

# Connecting Events in Time to Identify a Hidden Population: Birth Mothers and Their Children in Recurrent Care Proceedings in England

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## Abstract

There is international concern about the population of birth mothers who experience repeat court-ordered removal of children. This article reports the findings from a population profiling study that provides the first picture of the scale of women's repeat involvement in public law proceedings in England. Based on national records from the Children and Family Court Advisory and Support Service (Cafcass) ( $n = 43,541$  birth mothers, 2007–14), two subsets of mother, child and legal proceedings data were created. The aims of the study were to: (i) produce a descriptive profile of recurrent cases, (ii) estimate the probability and timing of recurrence and (iii) examine the relationship between maternal age and recurrence. Quantitative analysis comprised descriptive statistics for profiling purposes and methods of survival analysis to estimate probabilities. Findings indicate that the family justice system recycles a sizeable percentage of women (24 per cent) through repeat episodes of care proceedings, with young women aged sixteen to nineteen years most at risk of recurrence. Implications for social workers and the family courts are outlined with reference to new innovations in England.

**Keywords:** Care proceedings, recurrence, birth mothers, longitudinal

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## Introduction

There is international concern about the population of birth mothers who appear and reappear before the family court and lose successive infants and children to out-of-home care or adoption (Kellington, 2000; Grant *et al.*, 2011; Broadhurst and Mason, 2013; Taplin and Mattick, 2014). For a percentage of birth mothers, history repeats itself and women find themselves caught in a cycle of public law proceedings. Although the *serial* removal of infants and children from the same mother is reported in the USA (Grant *et al.*, 2014; Larrieu *et al.*, 2008; Ryan *et al.*, 2008), in Australia (Taplin and Mattick, 2014), in Canada (Novac *et al.*, 2006) and in England (Cox, 2012; Broadhurst *et al.*, 2014), there is a dearth of research to inform a prevention agenda. Where the state intervenes to remove children to public care, birth mothers, fathers, children and extended family networks all experience loss, but this is surely magnified where compulsory removals are repeated. In this context, it is surprising that so little is known about this particular population of women as an international trend.

In this article, we report the findings from the first stage (September 2014–June 2015) of a mixed-methods population profiling study funded by the Nuffield Foundation that provides the first picture of the scale of women's repeat involvement in public law proceedings in England. Our interest is in cases of care and supervision proceedings under section 31 of the 1989 Children Act. Making full use of population-wide, time-ordered data-sets held by the Children and Family Court Advisory and Support Service (Cafcass), we connected birth mothers and their children to successive episodes of public law proceedings to create a unique longitudinal data-set. In contrast to single-point designs that typify both government and research analyses of public law data-sets, we restructured administrative data to tell a new story that captured repeat clients within public law proceedings.

Reliable administrative data were available between 2007 and 2014 (fiscal years) concerning 43,541 birth mothers and 85,452 unique children. Two subsets of data were created based on birth mother as the primary unit of analysis to enable: (i) descriptive profiling of recurrent cases, (ii) an estimation of the probability and timing of recurrence and (iii) an examination of the relationship between maternal age and recurrence. Our findings indicate that the family justice system recycles a sizeable percentage of women through repeat episodes of section 31 proceedings. In addition, evidence confirms a relationship between young motherhood and risk of recurrence. This is the first time that data held by Cafcass have been used for population-wide analysis of public law proceedings, hence a full account of methodology is provided and limitations made transparent.

New findings prompt searching questions about local authority and family court obligations to women to prevent recurrent proceedings. Once children are removed from women's care, neither the local authority nor the courts

have any mandate to actively support women's rehabilitation. Although published judgements concerning high-profile cases evidence considerable disquiet on the part of the judiciary about women's exposure to repeat legal proceedings (e.g. [2014] EWFC B158, available online at [www.bailii.org/ew/cases/EWFC/OJ/2014/B158.html](http://www.bailii.org/ew/cases/EWFC/OJ/2014/B158.html)), commentary on individual cases has not resulted in systematic change in policy and legislation. Recent central government investment in pioneering new initiatives is very welcome (e.g. the Pause initiative: [www.pause.org.uk](http://www.pause.org.uk); Family Drug and Alcohol Court: [www.fdac.org.uk](http://www.fdac.org.uk)) but, in the absence of far-reaching policy and legislative change, the sustainability of new solutions is in question.

## Limitations of previous research: static lenses and hidden populations

Social workers and members of the judiciary in England are all too familiar with birth mothers who are repeat clients of the family court—their plight is not new. Yet, prior to our own work (Broadhurst *et al.*, 2014), the circumstances of this group of women have only been voiced through published case law precedents; the research literature has been largely silent on this topic. So how is the relative obscurity of this population of birth mothers explained, given the hugely pressing human and economic concerns associated with successive court-ordered removal of children? Turning first to reports produced by government departments based on audits of public law data-sets, reports largely take the form of annual or quarterly cross-sectional performance reports. Whilst these reports are useful in enabling performance to be compared from one organisational time frame to the next, these snapshots reveal little of the trajectory of the service user over time (e.g. Ministry of Justice, 2014). This trend is not peculiar to the UK, but similar performance focused reporting is evident in the USA, Canada and Australia—countries that share in cognate systems of child protection. For example, the Family Court Australia produces an annual report that provides snapshots of court performance against key performance indicators such as the time taken to finalise appeal cases (Family Court of Australia, 2014). However, recurrence is a *sequence problem* and, in the absence of longitudinal analysis that connects episodes of public law proceedings, individuals reappearing before the family court remain out of view.

Turning next to the research literature, a similar *static* lens is evident because studies have tended to focus on an index child within a single episode of care proceedings (Hunt and Macleod, 1999; Harwin *et al.*, 2003; Masson *et al.*, 2008). Indeed, research on public law is marked by a dearth of robust longitudinal studies, despite the increasing availability of accessible electronic data-sets (Fluke *et al.*, 2008; McGhee *et al.*, 2013). Within the international literature, a small number of studies evidence an exception to this

trend, notably research on sibling entry to public care (Shlonsky *et al.*, 2003; Wulczyn and Zimmerman, 2005; Lery *et al.*, 2005). Wulczyn and Zimmerman (2005) offer an alternative to what they describe as a ‘point-in-time’ perspective (p. 741) by examining placement outcomes for siblings where they enter care on different dates. However, this body of work has had only a marginal impact in terms of advancing longitudinal research that makes full use of available administrative data-sets, despite providing invaluable insights.

