Original Article

Improving Police Data Collection to Measure Repeat Demand: A Focus on Domestic Violence and Abuse

Jessica Phoenix

Abstract Targeting police resources at repeat demand may reduce overall demand. To effectively target resources at repetition requires repeat demand to be accurately measured in police data. Using domestic violence and abuse (DVA) as a case study of repeat demand, this study takes a deep dive into the data and information systems used by one police force to identify the key issues that prevent the effective measurement of repeat DVA-related demand. From observations of the police response to DVA and manual review of 325 DVA case files, four key issues are identified: (1) fragmented units of measurement across multiple information systems; (2) inconsistent recording of personal details; (3) multiple methods of identifying DVA; and (4) the embedding of information in free-text. This paper makes recommendations to improve the measurement of repeat demand in police data, with implications for police practitioners and researchers.

Introduction

A core task of policing is deciding how resources should be allocated to effectively manage demand (Sherman, 1992). For police forces in England and Wales, this task has been challenged by significant funding losses (Elliott-Davies *et al.*, 2016; NPCC, 2017; Palmer *et al.*, 2019); changing demand, with more calls relating to mental health, social care, and cybercrime (College of Policing, 2015; Boulton *et al.*, 2017; Loveday, 2017; HMICFRS, 2018a); and unprecedented recruitment drives (Home Office, 2019; HMICFRS, 2022). In this context, forces must target their available resources more effectively to manage demand (Kearns and Muir, 2019). Research has shown that most demand is attributable to the same offenders, victims and places (Sherman, 2007; Farrell and Pease, 2017), and thus targeting repetition could be an effective use of resources to reduce overall demand (Farrell, 1995; Pease *et al.*, 2018).

Studies on the repetition of crime have largely focussed on *either* repeat victimization *or* repeat offending and propose targeted interventions to reduce repetition. On repeat victimization, research has long shown that the risk of victimization is highest following the first and initial victimization (Pease, 1998; Grove *et al.*, 2012). Proposed

School of Justice Studies, Liverpool John Moores University, Liverpool, UK. E-mail: J.N.Phoenix@LJMU.ac.uk
Jessica is a Lecturer in Criminal Justice at Liverpool John Moores University. Her research interests include domestic violence and abuse; policing; repeat victimization; and missing persons. This paper is derived from Jessica's doctoral thesis, for which Jessica was awarded her PhD by Lancaster University in 2021.

Advance Access publication: 11 May 2023
Policing, Volume 17, pp. 1–14
doi: https://doi.org/10.1093/police/paad022

interventions have largely focussed on targeting resources at areas that have recently recorded victimization to reduce overall crime levels (Ignatans and Pease, 2018; Hunter *et al.*, 2021). Conversely, the criminal careers literature within criminology has focussed on the repetition of offending, examining patterns of offending over time to categorize offenders by their frequency, severity and type of offending and their persistence or desistance in crime (Moffitt, 1993; Mazerolle and Maahs, 2003). Proposed interventions have largely focussed on causal links between individual and social factors and offending trajectories, proposing early intervention to disrupt the most chronic trajectories (e.g. Farrington and Welsh, 2007).

Some crime types are repetitious by nature, and measurement and intervention need to go beyond looking only at the repetition of victimisation or offending and consider how the two trajectories intertwine. Domestic violence and abuse (DVA) is a key example. DVA does not consist of separate events with separate offenders and separate victims (Walby *et al.*, 2017). DVA is repetitive, often constituting a series or pattern of violent and/or abusive behaviours by the same perpetrator against the same victim (Stark, 2007; Hester, 2009). DVA differs from most crime types as it is defined by the victim–perpetrator relationship. Repetition is thus understood not only as repeat perpetrators or repeat victims, but also as repeat dyads. Therefore, the centrality of repetition makes DVA a suitable case study of repeat demand.

DVA is a significant contributor to police demand, with more than one in ten recorded crimes being flagged as DVA-related (HMICFRS, 2019). In the year ending March 2022, police forces in England and Wales recorded 1,500,369 incidents related to DVA, of which 61% were recorded as crimes (ONS, 2022). This equates to an average of 171 DVA incidents recorded every hour. Much of DVA-related demand is accounted for by repetition. For victims, previous analysis of police data has suggested that, for some forces, up to around 45–50% of DVA-related calls related to repeat victims (HMIC, 2014a), whilst research on offenders suggests a small concentration of offenders account for most DVA-related harm (Sherman, 2007; Bland and Ariel, 2015; Barnham *et al.*, 2017). Targeting DVA repetition could therefore be an effective method to prevent further harm and reduce demand (Robinson and Clancy, 2020). To target repeat DVA, and demand more broadly, the police firstly need accurate and consistent information on victims, perpetrators, and events (Bland and Ariel, 2020). This paper therefore investigates the data collection processes of one English police force in response to DVA, to identify some of the key barriers to the accurate measurement of repeat DVA-related demand.

Debates on the definition and measurement of DVA repetition and what these mean for police data

To consider how repeat DVA-related demand is best measured in police data, the context of wider debates on the definition and measurement of DVA should be outlined. These debates can broadly be divided into two key perspectives. Works by Sherman *et al.* (2016) and Walby *et al.* (2014, 2016, 2018) have measured the repetition of DVA by counting discrete incidents, focussing on the distribution of harm (Sherman *et al.*, 2016), and the disproportionate frequency of physical violence against women (Walby *et al.*, 2014, 2016; Walby and Towers, 2018). Alternatively, a body of research largely influenced by Stark (2007) has encouraged a move away from a discrete event-based understanding of DVA to a framework of coercive control (Myhill, 2017; Stark and Hester, 2019). The coercive control framework encourages a conceptualization and measurement model of DVA as a pattern of ongoing behaviour, characterized not by the frequency of physical assault, but by methods of control and coercion, including non-physical forms of abuse, that subordinate a victim over time (Stark, 2007; Myhill and Kelly, 2021).

These debates have implications for policing. There is no singular statutory offence for recording DVA in England and Wales. Instead, DVA-related offences are captured under existing offence codes (e.g. assault with injury, criminal damage) and since 2015, have been manually flagged as DVA by recording police officers, as required by the Home Office Counting Rules (HOCR) (Home Office,

2023). In 2015, a new offence of Controlling and Coercive Behaviour (CCB) in an Intimate or Family Relationship was introduced under Section 76 of the Serious Crime Act 2015. The aim of the new offence was to recognize ongoing patterns of CCB as a distinct form of abuse in legislation, particularly non-physical abusive behaviours that were not captured by existing offence codes (Home Office, 2015; Stark and Hester, 2019; Myhill and Kelly, 2021). CCB does not replace existing offences that can be flagged as DVA, but was introduced as an additional offence, that may be recorded standalone, or alongside a principal offence. As a course of conduct offence, the CCB legislation encourages police officers to identify an ongoing pattern of behaviour, rather than to treat each event in isolation (Brennan *et al.*, 2021).

