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RISK AND PROTECTIVE FACTORS IN ADOLESCENT BEHAVIOUR

THE ROLE OF FAMILY, SCHOOL AND NEIGHBOURHOOD CHARACTERISTICS IN (MIS)BEHAVIOUR AMONG YOUNG PEOPLE

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EXECUTIVE SUMMARY

OBJECTIVES OF THE STUDY

This report uses data collected on Cohort '98 of the Growing Up in Ireland (GUI) study at 9, 13 and 17[1] years of age to examine the individual, family, peer, school and neighbourhood factors associated with adolescent behaviour patterns. The study adopts a multidimensional approach and draws on multiple informants, looking at six types of behaviour. Externalising behaviour relates to conduct ('acting out') and concentration difficulties. Internalising behaviour relates to negativity directed towards the self (i.e. mood or emotional difficulties) and difficulties interacting with peers, while prosocial behaviour is an indicator of positive development, reflecting positive interaction with others. All three are measured using the Strengths and Difficulties Questionnaire (SDQ), are based on reports from the primary caregiver (usually, the mother[2]) and are therefore likely to capture behaviour within the family or home context. Behaviour at school is captured using information on school-based misbehaviour (such as 'messing' in class) and on truancy, reported by the young person themselves. Antisocial behaviour, also based on the young person's report, reflects behaviour in the wider community (such as graffiti or damaging property). The study addresses the following research questions:

1. What patterns of (mis)behaviour are found among young people at 9, 13 and 17 years of age? To what extent do these patterns relate to differences in family resources, namely, social class, parental education and household income?
2. To what extent does adolescent behaviour reflect the social mix of the school, over and above the effects of individual family background (including parental education, income and social class)?
3. To what extent does adolescent behaviour reflect the social composition of the neighbourhood, over and above the effects of individual family background?
4. What family, peer, school and neighbourhood factors help to reduce the incidence of behaviour difficulties among young people?

Because of patterns of second-level school choice in Ireland, there is no simple mapping between the school young people attend and the neighbourhood in which they live. For this reason, cross-classified multilevel models are used; these take account of the fact that young people are clustered within both schools and

[1] One-fifth of the cohort were 18 years old at the time of the wave three survey. However, for simplicity, the term 17-year-old is applied to the whole sample in the remainder of the report.
[2] The primary caregiver was the mother in 97 per cent of cases so the term mother is used throughout the report, with father used to indicate the secondary caregiver.

neighbourhoods, and help us to disentangle the relative importance of the school and the neighbourhood as influences on behaviour.

MAIN FINDINGS

The analyses indicate generally low levels of behaviour difficulties among 17-year-olds. Externalising behaviour declined between the ages of 9 and 17 years while prosocial behaviour was relatively stable over time. Internalising behaviour increased between 13 and 17 years for young women but was stable for young men. Few young people experienced persistent behaviour difficulties over time and across the different domains of home, school and community, indicating the way in which behaviour was shaped by context and responded to different protective and risk factors within those contexts.

Individual and family background factors

Marked gender differences were found in the types of behaviour analysed. Males were more likely to display externalising, antisocial and school (mis)behaviour; females had higher levels of prosocial behaviour but were more likely to internalise difficulties. Young people with a special educational need (SEN) had greater behaviour difficulties across all domains and displayed somewhat lower levels of prosocial behaviour. Internalising and externalising difficulties were found to be more prevalent among young people from families with lower levels of education and who had experienced financial strain during the last recession. However, there were few consistent relationships between family advantage (measured in terms of social class, parental education and income) and school-based or antisocial behaviour. Poorer outcomes for all types of behaviour were found among those living in lone-parent or separated families.

Young people who had conflictual relationships with their parents at 13 years of age were more likely to have poorer behaviour outcomes four years later. A positive relationship with parents was associated with less school-based misbehaviour or antisocial behaviour and more prosocial behaviour but was not significantly related to the level of internalising or externalising difficulties. More parental monitoring of young people's activities was associated with less antisocial behaviour, truancy and externalising behaviour.

School factors

The specific second-level school young people attended made a difference to certain types of behaviour, namely, school-based misbehaviour, truancy, internalising difficulties and prosocial behaviour, with significant variation found between schools even taking account of the background of their students.

The measure of school social mix distinguished between DEIS,[3] fee-paying and other non-DEIS schools. Even controlling for individual social background, young people attending (or who had attended) DEIS schools had higher levels of school-based misbehaviour, truancy, externalising, internalising and antisocial behaviour. However, they also displayed more prosocial behaviour than those in non-DEIS schools. Young people who had attended the most disadvantaged primary schools (Urban Band 1) had higher levels of internalising and externalising difficulties at 17 years of age. Levels of antisocial behaviour and truancy were found to be higher in fee-paying than in non-DEIS schools, controlling for family background factors. The social mix of the school accounted for between-school differences in internalising difficulties and prosocial behaviour. However, even taking school social mix into account, the differences between individual second-level schools in the levels of school misbehaviour and truancy remained significant, suggesting that school policies and school climate play an important role.

The quality of relationships with teachers was significantly related to within- and out-of-school behaviour. Positive interaction (receiving praise or positive feedback) served as a protective factor, while those who were frequently reprimanded by their teachers at 13 years of age had poorer behaviour outcomes four years later. Behaviour difficulties were also greater among those who had been assigned to either middle/lower stream or special classes at junior cycle (lower secondary) level. Disengagement from school was strongly related to behaviour, with the small group (3%) who 'hated' school at 13 not only having higher levels of school misbehaviour and truancy but also engaging in more antisocial, internalising and externalising behaviour outside school. Disengagement from school subjects and lower levels of educational achievement were strongly associated with negative behaviour outcomes over and above more general negative attitudes to school.

Peer factors

Having a large friendship network appeared to protect young people from internalising difficulties but posed a risk in terms of 'acting out' at school, home or in the community. Mixing with older friends operated as an additional risk factor, with poorer behaviour outcomes among those who mainly socialised with those older than themselves. The quality of relationships with friends also made a difference; trust in friends reduced behaviour difficulties while alienation from friends mostly increased them.

[3] The Delivering Equality of Opportunity in Schools (DEIS) programme provides additional supports and resources for primary and second-level schools that cater for a concentration of students from disadvantaged backgrounds. Urban Band 1 DEIS primary schools have a higher level of socio-economic disadvantage among their student population than other types of primary school.

Neighbourhood factors

In contrast to the variation between schools, adolescent behaviour patterns did not vary significantly across neighbourhoods (measured in terms of electoral divisions) and variation in behaviour tended to be larger at the school level than that at the area level. Externalising behaviour was more prevalent among young people in the most disadvantaged quarter of electoral divisions (EDs) but other forms of behaviour did not differ by the socio-economic composition of the area. Young people in larger urban areas and small towns tended to have poorer behaviour outcomes. Those living in areas characterised by mothers as disorderly (with more antisocial behaviour or public drinking/drug-taking) had greater internalising and externalising difficulties and less prosocial behaviour, while perceived local gang activity was associated with increased internalising and antisocial behaviour. The presence of local facilities and a safe place to hang around helped protect against internalising and externalising behaviours. Being involved in structured sports also had a protective influence on internalising behaviour and truancy. Having (at least) 'one good' adult to talk to about any problems (whether at home, school or in the community) was consistently associated with better behaviour outcomes for young people.

IMPLICATIONS FOR POLICY

The study findings have implications for policy across a range of domains, including mental health, education, parenting support, income support, youth services and recreational facilities. Recent policy developments (including the *Sharing the Vision* mental health policy and the wellbeing framework for schools) have increasingly taken a holistic approach to youth wellbeing, focusing on a continuum from early prevention to specialist supports for those with more serious difficulties. The findings of this study highlight the importance of taking such a holistic approach as young people's (mis)behaviour is complex and dynamic, shaped and reshaped by the contexts in which they interact with others.

Schools emerge as an important influence on adolescent behaviour as well as a potential arena for the provision of intervention and support. The inclusion of wellbeing as a curriculum area in the junior cycle and the requirement to consider wellbeing as part of whole-school self-evaluations are welcome developments in this regard. In the context of the broader review of senior cycle (upper secondary) education, wellbeing could usefully form a specific curriculum area, responding to concerns expressed by young people, parents and teachers in previous research about the lack of preparation for adult life. The findings highlight the importance of any formal interventions or supports being underpinned by a positive school climate, where day-to-day interactions between teachers and students are characterised by positive reinforcement rather than negative reprimand. The development of restorative justice practices in schools and the fostering of conflict resolution skills among students may have positive spill-over effects for young

people in handling relationships and potential conflict with their peers and parents. Behaviour difficulties can be triggered or exacerbated by disengagement from school, reinforcing the importance of making junior and senior cycle an engaging experience for all young people. Supports emerge as particularly important in DEIS school settings, with potential to build upon the flexibility provided by the School Completion Programme to address behaviour difficulties in the context of broader wellbeing.

Schools play an important role as part of a continuum of care for young people. However, some groups of young people experience more serious behaviour and mental health difficulties than others. Previous research indicates high levels of unmet demand for adolescent mental health services, creating challenges for young people being able to access appropriate services in a timely way.

Having (at least) 'one good adult' in the lives of young people emerges as an important protective factor, and highlights the importance of ongoing professional development for teachers, youth workers and others working with young people to help adults identify and respond to the drivers of (mis)behaviour. Youth services can be particularly important for young people experiencing disadvantage and who are disengaged from school, enabling them to build relationships of trust with adults. Access to local facilities, including structured sport, emerges as an important protective factor but young people vary in their access to such facilities and some groups of young people are less likely to engage in sports – with lack of involvement in sports a focus of current policy attention.

Parenting support policies in Ireland have increasingly moved towards a focus on early prevention, encompassing information and advice to parents as well as direct support. Information for parents of adolescents could usefully draw on the study findings to increase awareness of the different risk and protective factors identified. The finding that family experience of financial strain is related to adolescent behavioural difficulties highlights the importance of a broader anti-poverty strategy in enhancing outcomes for children and young people. This is especially important in the context of the job and income loss that will follow the pandemic. The study findings relate to the period before the pandemic but emerging evidence that the mental health and wellbeing of young people has been disproportionately affected by the period of restrictions makes it especially important to develop policies to support young people's wellbeing into the future.

CHAPTER 1
Introduction

1.1 BACKGROUND TO THE STUDY

Various studies in Europe and further afield acknowledge the fact that young people face many challenges that may influence their behaviour (Schacter and Margolin, 2019). These challenges may be related to their home environment, school context, relationships with significant adults and peers, and their immediate communities. Young people are more likely to encounter academic challenges and new social situations during their adolescent years than in early and middle childhood. This is associated with more complex learning content in second-level education and allied with preparation for state exams, placing greater demands and expectations on them (Rueger et al., 2016). Adolescence is also characterised by clear physical, emotional and intellectual changes (Kipke, 1999; Spithoven et al., 2017), making young people more susceptible to the influence of external factors. At the same time, however, various individual and environmental characteristics (protective factors) help young people to avoid and overcome risks and promote their socio-emotional competence (Cattelino et al., 2014).

Most previous studies have focused on the influence of individual, family and school characteristics on adolescent behavioural outcomes (Levin et al., 2012; Moore et al., 2019; Pas et al., 2015; Rose, 2013). In addition, neighbourhood characteristics are becoming increasingly recognised as factors that influence the families and young people that live within them (Bowen et al., 2002). A considerable number of studies have explored the role of neighbourhood composition and context in shaping adolescent behaviour and outcomes (Morris et al., 2018; Leventhal and Brooks-Gunn, 2001; Nieuwenhuis et al., 2013). However, there is a dearth of research exploring the simultaneous influences of various spheres on the behaviour of young people (Sykes and Musterd, 2011). To identify the causes of young people's behaviour, it is essential to understand how people and environments interact (Wikström et al., 2012). Pauwels et al. (2015) argue that adolescents are exposed to multiple contexts, and the influence of these contexts on their lives should be studied simultaneously rather than separately (see also Moore et al., 2019). Context matters, as the behaviour of young people is likely to be linked to an individual's values and attitudes system, as well as the main social contexts in which the young people are embedded such as family, peers, school and neighbourhood (Bonino et al., 2005). Taking this into consideration, this study explores the combined impact of individual, family, peer, school and neighbourhood factors on the behavioural outcomes of young people, using data from the Growing Up in Ireland (GUI) study.

The data on which this study is based relate to the period before the COVID-19

pandemic. Emerging research has shown that young people have experienced the greatest increase in mental health difficulties and largest decline in life satisfaction in the wake of the pandemic and associated restrictions (for a summary of existing research, see Darmody et al., 2020), making it likely that their behavioural outcomes have also been negatively affected. This study, therefore, is timely in identifying the potential protective factors which help enhance young people's wellbeing. To fully understand the experiences of young people today, it is useful to explore earlier studies that have focused on the factors influencing the lives of young people. Section 1.2 sets out the theoretical framework which guides this study, while Section 1.3 presents an overview of previous research on the factors influencing adolescent behaviour.

