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Unintended Consequences of Early Exposure to Policing: Assessing Long-Term Effects of Police Stops During Adolescence in England and Wales

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This study examines the unintended life-course consequences of being stopped by the police in England and Wales before age 14 using data from the UK Millennium Cohort Study (N = 9,159). We investigate the predictors of early police contact and their associations with outcomes such as self-reported offending behaviour, academic achievement, and mental health over 3 years. Violent offending, knife carrying, non-violent offending, gang membership, alcohol use and cannabis use are linked to higher likelihoods of police contact by age 14. Police stops at this age are associated with increased violent offending, reduced educational aspirations and outward-facing psychological responses, namely greater conduct problems and attentional difficulties, by age 17; and these associations persist after accounting for important variables such as ethnicity. These findings align with labelling, cumulative disadvantage, general strain theories and the stress process paradigm.

KEY WORDS: policing, adolescents, offending, education, mental health

INTRODUCTION

The authority to stop and question members of the public is a hallmark of modern policing (Bradford and Loader 2016). Law enforcement agencies across the globe rely on police stops as a tool to investigate suspected criminal activity, enforce preventative and regulatory measures and uphold social order (Bowling and Weber 2011). Previous research indicates that proactive policing tactics—particularly those involving police stops, such as stop-and-search in the United Kingdom or stop-and-frisk in the United States—may have a deterrent effect on crime (Petersen *et al.* 2023). This impact

appears to be most notable in relation to drug offences (Tiratelli *et al.* 2018) or when such strategies are employed in small, high-crime areas (Braga *et al.* 2019). However, the persistent use of such powers can also have unintended consequences (Bradford *et al.* 2024). Manski and Nagin (2017) emphasized that confrontational proactive policing methods should be designed to maximize their social benefits in reducing crime while minimizing the social costs, particularly the infringement on the rights and privacy of innocent individuals.

The widespread use of police powers to stop individuals has been linked to several unintended consequences. Some of the most frequently cited outcomes include the erosion of public trust and perceptions of police legitimacy (Bradford *et al.* 2017), the disproportionate targeting of ethnic minority groups (Vomfell and Stewart 2021),and the concentration of police resources in areas characterized by economic disadvantage and inequality (Suss and Oliveira 2023). Building on these concerns, previous research has documented how police interventions can alter people's life course in profound ways. For instance, aggressive policing strategies and repeated exposure to stop-and-search have been linked to increased criminal offending (Sampson and Laub 1997; Wiley *et al.* 2013; Liberman *et al.* 2014) and poorer educational outcomes (Gottlieb and Wilson 2019; Legewie and Cricco 2022). Moreover, intrusive encounters initiated by police have been associated with declines in mental health indicators (Del Toro *et al.* s), highlighting the broader societal costs of such policing practices.

Despite its significance, the impact of early experiences with police stops before the age of 14 on the life course of individuals, particularly in the UK context, remains largely underexplored. This research gap has been underscored in key reports published by the Independent Office of Police Conduct (2022) and His Majesty's Inspectorate of Constabulary & Fire and Rescue Services (2023). These reports specifically called for more research on the consequences of stop-and-search practices among young people, particularly the potentially traumatic effects of such practices on young people from Black, Asian and other ethnic minority groups.

This paper, therefore, is a direct response to this call for further research. We build upon and expand previous research on the unintended consequences of proactive policing. Specifically, we adopt a life-course approach and focus on young people stopped by police in early adolescence in the United Kingdom and how police contact impacts their social outcomes in late adolescence. We draw on longitudinal data from a representative sample of adolescents residing in England and Wales who took part in the Millenium Cohort Study (MCS) to examine the extent to which the experience of an early police-initiated encounter before age 14 is related to future offending behaviour, educational motivation and mental health indicators by age 17. Our aim is to assess the degree to which early encounters with the police are associated with negative long-term consequences across various social domains.

The MCS dataset has previously been used to assess whether police stops predict key social outcomes, albeit from a public health perspective. These prior results highlight that early encounters with the police are associated with elevated rates of self-harm and attempted suicide (Jackson *et al.* 2021), exacerbated sleep disturbances (Jackson *et al.* 2022b), increased substance use (Jackson *et al.* 2022a) and deteriorating educational expectations (Jackson *et al.* 2022a). As these were public health studies, there remains scope to analyse the MCS dataset from a criminological perspective and situate the analysis in the small but growing body of international research on the predictors of police stops, and on the adverse effects of police stops in the life course. Peterson and colleague's meta-analytical systematic review (2023)[1] found that both youth and adults experience a broad range of negative outcomes at the individual level following police stops.[2] Those subjected to police stops showed a statistically significant 46 per cent

1 The Jackson studies were included in Peterson and colleagues' (2023) meta-analytical systematic review.

2 Positive outcomes of police contact are confined to scenarios involving police-initiated youth diversion programs designed to curb future delinquency (see Wilson *et al.* 2018 for a review).

rise in the likelihood of encountering mental health problems (e.g. anxiety or depression) and a 36 per cent increase in the probability of facing physical health challenges (e.g. self-reported poor health or sleep problems), compared to those not stopped. Moreover, individuals who had experienced police stops expressed notably more negative perceptions of police and reported significantly increased instances of self-disclosed crime and delinquent behaviour, with these changes amounting to 18.6 per cent and 15 per cent, respectively. However, of the 38 studies reviewed, only 4 were conducted in the United Kingdom and specifically addressed the mental health (Jackson *et al.* 2021) and crime (Murray *et al.* 2021; McCandless *et al.* 2016[3]) outcomes discussed in this paper.

The paper is organized as follows: We begin with a review of the potential negative life-course consequences of early police stops, including their theoretical basis, drawing on key frameworks such as the labelling perspective, general strain theory and the stress process paradigm. These frameworks guide our analysis of the long-term effects of police encounters on teenagers' educational, behavioural and mental health outcomes. Next, we review existing research on the predictive factors of police stops, the associated outcomes and racial disparities in their impact. Finally, we introduce the present study and outline the research questions before proceeding with the method, results and discussion sections.

THEORETICAL FOUNDATIONS: WHY MIGHT POLICE STOPS NEGATIVELY AFFECT TEENAGERS?

In examining the potential negative life-course impacts of early police encounters, several theoretical frameworks provide insights into how these experiences could influence adolescents' development (Weegh *et al.* 2025), namely the labelling perspective, life-course theory of cumulative disadvantage, general strain theory and the stress process paradigm. These lenses offer different but related ways of understanding how early police stops might disrupt a teenager's willingness to obey the law, educational trajectory and mental health, all of which inform the analysis of our data.

