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Mental health of at-risk teenagers

Evidence from children of care leavers and those from socially disadvantaged families in the Millennium Cohort Study

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CENTRE FOR LONGITUDINAL STUDIES

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Contents

Acknowledgements

Introduction

In 2020/21 about 1 in 3 children the UK lived in poverty (DWP, 2023). Moreover, about 1% of children in the UK experienced out-of-home care (OHC) in 2019 (NSPCC, 2021).

It is well documented that the experience of out-of-home care (OHC) can lead to an increased risk of mental health problems (Murray, Lacey, Maughan, & Sacker, 2020) – as does the experience of growing up in a socio-economically disadvantaged family (McElroy, Tibber, Fearon, Patalay, & Ploubidis, 2023). Yet, while there is persistent evidence on the intergenerational transmission of socio-economic disadvantage and associated mental health problems, there is scarce evidence on the experiences of care-leavers who become mothers and the intergenerational transmission of disadvantage to their children. The experience of OHC, often characterised by socio-economic and psychosocial deprivation as well as inconsistent caregiving, can be considered as a distinct type of traumatic experience (Yang, Font, Ketchum, & Kim, 2018). Care leavers tend to have a high risk of exposure to adverse socio-economic and psychosocial circumstances across their life course, i.e., risks encountered in their family of origin (including psychosocial risks experienced before placement), while being looked after, and their own experiences in the transition to independence and beyond. In this brief report we ask, given the potential trauma of OHC experience, whether children of care leavers are at a greater risk of mental health problems than children growing up in socio-economically disadvantaged families without OHC experience?

We draw on findings from a two-year research project funded by the Nuffield Foundation[1] and focus on the experiences of mothers with care experience and the mental wellbeing of their teenage children. Using data collected for the UK Millennium Cohort Study (MCS) n= 305 (1.6%) mothers with OHC experience could be identified from among the 18,810 families in the analytic sample (see Box 1 for

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[1] https://www.nuffieldfoundation.org/project/long-term-outcomes-for-care-experienced-parents-and-children

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further details). These mothers were aged between 15-45 years, being born between 1955 and 1985 and experiencing care systems and policies covering the 1950s-2000 (Parsons & Schoon, 2021).

Focus on socio-economically disadvantaged mothers with and without OHC experience

Regarding socio-economic resources in the early years of the cohort child's life we find that mothers with OHC experiences have significantly fewer socio-economic and psycho-social resources available than mothers without OHC experience (Parsons & Schoon, 2021). The biggest 'gaps' in socio-economic circumstances are regarding educational attainment (38% of mothers with OHC experience had no or low level [nvq1] qualifications compared to 11% mothers without OHC experience). In addition, a greater proportion of mothers with OHC experience were in receipt of state benefits (64% to 34%), experienced income poverty (47% to 25%) and lived in rented housing (69% to 34%). Taking a summary score across these four measures, illustrates the accumulation of disadvantage experienced by the vast majority of OHC mothers (see Figure 1). 70% of mothers with OHC experience (n=219) encounter 3 risk factors or more, compared to 26% of mothers without OHC experience (n=5,765[2]).

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[2] Note: sample size varies across imputed datasets: Mother No OHC n=5748-5779; Mother OHC n=215-225.