1.2 THEORETICAL FRAMEWORK

Various theoretical and conceptual frameworks have been developed for understanding the behaviour of young people. However, many of these, such as social-structural strain theory (Merton, 1938), problem behaviour theory (Jessor and Jessor, 1977) and social and community responsibility theory (Collins, 1972), focus on criminal/delinquent behaviour and are driven by a deficit perspective rather than considering the broader behaviour of young people (including minor misdemeanours and behaviour at school). This study explores the factors associated with the behaviour of Irish adolescents. To understand the simultaneous effect of multiple factors on the behaviour of young people, the study is guided by ideas put forward by Bronfenbrenner (1979; 1989) concerning the importance of interactions within and between life contexts (e.g. work, school, family, etc). Bronfenbrenner's ecological model, based on his earlier work (Bronfenbrenner, 1977, 1979), highlighted the importance of the environment, dividing the child's environment into various nested and interrelated systems: the microsystem, mesosystem, exosystem and macrosystem. The *microsystem* constitutes the immediate environment in which the child lives and includes any immediate relationships or organisations the child interacts with, such as the family, peer group, or school setting and community environment of the children. Likewise, how children react to people in their microsystem is also likely to influence how they treat others in return. The *mesosystem* describes interrelationships between different microsystems, such as linkages between home and school (e.g. positive parent-school interaction in shaping the disposition of a child), but also family and community. The *exosystem* is a level in which the child is not actively participating, but which has an indirect association with his/her developmental outcome (e.g. the parents' workplace and its impact on family interactions). Finally, the *macrosystem* is a level that involves the broader society, including cultural values (also the child's beliefs and ideas), the economic conditions of the family including material resources, and opportunity structures (Bronfenbrenner, 1976, 1994). His ecological systems theory emphasises the importance of studying children in multiple environments as these environments interact with one another in influencing the lives of young people. Bronfenbrenner

(1979, p.16) posited that "behaviour evolves as an interplay between person and environment". In other words, behaviour is not constant, but develops and changes over time and is shaped by various factors.

Throughout his career, Bronfenbrenner refined and revised his theory (the bioecological model) to give greater weight to differentiating between the concepts of environment (Bronfenbrenner and Evans, 2000). The development of the Process-Person-Context-Time model (PPCT) in the later or 'mature' stage of the theory became the essence of Bronfenbrenner's theory (Rosa and Tudge, 2013, p.244). Proximal processes refer to complex reciprocal interactions between a person and his or her environment, which "must occur on a fairly regular basis over extended periods of time" (Bronfenbrenner, 1995, p. 620). Examples of "enduring patterns of proximal process" include parent-child and child-child activities, solitary or group play, reading, and learning new skills (Bronfenbrenner, 1995, p.620). Context generally refers to the environment, ranging from increasingly encompassing levels of micro to macro levels. The concept of time helps to examine the nature of cross-generational human relationships, such as those between parents and children. Bronfenbrenner's theories (in the earlier and more developed versions) have become widely used by scholars exploring the influence of social environments on human development. Considering the importance Bronfenbrenner attached to child-environment interrelationships, this report investigates the influence of family, neighbourhood and school environments on the behaviour of young people.

1.3 INDIVIDUAL AND CONTEXTUAL FACTORS INFLUENCING BEHAVIOUR IN ADOLESCENTS: REVIEW OF THE LITERATURE

Research exploring the behaviour and development of children, adolescents and young adults has a long history, mostly with a focus on Western, especially North American, populations. Much of this research discusses delinquent and risky behaviour among young people (Gerard and Buehler 1999; Hasking, 2007); fewer studies address 'milder' forms of misbehaviour. Many studies indicate that an involvement in various types of non-conforming and risk behaviours increases during adolescence, an important developmental stage for young people (Kipping et al., 2014). However, for most young people such behaviour is short-lived and decreases as they reach (early) adulthood. Several childhood risk factors have been found to predispose adolescents to problem behaviours (Toumbourou et al., 2014). Systematic reviews (see Stone et al., 2012; Bozzini et al., 2020) and cross-sectional studies (Foster and Brooks-Gunn, 2013) have pointed to the role of both background characteristics (including age, social class background, gender, special educational needs, and migrant background) and contextual factors, including neighbourhood, school factors (such as problems with teachers and peers) and family context (non-supportive family environments and family structure). Longitudinal studies that touch upon the behaviour of adolescents have focused on the impact of substance abuse among friends (see Mason et al., 2017);

adolescents' self-esteem and prosocial behaviour toward strangers, friends and family (Fu et al., 2017); and the effects of maltreatment on adolescent development (Negriff et al., 2019), among other topics.

Behavioural issues among young people can range from minor issues of non-compliance (talking out of turn or other minor misdemeanours) to more serious forms of aggression and antisocial behaviour. In some cases, earlier minor misdemeanours can escalate to more serious forms of misbehaviour later in a young person's life (Jones, 2016). A wealth of empirical evidence points toward heightened risk behaviours during adolescence and a link between different sorts of problematic behaviours, with one type of behaviour likely to lead into other forms of non-compliance or problem behaviour (Argyle, 2020). Problematic/risk behaviours manifest in a number of areas, such as smoking, drug use, drinking, risky sexual behaviour and violence (McAra, 2004; McAra and McVie, 2016). Young people can adopt externalising (acting out towards others) or internalising (negativity directed towards self) behaviour as a reaction to the difficulties they encounter. Research in the UK based on the Millennium Cohort Study data has confirmed an association between early-onset and stable externalising symptoms (conduct problems and hyperactivity/inattention) and antisocial behaviour and substance abuse among adolescents (Picoito et al., 2020). The authors noted that high levels of internalising behaviour from childhood to adolescence are also associated with behaviour and substance abuse problems (ibid.).

While much of the research has focused on negative or antisocial behaviour, some studies have considered prosocial behaviour; that is, positive interaction with other people (such as cooperation, helping, sharing, etc.) (Scourfield et al., 2004). In a study of twins, girls were found to be significantly more prosocial than boys, especially among older children, indicating increasing differentiation by gender as children grow older (ibid.). Prosocial behaviour among young people is associated with a variety of social and individual factors such as parental, peer and school characteristics (Silke et al., 2018; Lai et al., 2015). Research has also linked neighbourhood behavioural opportunities and social resources, such as neighbourhood cohesion, neighbourhood friendship and neighbourhood attachment, to the prosocial behaviour of adolescents. Higher levels of prosocial behaviour were found if young people perceived their neighbourhood as having more opportunities and social resources (Lenzi et al., 2012). The authors noted that this relationship was partially mediated by perceived social support from friends. While a full review of the literature is beyond the scope of this report, in the remainder of this section we present a selection of findings organised under the main areas of influence found to affect the behaviour of young people.

1.3.1 Individual factors: gender, special educational needs, migrant background

While youth behaviour has been linked to several individual factors, many studies highlight age as there is a greater prevalence of behavioural issues in the teenage years (Dishion and Dipsord, 2011; Johnston et al., 2016; Steinberg, 2013). Adolescence can be divided into three separate stages: early (10–13 years of age), middle (14–16) and late (17–19), reflecting the development of a young person. The early stages of adolescence are characterised by the start of physical maturation and the development of concrete thinking abilities. Young people start exploring decision-making opportunities and tend to place greater importance on peer relationships (ReCAPP, 2003). As the maturation process continues, young people move to more abstract thinking and develop reasoning skills. They also start developing a sense of identity, while peers continue to occupy an important part of their lives (Dishion and Dipsord, 2011). Middle to late adolescence also involves increased risk-taking (ReCAPP, 2003; Johnston et al., 2016; Steinberg, 2013). Research on adolescent behaviour has particular importance as some studies suggest that adult risk behaviour can be tracked back to adolescent risk behaviour that has carried into adulthood (Scholes-Balog et al., 2013; Stringaris et al., 2014).

Gender

Gender plays an important role in the behaviour of children and young people and in how they react to the difficulties they experience (McVie and Norris, 2006). Gender differences have been found in externalising behaviour (acting out or conduct difficulties) and internalising behaviour (mood difficulties) (Achenbach et al., 2002; Ortuño-Sierra et al., 2017). Externalising behaviour manifests itself in various 'acting out', rule-breaking and aggressive behaviours – often to cover up deeper feelings or issues young people experience, whereas internalising behaviour tends to be linked to anxiety, depression, sadness, and other affective symptoms (Achenbach et al., 2002; Decovic et al., 2004). In other words, males tend to be more likely to react to problems with aggression and poor conduct, while females tend to be more likely to react with depression and anxiety. Internalising behaviour has been shown to start manifesting itself at the age of 12 and tends to increase as teenagers get older, as shown by some cross-sectional studies (Zahn-Waxler et al., 2008; Costello et al., 2003).

In a longitudinal study of adolescent boys and girls between the ages of 11 and 14, Leadbeater et al. (1999) found that gender differences existed in vulnerabilities, risk factors and protective factors. In line with other studies, the authors found that internalising symptoms were more common for girls than boys.

The authors also found that somatic (mental disorder that manifests as physical symptoms) and emotional symptoms increased over time for girls whereas boys' symptoms decreased. While boys were more likely to report externalising

symptoms compared to girls, self-reported engagement in antisocial behaviour increased for both genders over time.

Schwab et al. (2018) found that boys show more non-compliant classroom behaviour than girls. Boys tend to be more prone than girls to relying on physical aggression if they are frustrated (Espelage and Swearer, 2004). Aggression in boys tends to be more noticeable, but girls may be aggressive in a different manner. Relational aggression in girls may include exclusion, 'silent treatment', gossip, belittling and conditional friendship (Spieker et al., 2012). Factors explaining gender differences in internalising and externalising behaviour have included the quality of relationships with parents, stress and interpersonal relationships (Leadbeater et al., 1999). Studies have also found a certain degree of overlap between externalising and internalising behaviour (Reitz et al., 2005).

Special educational needs

Special educational needs (SEN) can be considered a generic term capturing a range of diagnoses, covering developmental delays, medical, psychiatric, and congenital conditions, making children and young people with SEN a very diverse group (Dekker et al., 2002). Much of the literature focuses on student behaviour, which may be a result of their underlying conditions. Students with SEN have been found to show more negative social behaviour than students without SEN (Schwab et al., 2015). Similarly, children with disabilities have been found to exhibit more behaviour problems than those without, across different disability measures (Fauth et al., 2014). Problem behaviours have been found to occur three times more frequently in individuals with intellectual disabilities (ID) than in the general population (Dekker et al., 2002). Hyperactivity, attention deficit disorder (ADD), attention deficit hyperactivity disorder (ADHD) and conduct disorder (CD) may contribute to behaviour issues (Schwab et al., 2018; Oldfield et al., 2016; O'Leary, et al., 2011).

Children and young people with special needs may encounter various challenges in a school setting. As part of a larger longitudinal study of school climate involving elementary, middle, and high-school youth over a three-year period, Rose and Gage (2016) found that students with disabilities experienced greater rates of victimisation and engaged in higher levels of problem behaviour compared to their fellow students without disabilities; these differences remained consistent over time, in line with research by Chen et al. (2015). Several studies have found that children with SEN tended to feel less socially integrated, had fewer friends and displayed more loneliness and were more often segregated from classmates (Schwab et al., 2014). Children with long-standing limiting illness (LSLI) and SEN tend to show a greater increase in peer problems, hyperactivity, and emotional problems over time (Fauth et al., 2014). The authors also note that school environments may exacerbate behavioural problems for children with SEN if the school culture is not sufficiently supportive of them. Teachers' relationship with

SEN students can sometimes be challenging. Special-needs school teachers in Switzerland reported finding disruptive/antisocial behaviours, involving kicking, hitting and biting, highly stressful (Amstad and Müller, 2020). On the other hand, students with special needs may react to teacher stress and responses with challenging behaviour (French, 2019). The experiences with teachers and students may affect the disposition of these young people toward school. For example, in Ireland, children with SEN like school less than their peers without SEN in mainstream settings (McCoy and Banks, 2011).

Some studies have pointed towards gender differences; boys with SEN were more likely to show higher levels of negative behaviour compared to girls with SEN (Rose et al., 2013). In the same vein, girls with a disability, relative to boys, faced greater emotional problems and greater increases in them over time, in a UK study by Fauth et al. (2014). However, the authors note that the difference between children with and without disabilities was notably greater than that between girls and boys in general (ibid.).

Behaviour issues can have negative consequences for students with SEN. Horowitz et al. (2017) note that students with disabilities are more likely to be suspended from school compared to their peers without disabilities. The loss of learning time at school is likely to increase the risk of repeating a grade and/or dropping out. Young people with special needs are more likely to have unmet needs (either at school or at home), which, in part, may explain why they are more likely to be caught up in school disciplinary procedures (Department of Education, UK, 2016). Compared to other children, young people with disabilities are likely to face greater subsequent disadvantage and less favourable outcomes as adults (Lindstrom, 2011).