The relative obscurity of the birth mother within analyses of public law data-sets is also explained by a consideration of what counts in terms of public and political interest in outcomes of the family justice system. Within public law proceedings in England, the child’s welfare is paramount, whereas the family court is only tangentially interested in outcomes for parents (Hunt, 2010). Thus, research on child pathways or outcomes has not been matched by any parallel interest in how parents fare over time. Studies of parent well-being following child removal and offering a longitudinal perspective are very few in number (e.g. Neil *et al.*, 2010). Indeed, much of the government and academic literature tends to treat ‘children’ as a discreet reporting category and disconnects the child from his or her relationships with parents and extended family. Here it is useful to consider law as a social force that absorbs and reflects broader social and cultural norms. In the UK, Canada, North America and Australia, the primacy afforded to the best interests of the child has served to marginalise questions about parents’ experiences within family justice systems (Hunt, 2010).

## Methodology

### The research materials

National electronic case records held centrally by Cafcass comprised the primary source of data for the study, specifically records held in the agency’s Case Management System (CMS). Cafcass records all care and supervision cases, so researchers can work with population-wide data, avoiding problems of bias. Data are held in electronic format and covers all court areas ( $n = 44$ , Designated Family Judge (DFJ)) and all local authority areas ( $n = 152$ ) in England. A detailed feasibility study was initially completed which confirmed that records held in the agency’s CMS were of sufficient scope and quality to enable the team to examine repeat clienthood in England, although the range of explanatory variables was restricted (Alrouh and Broadhurst, 2015). The CMS is an electronic relational database (Microsoft SQL Server), which means that it can be readily managed and manipulated using standard SQL-based (Structured Query Language) reporting programmes (e.g. Crystal Reports). Thus, the research team could work with far larger samples than would have been possible if manual reading of case files was required. In the past, studies of care proceedings in England have been based on smaller sub-samples of paper/electronic

files and researchers have reported difficulties in achieving representative samples (e.g. [Masson et al., 2008](#); [Wade et al., 2014](#)).

Within the CMS, limited biographical data are available concerning adult and child parties, which includes: date of birth, gender, relationships between parties and personal address. Previous feasibility work found too much missing data against the variables ethnicity and disability, such that these data could not be used for research purposes. With respect to section 31 applications, data concerning application type, date of issue and case closure are available. It is also possible to identify the local authority in which an application has been issued, as well as the court location and level. Legal outcomes *per child* and their combinations are also recorded in the CMS. The list of variables and further methodological detail is provided in the project's open access technical appendix (<http://wp.lancs.ac.uk/recurrent-care/>).

A decision was taken to construct the study population around the birth mother, based on the fact that birth father information is often missing or can be unreliable in public law records. Consistently with the international literature ([Lery et al., 2005](#); [Masson et al., 2008](#); [Brown et al., 2009](#)), we found no information regarding a father as party to proceedings in a substantial number of cases (27.9 per cent based on Dataset 1, see below). As with all research based on retrospective analysis of administrative records, research questions are inevitably shaped and constrained by the number of available variables and the quality of administrative records ([Fisher and Rivard, 2010](#); [Evans et al., 2010](#)).

### A note on terminology

Within the CMS, proceedings commence with the logging of an 'application' for a section 31 order and cease, having typically spanned a number of months (current expected time for conclusion of care proceedings is twenty-six weeks), at 'application closure', when a decision as per the outcome(s) of the application is made. We use the terms 'legal episodes', 'episodes' or 'proceedings' (interchangeably) to refer to the activity that takes place in the family court between the issue of an application and closure. We use 'index episode' to refer to the first set of proceedings recorded in our data-set for any given mother, and 'first repeat' and 'second repeat' to refer to the subsequent two episodes (see technical appendix: <http://wp.lancs.ac.uk/recurrent-care/>).

### Final legal order data: rationalisation and limitations

Some rationalisation of legal order data was required given the multiple public law orders and their combinations recorded in the CMS data-set per child. We created four discrete categories that captured the typical legal order outcomes for children: 'adoption' (Placement Order and/or Adoption Order); 'out-of-home care' (Full Care Order or Secure Accommodation

Order)'; 'family and friends care' (Special Guardianship Order or Residence Order) and 'at home/with birth parents' (supervision order (not in combination with any other order), Order of No Order or Family Assistance Order). Given the focus on birth mothers in this study, we sought to provide a picture of the legal order outcomes from the birth mother's perspective. Specifically, we aimed to answer the question: Did the mother have *at least one* child in the respective four categories? Where a mother was linked to at least one child with an order in one of these categories, a value of 1 would be recorded. So, for example, if the mother had two children in the same category, this was also recorded as a single value.

Cafcass does not record child *placement* data, so we have inferred the most likely permanency outcomes given the legal orders made. To gain a more accurate picture of children's final placements, it would be necessary to link the CMS data with those held by the Department for Education.

## Data extraction and manipulation

Following ethical clearances, data collection and initial analysis took place between September 2014 and May 2015. Reliable data were available dating back to 2007. Thus, a decision was taken to capture cases that started and concluded between 1 April 2007 and 31 March 2014 (fiscal years). Using Crystal Reports, a set of filters was applied to the CMS to identify all applications made under section 31 of the 1989 Children Act to include *care and supervision* order applications. Feasibility work identified that recurrent cases included supervision applications that resulted in a care order, so it was important not to exclude them. Data were extracted and entered into the Microsoft Access research database where data restructuring, checking, cleaning and analyses were performed. Applications were then filtered to identify the subset of completed cases that concerned a unique mother (based on her ID) linked to at least one unique child. Applications concerning the same birth mother could then be linked to identify birth mothers with a recurrent profile. Meta-data tables were made available by Cafcass to enable the research team to unpack the agency's coding methodology and identify any major changes in recording that would lead to errors in analysis (UK Statistics Authority, 2014). Initial data cleaning comprised the removal of duplicates and removal of clearly erroneous values (e.g. mothers with impossible dates of birth). Such values were dealt with by categorising these as 'missing'. Here we assumed that errors were simply random errors within the data-set rather than indicative of any systematic bias (Graham, 2012; Osborne, 2012). For analysis purposes, we have worked only with available case data and reported percentages of missing data.

The main database contained data regarding the full cohort of birth mothers, her children and legal proceedings. To meet the study objectives, two subsets were drawn from the main database, stored in Microsoft

Access and analysed using the software package SPSS v.22 and R v.3.1.1 (R Core Team, 2014). Dataset 1 comprised all usable records against the mother's first appearance in the data-set (index episode:  $n = 43,541$  unique birth mothers) as well as first repeat ( $n = 7,022$ ) and second repeat ( $n = 1,058$ ) episodes. The numbers of mothers experiencing a third ( $n = 147$ ), fourth ( $n = 20$ ) and fifth repeat episode ( $n = 1$ ) were much lower and in some cases too small to enable meaningful analysis, hence these episode data were excluded from Dataset 1. Analysis of Dataset 1 aimed for a *descriptive profile* of episode, mother and child characteristics, against the index, first repeat and second repeat episodes.