The labelling perspective: stigma and self-concept

The labelling perspective (Sampson and Laub 1997) can help us understand how teenagers internalize deviant labels following police encounters. These labels can alter the ways adolescents see themselves and how they are seen by others. Police stops, especially at a formative age, can lead teenagers to perceive themselves as 'offenders' or 'troublemakers' (Liberman *et al.* 2014). This self-perception can initiate a harmful cycle: the internalized label associated with an initial deviant act may lead to social rejection, withdrawal from conventional peers and increased association with deviant individuals (Goffman 1968). This process reinforces behaviour, pushing the teenagers further down a path of rule-breaking towards secondary deviance and repeated contact with the police (Wiley *et al.* 2013). Moreover, internalizing a deviant label can impact a teenager's educational aspirations, as they may see academic success as incompatible with their newly acquired identity. The emotional burden of stigma can also diminish self-esteem and increase feelings of alienation, contributing to greater emotional distress and mental health challenges.

3 Note that this study was conducted at the area level, focusing on the boroughs, rather than at the individual level. It examines the impact of Section 60 searches on crime within these specific areas.

Life-course theory of cumulative disadvantage: turning points and legal cynicism

The life-course theory of cumulative disadvantage emphasizes that critical events can alter an individual's developmental path, with fa ocus on institutional contacts that are coercive, stigmatizing or exclusionary (Sampson and Laub 1997). In this context, police stops can serve as significant turning points in a teenager's life, particularly if these encounters are perceived as unfair or discriminatory. Such experiences can undermine trust in societal institutions, fostering feelings of exclusion and marginalization (Hirschfield 2009; Kirk and Sampson 2013). These early disruptions may set off a chain reaction of disadvantages: reduced opportunities for education and social advancement can snowball over time, ultimately leading to higher risks of delinquency and other negative outcomes (Legewie and Cricco 2022).

Legal cynicism theory further enriches this perspective, suggesting that repeated negative interactions with police can cultivate a mindset that views the legal system as 'illegitimate' or 'incapable of protecting the community' (cf. Procedural Justice Theory; Tyler 2023). This distrust can manifest in adolescents resolving conflicts through violence rather than relying on formal legal processes (Kirk and Papachristos 2011; Oliveira 2025). By incorporating this life-course perspective, we acknowledge that police stops are not experienced individually in isolation but that the experience of them accumulates over time with every personal and vicarious contact (Oliveira and Jackson 2025). Each encounter may compound existing disadvantages, limiting opportunities and increasing vulnerability to negative outcomes such as school disengagement and further involvement in offending.

The life-course theory of cumulative disadvantage emphasizes how critical events can alter an individual's developmental trajectory (Sampson and Laub 1997). Police stops, especially during adolescence, represent potential turning points that can redirect young people away from positive life paths. Encounters perceived as unfair or discriminatory may disrupt teenagers' trust in societal institutions, fostering a sense of exclusion and marginalization (Hirschfield 2009; Kirk and Sampson 2013). These experiences can set into motion a sequence of disadvantages, where negative interactions with authority figures reduce opportunities for social and educational advancement, ultimately shaping long-term outcomes (Legewie and Cricco 2022).

Legal cynicism theory complements this perspective by arguing that repeated exposure to aggressive policing fosters a cultural mindset in which the law and legal institutions are perceived as 'illegitimate', 'unresponsive' and 'incapable of ensuring public safety', especially among youth. Such distrust of legal authority, common in disadvantaged neighbourhoods, fosters an environment where individuals are more likely to resolve grievances through violence rather than relying on the criminal legal system (Kirk and Papachristos 2011; Oliveira 2025).

General strain theory and the stress process paradigm: police encounters as stressors

General strain theory (Agnew 1992) provides a framework for understanding the emotional responses triggered by police stops. These encounters, especially during adolescence—a period of emotional and psychological development—can provoke intense feelings of anger, frustration and fear. Such emotional responses can, in turn, increase the likelihood of maladaptive behaviours, including delinquency. The strain created by these encounters may be rooted in feelings of injustice, humiliation or fear, and teenagers may struggle to process these emotions constructively. In this way, police encounters might serve as significant sources of emotional strain, contributing to the development of negative behaviours and mental health outcomes.

The stress process paradigm offers a sociological perspective on how encounters with police act as stressors that can have long-term mental health consequences (Alang *et al.* 2021). Police stops are not just acute stressors that provoke immediate emotional reactions, but chronic stressors that accumulate over time, gradually disrupting adolescents' mental well-being. Negative interactions with police can exacerbate feelings of powerlessness and mistrust, which

are particularly damaging during adolescence, a critical period for identity development. This sustained stress may contribute to mental health issues such as anxiety, depression and other internalizing behaviours. Additionally, the stress process paradigm helps us understand how these ongoing stressors may result in externalizing behaviours such as aggression or defiance.

Synthesis: the theoretical case for disruption

Each of these theoretical frameworks provides valuable insights into how early police encounters can negatively affect teenagers' life course. The labelling perspective highlights the role of stigma and altered self-concepts, life-course theory emphasizes the long-term accumulation of disadvantage and legal cynicism, and general strain theory focuses on the emotional toll of encounters with police. The stress process paradigm situates police stops within a broader understanding of stress and its impacts on mental health and behaviour. These frameworks converge on the idea that police stops, especially during adolescence, have the potential to derail developmental processes and disrupt key areas of young people's lives. By reinforcing deviant labels, introducing strain, and acting as chronic stressors, police encounters may profoundly shape offending behaviour, educational outcomes and mental health in ways that persist into adulthood. This study examines whether these theorized effects apply to UK adolescents, providing insights to inform policies that mitigate the life-course adverse impacts of policing on youth.

WHAT WE KNOW ABOUT POLICE STOPS: PREDICTIVE FACTORS, OUTCOMES AND RACIAL DISPARITIES

The use of police stops is influenced by various factors, including the age, gender, ethnicity, socioeconomic status and demeanour for the suspect as well as neighbourhood context (Bradford 2017). The evidence suggests that these encounters can have significant negative effects on offending behaviour, educational performance and mental health, with adolescents and certain ethnic groups disproportionately affected (Wiley *et al.* 2013; Del Toro *et al.* 2022; Legewie and Cricco 2022). However, the developmental and life-course consequences of police stops, especially those occurring before the age of 14, remain underexplored in the United Kingdom.

Predictors of police stops

Research, primarily from the United States, has identified several individual and contextual factors that predict the likelihood of experiencing a police stop. These factors reveal that police stops are not random but are shaped by individual characteristics and broader societal contexts.

Teenagers and young adults are more likely to be stopped, as they are often perceived as more likely to engage in deviant or criminal behaviour (Smith and Petrocelli 2001). Men, particularly young men, also face disproportionately high levels of police scrutiny due to assumptions linking masculinity with criminal activity (Dai and Nation 2009; Quinton 2011). Race is one of the most significant predictors, with Black people disproportionately targeted in both the United States and United Kingdom. Systemic biases and perceptions of deviance contribute to significantly higher stop rates for Black people compared to their White counterparts (Braga *et al.* 2019; Carvalho *et al.* 2022). In the United Kingdom, Black people are stopped and searched at much higher rates than White people (Home Office 2023), though racial disparities may be less pronounced for stop-and-question encounters.[4]

4 Between 2005 and 2011, it was a legal requirement in England and Wales for the police to record 'stop-and-account' encounters; stops during which members of the public were asked to account for their actions, behaviour or possession of anything, but not searched. The last data published before the recording requirement was withdrawn showed that a higher proportion of stop-and-search encounters were of Black people (14.8%) than were stop-and-account encounters (6.5%) (Ministry of Justice 2010).