The focus of this paper is not how repeat DVA is best conceptualized and measured, nor how DVA is best responded to by the police. The focus of this paper is the measurement of repeat demand in police data, with DVA an appropriate case study. Police data alone cannot capture a full trajectory of DVA between a perpetrator and victim. Firstly, most DVA is not reported to the police (Walby and Allen, 2004). If DVA is reported to the police, a first report often does not mark the first DVA event, as there has likely been ongoing abuse leading up to the first report (Stark, 2012). Likewise, gaps in time between reported events do not always equate to gaps in DVA. Repetition as measured in police data therefore represents a specific trajectory not only of DVA between victim and perpetrator, but of their interaction with the police. In this context, measuring DVA events in police data is marking points of police intervention within a wider DVA trajectory. Accurate measurement of the trajectory between victim, perpetrator and the police provides an important source of data to measure and therefore manage demand, and also crucially enables evaluation of DVA interventions (e.g. Robinson, 2004; Hester *et al.*, 2019). The value of evaluations is therefore reliant upon the accuracy of police data.

Whilst police data can offer some insight into the nature of DVA between victim and perpetrator, police data alone cannot provide insight into the full pattern of abuse. In understanding the nature of DVA, alternative data sources contribute additional insight. Key sources in England and Wales include survey data, namely the Crime Survey for England and Wales (CSEW), which routinely reviews its methodology for measuring DVA (e.g. see Hester *et al.*, 2023); third sector data (e.g. Smith and Davidge, 2022); and Domestic Homicide Reviews (e.g. Rowlands and Bracewell, 2022; Cook *et al.*, 2023).

Legislation and policy for recording DVA-related incidents and crimes in police data

To understand police data, the national guidance for incident and crime recording is outlined. For all reported incidents, the police decide whether the circumstances amount to a criminal offence, and if so, a crime must be recorded following the HOCR. The HOCR state how the police should record crime, including whether and when to record, how to classify crime, and how many to record (HMIC, 2014b). Police forces must also adhere to the National Crime Recording Standard (NCRS), which promotes victim-oriented crime recording, and consistency across forces (Home Office, 2023). If an incident is not judged as amounting to a criminal offence, it should be recorded as an incident, following the National Standard for Incident Recording (NSIR) (Home Office, 2011), which provides a National Incident Category List (NICL).

As discussed, most DVA-related crimes are recorded under existing offence codes (e.g. assault, criminal damage). To identify DVA, the HOCR require police forces to manually flag those that are DVA-related (Home Office, 2023). The flag should be attached to offences that align with the DVA definition stated in the HOCR, which refers to the statutory definition introduced by the Domestic Abuse Act, 2021 (Table 1 [1]). For incidents that demonstrate issues relating to DVA but are not considered by the police as amounting to a criminal offence, the NSIR provides a closing incident code of 'domestic incident', and states that forces should also consider adding a DVA qualifier to the incident.

[1] 'Personally connected' refers to (ex)intimate partners and family members.

Table 1: Statutory definition of domestic abuse

Behaviour of a person ('A') towards another person ('B') is 'domestic abuse' if—
(a) A and B are each aged 16 or over and are personally connected to each other, and
(b) The behaviour is abusive
(3) Behaviour is "abusive" if it consists of any of the following—
(a) Physical or sexual abuse
(b) Violent or threatening behaviour
(c) Controlling or coercive behaviour
(d) Economic abuse [see subsection (4)]
(e) Psychological, emotional or other abuse; and it does not matter whether the behaviour consists of a single incident or a course of conduct
(4) 'Economic abuse' means any behaviour that has a substantial adverse effect on B's ability to—
(a) Acquire, use or maintain money or other property, or
(b) Obtain goods or services
(5) For the purposes of this Act A's behaviour may be behaviour 'towards' B despite the fact that it consists of conduct directed at another person (for example, B's child)' (Domestic Abuse Act, 2021: npn)

Table 2: Home Office crime flag for repeat domestic abuse victims

A 'repeat victim' is defined as 'a second or subsequent report by a victim within a rolling 12-month period'. ALL notifiable crimes that meet the DA definition should have the DA flag applied to them. Where crimes are flagged as Repeat DA then BOTH flags should be applied. (Home Office, 2023: 4)

In addition to new DVA definitions and legislation, the Home Office have introduced changes to the way *repeat* DVA is defined and recorded. In 2018/19, the Home Office (2023) introduced a new 'repeat domestic abuse' flag which police officers must manually add to DVA-related crime if the victim fits their definition of a repeat victim, in addition to adding the standard DVA flag. The definition and measurement of repeat DVA (outlined in Table 2) is therefore based on the trajectory of the victim *through* police data.

Ongoing police data quality challenges and implications for measuring DVA

Before taking a deep dive into practices of data recording and the consequences for measuring repeat demand, some of the well-established limitations of police data are acknowledged, particularly in relation to the measurement of DVA. Perhaps the most well-established critique of police data is of police recorded crime (PRC). PRC are the offences that are reported to and recorded by the police, collated by the Home Office. PRC has been extensively criticized as an unreliable source of data on crime (e.g. Mayhew, 2014), and had its national statistics designation removed by the UK Statistics Authority in 2014. At the time it was noted that there was a persistent police performance culture which had polluted crime recording with tactical offence classification and non-criming (Mayhew, 2014), thus not all reported crime is counted in PRC. A subsequent series of national inspections has demonstrated marked improvement in crime recording in many police forces, though some show persistent recording failures, and the issue remains a subject of scrutiny (HMICFRS, 2022).

In relation to DVA, Myhill and Johnson (2016) demonstrated how the use of police discretion to interpret definitions of DVA and the HOCR leads to further non-criming and misclassification of DVA-related crimes as non-DVA, due to poor police understandings of DVA. Furthermore, the authors show that misclassification and non-recording impact incidents as well as crimes, with DVA-related incidents incorrectly screened out as non-domestic related early in the response process. Non-recording and misclassification not only undercount the number of reported DVA-related incidents and crimes, but prevent adequate investigation, intervention and risk assessment (Myhill and Johnson, 2016). In addition to long-standing recording issues, the introduction of the CCB offence gave the police a new definition of DVA to identify and record, and therefore new challenges in the interpretation of police data. Research suggests that CCB is poorly captured in police data, as misunderstandings of CCB, high evidence thresholds and insufficient resources inhibit identification and recording (Robinson *et al.*, 2018; Myhill *et al.*, 2022).

