

Predictors of social service contact among teenagers in England

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Abstract

Very few UK studies make use of longitudinal general population data to explore social service contact for children and young people. Those that do only look at specific interventions such as care placements. This paper seeks to address this gap by asking to what extent do structural, neighbourhood, familial and individual characteristics predict social service contact? We provide an empirical answer by analysing the Longitudinal Survey of Young People in England, which includes data on social service contact in connection with young people's behaviour. Our findings indicate that social class, gender, ethnicity, stepfamily status and special education needs are all significant predictors of social service contact. Difficult parent-child relationships, frequent arguments and parents' lack of engagement with school meetings also matter, as does young people's own risk-taking behaviour. We conclude with a discussion of the limitation of the data for social work research and the implications of the findings.

Key Words: social services, young people, behaviour problems, cohort studies

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Introduction

This paper makes use of data from the Longitudinal Study of Young People in England (LSYPE) during 2004-6 to investigate the family circumstances of young people who have had social service contact between the ages of 14 and 16 due to their behaviour. Our aim is to identify which structural, neighbourhood, familial and individual characteristics are associated with social service contact. The study aims to contribute knowledge which could potentially inform policy makers and social service managers in directing their resources appropriately.

Background

Many cross-sectional and longitudinal studies analyse general population samples to predict the kinds of problems that may lead to social work intervention (e.g. Fergusson *et al.*, 1996; Slattery and Meyers, 2014). However, relatively little is known from such samples about how children and families who do come into social services contact compare with the rest of the population. A few American studies look at social work contact in the context of wider regional or national populations (e.g. Neighbors and Taylor, 1985; Farmer *et al.*, 2001) but in Europe the field is sparse with the whole population register in Sweden probably the most robust source of data (see Franzén *et al.*, 2008). In the UK, a small number of papers have used general population cohort studies to explore specific groups of children using social services, such as those in care or adopted (Cheung and Buchanan, 1997; Wijedsa and Selwyn, 2011) or those on the child protection register (e.g. Sidebotham *et al.*, 2001). None, however, examine the characteristics of those across the broader spectrum of social service contact.

There is some limited knowledge from research using administrative data, such as client databases and case files, about needs, service experience and outcomes for those involved in

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child protection or in care (e.g. Sinclair, *et al.*, 2005; Wade *et al.*, 2011). However there remain significant limitations in using local authority administrative data in the UK for research purposes. Despite increased standardisation and digitisation in recent years, recording practices and data often either lack systematicity and depth, or (as with case files) records have depth and volume but are unstandardised and unwieldy for large-scale analysis. Longitudinal follow up is also stymied once cases are closed. Some longitudinal studies of specific client populations exist (e.g., Long *et al.*, 2013), but not all involve large enough samples for statistical generalisation (see Ward *et al.*, 2012). All this makes it difficult directly to compare those receiving social services with other populations. Whilst there is potential for comparisons with area-level data (e.g. Winter and Connolly, 2005) or with aggregate results from a national cohort study (Bebbington and Miles, 1989), these designs do not allow for individual-level comparison.

These are the deficits that led us to explore the potential for using general population cohort studies to investigate the predictors and outcomes of use of child and family social work services. LSYPE is one of four such studies that we have used. Each brings with it limitations, notably that their datasets are based on self report and their capacity to capture the purpose, nature, quality, frequency or duration of contact is limited. They also tend not to capture information on child abuse or neglect – often the catalyst for intervention. We fully acknowledge and address further below the limitations and their implications for the inferences we can draw. However, what general population cohort studies distinctively offer are large scale longitudinal data, collected at individual level and without recall bias, including both breadth and depth of information on child and family circumstances. We argue that, notwithstanding limitations, these studies provide a unique opportunity to identify what distinguishes teenagers who receive any

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social service contact on grounds of their behaviour from those who do not, and what may be learned from this.