Figure 1: accumulation of SES disadvantage
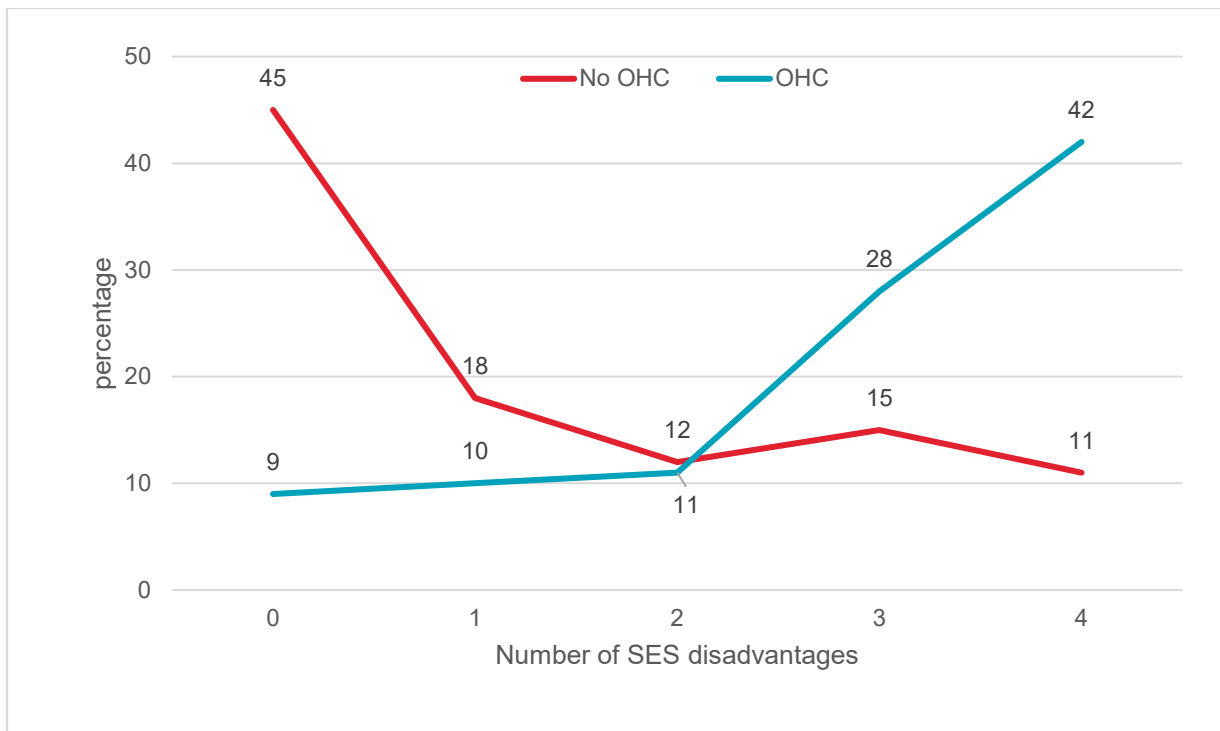
Concentrating on the sample of mothers with and without OHC experience who encountered three or four of the socio-economic disadvantages detailed in Figure 1 we find remarkable similarities between these two groups of mothers across the four measures of socio-economic disadvantage (Table 1).

Table 1: Socio-economic disadvantage by mother OHC experience

	Socio-economically disadvantaged (3+risk factors)	
	Mother No OHC	Mother OHC
No or NVQ 1 level qualifications	.61	.71
Receipt of State Benefits	.94	.97
In Poverty (<60% median income)	.94	.94
Rented Housing	.93	.99
N(100%)	*5765*	*219*

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Mental health of children growing up with socio-economically disadvantaged mothers with and without OHC experience

We ran a series of logistic regression analyses within the socio-economic disadvantaged sample to identify differences in teenage mental health at age 17 by mothers OHC experience. Table 2 shows the unadjusted predicted probabilities of teenage children of mothers with and without OHC experience within the socio-economic disadvantaged sample across nine outcomes. We see that in comparison to teenagers of socio-economically disadvantaged mothers without OHC those of mothers with OHC experience report higher levels of mental health problems, particularly for measures capturing depression, hyperactivity and conduct problems, but also for self-harm and attempted suicide. The findings suggest potential processes of intergenerational transmission of trauma associated with maternal OHC experience, which is not fully accounted for by socio-economic resources.

Table 2: Mental health outcomes at age 17 by mother OHC experience: unadjusted predicted probabilities

	Socio-economically disadvantaged (3+risk factors)	
	Mother No OHC	Mother OHC
SDQ Emotional problems [CM reported][1]	.13	.17
SDQ Conduct problems [CM reported] [1]	.07	.13**
SDQ Hyperactivity problems [CM reported] [1]	.16	.26***
SDQ Peer problems [CM reported] [1]	.06	.09
Kessler (high levels of depression: 13+)[2]	.17	.25*
Told by a doctor that they have depression	.11	.22****
Treated for depression	.04	.07**
Self-harmed: any	.27	.37**
Attempted suicide	.09	.19***
N(100%)	*5765*	*219*

Note: * p<.1 ** p<.05 *** p<.01 **** p<.001
[1] Emotional, conduct, hyperactivity and peer problems were assessed with the Strength and Difficulties Questionnaire (SDQ) (Goodman, 1997;2001); [2] Depression was assessed with the Kessler K6 scale (Kessler et al., 2003); Self-harm was assessed with 6 yes/no questions, whether the teenager in the last year had: cut or stabbed; burned; bruised or pinched; taken an overdose of tablets; pulled out hair; hurt themselves in some other way. Other outcomes were single response questions.

