Using criminal justice datasets to map the offending patterns of juvenile violent offenders

Using criminal justice datasets to investigate patterns of juvenile sexual offending.

Key details

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Police region	North West
Level of research	PhD
Project start date	October 2020
Date due for completion	March 2026

Research context

Taking the first conviction for a sexual offence as the reference point, the research aims to model prior and subsequent conviction trajectories. Findings will be compared to other groups who do not receive convictions for sexual offences.

The focus of this project is on offenders who receive their first sanction for a sexual offence in the years 2008, 2009, and 2010. This will allow for a six-year retrospective period and a seven-year prospective period. These are sufficient periods within which various trajectory patterns can be identified.

The proposed research questions for this project are as follows.

1. Do distinct offending trajectories exist for adolescent sex offenders retrospectively of their first sanctioned sexual offence (the 'target' conviction) and prospectively of their first sanctioned sexual offence?

2. Do trajectories differ dependent on the type of target sexual offence after controlling for important offenders characteristics, such as age and gender?

3. How do the trajectories for other types of non-sexual offenders differ with respect to research questions one and two?

There is little in the way of empirical evidence in relation to conviction trajectories of offenders in England and Wales. Where this research does exist, the focus is often on offending generally, rather than focusing on specific types of offending such as sexual offending.

This research will provide an evidence base for public policy decision making, and for decisions that are likely to benefit UK society. Policies that target those committing sexual offences should be based upon empirical findings regarding sexual offending careers. Longitudinal studies on large samples of individuals provide a base upon which conclusions can be drawn on the development not only of sexual offending, but also generalised offending across a number of years.

Research methodology

The primary sample would consist of individuals who, in the years 2008 to 2010, have received their first sanction for a sexual offence.

Two control groups would be used for comparison. The first group would be individuals who, in the years 2008 to 2010, have received their first sanction for a non-sexual violent offence. The second group would be a subset of the general offending population, independent of sexual and non-sexual violent offences.

Preliminary work has been carried out to ensures sample sizes will be adequate. Figures from the Youth Justice Board show that the total number of proven offences committed by adolescents (age 10 to 17) is:

- 244,583 in 2008/09
- 198,449 in 2009/10

- 176,511 in 2010/11

This makes a total of 619,543 offenders.

Within this figure, the number of proven sexual offences committed by adolescents (aged 10 to 17) is 5,854. Assuming that 50% of cases would not be first offences, this gives an estimate of around 3,000 suitable cases. Two control groups of roughly equal size to the sex offender group will then be selected.

The work will involve the development of a new statistical model to allow multiple trajectories of retrospective and prospective count data to be estimated as an extended finite mixture model.

Given a target event (that is, the first convicted/cautioned offence), the intention is to develop a model that will allow distinct groups of individuals to be identified by examining count data both looking back in time (retrospective trajectories) and looking forward (prospective trajectories), each on multiple count time series. The model can be thought of as a complex form of finite mixture model.