To estimate the probability and timing of a first repeat episode, we constructed Dataset 2 based on birth mothers who recorded an *index* episode between 2007 and 2011 ( $n = 25,311$  unique birth mothers) which then allowed for a three-year *minimum* follow-up per case because even cases entering our observational window in 2011 for the first time (index) could be tracked until 2014. Previous feasibility work indicated that the majority of first repeat episodes would fall within this three-year period. Here the study replicated strategies used in previous published studies (e.g. Hawton *et al.*, 2012). To begin to examine explanatory variables, we also examined mother's age at the birth of her oldest child, based on the oldest child subject within the index episode of proceedings. Feasibility work indicated the significance of this variable and suggested a relationship between young motherhood and recurrence. Further multi-variable analysis is ongoing and given the complexity of this kind of analysis will be reported separately.

## Data analysis

Quantitative analysis aimed to produce an initial descriptive profile of cases held in Dataset 1. Raw counts and percentages were calculated for discrete variables, and measures of central tendency and spread, specifically the median and lower and upper quartile and interquartile range, for continuous variables. Where meaningful categories existed, we separated continuous data into ordinal groups.

Using Dataset 2, the yearly probability of return to court (timing) and rate of recurrence (from index episode to first repeat), was estimated using Life Table methodology (Hosmer *et al.*, 2008). The relationship between probability of women's return to court and maternal age at birth of the oldest child in the index episode was examined using Kaplan–Meier estimates of survival curves (Collett, 2003). Methods of survival analysis aim to 'correct' problems arising from incomplete observation and variable follow-up (Lovric, 2011). Regarding Dataset 2, cases entered the observational window between 2007 and 2011 and were tracked until 2014 only—giving rise to both these issues. However, survival methods are less able to deal with problems of left truncation (events pre 2007 are unobserved)—a matter we return to in discussion of limitations.

## Legal and ethical aspects

Approval for the study was granted by the President of the Family Division, the Cafcass Research Governance Committee, University of X and following transfer of the project University of Y. The University's Data Protection Guardian led the development of a System Level Security Policy (SLSP) for ensuring safe storage of sensitive data. Following extraction, de-identified (coded and unlinked) data-sets (Meystre *et al.*, 2010) were kept within an access-restricted data share on university network storage infrastructures, compliant with the UK 1998 Data Protection Act. Where de-identified data files were downloaded to approved laptops for analysis, laptops were protected with Bitlocker or TrueCrypt and data-sets were returned to the share immediately after scheduled analysis. All members of the research team received updated training in data protection, were mindful of the data subject's rights throughout the lifecycle of the project and obtained enhanced clearance from the Disclosure and Barring Service (DBS).

## Findings

### Legal episodes: a descriptive profile

#### Overview

Table 1 displays the episode, mother and child characteristics against the index, first repeat and second repeat episodes. Of the 43,541 unique birth mothers captured in Dataset 1, 7,022 (16.1 per cent) recorded a repeat episode and, of these, 1,058 (15.1 per cent) recorded a further, second repeat episode. At the index episode, the majority of section 31 applications were for care orders ( $n = 42,247$ , 97.0 per cent) rather than supervision orders ( $n = 1,294$ , 3.0 per cent) and this pattern appeared relatively consistent at first and second repeat episodes.

In keeping with the broader international literature, in a substantial percentage of index cases ( $n = 12,146$ , 27.9 per cent), women appeared as lone respondents with no father listed in the case. In a small proportion (7.0 per cent), the mother was listed with two father respondents. In the remaining two-thirds of cases (65.1 per cent), the mother was listed with one father respondent. In first and second repeat episodes, proportionally more women appeared as lone respondents (repeat episode 1: 37.2 per cent and repeat episode 2: 40.4 per cent).

#### *The mothers: legal minors, teenagers and women in section 31 proceedings*

We calculated women's age at first appearance in the data-set (index episode) and at first and second repeat episodes (Table 1). It is particularly noteworthy

**Table 1** Episode level information: case type, mothers and children

|  | Index episode   | First repeat  | Second repeat |
|--|-----------------|---------------|---------------|
| <i>Total number of applications</i>                                    | 43,541 –        | 7,022 –       | 1,058 –       |
| <i>Type of section 31 application</i>                                  |                 |               |               |
| Care order   | 42,247 (97.0%)  | 6,470 (92.1%) | 965 (91.2%)   |
| Supervision order  | 1,294 (3.0%)    | 357 (5.1%)    | 57 (5.4%)     |
| Extension of supervision order   | 0 (0.0%)        | 195 (2.8%)    | 36 (3.4%)     |
| <i>Application respondents</i>   |                 |               |               |
| Mother as the lone respondent  | 12,146 (27.9%)  | 2,610 (37.2%) | 427 (40.4%)   |
| Mother and one father respondent                                       | 28,359 (65.1%)  | 4,295 (61.2%) | 606 (57.3%)   |
| Mother and more than two father respondents                            | 3,036 (7.0%)    | 117 (1.7%)    | 25 (2.4%)     |
| <i>Age of mother respondent at application (start of episode)</i>      |                 |               |               |
| 14–15 years  | 284 (0.7%)      | 2 (0.0%)      | 0 (0.0%)      |
| 16–17 years  | 1,682 (4.2%)    | 87 (1.3%)     | 1 (0.1%)      |
| 18–19 years  | 3,350 (8.4%)    | 477 (7.0%)    | 40 (3.8%)     |
| 20–24 years  | 9,390 (23.5%)   | 2,123 (31.2%) | 335 (32.2%)   |
| 25–29 years  | 8,356 (20.9%)   | 1,726 (25.4%) | 282 (27.1%)   |
| 30+ years  | 16,908 (42.3%)  | 2,389 (35.1%) | 382 (36.7%)   |
| <i>Information missing</i>   | 3,571 (8.2%)    | 218 (3.1%)    | 18 (1.7%)     |
| <i>Number of children in application</i>                               |                 |               |               |
| One  | 24,603 (56.5%)  | 5,975 (85.1%) | 898 (84.9%)   |
| Two or more  | 18,938 (43.5%)  | 1,047 (14.9%) | 160 (15.1%)   |
| <i>Recurrence status of the child/children in the application</i>      |                 |               |               |
| First time child/children only   | 43,541 (100.0%) | 5,196 (74.0%) | 744 (70.3%)   |
| Recurrent child/children only  | 0 (0.0%)        | 1,546 (22.0%) | 279 (26.4%)   |
| Mixture of both  | 0 (0.0%)        | 280 (4.0%)    | 35 (3.3%)     |
| <i>Age of the youngest child at application (start of the episode)</i> |                 |               |               |
| Less than 1 month  | 8,291 (19.1%)   | 4,191 (59.7%) | 632 (59.9%)   |
| 1–3 months   | 4,251 (9.8%)    | 737 (10.5%)   | 104 (9.9%)    |
| 4–6 months   | 2,878 (6.6%)    | 169 (2.4%)    | 13 (1.2%)     |
| 7–11 months  | 3,444 (7.9%)    | 170 (2.4%)    | 31 (2.9%)     |
| 12–23 months   | 5,753 (13.2%)   | 335 (4.8%)    | 82 (7.8%)     |
| 24–35 months   | 3,883 (8.9%)    | 276 (3.9%)    | 48 (4.5%)     |
| 3–4 years  | 4,692 (10.8%)   | 359 (5.1%)    | 55 (5.2%)     |
| 5–9 years  | 6,298 (14.5%)   | 428 (6.1%)    | 46 (4.4%)     |
| 10–15 years  | 3,902 (9.0%)    | 336 (4.8%)    | 42 (4.0%)     |
| 16+ years  | 128 (0.3%)      | 15 (0.2%)     | 2 (0.2%)      |
| <i>Information missing</i>   | 21 (0.0%)       | 6 (0.1%)      | 3 (0.3%)      |