Notably, these findings underline previous evidence regarding poor mental health outcomes (including symptoms of depression, self-harm and attempted suicide) among the teenage children of care-leaver mothers compared to their peers in the overall population sample (Parsons et al., 2022) which could not be explained by accounting for family socio-economic background characteristics.

Do characteristics of the child account for mental health disparities?

In the next stage of the analysis, we ran a series of logistic regressions for each outcome within the socio-economic disadvantaged sample additionally controlling for the teenager's sex, age, ethnicity and performance in public examinations at age 16. Within this sample of teenage children of socio-economically disadvantaged mothers we find that fewer teenagers of a mother with OHC experience were from a British Minority Ethnic group (.22 no OHC; .13 OHC), but a similar proportion were female (.49 no OHC; .47 OHC), they had the same mean age (17.2 years) and around a third had attained five or more 'good' GCSCEs Grade 4-9 including English language and maths (.37 no OHC; .30 OHC).

Regarding mental health outcomes, Figure 2 below shows the Odds Ratios for teenagers in disadvantaged families by maternal OHC experience. When including the teenagers' individual characteristics, differences in conduct problems, as well as self-harm and being treated for depression are accounted for. However, teenagers with a mother with OHC experience have higher 'odds' of reporting hyperactivity problems, a high number of depressive symptoms (Kessler), being told by a medical doctor that they are depressed as well as attempted suicide. These indicators of mental health problems are not explained by the child's characteristics of sex, age, ethnicity and examination results or family socio-economic background characteristics.

Figure 2: mental health outcomes for socio-economically disadvantaged teenagers: adjusted odds ratios for teenagers with a mother with OHC experience [inc. child characteristics]
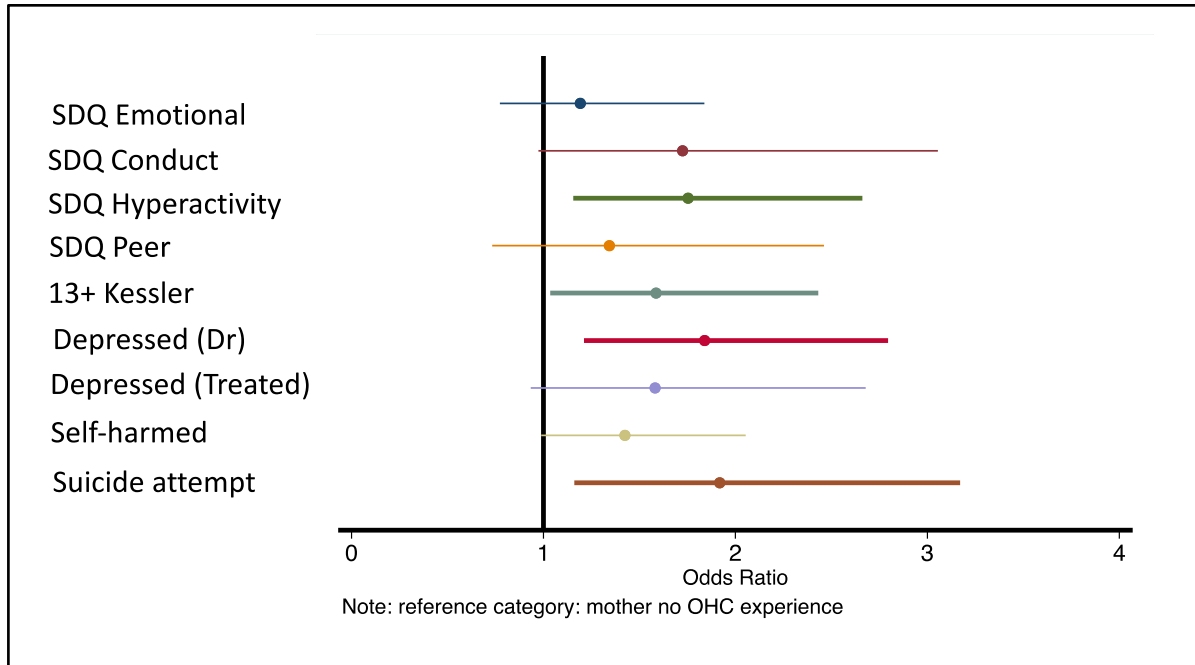

Can maternal mental distress account for the high levels of mental health problems among children of care leavers at age 17?