Recording challenges are amplified by complex policies and poor information systems. For instance, the HOCR state that to identify DVA and

its repetition, recording police officers must recognize two definitions, that of DVA and that of a repeat victim, and manually attach two flags to each eligible offence. Though there is little evidence on the consistency of the use of DVA flags, HMICFRS' (2018b) inspection into the police response to hate crime, which also requires the manual attachment of flags in crime recording, found multiple issues. Issues included flags not being attached to eligible crimes, flags being attached to ineligible crimes, and the wrong flags being used. As the HOCR definition of repeat in DVA requires the manual attachment of two separate flags, there is scope for recording errors in both.

Measuring repetition requires units of measurement for victim, perpetrator and event (Walby *et al.*, 2017). Identifying repeat victims and perpetrators does not need to be defined by the time between events, nor does it require that events be marked with an additional flag. Identifying repeat victims and perpetrators requires only that each is recorded with appropriate identifiers, such as name, address, and/or a unique assigned identifier. However, the use of identifiers to identify repetition is a known problem in police data, with recording issues such as misspellings and missing data preventing the identification of repeats (Farrell and Pease, 1993; Brimicombe, 2016). Further problems arise from complex, outdated information systems in use by forces across England and Wales, which restrict the accessibility and therefore use of data (HMICFRS, 2017, 2022).

The Present Study

In this context, the present study took a deep dive into the data collection processes of one police force, to determine: (1) what data the police collect in response to DVA; (2) the key issues in relation to measuring repeat DVA-related demand; and (3) how police data could be improved to measure repeat DVA-related demand more accurately.

Methods

The study involved a series of observations of police practice and a manual reading of 325 case files stored across police information systems.

Data access

The author was vetted by the police force and allocated a force laptop to enable remote access and first-hand insight into force information systems. Institutional consent was granted by the force for the observation component of the field work, with individual consent sought from police officers, staff, partner agencies and members of the public that were observed.

Observations

There were six types of observation, with seven observations in total. Each was completed overtly. Observations included unstructured conversations with the police officers and staff who were observed. Physical field-notes were taken at each site, only when deemed appropriate and the least obtrusive to those observed (Gravelle and Rogers, 2014).

Two aims of the observations were to: (1) identify points of data collection and available data sources; and (2) to build a map of the police response to DVA that highlights points of data collection.

The six observation types were:

(1) Shadowing of police call-handlers in Command and Control

Two police call-handlers were shadowed during a Thursday evening shift in the Force Control Room (FCR), this included listening to live calls.

(2) Ride-along with frontline response officers

Two frontline police officers were shadowed on ride-alongs during a Friday evening shift in a city centre within the Police Force Area (PFA).

(3) Observation of a Criminal Investigation Department (CID)

On the Saturday morning following the ride-along, a Risk and Threat meeting was observed at the city centre police station. The meeting discussed some of the high priority cases ongoing in the PFA and provided an insight into what happens with the information that is collected by frontline officers once it reaches CID.

(4) Shadowing of researchers in a Public Protection Unit (PPU)

Two researchers were shadowed in PPU to gain insight into how data collected by the police are used to facilitate safeguarding across the force.

(5) Shadowing of referral assistants in a Multi-Agency Safeguarding Hub (MASH)

Two referral assistants in MASH were shadowed as they were processing domestic abuse (DA) referrals and working alongside Independent Domestic Violence Advocates (IDVAs). The referral assistants demonstrated the process of populating and sharing referrals.

(6) Observation of two Multi-Agency Risk Assessment Conferences (MARACs)

Two MARACs were observed to gain insight into how information was shared between agencies.

Case file review. The observations identified multiple data sources and information systems used by the force to collect, manage, and share data in response to DVA. The second stage of the study took a deep dive into police information systems to review the available data sources and to identify key challenges in measuring repetition using these data and systems.

In the case file review, a random sample of DVA victims was selected from a sample of recorded and flagged DVA-related crimes between January and March 2018. Each victim was searched through police information systems to identify all associated DVA events. For each event, the DA referral, Incident Report, Crime Report and DASH (Domestic Abuse, Stalkingm, and Honour Based Violence) assessment were extracted (each data source is described in the subsequent section). These four sources were collated and are referred to here as a case file, with some victims having multiple case files. A total of 300 case files was chosen as a manageable figure to review that should be reflective of the data that are typically collected in response to DVA for this force. As the final victim in the sample had a high number of case files, the final number of reviewed case files came to 325, relating to 68 victims, 94 suspects and covering a date range of 15 years (2003–2018), representing the longest DVA trajectory in the sample. Each case file was manually read to investigate the type of information that was collected across, the format in which the data were collected, how the data could be extracted from police information systems and whether the data could contribute towards the measurement of repeat DVA-related demand.

Findings

A brief overview of the police response to domestic violence and abuse. Figure 1 gives an overview of the police response to DVA in the form of a process map, derived from the observations. The overview focuses on the collection and transfer of information from the point of initial report to the point of information sharing between the police and other agencies within multi-agency frameworks and does not contain all possible personnel and actions that may contribute to a police response to DVA.

Data collection in the police response to DVA. Incident report. Often the first stage of response occurs in Command and Control, where call-handlers take initial reports and allocate the frontline response. Call-handlers start by opening an Incident Report in the incident recording system and attaching an opening incident code (e.g. assault, nuisance). For DVA-related incidents, there are two codes: Domestic Incident and Domestic Crime (the latter indicating that a crime has taken place). The Incident Report is attached to the address of the reported event. Call-handlers gather information from the caller, and additional information may be sought from the Police National Computer (PNC), such as any warning markers.[2] Call-handlers allocate a response grade which determines the response

[2] Warning markers are attached to addresses or individuals to provide officers with any information that may assist them in their response, for example, weapons, firearms, drugs, violent.