People from lower-income backgrounds are also more likely to be stopped, reflecting broader systemic inequalities. Disadvantaged areas, often marked by higher crime rates and economic inequality, are frequent targets of proactive policing, increasing the likelihood of stops for their residents (Engel and Calnon 2004). Proactive policing efforts are often concentrated in disadvantaged and minority-dominated neighbourhoods, reinforcing cycles of over-policing and marginalization. Adolescents in these areas are particularly vulnerable due to amplified perceptions of deviance and risk (Braga *et al.* 2019).

In addition, a history of offending increases the likelihood of stops, as law enforcement tends to focus on 'the usual suspects' and those perceived as high risk (Stolzenberg *et al.* 2020); and behaviours such as intoxication, non-compliance or perceived disrespect can influence an officer's decision to stop someone (Quinton 2011, 2019).

These predictors illustrate how police stops are influenced by intersecting factors such as age, gender, race, socioeconomic status, demeanour and neighbourhood context. This study seeks to fill the gap in research by investigating whether these factors are similarly associated with police stops among youth in the United Kingdom.

Unintended consequences of police stops

Research has documented a range of negative outcomes associated with police stops, including impacts on offending behaviour, educational performance and mental health. These findings, primarily from the United States, suggest that police stops have significant unintended consequences for the people subjected to them, particularly adolescents. However, the effects of police stops before the age of 14, especially in the UK context, are not well understood.

Offending behaviour

Evidence consistently links police stops to increased offending behaviour. The meta-analysis presented in Peterson *et al.*'s (2023) systematic review revealed that, on average, members of the public who had been stopped by the police were significantly more likely to report higher levels of subsequent offending. Notably, only three of the 38 studies reviewed focused on offending behaviour in the United Kingdom (McCandless *et al.* 2016; Murray *et al.* 2021). The authors did, however, highlight that this negative effect may have been more pronounced for young people.

In the United States, studies show that adolescents who experience police-initiated contact are more likely to engage in criminal activity over time, irrespective of their prior behaviour (Wiley *et al.* 2013; Ward *et al.* 2014; Del Toro *et al.* 2019). Findings from the Edinburgh Study of Youth Transitions and Crime align with these conclusions. This longitudinal research demonstrated that contact with the criminal justice system does not necessarily encourage desistance from offending; for some, it may instead act as a catalyst for continued offending into adulthood (McAra and McVie 2022). These studies collectively suggest that police stops during formative years can entrench a cycle of criminalization that persists into later life.

Educational performance

Police stops have been associated with negative educational outcomes. In the United States, research shows that juvenile arrests and aggressive policing practices significantly increase the likelihood of school dropout (Hirschfield 2009; Kirk and Sampson 2013); but less confrontational encounters such as police stops that do not lead to arrest have also been linked to reductions in educational achievement in US teens (Gottlieb and Wilson 2019). Additionally, adolescents in heavily policed neighbourhoods, even without direct police encounters, tend to exhibit lower academic performance. Aggressive policing in these areas undermines educational aspirations and fosters an atmosphere of fear and instability (Legewie and Cricco 2022).

In the United Kingdom, research on the link between police stops and educational outcomes is limited. To date, only one study has addressed this connection: Jackson and colleagues' (2022a) analysis of the MCS dataset found that police encounters are associated with declining educational expectations among adolescents. These findings underscore the broader impact of policing practices on young people's educational trajectories.

Mental health

The mental health impacts of police stops are significant and wide ranging. Research shows that individuals who experience police contact are twice as likely to report mental health conditions such as anxiety, depression and post-traumatic stress disorder compared to those without such encounters (McLeod *et al.* 2019; Peterson *et al.* 2023). Both direct exposure (e.g. being stopped) and indirect exposure (e.g. witnessing or hearing about police violence) have been linked to psychological distress, suicidal ideation and other mental health challenges (Jindal *et al.* 2022; Oppenheim *et al.* 2024). Adolescents appear particularly vulnerable to these effects, as formative encounters with authority figures can shape their psychological well-being and social integration (Tyler and Trinkner 2018). In the United Kingdom, while evidence is limited, related studies using the MCS dataset highlight associations between police interactions and increased rates of self-harm, suicide attempts and sleep disturbances among young people (Jackson *et al.* 2021; Jackson and Testa 2022). These findings underscore the potentially profound and lasting impact of policing practices on mental health during adolescence.

Taking all of the above together, the evidence highlights that police stops can have substantial adverse effects on offending behaviour, educational performance and mental health, with these impacts disproportionately affecting adolescents. However, the developmental and social implications of police encounters, particularly those occurring before the age of 14, remain underexplored in the UK context. This study seeks to address these gaps, contributing to a deeper understanding of how early police stops influence young people's trajectories.

Racial disparities and the differential impacts of police stops

Research indicates that the impact of police stops is not experienced uniformly across racial and ethnic groups. Negative interactions with police disproportionately affect ethnic minorities, often amplifying feelings of exclusion and mistrust and contributing to disparities in outcomes (Baćak and Nowotny 2020). In the United States, studies consistently show that Black and Latinx youth experience police stops as more intrusive and report more harmful effects compared to their White peers (Geller 2017; Alang *et al.* 2021). While US-based research provides robust evidence of these disparities (Wheelock *et al.* 2019), UK-based research is more limited. The available UK data, such as Bradford's (2017) findings, suggest more nuanced patterns: Black, minority ethnic and White males in London report similarly negative experiences of being stopped by police, even as some maintain generally positive views of policing overall. Given the potential for ethnic disparities in how police contact is experienced and its consequences, it is essential to account for ethnicity in our analysis. Controlling for ethnic background allows us to more accurately estimate the relationship between police stops and adolescent outcomes in offending behaviour, education and mental health, while reducing the risk of confounding due to differential exposure or vulnerability across groups.

RESEARCH QUESTIONS

We draw on two sweeps of MCS data—when cohort members (CMs) were aged 14 and 17—to examine (1) the factors associated with increases in the likelihood of teenagers being stopped

by the police by age 14, including ethnicity, gender, experiences of victimization, perceptions of neighbourhood safety and behaviours such as carrying a knife, engaging in violent and non-violent offences, gang association and the use of intoxicants like cannabis and alcohol; and (2) the association between exposure to police stops by age 14 and future offending behaviour, educational motivation and mental health outcomes by age 17, while controlling for important variables such as the teenager's ethnicity.[5]

Specifically, we produce a time-ordered analysis that addresses the following research questions:

RQ1. Which factors influence the likelihood of a teenager being stopped by the police by age 14?