Our earlier research profiling the mothers by their experience of out-of-home care in childhood, had highlighted the increased levels of depressive symptoms among mothers with OHC experience (Parsons & Schoon, 2021). When their child was age 3, 48% of mothers with OHC experience reported high levels of mental distress (as measured by the

Kessler K6 scale (Kessler et al., 2003) compared to 26% of mothers with no OHC experience. Focusing on the sample of socio-economic disadvantaged mothers, we again find 48% of OHC experienced mothers reporting high levels of mental distress, as did 38% of mothers with no OHC experience. We therefore included maternal mental distress (as measured by the Kessler K6) as a control in a final set of models

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within the socio-economic disadvantaged sample, to see if this drives the association between maternal OHC experience and mental health problems among their teenage children. Figure 3 shows that the increased odds of a high level of distress among the teenaged children (also measured by the Kessler K6 scale) are (just) attenuated by the inclusion of their mother's experience of distress. The associations between maternal OHC experience and hyperactivity, depression diagnosed by a medical doctor and attempted suicide remain significant. Maternal mental distress thus does not fully account for the mental health problems of their children.

Figure 3: mental health outcomes for disadvantaged teenagers: adjusted odds ratios for teenagers with a mother with OHC experience [inc. child characteristics and mother mental distress]

Note: reference category: mother no OHC experience
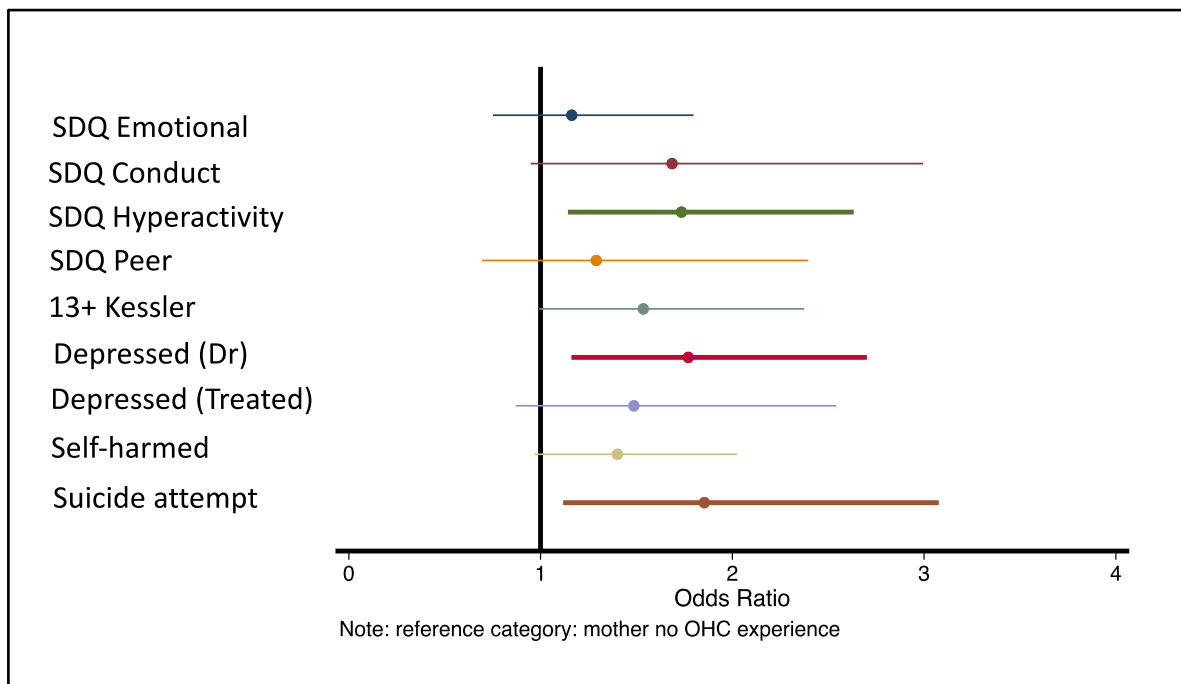
Conclusion