Migration background

Being from a migrant background has been found to impact on young people's behaviours. In exploring the experiences of Turkish migrant youth in the Netherlands, Van Oort and Mackenbach (2006) found that they have more mental health problems, especially emotional problems, than native Dutch adolescents. Migrant background is also likely to play a role in student behaviour, with particularly high stress and anxiety levels found among unaccompanied refugee children and adolescents living in Belgium (Derluyn and Broekaert, 2007). Many migrants experience acculturative stress or 'culture shock' in moving to a new country (Rogers-Sirin et al., 2014), which has been found to contribute to greater internalising difficulties among adolescents (Sirkin et al., 2013; Esmahan Belhadj et al., 2014), though this is likely to vary by country of origin, language and ethnicity. Some research evidence highlights differences in adjustment between national groups. Borraccino et al. (2018) found that immigrant young people from Eastern European and non-Western/non-European countries were more likely to report low life satisfaction compared to their native counterparts, with the difference

being larger for second-generation migrants.

Verhulp et al. (2013) note that immigrant adolescents are assumed to be at increased risk of internalising problems due to their migration history as well as the often adverse position of their families, including socialisation difficulties and racism and discrimination within the receiving society. However, initial adaptation difficulties are not the full explanation as internalising behaviour is, if anything, more evident among second-generation migrant youth (Ngyen et al., 2016; Montazer and Weaton, 2011). In terms of externalising behaviour, there is some evidence indicating sociocultural adaptation over time. For example, Borraccino et al. (2018) showed that, while first-generation migrants were more likely to be involved in bullying and fights, such behaviour decreased among second-generation migrants, independently of ethnic origin.

In their longitudinal study, Paalman et al. (2014) explored differences between native Dutch and immigrant Moroccan adolescents in the relationship between internalising and externalising problems over time. The authors found that the two behaviours can often co-occur. The authors argue that the increase of co-occurring problems may be a result of an increasing complexity of problems in Moroccans during adolescence. Adolescents with co-occurring externalising and internalising problems are likely to be at particular risk of demonstrating problems in various life domains, including school disengagement and aggressive behaviour, and may carry behavioural issues into adulthood (Paalman et al., 2014).

1.3.2 Contextual factors

Family context

Parents and guardians play an important role in shaping the attitudes and behaviour of young people. Factors that tend to have a negative impact on young people's behaviour include poor family connectedness and conflict; negative parental attitudes; and parents themselves exhibiting problem behaviour such as violence, lax supervision and poor communication (Russell, 2010; Gerard and Buehler, 1999; Bjarnason et al., 2011). Other predictors of problematic behaviour include parental depression, parental substance use, witnessing violence, and being the victim of abuse (Bielsa et al., 2010). Haskins and Jacobsen (2017) found that paternal incarceration has a significant impact on young people in terms of their problematic behaviour and their bond with school. A study by Smith (2004) showed that, at the age of 15, important factors in relation to school-based misbehaviour were parents' tracking and monitoring behaviour, the young person's willingness to disclose information, parental consistency, low parent-child conflict and harsh discipline.

Parenting and family functioning are influenced by the social context. Parents with poor resources and in deprived neighbourhoods have been found to face greater

difficulties in parenting effectively (Kipping et al., 2014). In some cases, family socio-economic background is seen to impact on the behaviour of young people. For example, a global meta-analysis by Piotrowska et al. (2015) found a strong link between low family socio-economic background and higher levels of misbehaviour. Family structure has also been found to be associated with a range of adolescent risk behaviours; those living in two-parent families are generally less likely to display problem behaviour (Levin et al., 2012) and more likely to report higher levels of life satisfaction than those living with a single parent or parent–step-parent (Bjarnason et al., 2011).

Peer networks and free time

The importance of peer effects for various outcomes is evident from the vast literature in this area. By the time young people reach adolescence, their friendship networks become more established and gain greater importance relative to reliance on parents as they place greater stock in the opinions and expectations of their friends (Brown and Larsson, 2009). A study in Australia (Gray et al., 2017) shows that, at the ages of 12–13 and 14–15, over 80 per cent of boys and girls reported having good friends who were seen as trustworthy, respecting their feelings and listening to them. These relationships have been shown to have a strong influence on the behaviour and development of young people (ibid.). A number of studies highlight the buffering nature of positive peer relations for young people facing a variety of life stressors, including difficult family situations and child maltreatment (Gray et al., 2018; Brown et al., 2008). Having friends with high levels of moral behaviour or a positive attitude towards school has been found to be associated with a lower likelihood of being a victim of bullying (Gray et al., 2017). Having a strong positive peer relationship is also important for later outcomes among young people, as demonstrated by a study in the US (see Narr et al., 2019) – people who had close friends during their teenage years tended to have higher levels of self-worth and lower levels of social anxiety and depression at age 25.

While friends can be a source of support and wellbeing, they can also have a negative impact and be a source of stress (Benner and Wang, 2016). Studies show that students who have difficulties in social relationships also tend to have a greater likelihood of developing internalising and externalising difficulties (Scott et al., 2011). Lack of social support from peers is a significant predictor for involvement in bullying (Rose et al., 2013). There also seems to be a gender dimension, with girls exhibiting higher rates of relational aggression towards peers compared to boys (French et al., 2002). In their study, Storch and Masia-Warner (2004) report that girls who experienced either just relational aggression or combined overt and relational aggression also had higher levels of social anxiety and loneliness. The authors also found that girls who received higher levels of support from peers were less likely to be anxious.

The types of peers (academic, sport-orientated, etc) and their associated behaviours are likely to shape young people's behaviour during adolescence (Brown et al., 2008). At the time of adolescence, peer hierarchies emerge; some groups or cliques have higher status than others and some young people are more popular than their classmates (ibid.). A longitudinal study of 10- to 14-year-olds by Cillessen and Mayeux (2004) distinguished between those whom other students rated as popular, who were generally prosocial, and those who described themselves as popular, who were more likely to engage in antisocial behaviour. The results of their study showed that, while the most popular boys tend to maintain their status by being friendly and exhibiting other prosocial behaviours, girls are more likely to resort to more negative approaches, including manipulation and other socially aggressive behaviours – a pattern also found by Gangel et al. (2017). The authors also highlight the role of aggressive and antisocial behaviour in obtaining social standing among peers, which may be reinforced by benefits accruing from the peer group. The longitudinal nature of the study demonstrated that highly dominant young people tend to maintain their status through physical and relational aggression. In other words, popularity tends to lead to increased aggression and 'manipulative social skilfulness' during adolescence (p.160). Belonging to certain friendship groups is important, as adolescents tend to display stability in the types of individuals and groups with whom they associate (Brown and Larsson, 2009).

Next to peer networks, the out-of-school activities young people engage in also have the capacity to impact on their behaviour. While a considerable amount of time is spent in school, attending classes and socialising with their peers, young people face decisions on how to spend their free time after school (Caldwell, 2005). Their choice of activities, structured or unstructured, can have a significant developmental impact (Duerden and Witt, 2010). Structured activities tend to be organized by adults and involve "constraints, rules, and goals" (Larson, 2000, p.174). In structured programmes, young people can develop new skills, establish positive relationships with peers and adults, show initiative (Larson, 2000) and develop a sense of identity (Barber et al., 2005). In fact, structured youth programmes are considered by some authors to be prime contexts for identity development (Coatsworth et al., 2005; Duerden, Taniguchi and Widmer, 2012). Studies have found that young people who engage in structured activities (e.g. sports, music, theatre, fine arts, clubs, youth programmes) are less likely to be involved in antisocial behaviour compared to those who spend their time "hanging out with their friends" (Mahoney and Stattin, 2000). Benefits in participating in structured activities in terms of behaviour held for both boys and girls, whereas unstructured involvement was associated with behaviour issues for boys, but not girls. However, the authors also note that young people can receive benefits from both structured and unstructured activities, arguing that not all structured activities facilitate youth development, and not all unstructured activities produce negative outcomes (Mahoney and Stattin, 2000). While the authors did not discuss time spent on structural activities, other studies highlight the importance of the

amount of time one is exposed to a setting (Wikström et al., 2012).

While not a focus of this study, social media has become an important part of the lives of young people, with an increase in access to digital devices and more time spent online (O'Neil and Dinh, 2015; Ofcom, 2019; Pew Research Centre, 2018). Young people themselves report both positive and negative effects of social media (Pew Research Centre, 2018). Communication with family and friends was seen as positive, whereas negative aspects included bullying, loss in meaningful human connections, distorted reality and giving young people unrealistic views of other people's lives. In Ireland, one in five children reported having been bothered by something on the internet over the past year, with 13 per cent of 13–14-year-olds saying that they had been bullied on a social networking site (O'Neill and Dinh, 2015). Longitudinal studies can disentangle the effects of engagement in social media net of other factors. Using Millennium Cohort Study data, Kelly et al. (2018) found higher rates of depressive symptoms among 14-year-olds who spend more than three hours per day on social media at this age, with stronger negative effects for females than males. The processes underlying this effect centred on poorer body image and self-esteem, poorer sleep and more exposure to online harassment among heavy online users. Using Understanding Society data, this group of authors (Booker et al., 2018) found that greater social media usage was linked to later increases in socio-emotional difficulties (measured using the Strengths and Difficulties total score) and declines in happiness among females (but not males).

School context

There has been a long-standing debate over the nature of school 'effects' on young people's student outcomes (for a broad overview, see Teddlie and Reynolds, 2000). The discussion has largely centred on whether any differences in outcomes found between schools reflect composition (that is, the characteristics of students that attend a particular school) or context (that is, the policies and practices operating in the school). Research has largely focused on academic achievement as an outcome (Teddlie and Reynolds, 2000) but studies that focus on behavioural outcomes, not surprisingly, tend to focus on the influence of schools on school-based misbehaviour.

Such misbehaviour is found to vary by individual characteristics. In general, boys are found to have higher levels of misbehaviour than girls, either on the basis of self or teacher reports (DiPrete and Jennings, 2012; Smith, 2006; Smyth, 2016). Levels of misbehaviour are also found to be higher for students from working-class backgrounds, and lone-parent and low-income households (Goodman and Gregg, 2010; Segal, 2008; Smith, 2006). A number of studies have indicated the effect of school composition, even controlling for individual social background. In the US context, schools with higher proportions of students from economically disadvantaged families are found to have more disruptive behaviour, all else being

equal (Arum and Velez, 2012) – a pattern also evident in Ireland among schools with a concentration of working-class students (Smyth, 2016). In Belgium, higher rates of antisocial behaviour have been found among primary school children who attend schools with a concentration of students from one-parent families (Pauwels and Svensson, 2015). Research has also indicated the impact of ethnic and/or immigrant composition, with high-minority schools having more disciplinary problems (Arum et al., 2012; Kelly, 2010).

School is one of the social contexts in which appropriate behaviour is defined and constructed by punishment and reward (Myhill and Jones, 2006). Schools adopt various measures to address student misbehaviour, ranging from initiatives which focus on reinforcing positive behaviour to ones that involve harsher punishment such as suspension or expulsion. School practices based on restorative justice principles have been found to be effective in engaging students and reducing misbehaviour (Skiba et al., 2016; McCluskey, 2018). Similarly, praise and positive feedback, including to parents, is associated with improved behaviour (Payne, 2015). Having a stricter approach to discipline is seen as effective if it is regarded by students as fair (Arum, 2005; Smyth, 1999; Way, 2011). Such an approach can also help the 'spill-over' from acting out in school to engaging in antisocial behaviour outside school (Zimmermann and Rees, 2014). In contrast, out-of-school suspension and expulsion emerge as risk factors for a range of negative developmental outcomes for young people (Skiba et al., 2014).

Several studies have emphasised the relational nature of school-based misbehaviour, with disruptive behaviour related more to the properties of specific school or classroom situations than to class or race *per se* (McFarland, 2001; Smyth, 2016). In Ireland, self-reported misbehaviour has been found to reflect school stage, peaking in the middle of junior cycle (lower secondary) and decreasing as young people approach the end of second-level education (Smyth, 2016). Perceived teacher support and a more general sense of school belonging among students have been found to be associated with lower levels of misconduct (Demanet, Van Houtte, 2012a; Smith, 2006). Similarly, a longitudinal study by Dornbusch et al. (2001) shows the positive influence of school attachment on the behaviour of all students. Liljeberg et al. (2011) note that poor school attachment (feelings about the school in general, rather than staff) and commitment (engagement in school work) as well as poor teacher attachment (relationship with teachers, feeling supported by them) were found to be stronger determinants of antisocial behaviour for males than for females. School bonding has also been found to have a protective effect by reducing prior levels of aggression and the influence of peers engaged in antisocial behaviour (Sprott et al., 2004). Broader aspects of school engagement can shape behaviour. Moore and colleagues' (2019) comprehensive review of the literature indicates that aspects of teaching and learning, such as relevance and perceived value of learning, can also influence student behaviour.