that we captured 284 *legal minors* aged under fifteen years at the index episode and 1,682 girls (4.2 per cent) aged sixteen to eighteen years. A further 3,350 young women (8.4 per cent) were aged eighteen to nineteen. Putting these numbers together, 5,316 (13.3 per cent) of Dataset 1 were teenagers at the index episode (see Table 1). Just under half of the women ( $n = 16,908$ , 42.3 per cent) were aged over thirty years at the index episode. Given problems of left truncation as described, we cannot be sure that the index represents the onset of women's family justice careers in all cases—women may in fact be *younger* than we can determine from available data. Looking across episodes, it is concerning that a percentage of young women experienced a first *repeat* episode before they left their teenage years ( $n = 566$ , 8.3 per cent of women at first repeat;  $n = 41$ , 3.9 per cent at second repeat). Proportionally

fewer women were aged thirty and above at first and second repeat episodes (35.1 per cent at first and 36.7 per cent at second compared to 42.3 per cent at index), which may suggest maturation has a role to play in reducing the likelihood of recurrence. In the section that follows, we probe further the relationship between maternal age and recurrence.

### *The children*

It is important to note that recurrent care proceedings can concern a child who has appeared before in an earlier set of proceedings, as well as newborn children. Although, in the majority of instances, this was not the situation, just over a quarter of first and second repeat cases did concern a child/children who had been subject to section 31 proceedings previously. Just under half of the index applications concerned two or more children ( $n = 18,938$ , 43.5 per cent). However, at first and second repeat episodes, a far smaller percentage of applications concerned more than one child (first repeat = 14.9 per cent and second repeat = 15.1 per cent) – that is, the majority of repeat episodes concerned one child only.

Regarding the age of children, the number of *infants* subject to proceedings in recurrent cases is noteworthy. Taking the youngest child within each legal episode, at the index, 43.3 per cent of these children were aged less than one year, with 19.1 per cent aged less than one month. The number of very young infants subject to proceedings *rose sharply* for the first and second repeat episodes: over 70 per cent were aged under one year and nearly 60 per cent were aged less than one month. In contrast, the proportion of children falling into the older age categories decreased (with the exception of the over-sixteen category, for which the proportions remained small and relatively stable). Clearly, this variable is biased towards younger ages, but this pattern remained when the distribution of children's ages, for the oldest child in each set of proceedings, was examined. Thus, evidence indicates a tendency on the part of local authorities to issue proceedings very early in the life of an infant, where there is a history of previous proceedings.

An important question regarding the prevention of care proceedings concerns women's movement between local authorities across the course of successive proceedings – anecdotal reports might suggest transient lifestyles. Table 2 displays information regarding geographic movement of cases between local authority areas and regions across legal episodes. It is noteworthy that, in the majority of cases, repeat proceedings were issued by the *same* local authority, although, in around 10 per cent of cases, they were issued by a different local authority but one still falling within the same Government Office Region. In only 5 per cent of cases were proceedings issued by a local authority in a different region of England, using Department for Education regional categories. Thus, evidence is of limited geographic movement for this population of women.

**Table 2** Movement between geographic areas

|                               | Index to first repeat |         | First repeat to second repeat |         |
|-------------------------------|-----------------------|---------|-------------------------------|---------|
| <i>Movement between areas</i> |                       |         |                               |         |
| Same local authority (LA)     | 6,005                 | (85.5%) | 892                           | (84.3%) |
| Different LA but same region  | 649                   | (9.2%)  | 115                           | (10.9%) |
| Different region              | 366                   | (5.2%)  | 51                            | (4.8%)  |
| <i>Information missing</i>    | 2                     | (0.03%) | 0                             | (0.0%)  |

*Legal outcomes*

As stated above, we have considered legal outcomes from the mother’s perspective. Asking questions about what happens to women’s children as a consequence of public law proceedings is important, as final legal outcome determines the level of contact she will have with her child following court-ordered removal. In the case of adoption, direct contact is not generally sanctioned (Neil *et al.*, 2013).

From Table 3, we can see that the proportion of women who experienced loss of one or more children to adoption *increased* with repeat legal episodes (index: 28.7 per cent; first repeat: 43.9 per cent; second repeat: 50.0 per cent). However, it is noteworthy that family and friends remained a resource for recurrent birth mothers across successive proceedings, although the proportion of mothers experiencing this as an outcome for at least one of her children declined from 25.5 per cent at the index episode to 19.2 per cent at the first repeat and 17.0 per cent at the second repeat. The proportion of mothers who lost at least one child to out-of-home foster-care also decreased, from 39.0 per cent at the index episode to 22.8 per cent at the first repeat and 19.4 per cent at the second repeat. This pattern suggests that, over the course of successive proceedings, adoption becomes the preferred permanency option for local authorities and the family court.

Across legal episodes, a fairly consistent percentage of cases (approximately 16 per cent) fell into the category ‘In parent(s) care’, from which we can tentatively infer that, in at least some of these cases, child/ren returned to the birth mother’s care. This suggests that, even where there is a history of previous proceedings, reunification was still possible. Further research is needed to gain a fuller understanding of reunification in the context of recurrent care proceedings and the factors/mechanisms associated with positive turning points (Broadhurst *et al.*, 2014).