Social Services in England

The paper uses self-reported survey data on teenagers' contact with 'social services'. This is the terminology used in the survey. The meaning of the term is not straightforward, does not readily transfer to international contexts, and has shifted over time. However, core to social services during 2004-6 (when the data examined here were collected), as now, are the statutory social work roles that include child protection, assessment and support for children in need and for those presently or formerly in out-of-home care. In addition, other social services may also be provided by unqualified social work assistants or family support workers. Children and families come into contact with social services through a variety of routes, including self-referral and referral by other family or community members, or professionals, and for multiple reasons. Referral practices vary between local authorities, as do thresholds for assessment and for further intervention (Turney *et al.*, 2011). We know from aggregate data that the rate of initial social service contacts progressing to initial and core assessments in England steadily increased during 2004-6 and beyond (Munro and Manful, 2012), probably as a result of increased professional recognition of safeguarding concerns, along with professional anxiety exacerbated by blame culture. But we also know from the same data that significant proportions of children and young people referred to social services nonetheless received either no, or limited, further action beyond initial contact, and other evidence shows that interventions are more targeted towards younger than older children (Sharland, 2006). Where social service is provided, its nature also varies widely. In the case of teenagers with behaviour problems – the current paper focuses on

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this group - interventions may range from a one-off conversation with the young person and or carer(s), to sustained counselling or support work with the young person, their family and/or peers. Where behaviour problems are associated with risk of significant harm, intervention may involve statutory intervention, up to and including out-of-home care and subsequent support. Social services may also, therefore, be provided in tandem with other agencies, such as schools and health services, community and youth services, the courts, the police or youth offending teams.

Theoretical Framework and Research Questions

In the absence of a particular theory predicting the use of social services, our analytic strategy is informed by the work of Bronfenbrenner (1979) describing the multiple and nested influences on human action. These include macro-level structural conditions such as social status; meso-level influences such as neighbourhoods, schools and families; and micro-level, individual factors. Bronfenbrenner describes individuals' interactions with those closest to them (e.g. parent-child, family, peer relationships) as *proximal* factors, that is, the primary processes for influencing development and behaviour in day-to-day life. These are constrained and influenced by immediate context (e.g. family, school, neighbourhood) and more distant social, economic and demographic aspects of their environment, described as *distal* factors. So children and young people are at the centre of a set of proximal, then ever extending concentric circles of distal, interacting relationships.

Sidebotham *et al.* (2001) and Strand (2011) follow a similar strategy in their analysis of general population cohort studies in the UK. We borrow from Strand, who works with LSYPE, in distinguishing four broad domains, within which we can identify potential influences on

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young people's behaviour, this being the reason for social service contact as reported in this cohort study.

Firstly, macro-level, structural conditions associated with social status and family resources may influence a young person. These include relatively fixed family characteristics such as parents' social class, education, household tenure and family structure, and entitlement to free school meals (FSM). Young people are eligible for FSM if they live in a household without a member working more than 24 hours a week, with low income and with low capital assets. Low-income families are more likely, for example, to be identified as at risk for a number of social outcomes including poorer health (Wilkinson, 1997) and lower educational outcomes (National Equality Panel, 2010). Participation in risk-taking behaviours such as smoking and drinking is also associated with young people's material, cultural and relational contexts (Schoon and Bynner, 2003), and social deprivation and poverty are associated with teenage pregnancy, school exclusion and antisocial behaviour (Fish, 2009). Additionally, low maternal age when the young person was born (Williams *et al.*, 1990) and growing up in a step-family (Sweeney, 2010) have been found to increase the risk of poor behavioural outcomes.

Meso-level influences on young people's behaviour and outcomes may include social environment and neighbourhood context, in particular neighbourhood deprivation. The influence of peers, neighbourhood, community and school type are all important for developing externalising problems (Werner, 1995). Family characteristics can also be considered meso-level variables. These may include the quality of family relationships, how parents /carers spend their time with the young person, and the extent of their involvement in the young person's life and schooling. Parenting style and the degree of parental monitoring and control seem to matter for young people's participation in risky behaviours (Dodge, Pettit and Bates, 1994) and educational

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outcomes (Henderson, 2013). So too do childcare practices (Bates *et al.*, 1994) and the absence of father involvement in childrearing (Phares, 1993). Most familiar in child protection contexts, young people's behavioural problems leading to social services contact may also result from being the victim of abuse or neglect (Young *et al.*, 2007). A young person who has grown up in a violent home or community may normalise this behaviour, making it more likely that they will themselves be violent or aggressive (Day *et al.*, 2008).