A young person's behaviour is also influenced by peer pressure at school (Gray and McLellan, 2006; Frosh et al., 2002). Having greater attachment to peers, especially in a context where a student believes that going against school norms increases their status, is linked to higher levels of misbehaviour (Bru, 2006; Demanet, Van Houtte, 2012b). This is a dynamic process, with students who lack a strong bond with school and teachers likely to associate with peers with similar behaviour traits (Demanet and van Houtte, 2012a). Bronfenbrenner (1979) proposes that, where young people are supported by trusted individuals in one setting, there is likely to be a positive spill-over for other settings. In this respect, positive interactions between young people and significant adults cannot be overestimated.

Relationship with teachers

The link between teacher-student relationships and students' behavioural outcomes is well established. A study in the UK found that having a positive relationship with a teacher around the age of 10-11 years old can markedly influence the development of prosocial behaviours (e.g. cooperation and altruism), as well as notably reduce problem classroom behaviours exhibited by aggression and oppositional behaviour (Obsuth et al., 2017). Students with positive attitudes towards their teacher were less likely to engage in oppositional behaviour. The benefits of positive teacher-student relationships were long-lasting, being evident four years later. The researchers found that the beneficial effect on behaviour was as strong, if not stronger, than that of established school-based intervention programmes such as counselling and other anti-bullying supports (ibid).

Schools where teacher expectations of children are low and students report less teacher support tend to have higher rates of self-reported misconduct (Demanent and van Houtte, 2012b). A longitudinal study of second-level students in Ireland showed that misbehaviour increased more among those who were frequently reprimanded by their teachers; students were particularly critical of punishment that was seen as inconsistent or unfair (Smyth, 2016). Teachers' broader support structures make a difference, with lower levels of teacher-reported misbehaviour in contexts where teachers feel supported by their school and feel confident in dealing with discipline (Wilkin et al., 2006).

Neighbourhood context

Research on neighbourhood effects faces the same challenges in disentangling the influence of neighbourhood composition from that of context, as is encountered in school effects studies (Galster, 2012). There are considerable challenges in identifying the true causal effects of neighbourhoods, with relatively little attention paid to selective residential mobility into and out of neighbourhoods (Van Ham et al., 2011; Lupton, 2006).

Nonetheless, a considerable body of research has indicated the impact of

neighbourhoods on the lives of their residents, over and above their individual characteristics (Van Ham et al., 2011). Neighbourhood-effects research on children and young people has tended to focus on antisocial behaviour as an outcome (dating back, at least, to Shaw and McKay, 1942), though the influence of place on children's socio-emotional wellbeing has been increasingly examined. Compared to children living in the most advantaged neighbourhood socio-economic quintiles, young people in the most disadvantaged neighbourhood quintiles in Australia were found to have significantly worse hyperactivity, emotional symptoms, and peer problems (Edwards, 2005; Edwards and Bromfeld, 2010). Poor neighbourhood quality (negative peer influences, crime, violence, and limited resources for youth) has also been found to account for variation in the school behaviour of young people (Bowen et al., 2002). In the same vein, Burdick-Will (2018) notes that exposure to local neighbourhood violence is associated with students' behaviour and engagement in the classroom. Children living in neighbourhoods with greater antisocial behaviour, irrespective of household income, are at risk of greater mental health problems and more externalising behaviour (Boyle et al., 2019). The authors note that children in poor households living in deprived neighbourhoods are doubly disadvantaged by the influence of both family and neighbourhood poverty.

Debate continues on the relative size of neighbourhood effects and on whether the schools young people attend have more influence on young people's behaviour than the neighbourhoods in which they live. In Scotland, McVie and Norris (2006) argue that, while negative neighbourhood characteristics (i.e. deprivation and crime) do play a role in influencing aspects of young people's delinquent and drug-using behaviour, this impact is relatively weak in comparison to the effect of individual characteristics, such as gender and personality. Only a relatively small number of studies have considered the relative impact of neighbourhood and school factors on adolescent behaviour, and the results are mixed. Pauwels et al. (2015) find no between-neighbourhood variation in violent offending when the school attended is taken into account. In contrast, Kim (2016) found that the neighbourhood effect on antisocial behaviour was two to three times larger than that of the school.

1.3.3 Protective factors – resilience in adolescence

The sections above have already referred to various individual and contextual factors that influence behaviour among young people. Research has also identified various factors that act as protectors against behaviour problems among children and adolescents. These include a supportive and nurturing family, a higher socio-economic background, positive support from friends and peers, involvement in various cultural and sporting activities, doing well in school, regular church attendance, positive relations with adults and general pro-social pastimes (Cattelino et al., 2014; Jain et al., 2012; Scheier et al., 1999; Vanderbilt-Adriance and Shaw, 2008).

Several studies have highlighted the importance of family as a protective factor in the outcomes of young people. A longitudinal study by Foster et al. (2017) found that young people who had a close relationship with their parents tended to have lower levels of depression, parent-reported conduct problems and higher self-esteem. Good communication within the family has been found to mitigate the effects of neighbourhood deprivation and disorder (such as gang presence and perceived neighbourhood toughness) on risky behaviour among urban minority youth (Scheier et al., 1999; Fagg et al., 2006), while sharing family dinners is associated with lower levels of aggressiveness among young people (Griffin et al., 2001). A good parent-school relationship and engagement of parents in their children's school life are also likely to act as protective factors (CDCP, 2012). In addition to the immediate family, connection and attachment to other significant adults (including teachers, club leaders and sports coaches) may also mitigate against behaviour issues, as they provide a link to participation in various social activities (Duerden et al., 2012).

School belonging – the belief held by students that adults and peers in the school care about their academic progress as well as about them as individuals – is another important protective factor (Kraft and Dougherty, 2013). A review of research has shown that young people who feel connected to their school are less likely to engage in many risk behaviours (Bowles and Scull, 2019). Positive peer group interactions more generally can also act as a buffer to behavioural problems (Gray et al., 2018). All these protective factors help to increase an individual's ability to avoid risks, and promote social and emotional competence in young people. Connectedness with family and peers is important as some research indicates that, for children with behaviour problems, social isolation can start as early as the age of five and be stable or even increase over time (Mathews et al., 2015).

1.3.4 Irish research

The research presented in this report builds upon a number of previous studies on the wellbeing of children and young people based on Growing Up in Ireland data. These studies have focused on a number of different aspects of wellbeing, including children with emotional behavioural difficulties in primary schools (Banks et al., 2012), teenage parenthood and child internalising and externalising problems (Brady et al., 2016), early life stress in migrant children (Cotter et al., 2019), family structure and child outcomes (Hannan and Halpin, 2014; Thornton, 2012), changes in the self-concept and risk of psychotic experiences in adolescence (Healy et al., 2019), the role of emotional and behavioural problems in educational outcomes (Layte and McCrory, 2013), the role of parent and peer relationships in adolescent wellbeing (McMahon et al., 2020), antisocial behaviour (Thornton and Williams, 2016), risky health behaviours (Nolan and Smyth, 2020) and the influence of school factors on wellbeing (Smyth, 2015). These studies have highlighted the centrality of school and family factors in a range of outcomes for children and

young people but few have focused on the influence of neighbourhood factors (Quail, 2010 being a notable exception).

As discussed earlier, a close and supportive family environment is an important influence on child outcomes and behaviour. Certain family characteristics, such as the level of primary caregiver education and having both parents in the household, tend to serve as protective factors for socio-emotional wellbeing, as measured by the Strengths and Difficulties Questionnaire (SDQ)[4] scores (Watson et al., 2014). Williams et al. (2009) show that there was a high degree of closeness between parents and their nine-year-old children, with the vast majority of children reporting getting on 'very well' with their parents. The study also explored discipline strategies used by parents, showing that the most frequently used strategy was 'discussing/explaining why the behaviour was wrong'. Drawing on responses from both the child's parent and teacher, the study showed that the informants rated boys as having more difficulties with conduct and hyperactivity while girls tended to display more emotional symptoms but also more prosocial behaviours. Teacher responses also referred to boys as having more peer relationship difficulties compared to girls at the age of nine. The study found that more serious forms of misbehaviour (such as 'often started fights or bullies, threatens or intimidates others') were relatively rare. While the majority of nine-year-olds were developing well without any significant social, emotional or behavioural problems, approximately 15 to 20 per cent of children were displaying significant levels of difficulty (Nixon, 2012). Such difficulties are likely to lead to misbehaviour. Discipline strategies used by their parents ranged from being sent to their rooms or grounded to, in a small number of cases, physical punishment (Harris et al., 2011).

International studies have explored the impact of neighbourhoods on the lives of young people (see above). When talking about the communities they live in, most Irish nine-year-olds indicated that they had a positive relationship with the people living around them (Harris et al., 2011). However, a small number of children argued that some people had a negative influence on their neighbourhood in terms of criminal activity or antisocial behaviour. Concerns were raised about gangs, people in their community being drunk, using drugs, guns and bullying. Intimidation by local teenagers was mostly raised by children in urban environments, but also by some in rural communities (ibid.).

Following the lives of this sample of nine-year-olds, Williams et al. (2018) looked at the prevalence of antisocial behaviour among these young people at 13; 17 per cent reported having hit, kicked or punched someone on purpose in order to hurt or injure them, 14 per cent had not paid the correct fare on a bus or train, and 14 per cent had taken money or something else that did not belong to them from

[4] The Strengths and Difficulties Questionnaire (SDQ) is a short behavioural screening questionnaire for children and young people.

home without permission. Boys were more likely than girls to engage in such behaviours (Williams et al., 2018). The study also explored misbehaviour at school, noting that 'messing' in class was the most common form of misbehaviour. Issues such as truancy (5.2% for boys and 4.4% for girls) and being suspended (4.3% for boys and 2.1% for girls) had been experienced by only a small number of 13-year-olds. Social, emotional and behaviour difficulties were found to be stable across time (from nine years to 13 years of age), with the absence of difficulties being also stable over time (Nixon, forthcoming 2021).

Exploring the lives of these same young people at the age of 17/18, McNamara et al. (2020) found that the majority felt positive about school; most (66%) liked school consistently from the age of nine onwards (p.15). However, the reports of young people varied by socio-economic background; those from more disadvantaged backgrounds were more likely to feel negative about school. Young people at 17/18 were reported as having relatively few socio-emotional difficulties (as measured by the SDQ total difficulties score). However, for those experiencing difficulties, risk factors included coming from low-income or lone-parent families. Socio-economic disadvantage also emerges as a factor in risky health behaviours such as drinking and smoking (Nolan and Smyth, 2020). McNamara et al. (2020) highlighted the importance of peer relationships, with young women more likely to report positive and trusting relationships. With regard to behaviour, the authors noted a persistence in antisocial behaviour (ASB) over time. They found that 45 per cent of those in the top quintile of ASB at age 13 were in the top quintile at 17/18 compared to 16 per cent of those not in the top quintile at age 13 (ibid.).

1.4 AIMS OF THE RESEARCH AND RESEARCH QUESTIONS

Considering international and national policy interest in adolescent behaviour, this study addresses a gap in research, taking a comprehensive look at the way different factors co-influence the behaviour of young people in Ireland across various social contexts. The study seeks to inform policy development in several areas by identifying protective factors in adolescent (mis)behaviour. This evidence base will enhance the potential to develop appropriate policy interventions at family, neighbourhood and school level to support positive youth development. Furthermore, it will provide insights for school practice and local services for young people. Considering the new wellbeing curriculum at junior cycle, the study is timely in providing evidence on the specific factors influencing an important dimension of youth wellbeing.

The study also contributes to the international and national literature on the factors influencing youth behaviour. Internationally, researchers have tended to focus on school or neighbourhood effects rather than looking at both simultaneously, with only a small number of exceptions (Sykes and Musterd, 2011; Pauwels et al., 2015; Kim, 2016). Furthermore, most studies have focused on

school misbehaviour or delinquency in the local neighbourhood rather than on both sets of behaviours (for exceptions, see Smith, 2006; Weerman et al., 2007). A detailed case-study in the Irish context highlights how offending behaviour among young people is shaped by, and located within, the neighbourhood in which they live (DCYA, 2016). However, there has been no large-scale Irish study of these issues and the potential of GUI for examining the contexts for adolescent behaviour has not been fully exploited (with the exception of cross-sectional analyses in Quail, 2010, and Smyth and Williams, 2016). This study builds upon existing research by taking a broad view of the processes and factors that are likely to influence (mis)behaviour among young people, looking at family, school and neighbourhood factors simultaneously, and taking a longitudinal perspective on young people over a crucial period of their development.

This study uses data from GUI Cohort '98 to unpack the risk and protective factors associated with behaviour at 9, 13 and 17[5] years of age. The study addresses the following research questions:

1. What patterns of (mis)behaviour are found among young people at 9, 13 and 17 years of age? To what extent do these patterns relate to differences in family resources, namely, social class, parental education and household income?
2. To what extent does adolescent behaviour reflect the social mix of the school, over and above the effects of individual family background (including parental education, income and social class)?
3. To what extent does adolescent behaviour reflect the social composition of the neighbourhood, over and above the effects of individual family background?
4. What family, peer, school and neighbourhood factors help to reduce the incidence of behaviour difficulties among young people?

