Harris and Woodlock (2019) also found, while some of the participants were aware of the surveillance from the start, others only discovered it when punished for transgressions. Through agile technological surveillance, the perpetrators were able to give their partners the impression that they were omnipresent, omniscient, and omnipotent: women no longer had any privacy and would be discovered and punished if they transgressed. This demonstration of their power enabled the perpetrators to create a pervasive net of control which the women felt, at times, they could not resist nor hide from. The survivors were left feeling helpless and hopeless, that there was no escape, and they should just capitulate to his will.

Although, ultimately, all of the participants had escaped, given they were now safe in a refuge, the fear of continued surveillance persisted for them. And indeed, in several cases, there were examples of further monitoring and tracking months or years beyond the end of the relationship, demonstrating the pervasive nature of these techniques.

The original Power and Control Wheel and its adaptations have not so far recognised these enhanced opportunities for agile technological surveillance afforded by mobile phones. We do not believe that the insertion of an additional segment representing techniques of surveillance is the best way of redressing this limitation. Instead, we propose that the abusive behaviours identified should be viewed within the context of potential constant surveillance, as mobile phones offer perpetrators additional opportunities to oppress women in abusive relationships in ways that may not currently be recognised by either survivors or practitioners. Our revised Wheel – approved and licensed by DDAIP – is presented in Figure 1. It summarises in each

segment examples of agile technological surveillance which have been drawn from this research. The Wheel is used widely across many countries so the inclusion of these aspects of agile technological surveillance within the Wheel should enhance awareness of practitioners across a range of professions and provide clear guidance for practice.

Figure 1



Limitations

In this paper, we have focused on the strategies of coercive control used by the perpetrators but emphasise that these are drawn from the perspective of the women participants. We did not interview the perpetrators themselves, who may have framed their actions and intentions differently. Nonetheless, from our feminist standpoint, we contend that those who have experienced abuse are better positioned to reveal its underlying mechanisms through their situated knowledge (Stoetzler and Yuval-Davis, 2002). Although this sample was small, within grounded theory methodology twelve participants are deemed sufficient to understand common views and experiences through close analysis and thick description when the sample is sufficiently homogeneous (Neustifter and Powell, 2015; Parr, 2015). That was the case here as all participants were women in heterosexual relationships who had

experienced mobile phones playing a role within their domestic abuse; indeed, the data reached saturation readily. Although, there was demographic diversity in the sample, caution should be exercised regarding the transferability of the findings of this small, single-sex study of male-to-female mobile phone-mediated coercive control to other populations.

Conclusions and implications for practice

Emotional abuse and coercive control are known risk factors which help predict the escalation of violence and, if recognised early, could prevent injury or death (Day and Bowen, 2015). While some of our findings are consonant with other recent research which has identified how technologies and digital media offer new opportunities for abusers to exert coercive control (Woodlock, 2017; Dragiewicz et al., 2018; Douglas et al., 2019; Harris and Woodlock, 2019; Woodlock et al., 2019), our focus solely on mobile phone-mediated abuse has enabled us to identify techniques of agile technological surveillance, which allow perpetrators to track and monitor their partners in various ways 'on the go' and irrespective of physical proximity. While there is a growing understanding of the role technologies and digital media may play within domestic violence (Women's Aid, 2014; Douglas et al., 2019), there is evidence that some professionals currently lack awareness of how phones may be manipulated within abusive relationships (Woodlock, 2013; Woodlock, 2017; Woodlock et al., 2019) and are thus missing opportunities to contextualize and identify subtle phone-mediated coercive control quickly within risk assessment. The existing research base cited above has been largely acquired through large scale survey methods with little other qualitative detail of the lived experience and perceptions of the survivor. Our study addresses this gap in knowledge, providing enhanced understanding of the modus operandi of abusers.