RQ2. What are the relationships between experiencing a police stop during adolescence and later outcomes in offending behaviour, educational motivation and mental health?

RQ3. Do any associations between experiencing a police stop during adolescence and later outcomes in offending behaviour, educational motivation, and mental health persist after accounting for important variables such as ethnicity?

We proceed by detailing the methodology used in our study, followed by an analysis of the predictors of police contact during early adolescence. We then explore how such contact impacts outcomes in later adolescence and conclude with a discussion of our findings within the framework of current policy initiatives.

METHOD

Dataset[6]

The MCS is a large, nationally representative study that follows 19,000 young people born in the United Kingdom (i.e. England, Scotland, Wales and Northern Ireland) between September 2000 and January 2002. To date, seven sweeps of data have been collected, when CMs were aged approximately 9 months (2001), 3 years (2004), 5 years (2006), 7 years (2008), 11 years (2012), 14 years (2015) and 17 years (2018). Data from an eight-sweep is expected to be released in 2025. We draw on the two most recent, publicly available sweeps of the MCS, covering data from 2015 to 2018.

The MCS dataset includes variables that make it possible to link police contact to subsequent offending, educational performance and mental health while accounting for other factors. It also allows analysis of whether specific groups, such as Black or Black British youth, are more likely to experience or be adversely affected by police contact. The stratified, clustered sampling design oversampled ethnically diverse areas, resulting in a dataset with a higher representation of families and children facing mental health challenges and various risk factors, including police encounters.[7] For more details, see https://cls.ucl.ac.uk.

5 We use 'long-term effects' to refer to temporally established associations between police stops before age 14 and outcomes at ages 14–17. We avoid causal claims due to data limitations. Without detailed information on the nature and context of police encounters, we can only assert an association between early police contact and adverse outcomes, which may also reflect underlying vulnerabilities or risks.

6 All datasets and their corresponding analyses can be accessed through the following GitHub repository: [link removed for anonymous review].

7 Weighting was not used to adjust for any survey design effects because our analysis was within individuals over time, so it was not necessary to apply weighting.

This study focuses on youths who completed the age 17 self-completion questionnaire (N = 9,159)[8] to avoid issues with duplicate records and inconsistent family identifiers in other MCS datasets. The sample was further restricted to individuals from England and Wales for policy-specific reasons.[9] It includes 47.7% females, 52.3% males and 74% White respondents (26% are split across other ethnic backgrounds, including Black, Asian, Mixed and Other), broadly reflecting the demographics of this age group in England and Wales (ONS 2021).

Measures

We first model police-initiated contact by age 14 as the outcome variable to identify its predictors, using other measures as explanatory variables. Then, the experience of being stopped by the police before age 14 becomes the explanatory variable in models examining outcomes related to self-reported offending, education and mental health by age 17. Control variables include demographics, area safety, victimization, alcohol use and earlier assessments of the age 17 outcomes recorded at age 14.[10] This approach assesses the association between early police contact with subsequent behaviours and outcomes, accounting for various influencing factors.

Police contact

At age 14, CMs were asked, 'Have you ever been stopped and questioned by the police?' Responses were coded as 1 for 'yes' and 0 for 'no'.

Offending

Offending behaviours were measured at ages 14 and 17 based on self-reported activities in the preceding 12 months, operationalized as follows: *Violent offending behaviour* included physical aggression (e.g. pushing, hitting, or using a weapon) coded as true if reported, false otherwise, measured at ages 14 and 17; Non-violent offending behaviour included theft (e.g. shoplifting or stealing from someone) coded as true if reported, false otherwise, measured at ages 14 and 17; Knife carrying coded as true if reported, false otherwise, at age 14; Street gang affiliation coded as true if reported, false otherwise, at age 14; Cannabis use, coded as true if used before at age 14. At age 17, cannabis use in the past 12 months was measured on an ordinal scale, with higher scores indicating more frequent use.

Education

Educational performance was measured at ages 14 and 17 and operationalized as follows: *Educational motivation at age 14*—a factor score derived from Confirmatory Factor Analysis (CFA) of responses to five questions assessing school engagement and attitudes: (1) striving to do their best in school, (2) interest in school activities, (3) feelings of unhappiness at school, (4) tiredness during school hours and (5) perceptions of school as a waste of time. Responses to the first two items were reverse-coded to ensure higher scores reflect greater educational motivation. The model demonstrated good fit.[11] *Educational aspiration at age 17* was measured

8 The number of observations reported in the main text (N = 9,159) differs from those in Tables 1–4 (5,050–7,520) due to two reasons. First, not all questions were asked to all respondents, as some were subsampled or varied by survey mode (e.g. online or in-person). We adjust for survey mode to address these discrepancies. Second, attrition between waves, which varied across variables, reduced the number of respondents. Our analysis accounts for attrition bias, meaning the number of observations varies depending on the specific outcome measure. While assessing attrition bias, we found that no variable relevant to this study is linked to higher or lower probabilities of dropping out of the study.

9 Scotland and Northern Ireland fall outside the College of Policing's jurisdiction and have different police powers and operating contexts.

10 We estimated the Variance Inflation Factor (VIF) to assess the degree of multi-collinearity among the independent variables under examination. The VIF values did not exceed the commonly accepted threshold, thus confirming that multi-collinearity was not a concern within our analysis.

11 One-factor CFA model estimated using maximum likelihood and robust standard errors to handle non-normal indicators and full information maximum likelihood to handle missing data. CFI = 0.9.

based on responses to the question, 'How likely do you think it is that you will go to university?' Responses, scaled from 0 to 100%, were dichotomized using the 75th percentile (95%) as a threshold. Responses of 95% or higher indicated a strong intent to pursue university education, providing a clear distinction in educational aspirations.

Mental health[12]

Mental health indicators were measured at ages 14 and/or 17, operationalized as follows: *Self-esteem (ages 14 and 17)* was assessed using the Young Person (YP) Shortened Rosenberg Self-Esteem Scale, which measures self-worth and self-acceptance through a 4-point Likert scale. Responses from both waves were pooled, and a one-factor CFA ensured measurement equivalence. Higher factor scores indicate higher self-esteem. *Depression or anxiety (age 17)* was identified through clinical diagnosis (yes/no). For simplicity, this measure is referred to as 'depression'. *Psychological distress (age 17)* was measured using the YP Kessler 6 (K6) questionnaire, which assessed emotional well-being over the past 30 days. Responses to six items were rated on a 5-point scale and summed, with higher scores indicating greater distress. The study uses pre-validated CFA scores. *Mental well-being (age 17)* was evaluated using the YP Warwick-Edinburgh Mental Wellbeing Scale (WEMWBS), which measures positive psychological functioning through 14 positively worded items rated on a 5-point Likert scale. Total scores were summed, with higher values indicating better well-being. CFA scores were pre-validated. *Internalizing behaviour (age 17)* was measured using the emotional symptoms and peer problems subscales of the Strengths and Difficulties Questionnaire (SDQ). Emotional symptoms capture anxiety, depression, and distress, while peer problems assess social difficulties. High scores indicate greater difficulties. Pre-validated CFA scores were used. *Externalizing behaviour (age 17)* was measured using the conduct problems and hyperactivity/inattention subscales of the SDQ. Conduct problems reflect rule-breaking and aggression, while hyperactivity/inattention captures impulsivity and attention issues. High scores indicate greater behavioural challenges. Pre-validated CFA scores were utilized.