*Intervals between proceedings and repeat pregnancies: where is the recovery window?*

Table 4 reports the intervals between proceedings, based on the number of weeks between the start of one episode of care proceedings and the start of

**Table 3** Mother's experience of legal outcomes at each episode

|   | Index episode |         | First repeat |         | Second repeat |         |
|---|---------------|---------|--------------|---------|---------------|---------|
| <i>Number of mothers experiencing each legal outcome*</i> |               |         |              |         |               |         |
| In parent(s)' care (SO/FAO/NO)                            | 6,496         | (16.4%) | 1,088        | (17.0%) | 160           | (16.2%) |
| Family and friends care (SGO/RO)                          | 10,097        | (25.5%) | 1,231        | (19.2%) | 168           | (17.0%) |
| Foster-care (CO/SAO)                                      | 15,468        | (39.0%) | 1,466        | (22.8%) | 192           | (19.4%) |
| Adoption (PO/AO)  | 11,366        | (28.7%) | 2,820        | (43.9%) | 495           | (50.0%) |
| Information missing                                       | 3,924         | (9.0%)  | 605          | (8.6%)  | 68            | (6.4%)  |

\*The categorisation of legal outcomes is explained in the methodology section of the paper.

**Table 4** Intervals between proceedings and pregnancies

|  | Index to first repeat  |                   | First repeat to second repeat  |                  |
|--|--|-------------------|--|------------------|
| <i>Interval between successive proceedings</i> |  |                   |  |                  |
| <i>N</i>                                       | 7,022  |                   | 1,058  |                  |
| Median (IQR*) in weeks                         | 71   | (80 = (38, 118))  | 72   | (58 = (50, 108)) |
| Median (IQR) in months                         | 17   | (19 = (9, 28))    | 17   | (13 = (12, 25))  |
| <i>Proceedings overlap</i>                     |  |                   |  |                  |
| <i>N</i>                                       | 7,021  |                   | 1,055  |                  |
| Yes  | 2,530  | (36.0%)           | 230  | (21.8%)          |
| Information missing                            | 1  | (0.01%)           | 3  | (0.3%)           |
|  | DOB of youngest index child to conception of oldest first repeat child |                   | DOB of youngest first repeat child to conception of oldest second repeat child |                  |
| <i>Pregnancy interval (months)</i>             |  |                   |  |                  |
| <i>N</i>                                       | 5,435  |                   | 759  |                  |
| Median (IQR) in weeks                          | 90   | (126 = (42, 168)) | 54   | (82 = (27, 109)) |
| Median (IQR) in months                         | 21   | (29 = (10, 39))   | 13   | (19 = (6, 25))   |
| Information missing                            | 1,587  | (22.6%)           | 299  | (28.3%)          |

\*IQR, interquartile range: indicates variation in values around the median.

the next. The median interval between proceedings was seventeen months, which is very short given that a set of care proceedings will typically absorb at least six months of this interval. Of particular concern is that, in 36.0 per cent of first repeat cases, proceedings *overlapped* with the index (a fresh set of care proceedings started before the index episode concluded) and, in 21.8 per cent of second repeat cases, proceedings also overlapped. This indicates that a sizeable percentage of women in the sample were exposed to *continuous legal proceedings* and/or experienced repeat losses of children within a very concentrated period of time. For birth mothers who have had children removed from their care, the interval between one set of care proceedings and the next may constitute a vital window for recovery. However, the time frames we observed are out of sync with what is known about realistic recovery for problems of mental health or addiction—problems that frequently

characterise the lives of women whose children are removed through court order (Sidebotham and Heron, 2006; Brandon *et al.*, 2008; Bocking *et al.*, 2015).

If we examine intervals between successive pregnancies (using child date of birth data), a pattern of *rapid repeat* pregnancy is suggested. Based on the median, a new sibling was born in a first repeat episode twenty-one months after his or her older sibling. In a second repeat episode, pregnancy intervals were shorter still, with a median of thirteen months between episodes. Further work is needed to examine the dynamics of infant removal and rapid repeat pregnancy and factors that lie behind this concerning pattern, given the risks to maternal and foetal health associated with short-interval pregnancies (Conde-Agudelo *et al.*, 2007).

## Estimating the probability of recurrence and timing

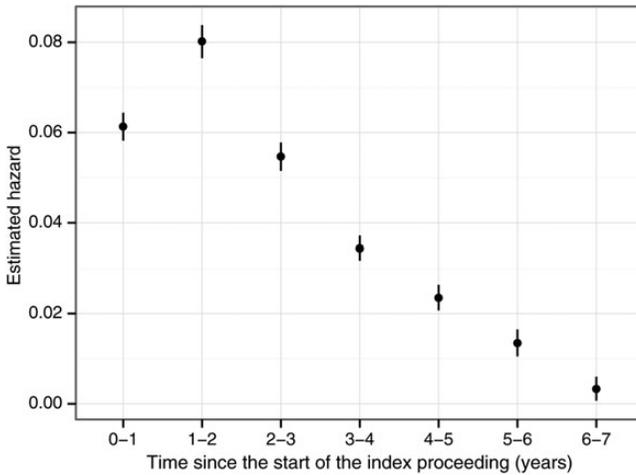
### *Using the Life Table methodology to estimate the probability of recurrence*

In Dataset 1, 15.1 per cent of women were linked to recurrent proceedings. However, a better estimate of recurrence is obtained using methods of survival analysis, given data-sets contained incomplete observations as described above. Using the Life Table methodology, yearly estimates of the probability of a first repeat episode in Dataset 2 were determined and are listed in Table 5. For women recording an index episode of section 31 proceedings between 2007 and 2011, the probability of recurrence was almost 24 per cent (23.7) across the seven-year window. This statistic indicates that repeat clients are far from unusual within the English Family Court if almost *one in every four women* is likely to reappear in a subsequent set of proceedings within seven years.

**Table 5** Life Table\* estimate of the probability of having experienced a first repeat by the end of each time interval and the 'hazard' of experiencing a first repeat proceeding during each time interval: 95% confidence intervals for these quantities are also given

| Time interval (years) | Probability of recurrence | 95% confidence interval for probability of recurrence | Hazard rate | 95% confidence interval for hazard rate |
|-----------------------|---------------------------|---|-------------|---|
| 0–1                   | 0.059                     | (0.057, 0.062)  | 0.061       | (0.058, 0.064)                          |
| 1–2                   | 0.132                     | (0.128, 0.136)  | 0.080       | (0.077, 0.084)                          |
| 2–3                   | 0.178                     | (0.173, 0.183)  | 0.055       | (0.052, 0.058)                          |
| 3–4                   | 0.206                     | (0.201, 0.211)  | 0.034       | (0.032, 0.037)                          |
| 4–5                   | 0.224                     | (0.219, 0.230)  | 0.024       | (0.021, 0.026)                          |
| 5–6                   | 0.235                     | (0.229, 0.242)  | 0.014       | (0.011, 0.017)                          |
| 6–7                   | 0.237                     | (0.231, 0.243)  | 0.003       | (0.001, 0.006)                          |

\*The probability of recurrence across the seven-year window is found in the final row of this table at 0.237 or 23.7%. To further understand methods and terminology, readers should consult the project's technical appendix: <http://wp.lancs.ac.uk/recurrent-care/>.