At the micro-level, variables used in the study are intended to capture the individual factors that might influence young people's behaviour, among them gender and ethnicity, as well as attitudes towards schooling. Here much of the literature focuses on the association of such factors with particular risky behaviours, such as teenage pregnancy (Rowlands, 2010) substance misuse (Hayatbakhsh *et al.*, 2006) and negative externalising behaviour including physical violence and hostility (Deater-Deckard *et al.*, 1998), truanting, theft and bullying. Other problematic behaviours, including irritability and hyperactivity, are found to be associated with being male (Huselid and Cooper, 1994) and with medical problems in childhood (Lavigne and Faier-Routman, 1992).

Our approach has been to focus on the most relevant variables captured by LSYPE in each of these domains and to examine as far as possible which predict social service contact as a result of the young person's behaviour. Hence our core research questions were:

1. To what extent are structural characteristics associated with social service contact among young people in England?
2. How important are neighbourhood characteristics in predicting social service contact?
3. In what ways are family relationships and conflicts related to social service contact?

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4. How far do individual characteristics predict social service contact?

Data and Methods

Data

The Longitudinal Study of Young People in England (LSYPE) began in 2004 when the sample members were aged between 13 and 14 years. Each year the same young people and their parents have been interviewed, resulting in seven waves of data. For the purpose of this analysis, Waves 1, 2 and 3 are used. The LSYPE sample includes young people who attended maintained (state) schools, independent (private) schools and Pupil Referral Units (PRUs) in England. PRUs are state maintained establishments providing education for children who are excluded or otherwise unable to attend a mainstream or specialist school.

The LSYPE uses a two-stage model design which presents a possible clustering effect due to between-school differences. All models are adjusted for 654 school clusters. Multilevel models could serve the same purpose as adjusting for robust cluster variance around schools, but such an approach is not necessary as this paper neither specifically addresses school differences nor uses school difference explanations to elucidate substantive findings.

For the exploratory purpose of this paper we created a composite variable to measure social service contact (as reported by the main parent) by identifying whether young people have *ever* in Wave 1, 2 or 3 come into contact with social services. There are two main advantages to this approach: it allows for a broader understanding of the factors which influence social service outcomes over a period of time and maximises statistical power since the number of young people who receive social service at each wave is small. We acknowledge that transitions in and

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out of social service contact can be challenging and significant to young people. We will address those dynamic factors more closely in subsequent work.

All variables used in this study are based on self report, either from the main parent or the young person themselves. When examining issues that are sensitive and prone to social stigma, such as risky behaviour (e.g drug taking) or indeed receiving social services intervention, there is no way to validate recall accuracy or truthfulness of reports. We recognise that there may be some under-reporting of behaviour or services that are stigmatised.

Dependent Variable

A binary variable is created from measures at Wave 1, 2 and 3 which ask the main parent of young person X “In the last 12 months, have you been in touch with your local council’s social services because of X’s behaviour at home or at school? This includes both you getting in touch with them and them contacting you?” In addition to the limitations of self report noted above, there are some important points to note about this particular question. Its wording asks the parent about social services contact, which may include, but not be exclusive to, social work intervention; it may, for example, involve an unqualified social work assistant or family support worker. Respondents may have also have confused social services with other non-statutory social welfare organisations. The question adds the clause that contact with social services will have been a result of a young person’s behaviour, i.e. not primarily due to other family or parental difficulties. But it is possible that some parents might not have processed this qualifying condition and instead replied ‘yes’ when referring to social services contact for some other reason. This concern about misattribution may be somewhat alleviated by the fact that it is the main parent reporting whether the young person had had any contact with social services in the

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previous 12 months. Nonetheless, while the recall period is short, there remains scope for confusion as well as under-reporting. Most importantly, the question does not offer any deeper understanding of the nature of this contact, such as whether this was under statutory social work powers or other social services duties, nor what exactly was involved and the quality of service. It also gives no indication of the frequency or duration of intervention. Contact could in theory have been as minimal as making or receiving one phone call. Clearly the measure is an imperfect one. Nonetheless, it allows us as no other available data do, to begin to compare those who receive social service contact with those who do not.