Drinking behaviour

Alcohol consumption at age 14 was coded as true if the CM had ever consumed alcohol, false otherwise. *Alcohol consumption at age 17* was measured on an ordinal scale reflecting the frequency of alcohol consumption in the past 12 months.

Safety and victimization

Area safety at age 14—an index ranging from 1 to 4, capturing how safe the CM feels walking or playing within a mile or a 20-minute walk from home. Higher scores indicate lower perceptions of safety. *Victimization at age 14*—a cumulative 0–4 scale based on four measures: physical violence, being hit or threatened with a weapon, theft, and being insulted or threatened. A score of 4 indicates experiencing all types of victimization, while 0 indicates none.

Demographics

Gender was coded as true if the CM identified as male, false otherwise. *Race/Ethnicity* was coded as a five-group categorical variable, including White, Black, Asian, Mixed or Other ethnic groups, with White serving as the reference category.

12 We do not include self-harm (including attempted suicide) in our analysis to avoid replicating existing work by Jackson and colleagues (2021), who explored the associations between police stops, self-harm and attempted suicide using the MCS data.

Analytic strategy

Our analysis follows a theory-driven, explanatory approach, leveraging the longitudinal nature of the MCS dataset to model outcomes while accounting for temporal sequencing and within-individual changes over time. The analysis proceeds in two stages: We first examine the factors predicting police stops by age 14 (RQ1). Using binomial logistic regression, we present results as marginal effects at the mean on a probability scale. This cross-sectional analysis does not establish temporal sequencing, leaving the direction of associations unclear (e.g. whether violent offending precedes or follows police stops). Next, we investigate links between police stops by age 14 and outcomes at age 17, including offending behaviour, educational performance and mental health (RQ2). All models include autoregressive or quasi-autoregressive parameters (e.g. lagged dependent variable or proxies for lagged dependent variable), and control for a range of covariates—including race/ethnicity—to account for potential confounding factors and better isolate the effects of police contact (RQ3). By using longitudinal data, this strategy disentangles the association between police-initiated encounters during critical developmental stages and their implications for youth outcomes.

RESULTS

We begin by examining the factors that predict police stops among teenagers. We then explore whether experiencing police stops during early adolescence is associated with offending behaviours, educational performance and mental health outcomes up to 3 years later, while accounting for a range of control variables—including ethnicity. Table 1 outlines the sample sizes for each measure included in the analyses, and Table 2 displays descriptive statistics for the key variables used in the analyses.

What factors predict the likelihood of being stopped by the police by age 14?

We specified a binary logistic regression model regressing the (natural logarithm of the) odds of being stopped by the police before age 14 on race/ethnicity, recent knife-carrying experience, recent violent offending behaviour, recent non-violent offending behaviour, gang association, recent use of cannabis and alcohol consumption, as well as gender, perceptions of area safety and previous experiences of victimization.[13]

Figure 1 displays marginal effects at the mean of the binomial logistic regression and shows that, controlling for gender, experiences of victimization and perceptions of area unsafety, police contact at age 14 is significantly more likely among individuals who have self-reportedly carried knives, engaged in violent or non-violent offending, affiliated with street gangs, or consumed cannabis or alcohol. Black respondents are more likely than White respondents to report experience of a police stop by age 14, but this difference is not generalizable to the population. The difference in the probability of police contact between Asian and White respondents and between Mixed and White respondents is also not statistically different from zero. Respondents of other ethnic backgrounds are more likely than White respondents to self-report early police-initiated contact.[14] Being male is associated with a higher probability of police contact at age 14 compared to being female. Having experienced victimization by age 14, and perceptions of area *un*safety are also associated with a higher likelihood of police contact at age 14. It is important

13 See Appendix Table 1 for a table that presents the probability of police contact at age 14 based on each of these factors.

14 To further investigate the relationship between respondents' ethnic backgrounds and their likelihood of early police stops by the age 14, we produced a bivariate analysis comparing the proportion of respondents who reported a police contact grouped by ethnic groups. This is available in Appendix Table 2.

to note that this is a cross-sectional model, meaning the direction of the association cannot be determined. For example, it is unclear whether violent offending leads to police stops or if the stop itself contributes to violent offending.

Long-term effects of being stopped by police during early adolescence

In this section, we present models estimating the association between police contact by age 14 and offending behaviour, educational motivation and mental health at age 17.

Table 1. Sample size for included measures in each sweep of the MCS (exclusively England and Wales)

Variable	Count	Sweep
Demographics		
Ethnicity	9,159	sweep 5
Gender	7,536	sweep 5
Police contact		
Police stop age 14	9,159	sweep 5
Safety and victimization		
Area safety age 14	9,145	sweep 5
Victimization age 14	9,159	sweep 5
Offending behaviour		
Knife-carrying age 14	9159	sweep 5
Offending behaviour age 14 (violent)	9,159	sweep 5
Offending behaviour age 17 (violent)	9,159	sweep 6
Offending behaviour age 14 (non-violent)	9,159	sweep 5
Offending behaviour age 17 (non-violent)	9,159	sweep 6
Street gang affiliation age 14	9,159	sweep 5
Cannabis use age 14	9,159	sweep 5
Cannabis use age 17	7,536	sweep 6
Drinking behaviour		
Alcohol consumption age 14	9,159	sweep 5
Education		
Educational motivation age 14	9,145	sweep 5
Educational performance age 17	5,062	sweep 6
Mental health and well-being		
Self-esteem (change score)	7,288	sweep 5-6
Depression age 17	9,159	sweep 6
Psychological distress age 17	7,391	sweep 6
Mental well-being age 17	7,348	sweep 6
Internalizing behaviour age 17	7,288	sweep 6
Hyperactivity age 17	7,287	sweep 6
Conduct problems age 17	7,288	sweep 6

Models predicting associations between being stopped by age 14 and offending and educational outcomes at age 17

The primary independent variable in this analysis is police contact at age 14. There are outcomes of interest, each measured at age 17. First, violent offending behaviour in the previous 12 months. Second, non-violent offending behaviour in the previous 12 months. Third, educational motivation—measured as a self-reported likelihood of attending university in the near future. Given that all three outcomes are binary variables, we estimate logistic regression models and display marginal effects at the mean to assess results in probability scale. Each model includes a comprehensive set of control variables to ensure robust results. These controls include gender,