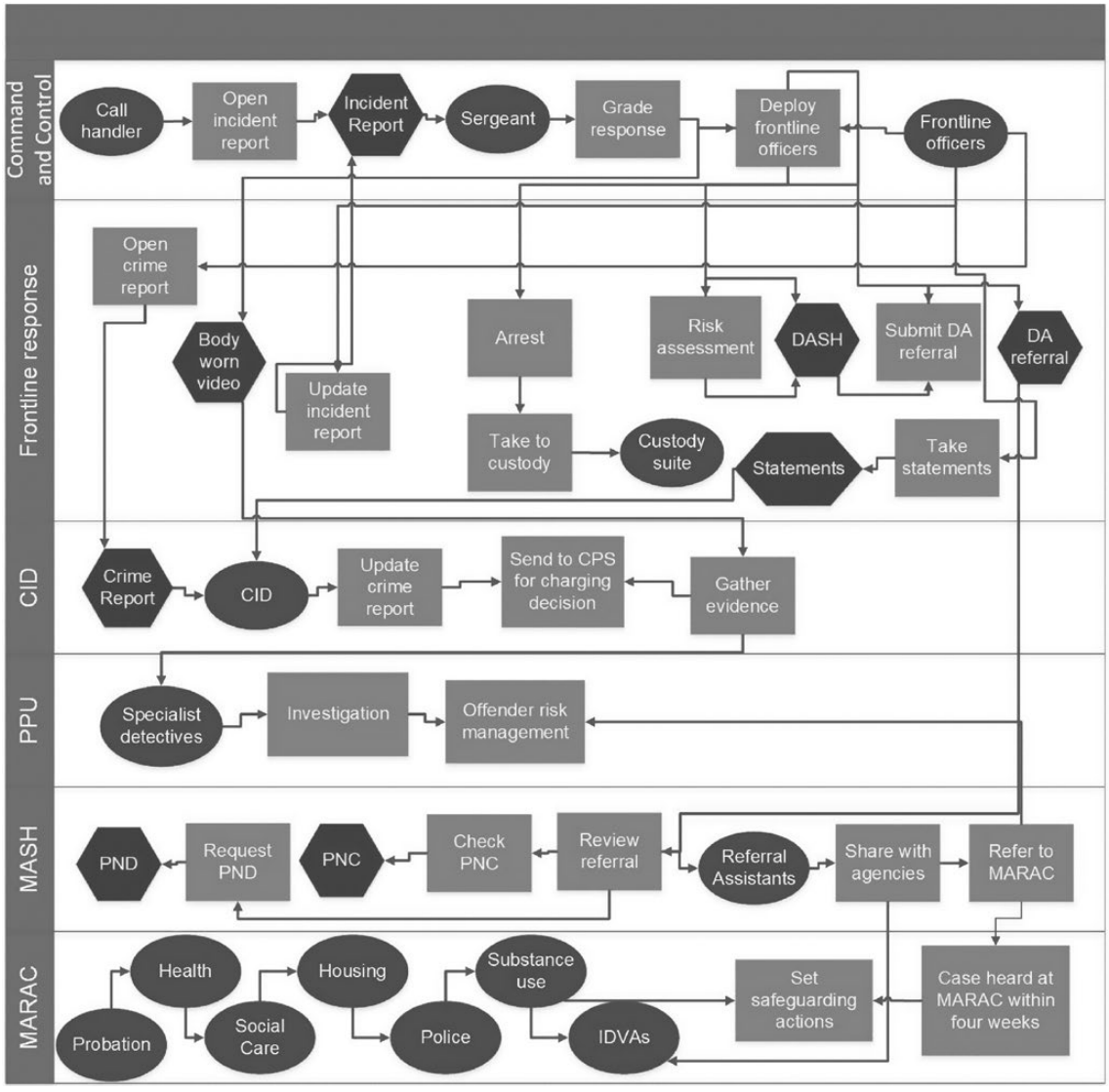

Figure 1: Points of data collection within the police response to domestic violence and abuse.

priority (ACPO, 2005), ranging from the lowest (5: Police report only—assistance not required) to the highest (1: Emergency—likely to be a risk of danger to life, serious injury or serious damage to property). If frontline officers are deployed, the officers update the Incident Report.

DASH

Frontline officers have several data collection tasks. Whilst policies and practice vary by force, these tasks generally include wearing a Body Worn Video (BWV) device, completing a DASH form, and if a crime is recorded, then taking victim/witness

statements. The DASH was the nationally accredited risk assessment tool for police forces between 2009 and 2022.[3] The purpose of DASH is to estimate the risk of further harm to the victim based on the victim's responses to 27 questions, and should inform a risk grading of standard, medium or high (Richards, 2009). Though practice varies by force (see Robinson *et al.*, 2016), for this force the DASH was recorded as a binary yes/no to each question, and included a free-text box for the officer(s) to give their rationale for the grading.

Crime report. If no crime is identified, the Incident Report is closed with a closing incident code, which may differ to the opening incident code. If the event crosses the criminal threshold, officer(s) must submit a Crime Report on the force's crime recording system. The Crime Report is later reviewed by the Criminal Investigation Department (CID). If CID believe there is a case against the suspect, they will review the available evidence and build a case, which may then be submitted to the Crown Prosecution Service (CPS).

DA referral. For all recorded DVA-related events, the officer(s) must submit a DA referral form to the local MASH. The referral is attached to the victim, and is submitted within the force's Protecting Vulnerable People (PVP) system, which sits separately to the incident and crime recording systems. The referral includes a free-text account of the event circumstances, according to the responding officer(s). MASH review and process the case, including gathering additional information to populate the referral before sharing with relevant agencies. Information may be sourced from other agencies, the Police National Computer (PNC) and the Police National Database (PND). The risk classification allocated to the referral determines the amount of additional information that is added, whether the referral is shared with agencies [e.g. probation, housing, Children's Social Care (CSC), Victim Support, Independent Domestic Violence Advocates (IDVAs)], and the speed of referral (see Shorrock *et al.*, 2019). The DA referral is largely comprised of free-text narratives added by responding officers and MASH.

Four key issues to measuring repeat DVA-related demand. Four data sources were core to the collection and sharing of information in relation to DVA: Incident Reports, Crime Reports, DA referrals and DASH risk assessments. However, the format of data collection and management in response to DVA restrict the usability of police data to identify repetition. These barriers are summarized as four key issues: (1) fragmented units of measurement across multiple systems; (2) inconsistent recording of personal details; (3) multiple methods of identifying DVA; and (4) embedding of information in free-text.

(1) Fragmented units of measurement across multiple information systems

The measurement of repetition in DVA requires at least three units of measurement: the victim, perpetrator, and the event, so the number of events per person (and dyad) can be counted. An additional unit of measurement, often used in policing, is the event address (e.g. Farrell and Pease, 1993). Table 3 shows the units of measurement available in each of the four data sources.