Independent Variables

The independent variables are all taken from Wave 1, with the exception of social class and the description of the main parent relationship (biological, foster, adopted) which are taken from Wave 2 because they are not captured earlier. Some of the questions are asked of the main parent (MP) and some are asked of the young person (YP). The four domains identified in line with Strand (2011) comprised the following variables:

Structural factors: Social class (the National Statistics Socio-Economic Classification); household tenure; parents' highest qualification; mother's age; father's age; language spoken at home; who the young person is living with; the age the young person went into care (if appropriate; 0-15 years); family size; whether or not this is a step family; marital status of parents; the relationship between the young person and the main parent (adopted, foster and biological); and free school meal eligibility.

Neighbourhood contextual factors: Type of neighbourhood (urban, rural, etc.); geographic location; Index of Multiple Deprivation (IMD); and income deprivation affecting

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children index (IDACI). IMD is a government-produced measure which combines a number of indicators including: income; employment; health deprivation and disability; education, skills and training; access to housing and services; crime and the living environment for each geographic area (ward) in England. IDACI is based on the proportion of children under the age of 16 that live in low income households in a local area (super output areas).

Family factors: Parental aspirations for young person; parental involvement in school; their frequency of attending (routine) parents evenings at school; frequency of attending specially arranged meetings with teachers (as a result of problems); parents' relationship with young person; frequency of arguing with young person; of speaking to young person; parental monitoring (principal component analysis: setting curfews on weekend and weekday; knowing where young person is); and socialising together (principal component analysis: frequency of spending evenings together, frequency of going out together and frequency of eating together as a family); presence of computer in home; and internet in home.

Individual factors: Gender; ethnicity; young person's identified special education needs; young person's caring responsibility within the home; contact from school due to young person's behaviour; contact from police due to young person's behaviour; young person's aspiration to attend university; their perceived likelihood of being accepted if applying to university; and risky behaviours (drinking alcohol; smoking cannabis; smoking cigarettes; truanting; graffiti; shoplifting; vandalism and violent behaviour).

Missing Data

The initial LSYPE sample was 15,770 children from 658 schools. There was attrition between waves with roughly 22% of the sample having dropped out of the study by Wave 3. In

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order to address this, Piesse and Kalton's (2009) non-response weighting adjustments have been applied to account for unit non-response.

Observations are included in the analytic models when the dependent variable response is complete; 567 young people were excluded from the analysis because of item non-response on the dependent variable across three waves. Some independent variables also suffer from item non-response. In order to avoid dropping cases with missing or unknown information on background variables, dummy variables were constructed to identify when information was missing; the models were then run and the coefficients for the missing variables are not reported in the tables. The advantages of this approach include avoiding the loss of statistical power due to reduced N and capitalising on information present for other variables, although missing for some subjects. This approach, though widely used, has been criticised by Allison (2002) because it produces biased estimates of the coefficients. Allison notes an exception to this rule, suggesting that the dummy variable adjustment is optimal in situations when the question has no relevance to the respondent, for example a question about father's characteristics when the father is absent, meaning the variable response is unknown. As a robustness test, a completed case analysis was run for all models and the results do not differ substantively, although the statistical significance is weaker.

Methods

The predictors of social service contact for young people aged 16 in the LSYPE are captured using logistic regression analysis, which is the most appropriate statistical technique for modelling a dichotomous dependent variable. Odds ratios are presented to identify the relative importance of exposure to various predictors. An odds ratio of one means that the exposure to a

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given predictor does not affect the outcome; an odds ratio of greater than one means higher odds of the outcome, while an odds ratio of less than one means lower odds of an outcome. So for example, in our analysis an odds ratio of greater than one for stepfamily status means that the likelihood of the young person having social service contact increases, compared to their counterparts not belonging to a stepfamily. However, when reading the results care should be taken to avoid exaggeration, as the initial risk of social service contact is low: eight percent of young people in the sample had social service contact between Waves 1 and 3. Furthermore, odds ratios associated with different variables are not directly comparable because the variables contain different numbers of categories.

