

ESRC 1+3 CASE studentship: *Indicators of escalation in domestic violent crime using police data on perpetrators and victims*. Lancaster University, Department of Sociology.

Applications are invited for a four-year ESRC studentship starting October 2017, examining escalation in domestic violent crime using Lancashire police data. The standard stipend for ESRC studentships covers: full payment of university fees for four years; a tax-free stipend (£14,296p.a. in 2016); and access to a Research Support and Training fund.

To apply, submit an application for a Sociology PhD by **3 April 2017**:

<http://www.lancaster.ac.uk/study/postgraduate/how-to-apply-for-postgraduate-study/>

In the 'research proposal' part of the application form please write one page on your suitability for this research project, headed '***Indicators of escalation in domestic violent crime using police data on perpetrators and victims***'. All shortlisted candidates will be invited to interview at Lancaster University on 24 April 2017. Any queries should be directed to Cat Prill, PG Administrator: c.prill@lancaster.ac.uk

Existing theory on escalation in frequency and severity of domestic violence over time is conflicted. Domestic violence has been conceptualised as several distinct and separate forms, only one of which ("intimate-partner terrorism") escalates in frequency and severity over time, while an alternative conceptualisation is that potentially all domestic violence increases in frequency and severity until an intervention to stop the violence occurs. Most studies to date have been cross-sectional, but longitudinal data is needed to address this particular conceptual challenge. This project has secured access to police data for this purpose. The PhD will use longitudinal data on victims and offenders extracted from Lancashire Constabulary administrative records to investigate conceptions of escalation in domestic violent crime and will contribute to the development of policy for more effective policing of domestic violence.

The supervisory team, based at Lancaster University, is Distinguished Professor Sylvia Walby (Sociology), Professor Brian Francis (Social Statistics/Quantitative Criminology) and Dr. Jude Towers (Quantitative Sociology). The student will also work directly with Lancashire police, including being co-supervised by a member of Lancashire Constabulary. There will be training at both Lancashire Constabulary headquarters in Hutton, Preston and Lancaster University.

In the first year the student will take the MSc in Data Science's societal strand at Lancaster University, learning data analytics and statistical methods for social data. Or, if the applicant is already qualified to a high level in statistics, they will take the MA in Social Research (Sociology pathway) at LU. On successful completion of the masters, the student will enter the three year PhD programme and will join the Violence and Society UNESCO Centre.

Applicants should have a background in criminology, sociology or applied statistics with an achieved or an expected first class or upper second class degree, interest in learning statistical modelling and in the analysis of social data to investigate and further develop theoretical concepts in violence. *Successful completion of Lancashire Constabulary vetting procedures is a requirement.*

Further details (PhD component)

Background

Accurate identification of the risk of serious harm and death from domestic violent crime would enable the more effective targeting of resources by the police, the reduction of immediate harm to the health and well-being of victims of domestic violent crime and the reduction of the wider harms to society. Understanding escalation in domestic violent crime would enable the better targeting of scarce resources as well as facilitating a reduction in the rate of domestic violent crime.

Most attempts to estimate the risk of violent crime focus on either the characteristics of the victim or the perpetrator. It may be that both are independently relevant, and there may also be an interaction effect. This needs investigation. The nature of the crime itself may be an important factor: whether it is one in a series of repeat crimes and the level of severity. Lancashire Constabulary data can potentially enable the relative importance of these determinants and their combination to be investigated.

There is significant interest in the development of simple instruments to estimate future risk of domestic violent crime. The rate of violent crime committed by intimate partners and other family members is increasing, while other forms of violent crime continue to fall¹. Domestic violent crime is a repeat offence; reducing the number of repetitions suffered by individual victims would both reduce individual harm and reduce the overall volume of violent crime. There are two approaches to the longitudinal patterning of domestic violence. The first argues domestic violence can be divided into two stable forms: one which is serious, exhibits coercive control and is gender asymmetrical and the other which is less serious, does not involve coercive control and is gender symmetrical. The second approach argues domestic violence escalates in frequency and severity over time, unless early intervention disrupts this.

Current risk assessment instruments for domestic violence, in particular CAADA-DASH, are focused on victims and premised on the approach that there are two stable forms of domestic violent crime with victims located in one or other group (as above). If this is incorrect, and rather domestic violent crime escalates in frequency and severity over time, then victims could progress from the less serious into the more serious group over time. This raises questions about the appropriateness of the CAADA-DASH tool and whether it can effectively identify the most significant indicators of risk.

However, these two theories are hard to test using cross-sectional data from victimisation surveys, since the issue is essentially about trajectories over time. Lancashire Constabulary data offers the possibility of longitudinal data that can begin to more robustly test these alternative approaches.

There is also a research field on 'criminal careers' focused on perpetrators and whether their criminal activity escalates over time: in offence severity and/or

¹ Walby, S., Towers, J. and Francis, B. (2016) Is violent crime increasing or decreasing? *British Journal of Criminology*, 56 (6): 1203-1234.

frequency of offending². Investigation of perpetrator escalation has not yet been applied to domestic violent crime because of the difficulty of identifying the sub-set of violent crimes perpetrated by intimate partners and other family members. Lancashire Constabulary has developed a relatively reliable method of flagging cases³ committed by domestic relations which could enable this to be investigated.