Both the Crime Report and the DA referral have units of measurement for victim, perpetrator and event. The repetition of DVA for victim, perpetrator and dyad could therefore be estimated in the crime data. However, around a third of reported DVA events are not recorded as crimes (ONS, 2022), thus crime data alone cannot provide an accurate measure of repetition. The DA referral contains all units, though is largely a free-text document that is recorded and stored as an individual file, thus data cannot be easily extracted. Transforming the data into a quantitative form to enable the measurement of repetition is time-consuming and resource intensive. Incident data should contain most reported

[3] In 2022, the National Police Chiefs' Council (NPCC) identified the new Domestic Abuse Risk Assessment (DARA) as their preferred risk assessment tool for first responding police officers' primary assessments of risk, though specialist officers and staff completing secondary risk assessments are still expected to use DASH (College of Policing, 2022).

Table 3: Units of measurement across four police data sources

Data source	Unit of measurement					
	Victim	Perpetrator	Event	Victim Address	Perpetrator Address	Event address
Incident report	N	N	Y	N	N	Y
Crime report	Y	Y	Y	Y	Y	Y
DASH	N	N	Y	N	N	N
DA referral	Y	Y	Y	Y	Y	Y

DVA events [excluding those screened out as non-DVA, see Myhill and Johnson (2016)], thus provide an ideal site to measure repeat demand. However, the only unit of measurement available in the incident data is the address of the incident.[4] An address may be an appropriate form of measurement for measuring some crime types (e.g. property crime), but it is not an appropriate measurement to capture the repetition of DVA, as DVA between the same persons may not always occur in the same place (HMICFRS, 2019). For instance, the home address of victim and/or perpetrator may frequently change, with some victims routinely moving address to evade their perpetrator (Bowstead, 2015, 2017).

Related to different units of measurement is the problem of multiple information systems. Each source of data contained some insight into victims, perpetrators and events. However, due to different units of measurement within each source, which were recorded across different police systems, the sources could not be easily merged. The units of measurement were therefore fragmented across multiple information systems, operating in outdated technology. To build a pattern of repetition therefore required going into multiple systems and manually extracting information from different sources.

(2) Inconsistent recording of personal details

When all personal details are recorded (e.g. name, address), repeat individuals can be identified (Brimicombe, 2016). In the crime data, recording officer(s) often did not capture all identifiable information. Furthermore, details were often recorded in multiple formats, for example, different name spellings, punctuation, and grammar, which prevented the identification of repetition. An alternative to using personal information to identify repeats would be the use of a unique nominal attached to each individual. Such nominal should be numeric and avoid using combinations of names and personal details, to ensure resistance to changes in these details.

(3) Application and multiplicity of DVA identifiers

The third issue was the methods used to identify DVA. Problems were identified in the application of DVA identifiers and in the existence of multiple identifiers. As discussed, the Home Office require that police forces manually attach DVA flags to criminal offences that align with their definition of DVA (violence or abuse between intimate partners or family members) (Home Office, 2023). During the process of searching crime numbers through police information systems, it was found that several of the crimes that had been flagged as DVA did not meet the definition of DVA, thus the flag had been inaccurately applied. Examples included crimes where the victim had been recorded as a business; crimes of assault against a Police Constable (PC) (flagged as DVA as the crime occurred when the PC was attending a reported DVA, though the crime itself was between perpetrator and PC and therefore not DVA); and crimes where the victim was a child under the age of 16 years.

In addition to inaccurate application, multiple methods of identifying DVA across information systems produced different, though overlapping,

[4] This barrier to incident data may not apply to all police forces, if they routinely attach victim and suspect details to incidents.

records of DVA. If DASH and DA referrals are included as methods of identifying DVA in police data, then the police force had six DVA identifiers (DASH; DA referral; Domestic Incident code; Domestic Crime code; Domestic Abuse flag; Repeat Domestic Abuse flag). Recorded DVA events may include some or all of these identifiers, and the manual reading of case files observed various combinations of each. These methods therefore produce different though overlapping samples of DVA, and each may produce a different measure of repetition.

(4) Embedding of information in free-text

Free-text entries provide vital insight into the victims, perpetrators and circumstances of a case that are not captured by existing standard fields. In the referral, most information collected is free-text, and may contain anything from a short event summary to a full police chronology of victim and perpetrator. The information is collected operationally to inform safeguarding, though if more easily extractable could enable analysis into the patterns of DVA that are reported to the police.

The free-text fields in incident and crime reports provide more insight into the event than standard fields, for example:

> During verbal argument offender grabs victim and drags her up and down the hallway causing reddening to underarms and pain to head. Police attend, victim initially does not disclose but states cohabiting ex-partner makes vague threats to burn house down[5]

The summary gives much more insight into the nature of the event and relationship between victim and perpetrator than the crime code alone, which for the above excerpt was 'assault with injury'. The free-text account also indicates that another offence may have taken place in addition to the assault, but the second offence was not recorded, likely due to the HOCR that require one offence to be recorded per victim (unless the second offence is a course of conduct e.g. CCB). Without this additional free-text information, data from standard fields provide limited insight. However, extracting information from free-text police entries is a time-consuming process, thus often it is the standard fields that are used to extract police data (Bland and Ariel, 2015).

Discussion

Before police forces can target resources towards repetition to manage demand and reduce harm, they must be able to identify repeat demand. If police forces cannot identify repetition, patterns of violence and abuse are missed. To ensure victims receive the most appropriate response, repetition must be identified as early as possible, and barriers such as manual searching and multiple information systems delay this identification (HMICFRS, 2019).

Though the focus of this paper is the challenges, the study also demonstrates the rich amount of data that are collected by the police that contribute significant insight into DVA demand, but go unrepresented by police figures. The police collect information on perpetrators, victims, witnesses, locations, aggravating factors, safeguarding concerns, relationship dynamics, and actions taken by the police. Though some of this information is picked up by the standard fields of data sources, detailed insight is embedded within free-text narratives that are recorded across multiple systems. When inconsistent and inaccessible, data are redundant, and can lead to wasted time and missed opportunities (Lambri *et al.*, 2011; HMIC, 2017).

Implications for police forces

Improving the measurement of repeat demand requires changes to systems and practices of data collection. This paper makes several recommendations to improve the collection of police data to better measure repeat demand, with a focus on DVA.