The findings presented in this paper are associations and do not establish causation. This means, for example, that the finding that parents socialising with and monitoring their children reduces the odds of social service contact does not indicate that if all parents were to adopt these practices we would see a reduction in social service contact for all. Not least this is because there may be multiple and interrelated mechanisms at play which are difficult to disentangle. Furthermore, this association may run in the opposite direction, so that, for example, parents attending specially arranged meetings concerning their child may be the result, not the cause, of social service contact. Future analysis will seek to tease out these dynamic effects.

Results

Table 1 shows the number of young people who have ever had social service contact by wave. This highlights the complexity of the data, as well as the variability of missing observations for this variable across waves. Of the 1,498 incidences of contact with social services within the previous 12 months, 264 involve young people with contact at two waves and

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50 with contact at three waves. The absolute risk of a young person receiving social service contact over these three waves is eight percent.

Table 1 about here

Predicting Social Service Contact

Results of the multivariate logistic regression analyses are shown in Table 2. The findings show the structural, individual and familial characteristics that predict social service contact, net of all effects. Only the characteristics where there is a 5% probability or less that the findings occurred by chance ($p\text{-value} \leq 0.05$) are presented in the table and discussion.

Contact with social services varies significantly by structural factors, net of neighbourhood, familial and individual characteristics. One significant macro-level structural factor is social class. In comparison to higher grade professionals or administrators, the odds significantly increase for all other class backgrounds except small proprietors. So those from a lower social class background have higher odds of social service contact than those from the highest class background, suggesting a negative social class gradient.

Family structure also significantly predicts social service contact due to a young person's behaviour, net of all other characteristics. Living with a stepfamily, compared to living with biological parents, increases the odds ($OR=1.57$), so too does living with a foster parent ($OR=13.10$). However the large standard error of 5.8 for foster parents indicates that this is a very small group (61 young people) and we should be cautious not to over-interpret this finding.

None of the neighbourhood characteristics yielded significant odds for social service contact and therefore these are not reported in the table of results.

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The familial characteristics that significantly predict social service contact include the manner in which the parents have contact with the school. Attending specially arranged meetings at school significantly increases the odds of social service contact (OR=1.63). The frequency of speaking to teachers also predicts social service contact: in comparison with never speaking to them, speaking to teachers once per week yields an odds ratio of 2.44, speaking every two or three weeks 2.40, and at least once per term 1.49. However, compared to young people whose parents do attend scheduled parents evenings, those with parents who do not attend yield an increase in odds (OR=1.31) for being in touch with social services. This may suggest that the nature of parental involvement is important.

The nature of the young person's relationship with their parents is also important for social service contact. Young people reporting a bad relationship with parents have an odds ratio of 3.95, compared to those reporting a good relationship. In contrast, parents socialising with their child is associated with reduced odds of social service contact (OR=0.91). Parents monitoring a young person (i.e. setting curfews and knowing the young person's whereabouts) increases the odds of social service contact slightly (OR=1.09). The parent reporting that they argue with the young person most days yields a significant increase in odds (OR=2.28), compared with hardly ever arguing.

Therefore contact with social services varies significantly by family characteristics net of structural, neighbourhood and individual characteristics. More specifically: attending specially arranged meetings with teachers, frequency of speaking to teachers and parent evening attendance predict social service contact. So too do the relationship between parents and children, frequency of arguing, assessment of relationship quality, frequency of socialising and monitoring the young person.

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Turning to individual characteristics, evidence to suggest that contact with social services varies significantly by certain individual characteristics, net of structural, family and neighbourhood characteristics. Our results indicate that girls have significantly higher odds than boys of receiving social service contact, net of distal and proximal factors (OR=1.30). In comparison to young people who are white, mixed race young people have higher odds of receiving social service contact (OR=1.47). If the young person has identified special education needs the odds of social service contact increase (OR=1.69). Police contact is also associated with increase odds of having social service contact (OR=2.11); this may be linked to the significant behavioural risk factors, including smoking and playing truant, which themselves increase the odds of social services contact (smoking OR=1.59; truant OR=1.55).