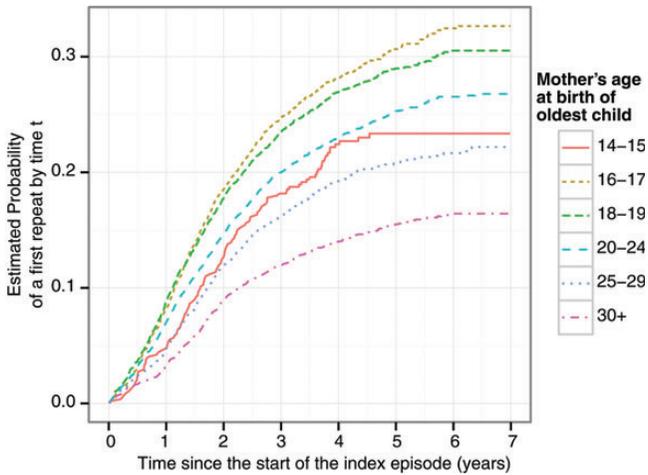


**Figure 1** Estimated “hazard” (with associated 95% confidence intervals) of experiencing a first repeat proceeding during each time interval

Regarding timing of a first repeat episode, the hazard rates in Table 5 are displayed graphically in Figure 1. They indicate that, following an index episode, the risk of a first repeat episode is greatest *within the first three years*. Regarding prevention, the reduction in probability of recurrence after three years is noteworthy. Although the reasons for this reduction cannot be determined from this data-set, we might speculate that women who space a subsequent pregnancy may be better able to convince the local authority and the courts that their circumstances have changed. Given the age profile of women at the index episode, we might speculate that many women recording an index episode will go on to have a subsequent pregnancy, suggesting that at least in a percentage of women, for whatever reasons, who warrant further analysis, they may demonstrate some resilience to the loss of a child at an index set of proceedings.

### *Maternal age and probability of recurrence*

Figure 2 considers the probability of a first repeat against the variable ‘women’s estimated age at birth of oldest child in the index episode’ based on Kaplan–Meier estimates of survival curves. Overall, we see that younger mothers are most at risk of reappearing in the family justice system. The probability of recurrence rises to around 32 per cent for girls aged sixteen to seventeen and 31 per cent for young women aged eighteen to nineteen. For these categories of women, almost one in every three girls/young women is likely to reappear in a subsequent set of proceedings within seven years. In contrast, for the group aged above thirty, the probability of recurrence drops to around 16 per cent.



**Figure 2** Estimated probability of experiencing a first repeat by time point  $t$  according to mother's age at the birth of their oldest child within the index episode. See technical appendix for further explanation: <http://wp.lancs.ac.uk/recurrent-care/>

## Main findings and discussion

By connecting events in time, we have been able to uncover a hidden population of women who are repeat clients of the family court. Given limitations of national databases, we have been unable to track cases back beyond 2007, but nevertheless our findings evidence that repeat clienthood is an *enduring and routine* feature of the family court. Based on yearly estimates of probability, we can expect (at least) 24 per cent of women to return to court, having previously appeared as a respondent in section 31 proceedings. This estimate increases to almost one in every three for women aged between sixteen and nineteen years. In addition, for the majority of repeat clients, they will return within a short space of time (median interval is seventeen months), typically following the birth of a new infant. Based on our population-wide analyses ( $n =$  birth mothers), we have been able to establish that a pattern of rapid repeat pregnancy is firmly associated with recurrence, carrying health risks for both mother and child (Conde-Agudelo *et al.*, 2007) and resulting in women's *continuous* exposure to legal proceedings in 36 per cent of cases at the first repeat (overlapping) episode. Moreover, our limited analysis of the age profile of women indicates that this population of women make a far earlier transition to motherhood when compared with the general population (ONS, 2014), with women in the age categories of sixteen to seventeen and eighteen to nineteen years being most at risk of returning to court.

Putting this new evidence together in this way results in a very concerning picture—so what are the implications for local authorities and the family

courts in England? In common with jurisdictions (e.g. USA, Canada, Australia) that manifest something of a policy lacuna regarding post-removal support to parents, in England, there is no statutory mandate regarding the provision of tailored rehabilitative support to parents following child removal. This is in spite of the fact that specific recommendations for parents' rehabilitation are frequently set out during care proceedings, typically indicating a programme of work that will endure long beyond the conclusion of care proceedings. Although birth parents are entitled to *post-adoption* support under the 2002 Adoption and Children Act, services are highly variable, take-up is inconsistent (Neil *et al.*, 2010) and there is no evidence that support in its current form meets the complex needs of this higher-risk population. Arguably, the family justice system operates according to an implicit expectation of 'natural recovery'. By this, we refer to a process of recovery that results from untreated remission, ageing out of problems or self-change (Toneatto, 2013). However, evidence from this study indicates that a sizeable percentage of women reappear because their problems are *repeated* rather than resolved. Here, an expectation of natural recovery fails this group—evidence is that women do return to court, sometimes multiple times, losing successive infants to public care and adoption.

Turning to the profile of women and children within recurrent proceedings, further pressing questions arise, given the young age of mothers and that a high number of infants appear to be 'born into care'. Regarding maternal age, we have begun to differentiate the population of women against the variable age, with some concerning findings. Urgent attention needs to be paid to legal minors who feature in the data given the dearth of research concerning parents who are *children* themselves within care proceedings. Regarding the broader population of women, further work is needed to better understand the impact of child removal on young women's developmental journey: Does this form of loss increase maladaptive behaviours such as substance misuse? Evidence that repeat appearances before the family court can be *multiple* may also indicate that, for some women, a negative cycle of repeat pregnancy and removal becomes chronic. Through further waves of data collection that map recurrence against the maternal lifecycle, a clearer picture can be gained about the different trajectories that women take through the family justice system.

The new evidence we present about children indicates that a sizeable percentage of infants are 'born into care'—that is, they are subject to proceedings at or close to birth ( $n = 5,455$  infants in the repeat episodes). Moreover, the chance of proceedings being issued very early in an infant's life rises sharply in first and second repeat episodes. To date, we know little of how these infants fare over time regarding permanency placements or sibling contact. The health and well-being outcomes for this population are of particular concern because rapid repeat pregnancy is associated with a range of health risks for mother and child. Clearly, the local authorities and the courts act earlier in the life of infants born to mothers who have a history

of removal, but further work is needed to unpack the consequences of this action.