1.5 DATA AND METHODOLOGY

1.5.1 Data

The GUI study was initially commissioned by the Department of Health and Children through the (then) Office of the Minister for Children, in association with the Department of Social Protection and the Central Statistics Office, and was the first nationally representative longitudinal study of children and young people in Ireland. The study follows two cohorts of children: a nine-month cohort (now termed Cohort '08) and a nine-year-old cohort (now termed Cohort '98). It was designed as a multidomain study, covering the key aspects of children's lives,

[5] One-fifth of the cohort was actually 18 years of age at the time of the wave three interview. However, for simplicity, the sample is referred to as 17-year-olds in the remainder of the report.

including physical health and development, socio-emotional wellbeing, and education and cognitive development, as well as collecting socio-demographic information on the family context.[6] The analyses presented in this report are based on the data collected from Cohort '98 at 9, 13 and 17 years of age.

Cohort '98 was comprised of 8,568 nine-year-old children and their families first surveyed between August 2007 and May 2008 (Thornton et al., 2010). Children were sampled on the basis of the primary school they attended when they were nine. A nationally representative sample of 1,105 schools was selected from the total of 3,326 primary schools in Ireland at that time. Just over 82 per cent of these (910 schools) were successfully recruited into the survey. The sample of children and their families was then randomly generated from within those schools. The response rate at the family level was 57 per cent. This cohort was followed up at 13 years of age, when 89 per cent of the eligible sample were interviewed. Wave three of the survey was conducted between April 2015 and August 2016 (when the young people were 17/18 years of age). A total of 6,216 young people and their families participated in wave three, giving a total response rate of 76 per cent; 81 per cent of those who took part in the wave two survey participated in wave three data collection (Murphy et al., 2019). Non-response and attrition are common issues for longitudinal studies; of particular concern is differential attrition as this may make it difficult to make inferences about specific groups in the population (Plewis, 2007). Analyses of attrition patterns at wave three indicate that non-response was more prevalent among more disadvantaged groups, in terms of household income, parental education and social class (Murphy et al., 2019). Weights were therefore used to adjust for differential non-response and attrition between the waves. Using weights will therefore correct for potential biases due to differential attrition across social groups.

In addition to information collected from the young people and their families, school principals were surveyed at each wave of the study to collect important contextual information on the school setting, including objective measures such as school size as well as perceptions of school facilities and school climate. Because young people in the sample were scattered across a large number of second-level schools, all second-level school principals were surveyed. This report draws on school information collected at wave two of the survey, when the young people were 13 years of age; such information was available on 94 per cent of the total sample.

1.5.2 Outcomes

The study adopts a broad and multidimensional approach to understanding adolescent behaviour, encompassing outcomes that capture behaviour within the family, school and community contexts. Six separate measures of behaviour are

[6] For Cohort '98, economic and civic participation was introduced as a theme at 17 years of age.

used. Internalising behaviour relates to mood or emotional difficulties; externalising behaviour relates to conduct ('acting out') and concentration difficulties, while prosocial behaviour reflects positive interaction with others. All three are based on reports from the primary caregiver (usually, the mother[7]) and are therefore likely to capture behaviour in the family or home context. Behaviour at school is captured using information on misbehaviour and on truancy, reported by the young person themselves. Antisocial behaviour is also based on the young person's report and is likely to reflect behaviour in the wider community (such as graffiti or damaging property), though some items may also capture behaviour at home or school (such as taking money or property without permission).

1.5.2.1 Measures of behaviour within the family/home

The Strengths and Difficulties Questionnaire (SDQ) is a brief screening questionnaire for emotional and behavioural problems in children and young people aged 4–17 years of age, which can be completed by parents, teachers and/or young people themselves (Goodman and Goodman, 2009). The 25 items form five subscales relating to emotional symptoms, conduct problems, hyperactivity, peer problems and prosocial behaviour. The four 'negative' subscales are frequently summed to create a total difficulty score. Researchers often combine the emotional and peer subscales into an internalising subscale and the conduct and hyperactivity subscales into an externalising subscale (Goodman et al., 2010). The internalising subscale reflects mood or emotional disturbance as well as difficulties interacting with peers, and is based on items such as 'often unhappy, downhearted or tearful' and 'rather solitary, tends to prefer to be alone'. The externalising subscale reflects 'acting out' in the form of aggression or impulsivity, and is based on items such as 'often has temper tantrums' and 'easily distracted, concentration wanders'. In contrast, prosocial behaviour captures more positive behaviour such as being 'considerate of other people's feelings'. The items are shown in Table A1. The internalising and externalising scales have possible ranges of 0 to 20, with higher scores indicating greater difficulties. The prosocial behaviour scale has a possible range of 0 to 10, with higher scores indicating more positive behaviour. In the GUI study, the SDQ was completed by the primary caregiver (hereafter termed the mother) at each wave from 9 to 17 years of age. These three measures are used to capture behaviour difficulties as well as positive behaviour in the family context.

1.5.2.2 Measures of behaviour at school

Day-to-day school-based misbehaviour was measured only at wave two (13 years of age) of the study and information on it was not collected at 17 years of age. Young people were asked about the frequency with which they engaged in different types of misbehaviour at school and received associated punishment, over the previous 12 months. The items included: being late for school; getting into

[7] The primary caregiver was the mother in 97 per cent of cases.

trouble for not following school rules; skipping classes or mitching; messing in class; having to do extra work as punishment; having to do detention; and being suspended from school. The potential responses were 'never', 'now and again', 'quite often' or 'all the time'. The items were combined into a scale (with a minimum value of 7 and a maximum value of 28) measuring overall misbehaviour. The only aspect of school misbehaviour included in the survey at 17 years of age related to whether the young person had skipped classes in the previous year (or the last year at school if they had already left). Because of small cell sizes, a binary measure of truancy was derived which indicated whether the young person had 'mitched' at 13 and/or 17.

1.5.2.3 Measures of behaviour in the broader community

At both 13 and 17 years, young people were asked to report the frequency with which they had engaged in a set of 17 different kinds of antisocial behaviour (with responses including 'never', 'once', '2-5 times' and '6 or more times'), using questions developed for the Edinburgh Study of Youth Transitions (Murphy et al., 2019). These ranged in seriousness from not paying the correct fare on a bus to kicking or punching someone to injure them. For the purposes of this study, the item on not paying the correct bus fare was excluded from the scale because it was quite common among 17-year-olds and appeared to capture a less serious form of behaviour. The other 15 items (excluding truancy, which was examined separately) were combined to give a scale of antisocial behaviour, taken to reflect behaviour in the community context (see Table A1 for the list of items). As a result of the exclusion of these two items, the patterns are slightly different from those presented in McNamara et al. (2020). The measure of prior antisocial behaviour (at 13) was based on 13 of the 14 items asked at that wave (excluding the bus fare item for comparability). Both measures have possible ranges of 15 to 60, with higher values indicating more antisocial behaviour.

1.5.3 Explanatory variables

1.5.3.1 Individual and family characteristics

Gender was a key variable in the analyses, given the marked gender differences in different forms of behaviour found in previous research (see Section 1.3). The study adopted a multidimensional approach to measuring family background. Parental social class was measured using the Irish Census classification. Categories ranged from 'professional' to 'semi/unskilled manual'. In addition, a 'never employed' category was used for those without the necessary employment history to assign them to a social class. Maternal education ranged from those with Junior Certificate (lower secondary) or lower qualifications to those with a postgraduate degree. Income was based on equivalised household income divided into quintiles (fifths). All three variables were based on measures collected at age nine, to allow for the effects of earlier family resources to be identified. To allow for fluctuations in living standards in subsequent waves, especially over the course of the

recession, binary variables distinguishing those who had difficulty or great difficulty in making ends meet were derived for waves two and three. This allowed for the identification of families who were not initially on low incomes but over time came under financial strain because of the last recession or other factors.

The analyses distinguished between those living in a lone- or two-parent household at age nine and those who moved from a two- to a lone-parent household by ages 13 or 17.[8] A family was defined as being an immigrant family if both parents had been born outside Ireland or, in the case of lone-parent families, if that parent had been born outside Ireland. Young people with a special educational need or disability were distinguished on the basis of the mother's report at age 13; this group encompassed a range of needs, including physical or sensory disability, learning difficulties, ASD, and speech and language difficulties. In order to examine whether family difficulties could influence young people's behaviour, measures of parental chronic illness (at wave one) and parental depression (at all three waves) were used for both mothers and fathers. The measure of parental depression was based on being above the designated threshold of the Center for Epidemiological Studies Depression (CES-D) Scale.

1.5.3.2 School characteristics

A central focus of the study is on the social contexts within which young people potentially 'act out'; that is, their families, schools and neighbourhoods. In particular, the focus is on the potential influence of attending a school and living in a neighbourhood with a concentration of disadvantage. Almost all (99%) of the 13-year-olds were in second-level education at the time of the wave two interview. School social mix at second level is identified on the basis of DEIS status[9] and, at the other end of the spectrum, whether the school is fee-paying. DEIS status has been successfully used as a proxy for school social mix in a number of previous studies using GUI and other data (see, for example, McCoy et al., 2014; Smyth, 2019). Because of the complexity of need within Urban Band 1 DEIS primary schools,[10] those who had attended such schools are separately identified in the analyses. Among the sample, 17 per cent were in DEIS schools, 7 per cent in fee-paying schools and 74 per cent in other non-DEIS schools. The analyses control for two other second-level school characteristics that have been previously found to

[8] The analyses did not look at movement from a one-parent to a two-parent family; this affects a relatively small number of the cohort and is less common than movement from a two- to one-parent family (see McNamara et al., 2020).

[9] The Delivering Equality of Opportunity in Schools (DEIS) programme provides additional supports and resources for primary and second-level schools that cater for a concentration of students from disadvantaged backgrounds.

[10] At second level, there is a binary distinction between DEIS and non-DEIS schools. However, for primary schools, the distinction is between Urban Band 1, Urban Band 2 and Rural DEIS schools, with Urban Band 1 schools having the most disadvantaged student profile.

influence student outcomes: school size and gender mix.[11]

Because GUI is an age-based rather than stage-based study, the analyses control for young people's educational stage. At the time of the wave three survey, just under a third (32%) were in fifth year (the second-last year of secondary education), just over half (51%) were in the Leaving Certificate year (the sixth or final year of secondary education) while 17 per cent had already left school.

1.5.3.3 Neighbourhood characteristics

In wave one of the GUI study, the area in which the child's family lived was assigned to the appropriate Electoral Division (ED) and Census Small Area Population Statistics (SAPS) on the characteristics of that area were matched to the data. For the purposes of this study, the neighbourhood profile has been identified using a methodology developed by Quail (2010) which involved using the SAPS measures of advantage/disadvantage (namely: percentage unemployed, percentage of lone parents and percentage with low levels of education) and constructing an index (in quartiles) ranging from 'most advantaged' to 'most disadvantaged'. A limitation is that EDs (of which there are 3,440 in Ireland) may not be coterminous with the neighbourhood boundaries as defined by young people and their families. For this reason, this objective information is supplemented by parent-reported measures of difficulties in the neighbourhood (using a scale measuring perceived disorder in the local area) and concerns about local gang activity. The analyses also control for population density, with areas grouped into large urban, other urban, small town and rural. As objective neighbourhood characteristics were captured at wave one only, the analyses also control for whether young people and their families had moved home since wave one of the study. Mobility is included as a control variable and should not be interpreted in substantive terms as it reflects two processes which cannot be disentangled here – the characteristics of the new neighbourhood and the potential disruption to the young person caused by moving area.

1.5.3.4 Risk and protective factors

Protective factors are independent variables that can have their own direct effects on behaviour but can also influence the relation between risk factors and behaviour (Fergusson et al., 2007). Risk and protective factors are grouped into family relationships, peer relationships, school and neighbourhood factors. For the most part, these measures are captured at 13 years of age to allow us to distinguish prior influences on subsequent behavioural outcomes at 17. Using measures of these factors at 17 would make it harder to distinguish whether, for example, conduct difficulties reflected or exacerbated conflict with parents.

[11] Other characteristics, such as sector, affect the governance and funding of second-level schools (Darmody and Smyth, 2013) but have not been found to affect student outcomes when school composition is taken into account (Smyth, 1999).

Two subscales of the Pianta (1992) Child-Parent Relationship Scale are used as a measure of the quality of parent-child relationships at waves one and two (9 and 13). These capture positive feelings or closeness and negative feelings or conflict between the young person and their parents, as reported by parents. Measures for both mothers and fathers (where present)[12] are used to examine whether any differential effects are present. The Stattin and Kerr (2000) monitoring and disclosure measures reflect, respectively, parental monitoring of, and control over, young people's behaviour, and the openness with which young people talk to their parents about their activities. As with the Pianta measure, measures for both parents are used (where available) to examine potential differential effects.