Table 2 about here

Discussion

Results from this multivariate analysis suggest some of the key variables which predict social service contact among young people aged 14-16 in England. All else being equal, significant structural predictors include social class, step family status and main parent relationship. The study suggests that many young people who have social service contact live in re-constituted families and come from lower socioeconomic status backgrounds. In terms of neighbourhood context, the multiple deprivation index and income deprivation affecting children index, government region and neighbourhood type are not significant predictors for social service contact, once other factors are taken into account. The significant familial variables associated with social service contact appear to include: parental involvement with school; the quality of the relationship between the young person and their parents, parents monitoring the

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young person and socialising with them. The significant individual factors predicting social service contact appear to include: gender, special education needs, police contact, smoking and truancy. In terms of ethnicity, when allowance is made for other social factors, young people who are black do not seem especially exposed to social service contact, though young people with mixed race are.

Some of the social factors that appear from this analysis to predict social service contact due to teenagers' behaviour confirm findings from previous studies based on other social welfare populations. For example, increased likelihood of social service contact with lower social class families and children from mixed-race backgrounds fits well with evidence from studies on the out-of-home care population in the UK (Bebbington and Miles, 1989). Whilst these findings might not be surprising to those with experience of social work practice in the UK, systematic evidence should certainly trigger reflection on whether or not services are being appropriately targeted. Is it right that there should be such socio-economic variation in social service contact concerning teenagers' behaviour, over and above reports of problem behaviours, contact with the police and so on? It could well be that there are other distinctive features not measured in our study or in the LSYPE data which may explain the variation by class and ethnicity. These data do not include, for example, any information on child abuse or neglect. However, as Bywaters *et al.* (2014) have argued, more attention is needed to child welfare inequalities. Is the variation in services a response to differential need or a stigmatising of particular social groups? These are questions which need to be explored in further research. It is interesting to note that neighbourhood deprivation, highlighted in Bywaters *et al.*'s (2014) research, did not predict social services contact once other factors, including social class, were taken into account.

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Aggregate data on deprivation are nonetheless important for service planning, since deprived individuals and families experiencing social problems are concentrated in deprived areas.

The increased likelihood that girls will have social service contact in relation to their behaviour is perhaps less expected. It may be that this gender differential captures the difference in how girls and boys are treated by agencies. For example boys may be more likely to be involved with the police or admitted into youth custody, while girls may be given a more welfare-oriented response. Further investigation is needed to understand this association.

The significant increase of social service contact for young people in foster care (in comparison with living with natural parents) fits with previous evidence of behavioural difficulties among fostered children, often linked to traumatic experiences in birth families, which has fed into the development of targeted interventions (Macdonald and Turner, 2008). However because the standard error is large we cannot be certain that this finding is not just a result of the small numbers of young people in foster care within the sample. It should also be acknowledged, of course, that children in foster care will, as matter of course, have routine visits from social workers; some foster carers may have conflated this with contact due to the young person's behaviour, since the social work visit would necessarily consider behaviour amongst other aspects of the young person's wellbeing. The same may apply to young people with special educational needs.

Some of our findings concerning individual and family characteristics predicting social service contact may be relevant for planning interventions. Caution is needed, of course, because our study does not prove any causal links. However, to take just one example, if those young people who get on badly with their parents have four times the odds of social service contact due

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to their behaviour, some kind of help with family relationships and parent-child communication would seem to fit with the circumstances and the need.

The analysis presented in this paper is concerned with routine social service contact with young people about their behaviour, an outcome which has not been previously studied using this kind of research design, namely a general population cohort study with individual-level data, allowing comparison of those who do and do not receive social service contact. However, before concluding, we must note again that the strength of the study's design is also in a sense its main limitation. A general population cohort study such as LSYPE, established for use by a wide range of social scientists for a wider range of purposes, is based on self report, does not contain data on significant adverse circumstances such as abuse or neglect, and affords us only a simple, binary dependent variable to capture or not social service contact took place or not, but nothing of its nature, quality, intensity or duration. We need better data and further research to find out what predicts different kinds of intervention. Given what we know about the impact of multiple adversities on outcomes for young people (Fergusson and Horwood, 2003), we also need to know more about how these predictors interact. Including a temporal dimension (or 'chronosystem') to studying the impact of change in circumstances will also be important in future research.