We recognise that many practitioners within the domestic abuse advocacy sector in some countries may already be asking both perpetrators and survivors questions about their use of mobile phones. However, practitioners encountering survivors and perpetrators of domestic abuse come from a very wide range of professions (including social work, probation, health visiting, sexual health, and mental health). There is limited literature from robust empirical research covering this topic, and minimal practice guidance which ensures that practitioners from across all of these professions and internationally are sufficiently aware of these issues and can work confidently with them. Consequently, we offer here suggestions for how this knowledge could be incorporated by practitioners into their models of risk assessment and intervention.

Primarily, we suggest that practitioners draw on the examples given in the amended Wheel to guide their conversations with survivors and perpetrators as a way of surfacing concerning behaviours which might not previously have been identified. The information thus gained could then inform both risk management and intervention plans. As the DDAIP model is commonly used across the globe, the incorporation of the adapted Power and Control Wheel into existing programme protocols should help in this process.

Secondly, we suggest that country-specific guidance on assessment of risk with perpetrators and survivors of domestic abuse should take into account the findings of this study. The Dash risk checklist, for example, which is used by professionals in the UK to assess risk with survivors of domestic abuse (SafeLives, 2014), currently only mentions mobile phone technologies in relation to abusive texting and phone calls. It does not offer examples of the wider range of subtle forms of mobile phonemediated coercive control identified through our research, nor offer guidance on the volume, frequency, and nature of agile technological surveillance, which could indicate stalking – another significant risk factor in intimate partner violence (Woodlock 2013).

Finally, we propose integrating our findings with the 'Safe and Together Model' (Mandel, n.d.) which is emerging as a framework for good practice in the UK to help child welfare professionals work more effectively with families experiencing domestic abuse. Safe and Together emphasises perpetrator choice to hurt and abuse whilst highlighting survivors' strengths when safety planning. Informed by the accounts provided by the women in this study, we propose that that understandings of mobile phone-mediated coercive control can be integrated with 'Safe and Together' principles, by ensuring the following are incorporated consistently and proactively into risk assessment with both perpetrators and survivors:

- Exploring when and how mobile phones have featured within the relationship, such as the manner of communication and the access perpetrators have had to the survivors' phones;
- Identifying ways in which survivors may have been controlled, tracked, and monitored during the relationship through the phone, with or without their knowledge. This should include determining whether the perpetrator owned or provided the phone, exploring what apps have been downloaded (in case these incorporated spyware), and confirming whether photographs, videocalling, or GPS tracking had been used to establish the survivor's whereabouts or who they were with;
- Exploring any attempts, the perpetrator has made to overcome the survivor's efforts to avoid contact through the phone. This will highlight the deliberate nature of his behaviour:
- Discussing the impact mobile phone surveillance has had on the survivor's daily life and how she has managed this abuse. Using a strengths-based approach will further help the survivor recognise her resilience in the relationship and emphasise that the abuse is/was not her fault;
- Establishing whether and how perpetrators have sought to maintain contact and monitor the survivor through the phone beyond the ending of the relationship, despite instructions to the contrary, especially if there is a court condition of non-contact, as this can indicate enhanced risk (Kropp & Hart, 2000);
- Ensuring that the survivor's fears about agile technological surveillance are given sufficient weight within the assessment, as a survivor's fear is based on what *could* happen and may reflect future risk (Arnold, 2009);

- → Sharing information about the perpetrator's mobile phone-mediated coercive control across agencies² to enable the perpetrator's account to be contrasted with that of the survivor(s). Any discrepancies would provide opportunities to explore the abuse, challenge the perpetrator and identify minimization or denial on his part – another recognised risk factor in abusive relationships (Hoyle, 2008);
- → Given the incidence of perpetrators manipulating children as part of phonemediated surveillance, engaging children in discussions about mobile phone communications to enable children to share their experiences of abuse. This would also reduce concerns that risk assessments with families are dominated by parents' views at the expense of the child's perspective (Lefevre, 2018) and enable professionals to gather a fuller picture of the situation.

Conflict of interest.

The authors declare that there is no conflict of interests.

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² In the UK, via the Multi Agency Risk Assessment Conference, known as MARAC

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