Peer characteristics are based on the size of the friendship network as reported by the 13-year-old. They were also asked how many of their friends were two or more years older than them; here we distinguish those who 'mainly' associated with older friends, as this has been found to be associated with risky behaviour (Nolan and Smyth, 2020). Two subscales of the Inventory of Parent and Peer Attachment (IPPA) are analysed: the degree of mutual understanding with, and respect for, peers (the trust scale), and feelings of anger towards and interpersonal alienation from peers (the alienation scale) (Armsden and Greenberg, 1987).

Relationships with teachers are measured on the basis of the 13-year-old's report of the frequency of positive interaction (such as praise) and negative interaction (being given out to). These scales have been found to be highly predictive of academic and non-academic outcomes in previous research (see, for example, Smyth et al., 2011). Because of previous research showing greater misbehaviour in lower-streamed classes (Smyth et al., 2006), we distinguish between parent-reported base class at 13 (mixed ability, higher stream or middle/lower stream/special class).[13] The frequency of use of different discipline measures, as reported by the principal, was combined to give a scale on the school disciplinary climate, with a high score indicating that the school used disciplinary measures more frequently. The analyses control for prior reading achievement (Drumcondra test score at age 9). Since young people may have different experiences even within the same school, we examine the extent to which these school factors are mediated by engagement. The measures used are attitudes to school at age 13, to reflect general engagement in school, and interest in Maths, chosen because attitudes to (and performance in) Maths tend to be shaped more strongly by the school context than attitudes to English or other subjects (Teddlie and Reynolds, 2000). In addition, self-reported Junior Certificate grade point average is used as a measure of achievement.

Previous research has indicated the importance of 'one good adult' in young

[12] Where fathers are absent, the values are set to the mean as setting them as missing would exclude all of those in lone-parent families.
[13] The latter group had to be combined because of small numbers.

people's wellbeing (Dooley and Fitzgerald, 2019). Seventeen-year-olds were asked whether they had an adult they could talk to if they had problems. This variable is included among neighbourhood factors for analytical purposes but it should be noted that this adult could be a family member or a teacher as well as someone in the broader community. Mothers were asked whether there were facilities for teenagers locally and whether there was a safe place for teenagers to hang out; these are used as measures of local provision for young people. School provision of extracurricular sport and cultural activities was based on the principal report. In addition, 13-year-olds were asked whether they were involved in structured sport (as part of an organised team or with a coach/instructor), unstructured sport (without a coach or instructor) and cultural activities (dance, drama or music lessons).

1.5.4 Analytical approach

1.5.4.1 Behaviour or behaviours?

Six measures of behaviour are considered in this study, encompassing behaviour at home, school and in the community, and drawing on parent and young person reports. How to present the findings of these analyses must be guided by the extent to which these measures can be seen as capturing the same kinds of behaviour. Tables 1.1 and 1.2 show the correlation between different types of behaviour at 17 and at 13 respectively. Pearson's correlation values range from 0, where there is no relationship between two variables, to 1, where two variables are perfectly related. As a rule of thumb, values of 0.7 to 0.9 can be viewed as strong, 0.4 to 0.6 as moderate and 0.1 to 0.3 as weak. The first result to note is that, perhaps surprisingly, there are no strong correlations between the different measures of behaviour at either age. In other words, there is no evidence that young people with particular behaviour difficulties in one domain consistently have similar difficulties in other domains at the same point in time. The strongest relationships found were between school-based misbehaviour and antisocial behaviour at 13 and between externalising and internalising behaviour at both 13 and 17. Even so, these relationships are moderate in size; for example, only 19 per cent of the variation in antisocial behaviour at 13 could be explained by school misbehaviour.[14] There were also moderate relationships between externalising behaviour in the family domain and school misbehaviour, and a negative relationship between externalising difficulties and prosocial behaviour. Prosocial behaviour was also less common among those with internalising difficulties, but this relationship was weak in scale. Truancy was correlated (but weakly so) with school misbehaviour and with antisocial behaviour.

Table 1.3 shows that, looked at longitudinally, there was both stability and change in behaviour between the ages of nine, 13 and 17. In general, behaviour at 17 was more strongly related to behaviour at 13 than to that at nine years of age. The

[14] The proportion of variance explained can be derived by squaring the correlation coefficient.

greatest stability was found for externalising difficulties, where difficulties at 13 accounted for 41 per cent of the variation in difficulties at 17. This degree of stability and change has also been identified in analyses of SDQ total difficulties scores, with only 3 per cent of the sample scoring in the 'problematic' category at all three waves (Growing Up in Ireland Study Team, 2016). The weakest relationship was found for antisocial behaviour, with such behaviour at 13 only slightly predictive of such behaviour four years later. In terms of implications for supports, the correlation analysis shows that early behaviour difficulties are a signal of likelihood of later difficulties but that, for many young people, such behaviour difficulties are temporary in nature.

TABLE 1.1 PEARSON'S CORRELATION OF MEASURES OF BEHAVIOUR AT 17

	Antisocial behaviour	Externalising	Internalising
Antisocial behaviour			
Externalising difficulties	0.198***		
Internalising difficulties	-0.015	0.373***	
Prosocial behaviour	-0.127***	-0.350***	-0.181***

*Note: *** p<.001.*

TABLE 1.2 PEARSON'S CORRELATION OF MEASURES OF BEHAVIOUR AT 13

	Antisocial behaviour	Externalising	Internalising	Prosocial	Misbehaviour
Antisocial behaviour					
Externalising difficulties	0.156***				
Internalising difficulties	-0.013	*0.401****			
Prosocial behaviour	-0.091***	-0.373***	-0.171***		
School-based misbehaviour	*0.439****	0.303***	0.008	-0.184***	
Truancy	0.266***	0.137***	0.053***	-0.084***	0.340***

*Note: *** p<.001.*

TABLE 1.3 PEARSON'S CORRELATION OF LONGITUDINAL MEASURES OF BEHAVIOUR

	Antisocial behaviour at 17	Externalising at 17	Internalising at 17	Prosocial at 17
Measure at wave one (9 years)	-	0.522***	*0.421****	0.362***
Measure at wave two (13 years)	0.283***	*0.644****	*0.517****	*0.452****

*Note: *** p<.001. Moderate correlations are highlighted in italics.*

This evidence that behaviour difficulties in one context are not necessarily manifest in another context guides the analytical strategy used in the remainder of the report. Because the behaviours are not highly correlated, analyses are grouped into sections relating to behaviour at home (externalising, internalising and prosocial behaviour), behaviour at school (school-based misbehaviour and truancy) and behaviour in the neighbourhood/community (antisocial behaviour) in Chapters 2 to 5. Chapter 5 provides insights into the factors that are associated with increasing or decreasing behaviour difficulties over time by including measures of the relevant behaviour at age 9 and 13 (where available).

1.5.4.2 Identifying school and neighbourhood effects

A long-standing issue in understanding the effects of social contexts is the risk of an 'ecological fallacy' (Robinson, 1950); that is, conflating characteristics and relationships between factors at area and individual level. Multilevel modelling can be used to distinguish the effects of composition from context (Goldstein, 2003). In other words, are antisocial behaviour levels greater in more disadvantaged neighbourhoods solely because of the profile of families living there? Or is there an additional effect that comes from living in a disadvantaged neighbourhood?

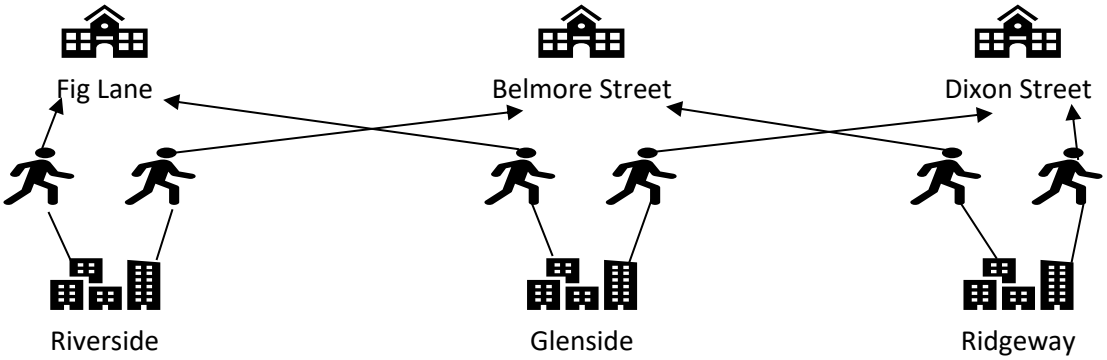
For GUI Cohort '98, nine-year-old children were sampled within a set of schools selected to be representative of the total population of primary schools (see above). Traditional regression techniques have involved the assumption that there is no autocorrelation within the data; that is, that students represent independent observations, rather than being clustered within schools. However, it cannot be assumed that students in the same school are completely 'independent' of each other in this way. Groups rarely form at random and, once formed, the members of a group interact with each other to create even greater homogeneity (Jones, 1992). Using traditional regression procedures will therefore increase the risks of finding differences and relationships where none exist (Goldstein, 2003). In contrast to regression procedures, multilevel modelling techniques take the clustering of individuals within groups into account (Goldstein, 2003). Such models provide more precise estimates of the effects of school (or neighbourhood) characteristics on the outcomes considered.

Generally, multilevel models rely on a straightforward nesting of individuals within larger groups (such as neighbourhoods or schools). If, for example, each neighbourhood has two schools and all young people attend a local school, then there is a straightforward nesting of students (level 1) within schools (level 2) within neighbourhoods (level 3). However, social relationships are rarely that clear-cut (Fielding and Goldstein, 2006). In educational systems like that in Ireland, school choice patterns mean that many young people do not attend their nearest second-level school. Research from the 1990s and early 2000s indicates that around half of second-level students in Ireland do not attend their nearest or most accessible school (Hannan et al., 1996; Smyth et al., 2004). There is no comparable

recent information on these patterns. However, GUI data suggest a similar picture of young people travelling further afield for second-level than for primary education, with the proportion living eight kilometres or more from their school increasing from 7 per cent to 28 per cent between the ages of 9 and 13 years (authors' own calculations).

This degree of school choice means there is no simple mapping between the neighbourhood in which young people live and the school they attend. Figure 1.1 shows a hypothetical scenario illustrating the complexity of potential moves between neighbourhoods and schools. Belmore Street, for example, attracts only students from outside the local area of Glenside. One of the students from Riverside attends a local school (Fig Lane) while the other attends Belmore Street in Glenside. Schools are therefore not 'nested' within neighbourhoods in the way assumed by conventional multilevel techniques. Instead, cross-classified multilevel models are needed to disentangle the relative effects of school and neighbourhood. These models allow for two higher-level groups (or contexts) – school and neighbourhoods – and estimate the extent to which variation in the outcome is attributable to each setting (Fielding and Goldstein, 2006; Leckie and Bell, 2013). Taking account of this clustering also provides more accurate estimates of school and neighbourhood factors.

FIGURE 1.1: CROSS-CLASSIFIED STRUCTURE OF YOUNG PEOPLE'S MOVEMENTS BETWEEN SCHOOL AND NEIGHBOURHOOD



Cross-classified multilevel models produce two sets of estimates: fixed effects, which can be interpreted in the same way as traditional regression coefficients, that is, as representing the relationship between an explanatory variable and the outcome of interest; and random effects, that is, estimates of the degree of variation between schools and between neighbourhoods when other factors are taken into account. Section 1.5.4.3 provides further details on the modelling strategy used for this report as a guide to the reader on the analyses that follow. Analyses presented in this report were carried out using the MLWin computer package developed in the Institute of Education, University of London (see Rasbash et al., 2012). The number of young people per second-level school ranged from 1 to 49 while the number per neighbourhood (electoral division) ranged from 1 to

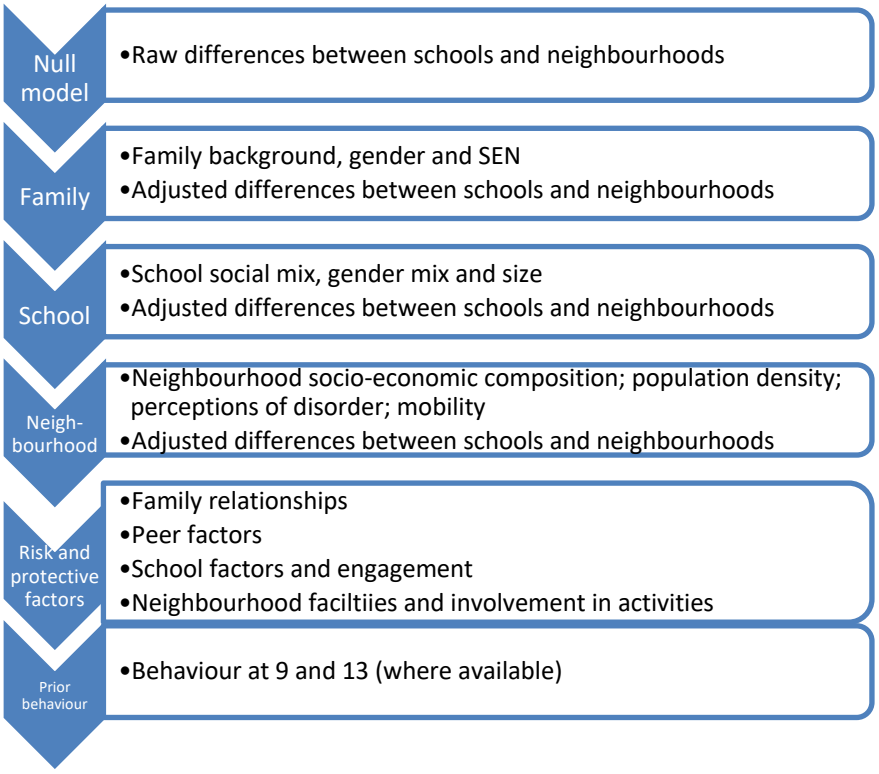
over 3,000. Where there are fewer students per school, MLWin shrinks the estimates of higher-level residuals to the population mean. As a result, the estimates of school and neighbourhood effects should be interpreted as lower-bound estimates since having more observations (young people) per school would likely increase between-school variation.