In England, we are witnessing innovation that aims to help parents avoid becoming repeat clients of the family court. The setting-up of the Family Drug and Alcohol Court National Unit ([www.fdac.org.uk](http://www.fdac.org.uk)) that takes a non-adversarial, problem-solving approach to family justice holds out the promise of helping parents to understand and develop the necessary skills to avoid repeating unhelpful patterns. Equally, the national 'Pause' project ([www.pause.org.uk](http://www.pause.org.uk)) aims to help women pick up the pieces after child removal, filling the space vacated by children's services and helping women to gain control over their lives. However, without further evaluation and far wider roll-out of preventative programmes, it is highly probable that local authorities and the family court will continue to recycle a sizeable population through repeat care proceedings.

## Limitations

For two key reasons, the probability of recurrence that we have presented is likely to be an underestimate. First, the data for this study spanned a seven-year window (2007–14); although methods of survival analysis aim to deal with incomplete observations, the issue of left truncation (events pre 2007 are unobserved) is far harder to 'correct'. Second, we have assumed that all women recording an index episode are at risk of a further recurrence. Given the age profile of women, it is likely that many women will have had subsequent pregnancies rendering them 'at risk' of child removal—however, in the absence of maternity data, we do not have a definitive picture of the risk set.

It is also important to note that, whilst we have focused on formal family court proceedings, children in England can be placed in out-of-home care on a voluntary or compulsory basis (DfE, 2013). Had we broadened our lens beyond formal legal proceedings, we would no doubt have captured a different picture of women's repeat losses of children to out-of-home care.

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## References

Alrouh, B. and Broadhurst, K. (2015) 'Using Cafcass administrative datasets to study recurrent care proceedings: Technical appendix', available online at <http://wp.lancs.ac.uk/recurrent-care/>.

- Bockting, C. L., Hollon, S. D., Jarrett, R. B., Kuyken, W. and Dobson, K. (2015) 'A lifetime approach to major depressive disorder: The contributions of psychological interventions in preventing relapse and recurrence', *Clinical Psychology Review Advance Access* published February 26, 2015, 10.1016/j.cpr.2015.02.003.
- Brandon, M., Belderson, P., Warren, C., Howe, D., Gardner, R., Dodsworth, J. and Black, J. (2008) *Analysing Child Deaths and Serious Injury through Abuse and Neglect: What Can We Learn? A Biennial Analysis of Serious Case Reviews 2003–2005*, London, Department for Education, available online at <http://webarchive.nationalarchives.gov.uk/20130401151715/https://www.education.gov.uk/publications/orderingdownload/dcsf-rr023.pdf>.
- Broadhurst, K. and Mason, C. (2013) 'Maternal outcasts: Raising the profile of women who are vulnerable to successive, compulsory removals of their children—a plea for preventative action', *Journal of Social Welfare and Family Law*, **35**(3), pp. 291–304.
- Broadhurst, K., Shaw, M., Harwin, J. and Alrouh, B. (2014) 'Capturing the scale and pattern of recurrent care proceedings: Initial observations from a feasibility study', *Family Law*, available online at [www.familylaw.co.uk/news\\_and\\_comment/capturing-the-scale-and-pattern-of-recurrent-care-proceedings-initial-observations-from-a-feasibility-study#.VkSyNksR5Fw](http://www.familylaw.co.uk/news_and_comment/capturing-the-scale-and-pattern-of-recurrent-care-proceedings-initial-observations-from-a-feasibility-study#.VkSyNksR5Fw).
- Brown, L., Callahan, M., Strega, S., Walmsley, C. and Dominelli, L. (2009) 'Manufacturing ghost fathers: The paradox of father presence and absence in child welfare', *Child & Family Social Work*, **14**(1), pp. 25–34.
- Collett, D. (2003) *Modelling Survival Data in Medical Research*, London, Chapman and Hall.
- Conde-Agudelo, A., Rosas-Bermúdez, A. and Kafury-Goeta, A. C. (2007) 'Effects of birth spacing on maternal health: A systematic review', *American Journal of Obstetrics and Gynecology*, **196**(4), pp. 297–308.
- Cox, P. (2012) 'Marginalized mothers, reproductive autonomy, and "repeat losses to care"', *Journal of Law and Society*, **39**(4), pp. 541–61.
- Department for Education (DfE) (2013) *Statistical First Release: Children Looked After in England (Including Adoption and Care Leavers) Year Ending 31 March 2014 (No. SFR 36/2013)*, London, Department for Education, available online at [www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/359277/SFR36\\_2014\\_Text.pdf](http://www.gov.uk/government/uploads/system/uploads/attachment_data/file/359277/SFR36_2014_Text.pdf).
- Evans, E., Grella, C. E., Murphy, D. A. and Hser, Y. I. (2010) 'Using administrative data for longitudinal substance abuse research', *Journal of Behavioral Health Services & Research*, **37**(2), pp. 252–71.
- Family Court of Australia (2014) *Family Court of Australia: 2013–2014 Annual Report*, available online at [www.familycourt.gov.au/wps/wcm/connect/314f3b1f-a1a6-40deb75-9528da306342/FCA\\_AnnualReport\\_2013\\_14.pdf?MOD=AJPERES](http://www.familycourt.gov.au/wps/wcm/connect/314f3b1f-a1a6-40deb75-9528da306342/FCA_AnnualReport_2013_14.pdf?MOD=AJPERES).
- Fisher, W. H. and Rivard, J. C. (2010) 'The research potential of administrative data from state mental health agencies', *Psychiatric Services*, **61**(6), pp. 546–8.
- Fluke, J. D., Shusterman, G. R., Hollinshead, D. M. and Yuan, Y. Y. (2008) 'Longitudinal analysis of repeated child abuse reporting and victimization: Multistate analysis of associated factors', *Child Maltreatment*, **13**(1), pp. 76–88.
- Graham, J. W. (2012), *Missing Data: Analysis and Design*, New York, Springer.
- Grant, T., Graham, J. C., Ernst, C. C., Michelle Peavy, K. and Brown, N. N. (2014) 'Improving pregnancy outcomes among high-risk mothers who abuse alcohol and drugs: Factors associated with subsequent exposed births', *Children and Youth Services Review*, **46**(0), pp. 11–18.