Table 2. Descriptive statistics for key variables used in the analysis

	Count		**Percentage**			**Sweep**
Ethnicity						Sweep 5
White	6833		74.83%			
Black	352		3.85%			
Asian	1209		13.24%			
Mixed	503		5.51%			
Other	234		2.56%			
Male	3594		39.24%			Sweep 5
Police stop age 14	1183		12.92%			Sweep 5
Carrying knife 14	225		2.46%			Sweep 5
Offending behaviour age 14 (violent)	2745		29.97%			Sweep 5
Offending behaviour age 17 (violent)	1799		19.64%			Sweep 6
Offending behaviour age 14 (non-violent)	362		3.95%			Sweep 5
Offending behaviour age 17 (non-violent)	522		5.7%			Sweep 6
Street gang affiliation age 14	143		1.56%			Sweep 5
Cannabis use age 14	418		4.56%			Sweep 5
Alcohol consumption age 14	4146		45.27%			Sweep 5
Educational performance age 17	1383		15.1%			Sweep 6
Depression	593		6.47%			Sweep 6?
	Mean	**Std**	**Min**	**Max**	***N***	**Sweep**
Area safety age 14	1.79	0.58	1	4	9,145	Sweep 5
Cannabis use age 17	1.78	0.63	1	5	7,536	Sweep 6
Victimization age 14	0.74	0.93	0	4	9,159	Sweep 5
Educational motivation age 14	0	0.85	-3.23	1.8	9,145	Sweep 5
Self-esteem (change score)	-0.17	1.05	-4.67	4.67	7,288	Sweep 5-6
Psychological distress age 17	7.28	4.93	0	24	7,391	Sweep 6
Mental well-being age 17	22.39	4.06	7	35	7,348	Sweep 6
Internalizing behaviour age 17	5.68	3.50	0	20	7,288	Sweep 6
Hyperactivity age 17	3.91	2.3	0	10	7,287	Sweep 6
Conduct problems age 17	1.69	1.52	0	10	7,288	Sweep 6

ethnicity, perceptions of local area safety, cannabis and alcohol use, gang involvement, and personal experiences of victimization, all assessed at age 14.[15] We relied on different autoregressive or quasi-autoregressive modelling strategies depending on the outcome variable. To account for prior offending, we include both violent offending behaviour at age 14 and non-violent offending behaviour at age 14 as additional controls in both models predicting criminal offending at age 17. Educational motivation at age 14 is added as a control variable in the model predicting university attendance to account for prior levels of educational aspiration.[16]

Results from the three models are displayed in Figure 2.[17] After controlling for all other factors, police contact at age 14 is associated with increases in adolescents' probability to subsequently engage in violent behaviour and decreases in their motivation to attend university. However, early police contact is not significantly associated with non-violent offending by age 17.

Models predicting associations between being stopped by age 14 and mental health outcomes at age 17

We examined various mental health indicators at age 17, specifying one model for each outcome: self-esteem, depression, psychological distress, mental well-being, internalizing behaviour,

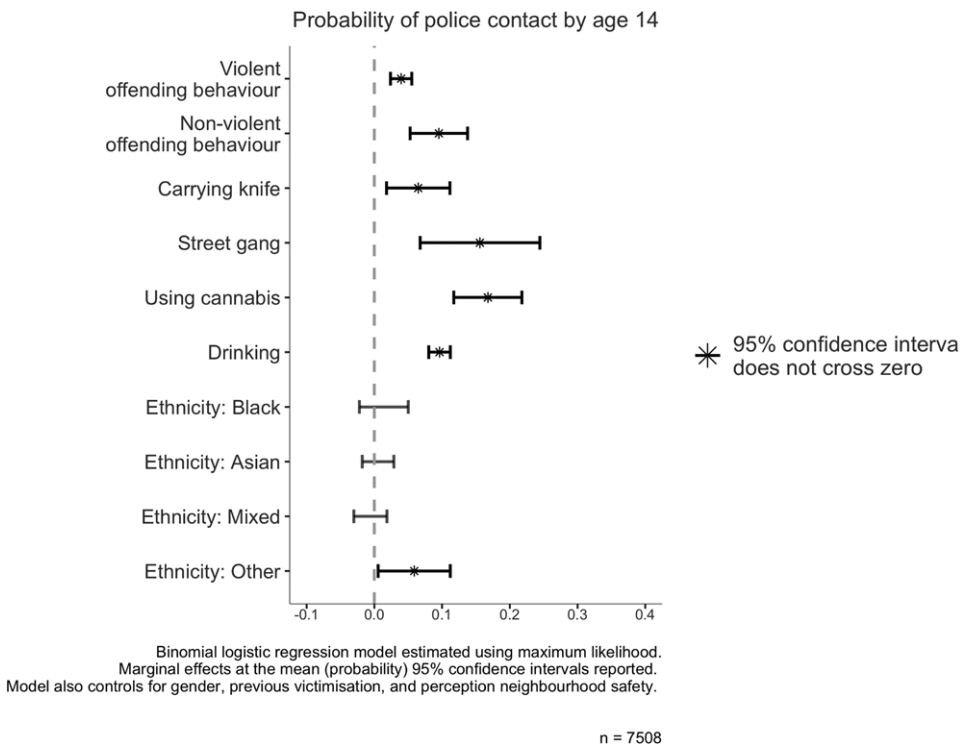

Fig. 1 Probability of being stopped by the police by age 14

15 Black and other ethnic minority individuals were more likely to engage in violent behaviour by age 17, but did not have an increased likelihood of non-violent offending at the same age. In contrast, being male, consuming alcohol, and experiencing victimization were significantly associated with higher probabilities of both violent and non-violent offending by age 17.

16 Complete results of models predicting associations between police stops and educational motivation are provided in the Appendix Table 4; Detailed results of models predicting associations between police stops and future offending behaviour are provided in the Appendix Table 3.

17 We also examined whether police stops by age 14 were associated with cannabis use at age 17 and found no significant relationship (see Appendix Analysis 1). Unlike Jackson *et al.* (2022a), our analysis accounts for factors like violent behaviour, knife carrying, gang membership and victimization, leading us to attribute the discrepancies primarily to confounding bias.