(1) **Police data should record units of measurement for the event, the victim and the perpetrator.**

[5] Extracted from the free-text field of one crime report in the dataset.

(2) **Individuals that are recorded in police data should be recorded with a unique numeric nominal**. Whilst implementing a nominal system may not eliminate human error in recording, it reduces the need to match multiple pieces of identifiable information, which are each susceptible to missing data and recording errors.
(3) **DVA flags should be used to identify DVA rather than incident codes**. Incident codes should describe the event, for example, breach, threats.
(4) **One flag should be attached to all DVA events.** The flag should be applied to events that fit the statutory definition of DVA.
(5) **Data on events, victims and perpetrators should be stored within one information system**.
(6) **Free-text narratives are important to capture the unique contexts of events and police actions**. However, adding some keywords relating to aggravating factors and additional offences as standard fields in police information systems could reduce the duplication of recording for officers whilst increasing the accessibility of key information for those using police data, thus **keywords should be added to police systems.**

Whilst these recommendations may appear simple, implementing any changes to police recording practices can require significant system changes which can be costly and disruptive. Police forces in England and Wales do not all operate under the same information systems. Many forces use information systems created by private technology companies, costing multimillions of pounds and tying forces into long contracts, thus revising these systems is not simple nor inexpensive (Hadjimatheou, 2021). However, given the scale of DVA-related demand and the benefits of better data, improving systems to capture repeat demand should be considered a priority. Furthermore, following scrutiny in recent years for outdated technology and poor data (HMICFRS, 2017, 2018c), some forces have started to invest in technology, including new devices, system updates and some full revisions to main information systems (HMICFRS, 2022). In this context, this paper provides timely recommendations to police forces to consider the accurate measurement of repetition when improving data systems.

Improving the accessibility of information using well-integrated systems can improve the use of information for policing and partner agencies, enabling records on people and places to be connected to build patterns and assist investigations and safeguarding (Crowhurst, 2017; Phythian and Kirby, 2022). Whilst this paper has focussed on DVA, the implications apply to repeat demand more broadly, including the increasing demand of calls relating to mental health and welfare crises (Boulton *et al.*, 2017; HMICFRS, 2018a).

It is crucial to recognize that improving police data requires more than technological development, it also needs organizational change, particularly greater compliance with integrity and the use of information systems (Phythian and Kirby, 2022). Any new system should be designed, implemented and evaluated alongside practitioners (Neyroud and Disley, 2008; Lambri *et al.*, 2011) to account for organizational culture and how it may impact data recording and prevent systems from being used to their full potential (Phythian and Kirby, 2022).

The final note on these recommendations is that some go beyond the responsibility of police forces and require change at a national level. The Home Office Counting Rules (HOCR) currently require that police forces manually attach two DVA-related flags: one for DVA, and a second flag for a repeat DVA victim. Given the complexity of the police recording process in relation to DVA, the recommendation from this paper is that this should be reduced to one flag, with the *repeat* DVA flag removed from the HOCR. Identifying repetition requires that records relating to people and events are recorded accurately and does not require an additional flag. Furthermore, as the repeat flag applies only to notifiable offences, is confined to a 12-month period, and considers only the victim rather than the perpetrator, it provides limited insight into the repetition of DVA.

Limitations

The main limitation of the study is that it draws from one police force, thus some observations of the police response may be specific to the force, for example, the number of information systems in use and the type of information recorded in each. However, most implications are applicable to forces across England and Wales. Problems in the measurement of repeat DVA are not unique to one police force; data recording and problematic information systems have been consistently raised as areas to address in national inspections, for all crime types (HMIC, 2014a; HMICFRS, 2019, 2022).

It should be noted that the police force under study were in the process of changing their information systems at the time that this study took place. The force now has a new main information system, replacing several previous systems from which the study data were extracted. Some key features of the new system included an integrated system of crimes and incidents, an individual nominal for all victims and perpetrators, and keywords to capture additional event details that were not previously captured by standard fields. Future research should evaluate these features of police information systems on their ability to capture repeat demand.

Conclusion

The recommendations made in this paper would enable a more consistent and robust identification of repeat DVA in police data. Better identification and measurement of DVA repetition could assist the police in understanding the demand on their resources from repeat DVA and how to effectively target those resources. It would also enable researchers and policy makers to investigate patterns of DVA repetition to test theories and to evaluate and develop interventions to reduce DVA.

Acknowledgements

With thanks to the police force for their generous provision of data, and to all the officers and staff that offered their valuable insight. I would also like to thank Jude Towers, Merili Pullerits and Sally McManus for their comments on earlier drafts of this article, and the anonymous reviewers for their feedback.

References

ACPO. (2005). *National Call Handling Standards*. London, Home Office Communication Directorate.

Barnham, L., Barnes, G., and Sherman, L. (2017). 'Targeting Escalation of Intimate Partner Violence: Evidence from 52,000 Offenders.' *Cambridge Journal of Evidence-Based Policing* **1**: 116–142. https://core.ac.uk/download/pdf/323053964.pdf

Bland, M. and Ariel, B. (2015). 'Targeting Escalation in Reported Domestic Abuse: Evidence from 36,000 Callouts.' *International Criminal Justice Review* **25**(1): 30–53.

Bland, M. and Ariel, B. (2020). *Targeting Domestic Abuse with Police Data*. Cham, Switzerland: Springer.

Boulton, L., McManus, M., Metcalfe, L., Brian, D., and Dawson, I. (2017). 'Calls for Police Service: Understanding the Demand Profile and the UK Police Response.' *The Police Journal: Theory, Practice and Principles* **90**(1): 70–85.

Bowstead, J. (2015). 'Forced Migration in the United Kingdom: Women's Journeys to Escape Domestic Violence.' *Transactions of the Institute of British Geographers* **40**(3): 307–320.

Bowstead, J. (2017). 'Women on the Move: Theorising the Geographies of Domestic Violence Journeys in England.' *Gender, Place and Culture: A Journal of Feminist Geography* **24**(1): 1–14.

Brennan, I., Myhill, A., Tagliaferri, G., and Tapley, J. (2021). 'Policing a New Domestic Abuse Crime: Effects of Force-wide Training on Arrests for Coercive Control.' *Policing and Society* **31**(10): 1153–1167.

Brimicombe, A. (2016). 'Mining Police-Recorded Offence and Incident Data to Inform a Definition of Repeat Domestic Abuse Victimization for Statistical Reporting.' *Policing* **12**(1): 150–164.