- Grant, T., Huggins, J., Graham, J. C., Ernst, C., Whitney, N. and Wilson, D. (2011) 'Maternal substance abuse and disrupted parenting: Distinguishing mothers who keep their children from those who do not', *Children and Youth Services Review*, **33**(11), pp. 2176–85.
- Harwin, J., Owen, M., Locke, R. and Forrester, D. (2003) *Making Care Orders Work*, London, Ministry of Justice.
- Hawton, K., Bergen, H., Navneet, K., Cooper, J., Steeg, S., Ness, J. and Waters, K. (2012) 'Repetition of self-harm and suicide following self-harm in children and adolescents: Findings from the Multicentre Study of Self-harm in England', *Journal of Child Psychology and Psychiatry*, **53**(12), pp. 1212–19.
- Hosmer, D. W., Lemeshow, S. and May, S. (2008) *Applied Survival Analysis: Regression Modeling of Time to Event Data*, 2nd edn, London, Wiley.
- Hunt, J. (2010) *Parental Perspectives on Family Justice System in England and Wales: A Review of Research*, available online at [www.judiciary.gov.uk/wp-content/uploads/JCO/Documents/FJC/Publications/Parental\\_Perspectives\\_final.pdf](http://www.judiciary.gov.uk/wp-content/uploads/JCO/Documents/FJC/Publications/Parental_Perspectives_final.pdf).
- Hunt, J. and Macleod, A. (1999) *The Best-Laid Plans: Outcomes of Judicial Decisions in Child Protection Cases*, London, Stationery Office.
- Kellington, S. (2000) 'Missing Voices': *Mothers at Risk of Experiencing Apprehension in Child Welfare System in BC, Vancouver*, BC Region, National Action Committee on the Status of Women.
- Larrieu, J. A., Heller, S. S., Smyke, A. T. and Zeanah, C. H. (2008) 'Predictors of permanent loss of custody for mothers of infants and toddlers in foster care', *Infant Mental Health Journal*, **29**(1), pp. 48–60.
- Lery, B., Shaw, T. V. and Magruder, J. (2005) 'Using administrative child welfare data to identify sibling groups', *Children and Youth Services Review*, **27**(7), pp. 783–91.
- Lovric, M. (2011) *International Encyclopedia of Statistical Science*, New York, Springer.
- Masson, J., Pearce, J. and Bader, K. (2008) *Care Profiling Study*, London, Ministry of Justice and Department of Children, Schools and Families, available online at [www.bristol.ac.uk/media-library/sites/law/migrated/documents/care-profiling-study-report.pdf](http://www.bristol.ac.uk/media-library/sites/law/migrated/documents/care-profiling-study-report.pdf).
- McGhee, J., Mitchell, F., Daniel, B. and Taylor, J. (2013) 'Taking a long view in child welfare: How can we evaluate intervention and child well-being over time?', *Child Abuse Review*, **24**(2), pp. 95–106.
- Meystre, S. M., Friedlin, F. J., South, B. R., Shen, S. and Samore, M. H. (2010) 'Automatic de-identification of textual documents in the electronic health record: A review of recent research', *BMC Medical Research Methodology*, **10**, p. 70.
- Ministry of Justice (2014) *Court Statistics Quarterly: April to June 2014*, Ministry of Justice, Statistics Bulletin, available online at [www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/358230/court-statistics-quarterly-april-to-june-2014.pdf](http://www.gov.uk/government/uploads/system/uploads/attachment_data/file/358230/court-statistics-quarterly-april-to-june-2014.pdf).
- Neil, E., Beek, M. and Ward, E. (2013) *Contact After Adoption: A Follow Up in Late Adolescence*, University of East Anglia, Centre for Research on Children and Families, available online at [www.uea.ac.uk/documents/3437903/0/Contact+report+NEIL+dec+20+v2+2013.pdf/f2d766c7-39eb-49a3-93b7-1f1368a071a1](http://www.uea.ac.uk/documents/3437903/0/Contact+report+NEIL+dec+20+v2+2013.pdf/f2d766c7-39eb-49a3-93b7-1f1368a071a1).
- Neil, E., Cossar, J., Lorgelly, P. and Young, J. (2010) *Helping Birth Families: Services, Costs and Outcomes*, London, British Association of Adoption and Fostering.
- Novac, S., Paradis, E., Brown, J. and Morton, H. (2006) *Visceral Grief: Young Homeless Mothers and Loss of Child Custody*, University of Toronto, available online at [www.urbancentre.utoronto.ca/pdfs/elibrary/Novacet-al-206-VisceralGriefHLMothers.pdf](http://www.urbancentre.utoronto.ca/pdfs/elibrary/Novacet-al-206-VisceralGriefHLMothers.pdf).

- Office for National Statistics (ONS) (2014) *Statistical Bulletin: Live Births in England and Wales by Characteristics of Mother 1, 2013*, available online at [www.ons.gov.uk/ons/dcp171778\\_380800.pdf](http://www.ons.gov.uk/ons/dcp171778_380800.pdf).
- Osborne, J. W. (2012) *Best Practices in Data Cleaning: A Complete Guide to Everything You Need to Do Before and After Collecting Your Data*, London, Sage.
- Pause (2015) *Creating Space for Change*, available online at [www.pause.org.uk/](http://www.pause.org.uk/).
- R Core Team (2014) *R: A Language and Environment for Statistical Computing*, Vienna, Austria, R Foundation for Statistical Computing, available online at [www.R-project.org/](http://www.R-project.org/).
- Ryan, J. P., Choi, S., Hong, J. S., Hernandez, P. and Larrison, C. R. (2008) 'Recovery coaches and substance exposed births: An experiment in child welfare', *Child Abuse and Neglect*, **32**(11), pp. 1072–9.
- Shlonsky, A., Webster, D. and Needell, B. (2003) 'The ties that bind', *Journal of Social Service Research*, **29**(3), pp. 27–52.
- Sidebotham, P. and Heron, J. (2006) 'Child maltreatment in the "children of the nineties": A cohort study of risk factors', *Child Abuse and Neglect*, **30**(5), pp. 497–522.
- Taplin, S. and Mattick, R. P. (2014) 'The nature and extent of child protection involvement among heroin-using mothers in treatment: High rates of reports, removals at birth and children in care', *Drugs and Alcohol Review*, **34**(1), pp. 31–7.
- Toneatto, T. (2013) 'Natural recovery', in M. P. Miller (ed.), *Principles of Addiction*, **Vol. 1**, London, Academic Press, pp. 133–9.
- UK Statistics Authority (2014) *Quality Assurance and Audit Arrangements for Administrative Data, Exposure Draft of a Report from the UK Statistics Authority*, available online at [www.statisticsauthority.gov.uk/assessment/monitoring/administrative-data-and-official-statistics/quality-assurance-and-audit-arrangements-for-administrative-data.html](http://www.statisticsauthority.gov.uk/assessment/monitoring/administrative-data-and-official-statistics/quality-assurance-and-audit-arrangements-for-administrative-data.html).
- Wade, J., Sinclair, I., Stuttard, L. and Simmonds, J. (2014) *Investigating Special Guardianship: Experiences, Challenges and Outcomes (No. DFE-RR372)*, London, Department for Education, available online at [www.york.ac.uk/inst/spru/research/pdf/SpecialG2014.pdf](http://www.york.ac.uk/inst/spru/research/pdf/SpecialG2014.pdf).
- Wulczyn, F. and Zimmerman, E. (2005) 'Siblings placements in longitudinal perspective', *Children and Youth Services Review*, **2**, pp. 741–63.