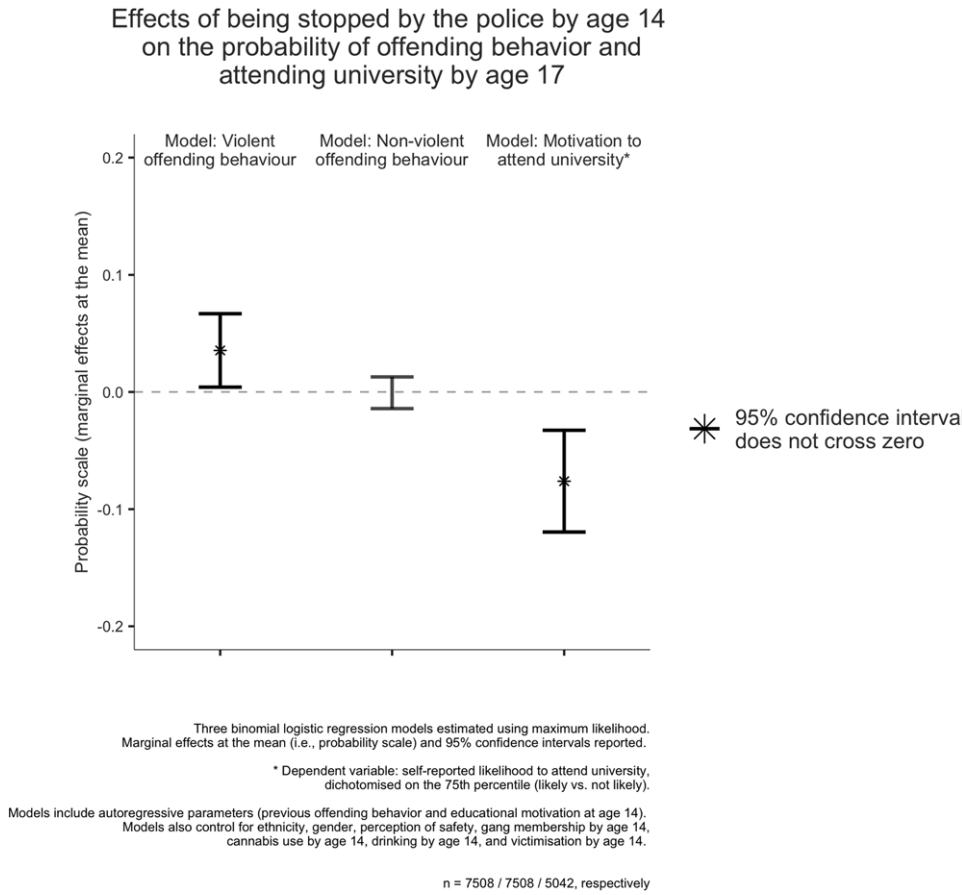

Fig. 2 Effects of being stopped by the police by age 14 on the probability of offending behaviour and educational aspiration at age 17

hyperactivity and conduct problems. The primary independent variable was police contact at age 14. Given that outcomes are continuous variables, this set of models was estimated using ordinary least squares—except for models regressing a depression diagnosis, which are logistic models with marginal effects at the mean displayed in probability scale. All models controlled for self-esteem at age 14[18] (except for the self-esteem models, which used linear change scores[19]), as well as gender, ethnicity, perceptions of local safety, gang involvement, cannabis and alcohol use, and experiences of victimization.[20,21]

18 Not controlling for self-esteem did not alter the observed patterns of results.

19 Self-esteem, measured at age 14, serves as a baseline control in all models. For predicting changes in self-esteem between ages 14 and 17, we use change scores as the outcome variable to account for within-unit changes, leveraging the repeated measures in the MCS data. Note that self-esteem was the only mental health measure that was also measured at age 14.

20 Women and those with victimization experiences had higher self-esteem but were more prone to depression, distress and internalizing behaviours. Men showed better mental well-being but more hyperactivity and conduct problems, particularly among people from Black and minority ethnic backgrounds. Unsafe area perceptions, victimization and low self-esteem were linked to poorer mental health, as were alcohol and cannabis use, which increased the risk of hyperactivity and conduct issues.

21 Complete results of models predicting associations between police stops and mental health indicators are provided in the Appendix Table 5.

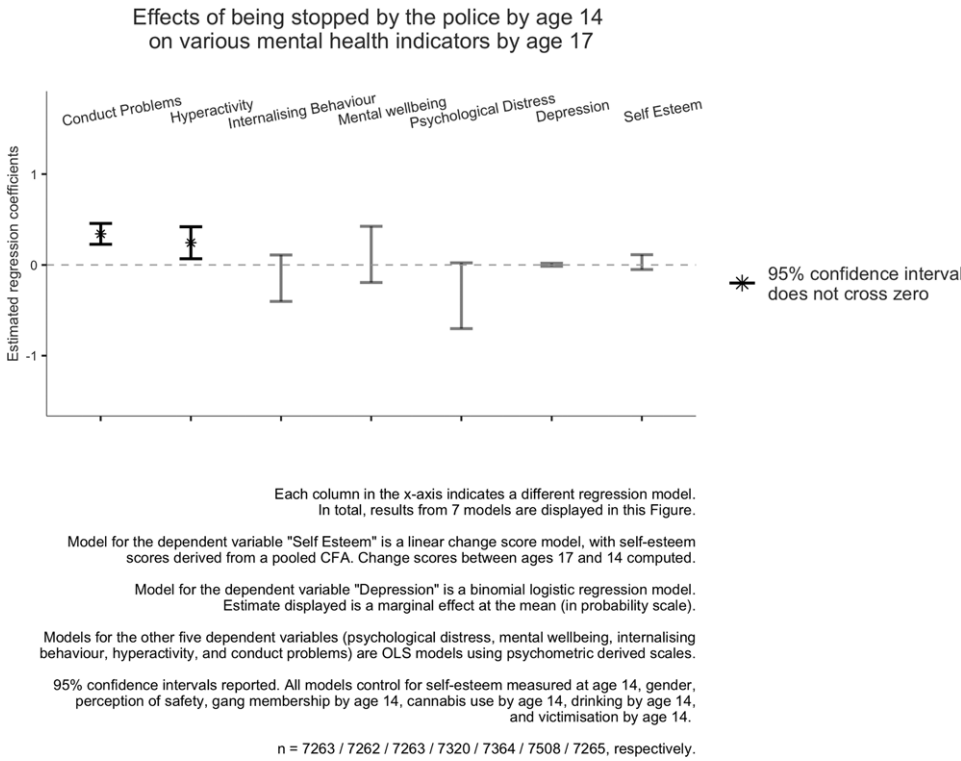

Fig. 3 Effects of being stopped by the police by age 14 on mental health at age 17

Results from seven models, where the outcome variables are each of the mental health indicators, and including all control variables, are displayed in Figure 3. As shown in Figure 3, after controlling for all other factors, police stops at age 14 were significantly associated with damages in two out of our seven psychological outcome measures at age 17, both of which inform externalizing behaviour: hyperactivity and conduct problems.

DISCUSSION

This study examined the predictors and outcomes of police-initiated contact among teenagers in England and Wales using MSC data. Violent offending, such as knife carrying, and some non-violent behaviours, including alcohol and cannabis use, were associated with a higher likelihood of police contact at age 14. Ethnicity was not a significant predictor of being stopped and questioned.

Police contact at age 14 increased the likelihood of violent offending by age 17, but was not linked to non-violent offending or cannabis use. Similarly, being stopped at age 14 was associated with lower confidence in attending university by age 17. While police contact at age 14 predicted greater hyperactivity and conduct problems at age 17, it was not significantly associated with self-esteem, depression, psychological distress, internalizing behaviour or mental well-being. These associations remained consistent after controlling for ethnicity and other relevant covariates.