Conclusion

Analysis of longitudinal cohort studies allows researchers to compare the users of social services with the rest of the population, offering the potential for useful insights for policy makers and service managers responsible for planning services. Several such studies are available for secondary analysis (e.g. via the UK Data Service) but there has been little use made

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of them for social work research in the UK. Greater use is recommended. Furthermore, embedding within these studies additional questions about the nature of social work contact would be very useful indeed. Armed with knowledge about what predicts social work contact, it becomes more possible to test hypotheses about social work outcomes. There is great potential to harness the power of large-scale cohort and panel studies for producing better evidence about those who receive social work services and what happens to them over time.

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Predictors of social service contact among teenagers in England

Table 1. Incidences of Social Service Contact in Last 12 Months by Wave

Incidences of Social Service Contact by Wave	Yes	No	Total	%
Wave 1	615	13,440	14,055	4%
Wave 2	496	11,620	12,116	4%
Wave 3	387	10,896	11,283	3%
No. of young people with Social Service Contact				
Total	1,184	14,016	15,203	8%

* Of the 1,498 incidences of social service contact across three waves, 264 have contact at two waves and 50 have contact at three waves therefore 1,184 have 'ever' had social service contact over three waves.

Predictors of social service contact among teenagers in England

Table 2. Multivariate logistic regression predicting ever having social service contact as a result of the young person's behaviour

Variable: Reference Category	Dummy Variables	OR	SE
Class: Higher grade professionals, managers/administrators (PMA)	Lower grade PMA	1.47*	(0.27)
	Routine non manual	1.73*	(0.40)
	Small proprietors	1.44	(0.33)
	Technical and Supervisors	1.57*	(0.33)
	Semi Routine	2.05***	(0.43)
	Routine	1.54*	(0.34)
	Unemployed	1.74**	(0.35)
Not a step family	Step family	1.57***	(0.21)
Main parent relationship: Natural parent	Adoptive parent	1.73	(0.84)
	Foster parent	13.10***	(5.80)
	Step-parent	0.84	(0.29)
	Other relative	0.30	(0.26)
	Other non-relative	0.95	(0.35)
Teacher's meeting: Do not attend specially arranged meetings	Parents attended specially arranged meetings	1.63***	(0.14)
Frequency of arguing with YP: Hardly ever	Most days	2.28***	(0.28)
	More than once a week	2.03***	(0.22)
	Less than once a week	1.56***	(0.18)
	Never	0.99	(0.22)
How well MP gets on with YP: Well	Badly	3.95***	(0.88)
Parents evening: Attended	Parents did not attend parents' evening	1.31*	(0.14)
How often speak to teachers: never	Once a week	2.44***	(0.43)
	Every two or three weeks	2.40***	(0.38)
	At least once a term	1.49***	(0.17)
	Less than once a term	1.07	(0.12)
Parents don't socialise with YP	Parents socialise with YP	0.91**	(0.03)
Parents don't monitor YP	Parents monitor YP	1.09*	(0.05)
Gender: Male	Female	1.30**	(0.10)
Ethnicity: White	Mixed	1.47**	(0.21)
	South Asian	0.91	(0.19)
	Black	1.07	(0.19)
	Other	0.90	(0.28)
No special education needs	Special education needs	1.69***	(0.16)

Continued.

Predictors of social service contact among teenagers in England

Table 2. Continued.	Dummy Variables	OR	SE
Police have not been in contact	Police have been in contact	2.11***	(0.22)
Never smoked	Smoked	1.59***	(0.18)
Never played truant in last 12 months	Played truant	1.55***	(0.15)
	Constant	0.01***	(0.00)
	Observations	15,203	
	Log likelihood	-2908	
	DF	138	
	Chi2	1644	

Robust standard errors in parentheses

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$,

Note: Model controlling for other characteristics but non-significant parameters are not reported: Household tenure; parent's education; care status; mother's age; father's age; home language; family size; parents' marital status; free school meal, parents aspiration for young person; parent's involvement in school; young person's caring responsibility, computer in home; internet in home; parents monitor young person; aspiration to apply to university; confidence in being accepted if apply to university; alcohol; graffiti; theft; fighting; vandalism; neighbourhood characteristics; region; multiple deprivation index; and income deprivation index.