College of Policing. (2015). College of Policing Analysis: Estimating Demand on the Police Service. www.college.police.uk [27/04/2023].

College of Policing. (2022). Domestic Abuse Risk Assessment (DARA). www.college.police.uk [27/04/2023].

Cook, E. A., Rowlands, J., Bracewell, K., Jones, C., and Boughton, G. (2023). 'Parallels in Practice: Applying Principles of Research Integrity and Ethics in Domestic Violence Fatality Review (DVFR).' *Journal of Family Violence* doi:10.1007/s10896-023-00505-x. https://link.springer.com/article/10.1007/s10896-023-00505-x#citeas [26/04/2023].

Crowhurst, L. (2017). *A Problem Shared: Sharing Data Across Local Public Services*. London: Police Foundation, KPMG.

Domestic Abuse Act. (2021). c. 17. Available at https://www.legislation.gov.uk/ukpga/2021/17/contents/enacted [27/04/2023].

Elliott-Davies, M., Donnelly, J., Boag-Munroe, F., and Van Mechelen, D. (2016). '"Getting a Battering": The Perceived

Impact of Demand and Capacity Imbalance Within the Police Service of England and Wales: A Qualitative Review.' *The Police Journal: Theory, Practice and Principles* **89**(2): 93–116.

Farrell, G. (1995). 'Preventing Repeat Victimisation.' *Crime and Justice* **19**: 469–534. https://eprints.whiterose.ac.uk/116404/8/Farrell%201995%20Preventing%20repeat%20victimization%20%28Crime%20%26%20Justice%29.pdf

Farrell, G. and Pease, K. (1993). *Once Bitten, Twice Bitten: Repeat Victimisation and its Implications for Crime Prevention, Police Research Group, Crime Prevention Unit Paper 46*. London: Home Office Police Department.

Farrell, G. and Pease, K. (2017). 'Preventing Repeat and Near Repeat Crime Concentrations.' In Tilley, N. and Sidebottom, A. (eds), *The Handbook of Crime Prevention and Community Safety*, 2nd Edition. London: Routledge.

Farrington, D. and Welsh, B. (2007). *Saving Children from a Life of Crime: Early Risk Factors and Effective Interventions*. Oxford: Oxford University Press.

Gravelle, J. and Rogers, C. (2014). *Researching the Police in the 21st Century*. London: Palgrave Macmillan.

Grove, L., Farrell, G., Farrington, D, Johnson, S. (2012). *Preventing Repeat Victimisation: A Systematic Review*. Stockholm, The Swedish National Council for Crime Prevention.

Hadjimatheou, K. (2021). *Relationship Between Big Tech and Policing is Shielded Behind Commercial Confidentiality—It's a Problem*, www.conversation.com. Available at https://theconversation.com/relationship-between-big-tech-and-policing-is-shielded-behind-commercial-confidentiality-its-a-problem-163958 [20/03/2023].

Hester, M. (2009). *Who Does What to Whom? Gender and Domestic Violence Perpetrators*. Bristol, University of Bristol in association with the Northern Rock Foundation.

Hester, M., Eisenstadt, N., Ortega-Avila, A.G., Morgan, K., Walker, S.J. and Bell, J. (2019). *Evaluation of the Drive Project: A Three-year Pilot to Address High-risk, High-harm Perpetrators of Domestic Abuse*. Bristol, University of Bristol.

Hester, M., Walker, S. J., and Myhill, A. (2023). 'The Measurement of Domestic Abuse—Redeveloping the Crime Survey for England and Wales.' *Journal of Family Violence*. doi: 10.1007/s10896-023-00507-9. https://link.springer.com/article/10.1007/s10896-023-00507-9#citeas [26/04/2023].

HMIC. (2014a). *Everyone's Business: Improving the Police Response to Domestic Abuse*. London, HMIC.

HMIC. (2014b). *Crime Recording: A Matter of Fact*. London: HMIC.

HMIC. (2017). *State of Policing: The Annual Assessment of Policing in England and Wales 2016*. London: HMIC.

HMICFRS. (2018b). *Understanding the Difference: The Initial Police Response to Hate Crime*. London: HMICFRS.

HMICFRS. (2018c). *State of Policing: The Annual Assessment of Policing in England and Wales 2017*. London: HMICFRS.

HMICFRS. (2019). *The Police Response to Domestic Abuse: An Update Report*. London: HMICFRS.

HMICFRS. (2022). *State of Policing: The Annual Assessment of Policing in England and Wales 2021*. London: HMICFRS.

HMICFRS. (2018a). *Policing and Mental Health: Picking Up the Pieces*. London: HMICFRS.

Home Office. (2011). *National Standard for Incident Recording Counting Rules*. London: Home Office.

Home Office. (2015). *Controlling or Coercive Behaviour in an Intimate or Family Relationship: Statutory Guidance Framework*. London: Home Office.

Home Office. (2019). Home Office Announces First Wave of 20,000 Police Officer Uplift, www.gov.uk. Available at https://www.gov.uk/government/news/home-office-announces-first-wave-of-20000-police-officer-uplift [24/05/2022].

Home Office. (2023). *Home Office Counting Rules for Recorded Crime*. London: Home Office.

Hunter, J., Ward, B., Tseloni, A., and Pease, K. (2021). 'Where Should Police Forces Target Their Residential Burglary Reduction Efforts? Using Official Victimisation Data to Predict Burglary Incidences at the Neighbourhood Level.' *Crime Science* **10**(11). doi: 10.1186/s40163-021-00144-x

Ignatans, D., and Pease, K. (2018). 'Crime Concentrations: Hot Dots, Hotspots and Hot Flushes.' In Bruinsma, G. and Johnson, S. (eds), *The Oxford handbook of environmental criminology*. Oxford: Oxford University Press, pp. 664–690. https://crimesciencejournal.biomedcentral.com/articles/10.1186/s40163-021-00144-x [26/04/2023].

Kearns, I. and Muir, R. (2019). *Data-Driven Policing and Public Value*, London: The Police Foundation.

Lambri, T., Jackson, T. and Cooke, L. (2011). 'The Challenges and Complexities of Implementing and Evaluating the Benefits of an IT System: The UK Police National Database.' In Dawson, R. J., Ross, M., and Staples, G. (eds), *Proceedings of Software Quality Management XIX: Global Quality Issues, 18–19 April 2011*. UK: Loughborough, pp. 373–390.

Loveday, B. (2017). 'Still Plodding Along? The Police Response to the Changing Profile of Crime in England and Wales.' *International Journal of Police Science and Management* **19**(2): 101–109.