Our research shows that maternal care-experience casts a long shadow on the psycho-social adjustment of their teenage children, illustrating the continued disadvantage and transmission of trauma associated with OHC experience into the 2nd generation. We find that children of care leavers are at a greater risk of mental health problems than children growing up in socio-economically disadvantaged families without OHC experience. Restricting the analyses to socio-economically

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disadvantaged families (experiencing 3 or more risk factors) we find that the teenage children of mothers with OHC experience reported higher levels of conduct and hyperactivity behaviour problems, together with a higher number of symptoms associated psychological distress (Kessler), depression (as diagnosed by a medical doctor), self-harm and suicide than children of socio-economically disadvantaged mothers without OHC experience. Accounting for their own characteristics and their mother's mental distress, the teenagers of mothers with OHC experience still reported higher levels of hyperactivity, depression that was diagnosed by a medical doctor and attempted suicide. Thus, neither socio-economic disadvantage, nor teenage characteristics nor maternal mental distress can fully explain mental health problems of the teenage children of care leavers.

Although there may be other unobserved factors that we cannot account for that could help explain these differences, the interlinkages between maternal OHC experience, family socio-economic adversity and negative mental health outcomes highlight the vital need to extent the support for care leavers and their families if we are to minimise the intergenerational transmission of disadvantage and trauma associated with care experience to the children in future generations. In addition to support for education, financial hardship and housing, special attention has to be paid to the emotional scars associated with OHC experience which can transmit to the next generation. Moreover, every effort should be made to prevent the reasons of a child having to go into care, including conditions of physical, emotional and medical neglect and abuse or abandonment. There is also a need for more research to better understand the processes linking OHC experience to the psycho-social adjustment in the 2nd generation.

Box 1: details of MCS and analytic sample

The Millennium Cohort Study

The Millennium Cohort Study (MCS) is a multi-purpose ongoing longitudinal study of approximately 19,000 babies born to families living in the UK between September 2000 and January 2002 (Plewis, 2007; Connelly & Platt, 2014; Joshi & Fitzsimons, 2016). Data has been collected when the children were aged around 9 months, 3, 5, 7, 11, 14 and 17 when approximately 10,700 study members participated. Here we draw on information collected from personal interviews administered to parents of the cohort children at child age 9 months and 3 years, and child interview and self-completion questionnaires at age 17 (University of London, 2021, 2022a, 2022b). Information collected includes a wide range of robust socio-economic, employment and qualification details, together with information on, health, health-behaviour, wellbeing and contact with the police.

Analytic sample

Of the 18,552 families who first took part in wave 1 or the 692 new families introduced at wave 2, our original analytic sample comprises of 18,810 families where the birth mother was the main respondent and provided information on her experience of out-of-home care and ethnicity. For the families who took part at wave 1 *and* wave 2, these were further restricted to the main respondent being the birth mother at both time-points.

Identification of maternal OHC experience

OHC was identified with a question included in the parent interview in wave 1 (and wave 2 for new respondents): 'Before the age of 17, did you spend any time living away from both of your parents?' For the analysis we differentiated between the 305 mothers who had spent time in any OHC placement (1) versus those how have not (0).

Multiple Imputation

As all longitudinal studies, MCS suffers attrition over time. We used Multiple Imputation (MI) to deal with attrition and item non-response to restore sample representativeness, adopting a chained equations approach (White, Royston & Wood, 2011) under the assumption of 'missing at random' (MAR). To maximise the plausibility of the MAR assumption the most important predictors of missing data are included in our models to further reduce bias and retain power (see Mostafa & Wiggins, 2015; Mostafa et al., 2021; Silverwood et al., 2021). All reported analyses are averaged across 25 replicated data sets based upon Rubin's Rule for the efficiency of estimation under a reported degree of missingness across the whole data of around 0.25 (Little & Rubin, 2014). The analyses were additionally weighted to adjust for the survey's stratified clustered sampling design (Plewis, 2007).

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