1.5.4.3 Modelling strategy

Section 1.5.3 described the explanatory variables used in the analyses. Each chapter begins by providing descriptive statistics on the behaviour outcomes by gender and social background. A sequential approach was adopted to modelling the behaviour outcomes (see Figure 1.2). An empty or null model allows us to estimate the difference between schools and neighbourhoods; these results are reported in Chapters 3 and 4 respectively. Individual and family characteristics are the first block of factors entered. The relationship between these characteristics and behaviour is reported in Chapter 2. Taking account of these factors allows for identification of the extent of difference in behaviour between schools that is not due to the profile of students that attend them (Chapter 3). The next block of factors relates to school characteristics; neighbourhood characteristics are then included in the model (see Chapter 4). The last set of models relates to risk and protective factors (see Chapter 5). The four sets of factors – family, peer, school and neighbourhood – are considered separately to provide a clearer picture of their relationship with behaviour. All individual, family, school and neighbourhood characteristics are taken into account in considering the influence of risk and protective factors. As a final test, measures of prior behaviour (where available) are entered into the model: firstly, to assess whether the protective factors continue to have an effect net of earlier behaviour; secondly, to examine the influence of earlier behaviour on later outcomes.

Analyses were based on the 5,937 young people who had participated in all three waves of the study and for whom information was available on the school they attended at 13 years of age and the neighbourhood they lived in at nine years of age. In the analyses, continuous explanatory variables are centred on their mean values so that the coefficient reflects an increase of one standard deviation in the factor of interest. Only descriptive and multivariate results that are statistically significant at the $p<.05$ level are reported in the text, unless otherwise specified.

FIGURE 1.2: ORDER IN WHICH VARIABLES ARE ENTERED IN THE CROSS-CLASSIFIED MULTILEVEL MODELS



1.6 OUTLINE OF THE REPORT

Chapter 2 looks at the influence of family characteristics on adolescent behaviour at home, at school and in the community, presenting both descriptive and cross-classified multilevel analyses. Chapter 3 examines the influence of school factors while Chapter 4 explores neighbourhood characteristics. Chapter 5 seeks to identify risk and protective factors in influencing adolescent behaviour. Chapter 6 presents a summary of the main findings and discusses the potential implications for policy development.

CHAPTER 2

Family background and adolescent behaviour

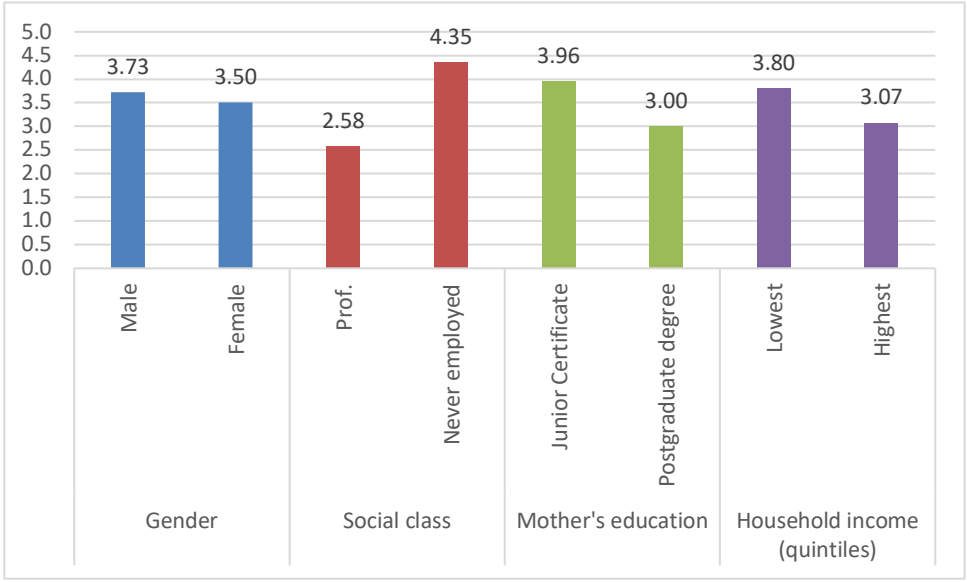
2.1 INTRODUCTION

Before looking at the social mix of the school young people attend and the neighbourhood in which they live, it is useful to examine the resources possessed by their families in terms of social class, parental education and income, as well as other key socio-demographic factors. Gender differences are also analysed as an important source of variation in adolescent behaviour. Each section of this chapter begins by providing descriptive information before presenting the results of cross-classified models modelling the individual and family background factors associated with different types of adolescent behaviour. Reflecting the distinction developed in Chapter 1, types of behaviour are grouped into those reflected in the family context or the private domain (externalising, internalising and prosocial behaviour), the school context (school-based misbehaviour and truancy) and the community context (antisocial behaviour).

2.2 BACKGROUND FACTORS AND BEHAVIOUR IN THE FAMILY CONTEXT

2.2.1 Externalising behaviour

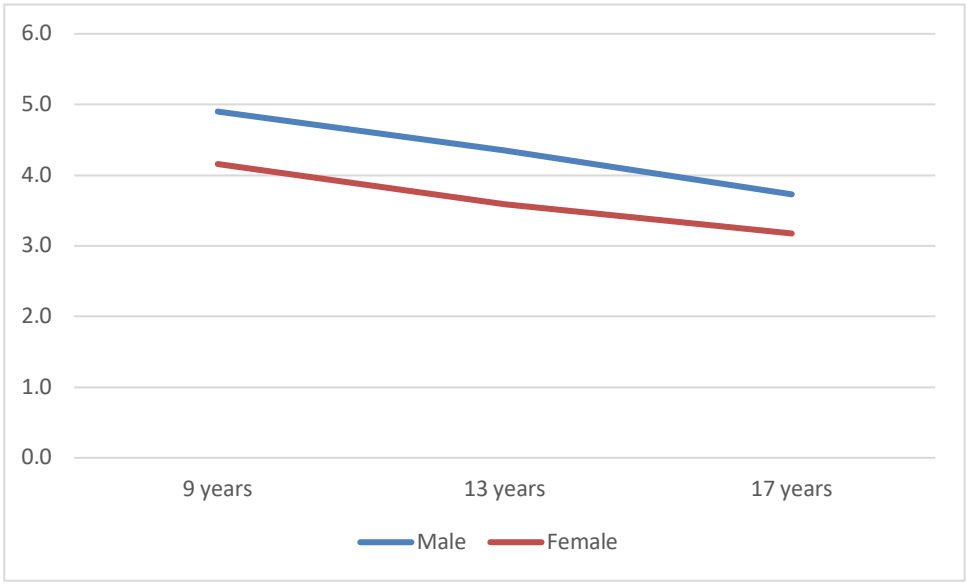
FIGURE 2.1: MEAN SDQ EXTERNALISING BEHAVIOUR AT 17 BY GENDER AND FAMILY BACKGROUND



Overall, 17-year-olds tended to have a low level of externalising difficulties, with a mean of 3.5 out of a maximum of 20. Figure 2.1 shows average levels by gender and family background measured at age 17. Externalising behaviour was somewhat more prevalent among young men than young women and was higher among those from lower-income and less educated families. The largest background difference was between those from professional families and those from families

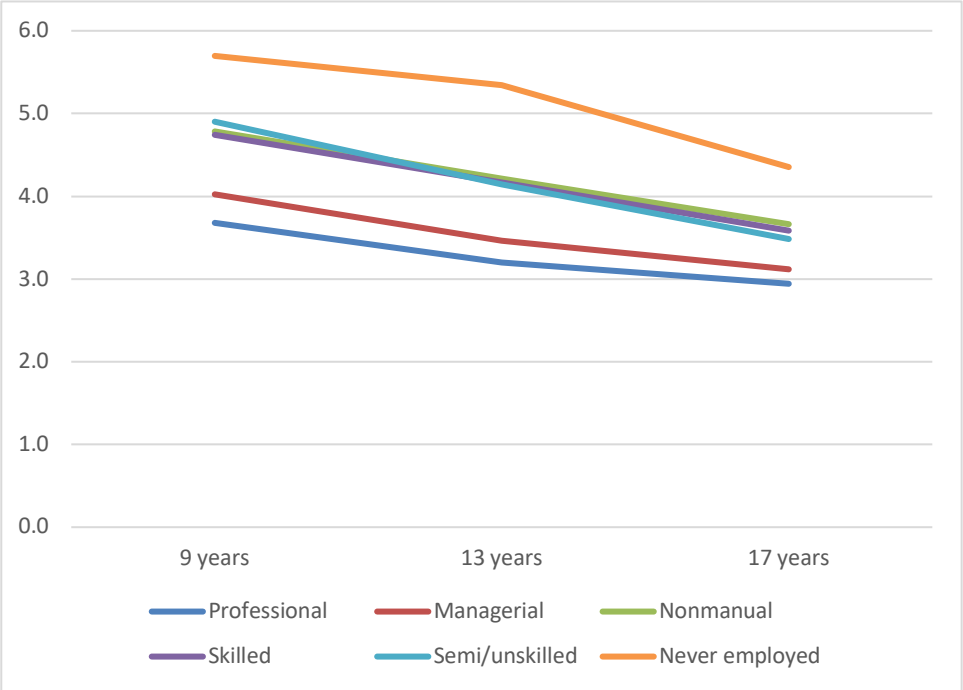
where the parents were never employed; this gap was sizeable, amounting to over half a standard deviation.

FIGURE 2.2: MEAN SDQ EXTERNALISING BEHAVIOUR BY GENDER BETWEEN 9 AND 17 YEARS OF AGE



This gender difference in externalising behaviour was broadly stable between nine and 13 years of age (Figure 2.2). For both males and females, the prevalence of externalising difficulties declined significantly between nine and 13 and again between 13 and 17. Each of the social class groups experienced a significant decline in externalising difficulties over time (Figure 2.3). At all ages, the greatest difficulties were found among those from never-employed households, with fewer difficulties in the professional and managerial groups. The social class gap widened somewhat between nine and 13 before decreasing slightly by 17 years of age.

FIGURE 2.3: MEAN SDQ EXTERNALISING BEHAVIOUR BY SOCIAL CLASS BETWEEN 9 AND 13 YEARS OF AGE



Cross-classified multilevel models allow us to look at which of the individual and family characteristics have the strongest association with externalising behaviour (Tables 2.1 to 2.5). These models treat young people as clustered within schools and neighbourhoods. The between-school variation is not presented in these tables but is examined in Chapters 3 and 4.

In keeping with the descriptive analyses, young women had lower levels of externalising difficulties, a pattern that held even taking account of family circumstances (Table 2.1). Among the measures of family resources, maternal education emerged as the strongest driver, with lower levels of difficulties among young people from graduate families.[15] Social class did not have a significant impact when other factors such as education and income were taken into account because of its overlap with these other dimensions of background. Income *per se* did not have an effect but externalising behaviour was more prevalent in families that experienced difficulty or great difficulty in making ends meet at waves two and three of the survey (as the country moved into recession). Even taking account of family economic and educational resources, young people living in lone-parent families had higher levels of externalising difficulties. Family separation (that is, moving from a two-parent family to a lone-parent family) between nine and 13 or 13 and 17 was also associated with increased externalising behaviour. Young people from a migrant background did not differ from their peers in levels of externalising behaviour. However, young people with a special educational need had higher scores on externalising behaviour than other young people, with a large

[15] Additional analyses (not presented here) indicated that the relationship between family resources and the six types of behaviour did not vary by gender.

gap of 1.3 points (over a third of a standard deviation). It should be noted that this group of young people is quite diverse so externalising behaviour may be more prevalent for those with particular conditions or disabilities.