Mayhew, P. (2014). *Crime Data Integrity, Literature Review of Crime-Recording by Ms Patricia Mayhew*. London: HMIC.

Mazerolle, P. and Maahs, J. (2003). *Developmental Theory and Battering Incidents: Examining the Relationship Between Discrete Offender Groups and Intimate Partner Violence*. U.S. Department of Justice: National Institute of Justice.

Moffitt, T. (1993). 'Adolescence-Limited and Life-Course-Persistent Antisocial Behaviour: A Developmental Taxonomy.' *Psychological Review* **100**(4): 674–701.

Myhill, A. (2017). 'Measuring Domestic Violence: Context is Everything.' *Journal of Gender-Based Violence* **1**(1): 33–44.

Myhill, A. and Johnson, K. (2016). 'Police Use of Discretion in Response to Domestic Violence.' *Criminology and Criminal Justice* **16**(1): 3–20.

Myhill, A., Johnson, K., McNeill, A., Critchfield, E., and Westmarland, N. (2022). '"A Genuine One Usually Sticks Out a Mile": Policing Coercive Control in England and Wales.' *Policing and Society*. doi:10.1080/10439463.2022.2134370. https://www.tandfonline.com/doi/abs/10.1080/10439463.2022.2134370 [26/04/2023].

Myhill, A. and Kelly, L. (2021). 'Counting With Understanding? What is at Stake in Debates on Researching Domestic Violence.' *Criminology and Criminal Justice* **21**(3): 280–296.

Neyroud, P. and Disley, E. (2008). 'Technology and Policing: Implications for Fairness and Legitimacy.' *Policing* **2**(2): 226–232.

NPCC. (2017). *Better Understanding Demand—Policing the Future*. London: NPCC Performance Management Coordination Committee.

Office for National Statistics. (2022). Domestic Abuse in England and Wales overview: November 2022. www.ons.gov.uk [27/04/2023].

Palmer, I., Kirby, S., and Coleman, R. (2019). 'Assessing the Appetite for Evidence Based Policing: A UK Based Study.' *International Journal of Police Science and Management* **21**(2): 91–100.

Pease, K. (1998). *Repeat Victimisation: Taking Stock*. London: Home Office.

Pease, K., Ignatans, D., and Batty, L. (2018). 'Whatever Happened to Repeat Victimisation?.' *Crime Prevention and Community Safety* **20**(4): 256–267.

Phythian, R. and Kirby, S. (2022). 'What Does the UK Police National Database Tell Us About the Future of Police Intelligence?' *Policing*. doi: 10.1093/police/paac074. https://academic.oup.com/policing/advance-article/doi/10.1093/police/paac074/6686660?login=false [26/04/2023].

Richards, L. (2009). Domestic Abuse, Stalking and Harassment and Honour Based Violence (DASH, 2009) Risk Model: Practice Guidance for All Front Line Staff. www.dashriskchecklist.co.uk [27/04/2023].

Robinson, A. (2004). *Domestic Violence MARACs (Multi-Agency Risk Assessment Conferences) for Very High-Risk Victims in Cardiff, Wales: A Process and Outcome Evaluation*. Cardiff: Cardiff University.

Robinson, A. and Clancy, A. (2020). 'Systematically Identifying and Prioritising Domestic Abuse Perpetrators for Targeted Intervention.' *Criminology and Criminal Justice* **21**(5): 687–704.

Robinson, A., Myhill, A., and Wire, J. (2018). 'Practitioner (Mis)understandings of Coercive Control in England and Wales.' *Criminology and Criminal Justice* **18**(1): 29–49.

Robinson, A., Myhill, A., Wire, J., Roberts, J. and Tilley, N. (2016). *Risk-Led Policing of Domestic Abuse and the DASH Risk Model*. www.college.police.uk [27/04/2023].

Rowlands, J. and Bracewell, K. (2022). 'Inside the Black Box: Domestic Homicide Reviews as a Source of Data.' *Journal of Gender-Based Violence* **3**(3): 518–534. doi: 10.1332/239868021X16439025360589.

Sherman, L. (1992). 'Attacking Crime: Police and Crime Control.' *Crime and Justice* **15**(1): 159–230.

Sherman, L. (2007). 'The Power Few: Experimental Criminology and the Reduction of Harm.' *Journal of Experimental Criminology* **3**: 299–321. https://link.springer.com/article/10.1007/s11292-007-9044-y

Sherman, L., Neyroud, P., and Neyroud, E. (2016). 'The Cambridge Crime Harm Index: Measuring Total Harm from Crime Based on Sentencing Guidelines.' *Policing* **10**(3): 171–183.

Shorrock, S., McManus, M. A., and Kirby, S. (2019). 'Practitioner Perspectives of Multi-agency Safeguarding Hubs (MASH).' *Journal of Adult Protection* **22**(1): 9–20.

Smith, K. and Davidge, S. (2022). 'The Role of NGO Administrative Data in Understanding the Impact of COVID-19 on Survivors of Domestic Abuse.' *Journal of Gender-Based Violence* **6**(2): 383–392.

Stark, E. (2007). *Coercive control: How men entrap women in personal life*. Oxford: Oxford University Press.

Stark, E. (2012). 'Looking Beyond Domestic Violence: Policing Coercive Control.' *Journal of Police Crisis Negotiations* **12**(2): 199–217.

Stark, E. and Hester, M. (2019). 'Coercive Control: Update and Review.' *Violence Against Women* **25**(1): 81–104.

Walby, S. and Allen, J. (2004). *Domestic Violence, Sexual Assault and Stalking: Findings from the British Crime Survey*. London: Home Office.

Walby, S. and Towers, J. (2018). 'Untangling the Concept of Coercive Control: Theorizing Domestic Violent Crime.' *Criminology and Criminal Justice* **18**(1): 7–28.

Walby, S., Towers, J., Balderston, S. et al. (2017). *The Concept and Measurement of Violence against Women and Men*. Bristol: Policy Press.

Walby, S., Towers, J., and Francis, B. (2014). 'Mainstreaming Domestic and Gender-Based Violence into Sociology and the Criminology of Violence.' *The Sociological Review* **62**(2): 187–214.

Walby, S., Towers, J., and Francis, B. (2016). 'Is Violent Crime Increasing or Decreasing? A New Methodology to Measure Repeat Attacks Making Visible the Significance of Gender and Domestic Relations.' *British Journal of Criminology* **56**(6): 1203–1234.