Linking findings to literature, theory and future research

Research has documented the unintended consequences of police contact for youth, including increased offending, reduced educational attainment and deteriorated mental health, particularly among adolescents. While much of this evidence comes from the United States, the effects of police stops before age 14, especially in the United Kingdom, remain underexplored—a gap this study sought to address. Our findings broadly align with existing research, supporting associations between early police contact and life-course outcomes such as increased offending (Wiley *et al.* 2013; Ward *et al.* 2014; Del Toro *et al.* 2019; Peterson *et al.* 2023), reduced educational aspirations (Hirschfield 2009; Kirk and Sampson 2013; Gottlieb and Wilson 2019; Jackson *et al.* 2022a) and negative psychological effects (McLeod *et al.* 2019; Jindal *et al.* 2022). However, our study diverges from prior research in some ways. We found that police contact at age 14 was associated with subsequent violent offending only, contrasting with research suggesting links between police contact and both violent and non-violent offending (Del Toro *et al.* 2019). Moreover, the findings relating to adolescent mental health are particularly notable in that the significant associations were specific to mental health outcomes related to externalizing behaviour—namely, hyperactivity and conduct problems. This suggests that early police contact may have a more pronounced impact on outward-facing psychological responses, as opposed to internalized forms of mental health distress. This contrasts with studies highlighting broader mental health impacts from police interactions (McLeod *et al.* 2019; Oppenheim *et al.* 2024). These discrepancies may be a result of the independent variable in the MCS dataset on police contact, which—because it focuses on being stopped by the police rather stop-and-search—will encompass the experience of a wider range of public-public encounters. Equally, the differences could stem from unique societal, cultural or policing contexts in England and Wales that mitigate or buffer the effects on mental health found elsewhere. Future research should, therefore, investigate the impact of more intrusive forms of police contact, such as stop-and-search, on adolescent developmental trajectories.

Theoretical frameworks, such as the labelling perspective, life-course theory of cumulative disadvantage and the stress process paradigm, suggest that police stops during adolescence can disrupt development by reinforcing deviant labels, introducing strain and acting as chronic stressors, which in turn might shape offending behaviour, education and mental health outcomes into adulthood. While our findings align with these theories insofar as they show police stops can—as theorized—have unintended consequences, the MCS data did not permit direct empirical assessment of the underlying mechanisms that are generative of these outcomes, highlighting an important direction for future research. For instance, labelling theory suggests that early police stops may reinforce deviant identities, which aligns with our finding that police contact at age 14 predicted violent offending—though we could not directly assess internalization processes. Similarly, life-course theory emphasizes how early adversity can lead to compounding disadvantages. Our results suggest that police contact may initiate such a trajectory, though the MCS data do not allow for direct tracking of cumulative effects over time. Finally, the stress process paradigm helps explain our mental health findings: while no broad associations emerged with depression or well-being, police contact was linked to conduct problems and attentional difficulties, suggesting a stress response to early police encounters.

While US-based research highlights varied policing impacts on racial and ethnic minorities (Wheelock *et al.* 2019), our UK study finds that associations between early encounters and later outcomes remained after controlling for ethnicity and other relevant factors. This finding might stem from two factors. First, our national sample, drawn from a predominantly White population and including rural areas, may differ from urban-focused studies where disparities are more pronounced. Second, our independent variable, 'being stopped by the police', is a broad measure of police-public contact that includes encounters that are less intrusive than

stop-and-search, and estimates the prevalence of police contact experiences rather than their incidence or frequency, so may not be a good reflection of the over-policing of Black and minority ethnic communities. Additionally, differences in stop-and-question versus stop-and-search encounters may again explain the findings, as disparities are often more pronounced in the latter. Indeed, limited UK evidence, such as work reported in Bradford (2017), supports more nuanced patterns, with Black, minority ethnic and White males reporting similarly negative experiences when stopped by police.

Finally, the findings on factors associated with being stopped by the police by age 14 align with and reinforce existing research in the United Kingdom and internationally (McCandless *et al.* 2016; Stolzenberg *et al.* 2020), underscoring a broad consensus on the predictors of youth–police interactions. An exception to this pattern is the role of race/ethnicity, often cited as a significant predictor in prior studies (Braga *et al.* 2019; Carvalho *et al.* 2022). In this study, being Black or from another ethnic minority background was not a predictor of being stopped by the police, although the result narrowly missed significance. The lack of a significant finding regarding ethnicity may again be influenced by the nature of the dependent variable; a broader and more inclusive measure of police stops rather than stop-and-search. Disparities may be less pronounced in stop-and-question scenarios, as stop-and-search interactions are known to exhibit greater racial disparities. Additionally, the relatively small number of respondents in the MCS dataset who had been stopped by age 14 meant we had to collapse the separate categories for different ethnic minority groups into a single category for analysis. This analytical necessity may have contributed to the non-significant result.

Implications and limitations

The findings highlight the need for child-centred policies and practices (NPCC 2024)—across public services—that:

- prevent the social problems that can make it necessary for the police to initiate contact with children and young people;
- make sure that it is the most appropriate agency (e.g. education, health or social services) that takes action when intervention is required;
- ensure police-initiated contact—if it does become necessary—is lawful, proportionate and 'minimally invasive', takes account of adolescents' individual needs and circumstances, and is consistent with the principles of procedural and distributive justice;
- mitigations (e.g. youth diversion, safeguarding referrals) are put in place to help minimize the potential long-term effects of police-initiated contact on offending, education, and mental health.

We caution against overinterpreting the policy and practice implications of this study due to data limitations. The MCS, while valuable, was not designed for our specific research questions, requiring simplifications such as a binary measure of police stops by age 14, which does not capture cumulative effects or differentiate stop types (e.g. stop-and-search). Additionally, the dataset lacks key variables, such as measures of socioeconomic disadvantage, a known predictor of police contact. Moreover, the observational nature of the data prevents causal claims; our findings should be understood as correlational with temporal sequencing rather than causal.

CONCLUSION

This study examined the predictors and long-term consequences of police contact on subsequent offending, education, and mental health outcomes among adolescents in England and

Wales, using data from the 2015 and 2018 sweeps of the MCS. We found that police stops at age 14 are associated with these outcomes up to three years later, extending research beyond the US context. However, contrary to much of the existing literature, we did not observe significant differences in the consequences of police contact after controlling for ethnicity. This may be partly due to the broader measure of police contact used in our study (i.e. being stopped and questioned). Future research should examine more specific forms of police contact, such as stop-and-search, to better understand the potential ethnic differences in how these encounters affect youth. While our findings are consistent with theoretical frameworks like the labelling perspective, life-course theory and general strain theory, we were unable to directly test the underlying processes these theories suggest might give rise to the unintended consequences we observed. Future research should explore these mechanisms in greater detail to understand how police contact influences adolescent development and contributes to long-term outcomes, and test policies and practices that aim to prevent the need for the police to initiate encounters with children and young people and mitigate their unintended consequences.

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SUPPLEMENTARY MATERIAL

Supplementary material is available at *British Journal of Criminology* online.

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