The additional investigation of whether there is an interaction between perpetrator and victim trajectories has added value and would be an innovative development, since most research has studied either perpetrator or victim, not both.

Research Questions

1. Can domestic violent crime be reliably and consistently identified in the histories of both perpetrators and victims using police data?
2. Can simple indicators of the likelihood of repetition of domestic violent crime be identified in the records of either or both of the perpetrator and victim?
3. Can a pattern of escalation in seriousness be identified?
4. Can a pattern of escalation be reliably distinguished from a pattern of stable typologies?
5. What are the implications of the above for criminological and violence against women theory and sociological theories of violence and society, modernity and violence and violence as a social institution?

Methods

The study will use a number of Lancashire Constabulary datasets. The three supervisors already hold level 3 vetting which enables access to the raw data collected by Lancashire Constabulary. The successful candidate would also require level 3 vetting.

The data relevant to this study will be identified, extracted from Lancashire Constabulary records, cleaned and developed into a working dataset. This will be held securely in compliance with both Lancashire Constabulary and Lancaster University data security protocols. If appropriate, and in compliance with Lancashire Constabulary protocols, the possibility of developing the dataset for depositing into an appropriate data archive for further research benefits will be investigated.

Offences will need to be coded for severity in order to assess escalation. We propose to investigate several crime severity scales, including that newly published by ONS⁴, and a severity scale developed by Francis et al⁵ to identify the most appropriate measurement instrument.

² Liu, J., Francis, B. and Soothill, K. (2011) A longitudinal study of escalation in crime seriousness. *Journal of Quantitative Criminology*, 27(2): 175-196.

³ Towers, J. (2013) *Economic Inequality and Intimate Partner Violence against Women*. Lancaster, Lancaster University [unpublished PhD thesis]

⁴ONS (2016) Research Outputs: Developing a Crime Severity Score for England and Wales using Data on Crimes Recorded by the Police. ONS.

⁵ Francis, B., Soothill, K., Humphreys, L. and Cutajar Bezzina, A (2005) *Developing Measures of Severity and Frequency of Reconviction*. Online <http://www.maths.lancs.ac.uk/~francisb/seriousnessreport.pdf>

The data will be subject to analysis using both standard and more innovative and bespoke statistical procedures.

There are two methodological components to the research. First the development of a predictive tool for future repeat domestic violent crime: an event history approach will be taken where risk factors in the history of the perpetrator and the victim are discretised into short time periods. This will allow exploration of any decay in the effect of the risk factor over time. This will involve the innovative combination of event history methods⁶ with the ideas of varying coefficient modelling⁷. Secondly, escalation in both severity and in frequency will be investigated using group based trajectory models⁸ with multinomial logistic regression used to identify indicators of trajectory membership.

Research Development

The findings will be interrogated by the researchers and police to identify simple indicators for use by police. Reflections on the findings will be used to refine academic theory. Reflections on the accessing, extracting and use of police data will be developed in order to inform future research endeavours in these areas and to advise policing partners Lancashire, the other forces in the N8 Policing Research Partnership (<http://n8prp.org.uk/>), and the wider research community.

The practice of the research will deepen the exchange and professional relations between Lancashire Constabulary and Lancaster University academics.

Project timetable

1. Months 1-4: review of the relevant literature; access to police data
2. Months 4-12: in-depth review of the literature; refinement of the research design; data collection
3. Months 6-24: development of the dataset for analysis; analysis of the data
4. Months 24-30: reflections on the theoretical implications; discussions with police of development of indicators
5. Months 30-36: writing up

Anticipated outcomes

Lancashire Constabulary: practical indicators of risk for repeat domestic violent crime; development of techniques to mobilise their data effectively for evidence-based policing; development of more efficient and effective distribution of reducing

⁶ E.g. Christofferson, M., Francis B. and Soothill, K. (2003) An upbringing to violence? *Journal of Forensic Psychiatry and Psychology*, 14(2), 367-381.

⁷ Hastie, T. and Tibshirani, R. (1993) Varying-coefficient models. *Journal of the Royal Statistical Society. Series B (Methodological)* Vol. 55, No. 4: 757-796.

⁸ Nagin, D. (2005) *Group Based Modelling of Development*. Cambridge, MA: Harvard University Press.

resource to address the key areas of priority policing – domestic violence and vulnerability.

Police Forces in England and Wales: potential to advise police forces nationally on new indicators of risk for domestic violent crime; improved collection and use of police data for evidence-based policing; and for the further development of effective and efficient distribution of limited resource into priority areas for policing.

Police and Crime Commissioners: developing the evidence base to assist effective resource allocation.

College of Policing: potential to advise the College of Policing on training and learning requirements of police forces in the priority area of domestic violence, including risk assessment.

Researchers: testing of theories of escalation/typologies of domestic violence; development of theory.

N8 PRP: potential to develop and deliver new training and learning initiatives in the priority policing area of domestic violence; potential to contribute to the development an N8 police data hub accessible to police/academic partnerships for research and the generation of evidence-based policing initiatives and evaluations.

Public: reduced domestic violent crime through the improvement of police practice; and the effective use of public resources.

Dissemination

- Thesis
- Articles in academic journals
- Article in police practitioner journal
- Presentations to police
- Presentations to N8 PRP
- Presentations in academic settings (conferences, seminars)