TABLE 2.1 CROSS-CLASSIFIED MULTILEVEL MODEL OF SDQ EXTERNALISING SCORE AT 17 (WITH YOUNG PEOPLE CLUSTERED WITHIN SECOND-LEVEL SCHOOLS AND NEIGHBOURHOODS)

Characteristic	Coefficient
Constant	2.976
Female (Ref.: male)	-0.547***
Social class:	
Professional	0.033
Managerial	0.101
Nonmanual	0.198
Skilled	0.157
Non-employed (Ref. Semi/unskilled manual)	0.272
Mother's education:	
Leaving Certificate	-0.310**
Post-secondary	-0.376**
Degree	-0.542***
Postgraduate degree (Ref.: Junior Certificate)	-0.441**
Household equivalised income:	
2nd	-0.108
3rd	0.177±
4th	0.015
Highest (Ref.: Lowest quintile)	0.145
Experienced financial strain at 13	0.294**
Experienced financial strain at 17	0.312**
Lone parent family at 9	0.634***
Moved from two- to lone-parent family	0.532***
Migrant background	0.066
Special educational need	1.313***
Mother has chronic illness at 9	0.062
Father has chronic illness at 9	0.254*
Maternal depression at 9	0.258±
Maternal depression at 13	0.677***
Maternal depression at 17	0.631***
Paternal depression at 9	0.104
Paternal depression at 13	-0.013
Paternal depression at 17	0.422*
N	5,937
% variance explained at the individual level	7.0

*Note: *** p<.001; ** p<.01; * p<.05; ± p<.10.*

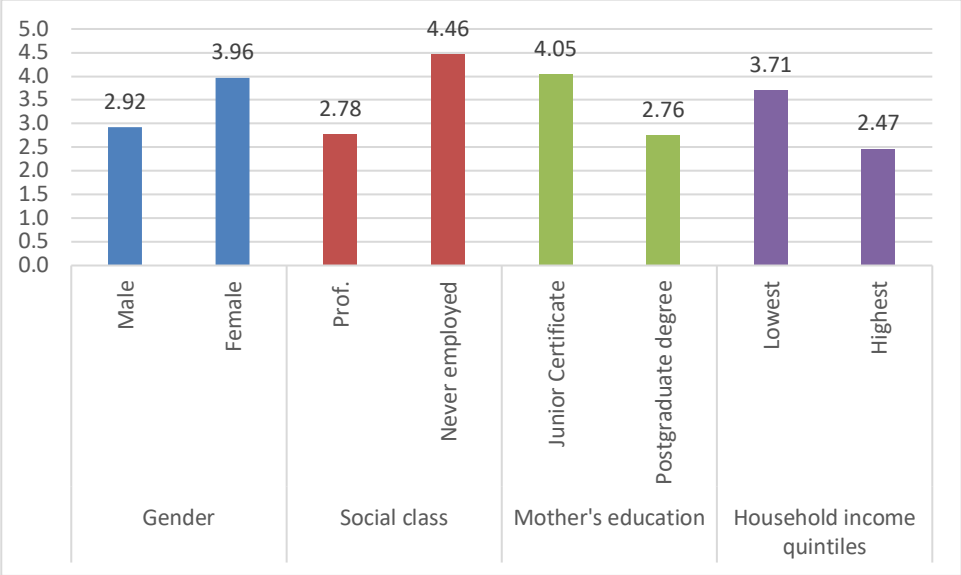
Parental health was found to make a difference, with significantly higher levels of externalising behaviour where mothers were at or above the 'depressed' threshold on the CES-D (at any wave of the survey) and where fathers were depressed (when

the young person was 17).[16] Paternal chronic illness was associated with higher levels of externalising behaviour but no significant difference was found for maternal chronic illness.

As a measure of the strength of the relationship between family factors and externalising behaviour, the proportion of variance explained at the individual level is reported in Table 2.1. Seven per cent of the variation in externalising behaviour is related to gender, SEN and family background factors.

2.2.2 Internalising behaviour

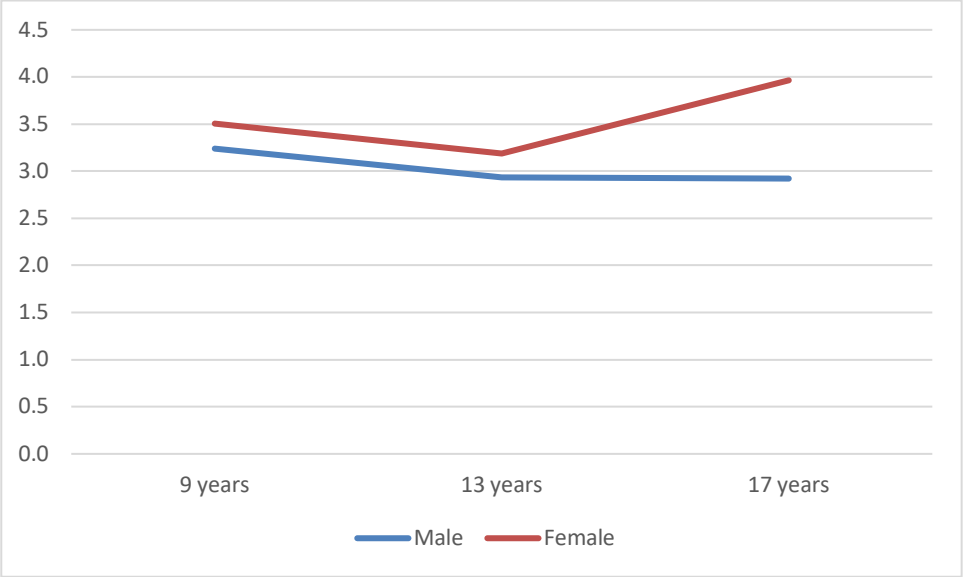
FIGURE 2.4: MEAN SDQ INTERNALISING BEHAVIOUR AT 17 BY GENDER AND FAMILY BACKGROUND



As with externalising difficulties, 17-year-olds tended to have a low level of internalising behaviour, with a mean of 3.4 out of a maximum of 20. In contrast with externalising behaviour, internalising difficulties were more prevalent among young women than young men (Figure 2.4). These difficulties were also socially differentiated, being greater among those from low-income and less educated households as well as those whose parents were never in paid employment.

[16] It should be noted that there is potential reverse causality using measures of parental depression at 17; parental depression may partially reflect 'acting out' on the part of the young person as well as influencing the young person's behaviour.

FIGURE 2.5: MEAN SDQ INTERNALISING BEHAVIOUR BY GENDER BETWEEN 9 AND 17 YEARS OF AGE



The longitudinal development of internalising behaviour was highly gendered (Figure 2.5). Internalising behaviour for both males and females declined significantly between nine and 13 years of age; thereafter, levels were largely stable for males and increased significantly for females, resulting in a sizeable gender gap by 17 years of age. As with externalising behaviour, at all ages, the greatest difficulties were found among those from never-employed households, with fewer difficulties in the professional and managerial groups (Figure 2.6). The social class gap remained broadly stable or decreased slightly between nine and 13 before increasing slightly by 17 years of age. Further analysis (not shown here) indicates that the increase in internalising behaviour for females between 13 and 17 years of age is evident in all the social class groups.

FIGURE 2.6: MEAN SDQ INTERNALISING BEHAVIOUR BY SOCIAL CLASS BETWEEN 9 AND 13 YEARS OF AGE

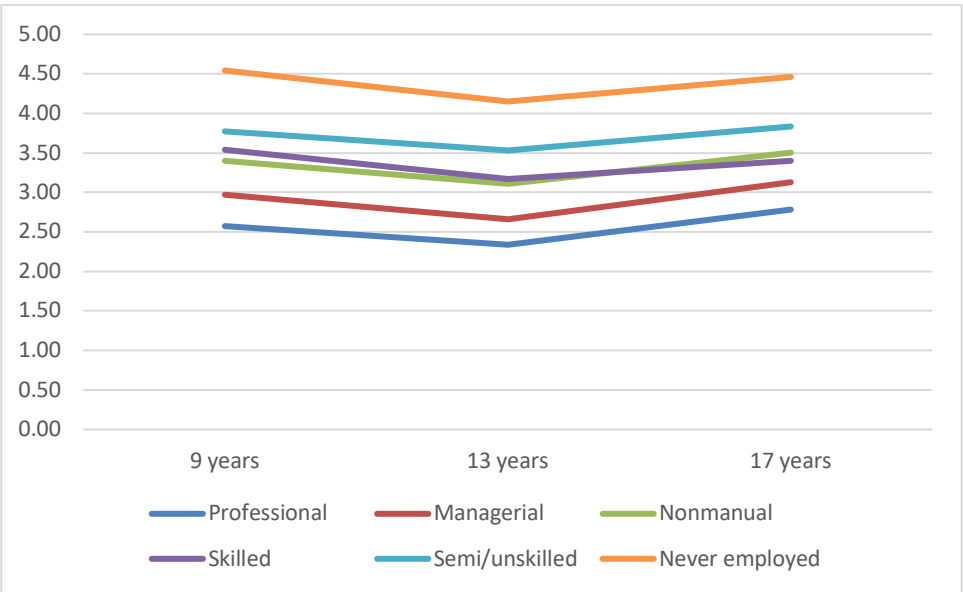


TABLE 2.2 CROSS-CLASSIFIED MULTILEVEL MODEL OF SDQ INTERNALISING SCORE AT 17 (WITH YOUNG PEOPLE CLUSTERED WITHIN SECOND-LEVEL SCHOOLS AND NEIGHBOURHOODS)

Characteristic	Coefficient
Constant	2.179
Female (Ref.: male)	1.086***
Social class:	
Professional	-0.029
Managerial	0.030
Nonmanual	0.007
Skilled	-0.154
Non-employed (Ref. Semi/unskilled manual)	0.168
Mother's education:	
Leaving Certificate	-0.233*
Post-secondary	-0.325**
Degree	-0.489**
Postgraduate degree (Ref.: Junior Certificate)	-0.443**
Household equivalised income:	
2nd	0.107
3rd	0.209*
4th	0.210*
Highest (Ref.: Lowest quintile)	0.082
Experienced financial strain at 13	0.559***
Experienced financial strain at 17	0.401***
Lone parent family at 9	0.513***
Moved from two- to lone-parent family	0.368**
Migrant background	0.262*
Special educational need	1.164***
Mother has chronic illness at 9	0.239*
Father has chronic illness at 9	0.275*
Maternal depression at 9	0.626***
Maternal depression at 13	0.487***
Maternal depression at 17	0.850***
Paternal depression at 9	0.246
Paternal depression at 13	0.175
Paternal depression at 17	0.334*
N	5,937
% variance explained at the individual level	8.7

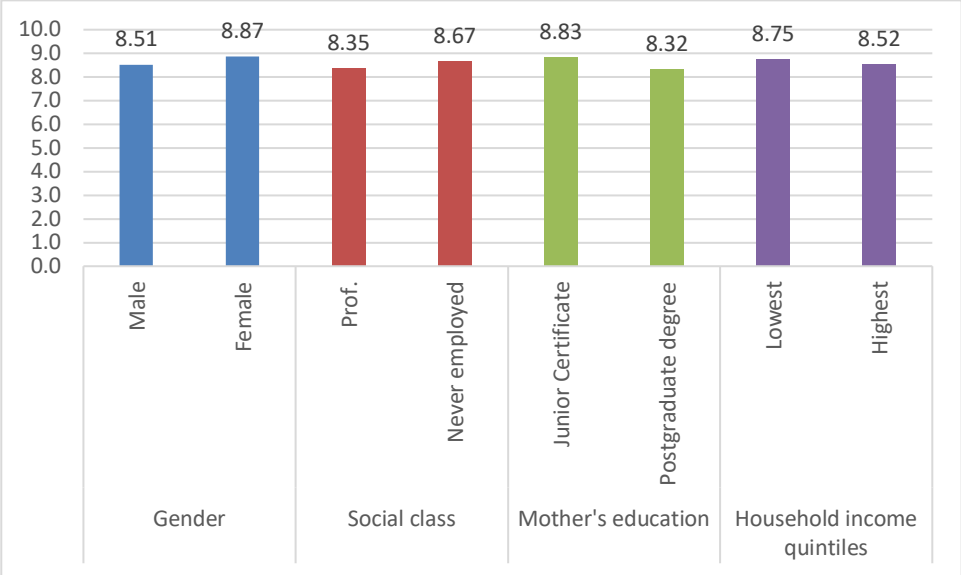
*Note: *** p<.001; ** p<.01; * p<.05; ± p<.10.*

In keeping with the descriptive analyses, multivariate models show a sizeable gender gap in internalising behaviour at 17 years of age – around a third of a standard deviation (Table 2.2). As with externalising behaviour, maternal education emerged as a stronger influence than social class or household income, though financial strain did contribute significantly to internalising difficulties. Difficulties were greater among young people in lone-parent families or families who had experienced separation/divorce between survey waves. There was a sizeable gap between those with a SEN and their peers; as with gender, this gap was around a third of a standard deviation. Young people of migrant origin had slightly greater internalising difficulties than others; this difference was statistically

significant but small in size. Difficulties tended to be greater for young people whose mothers had a chronic illness or experience of depression. They were also greater where fathers had a chronic illness, but the relationship between paternal depression and internalising behaviour was significant only for depression at wave three. Just under nine per cent of the variation in individual internalising behaviour was explained by gender, SEN and family background characteristics.

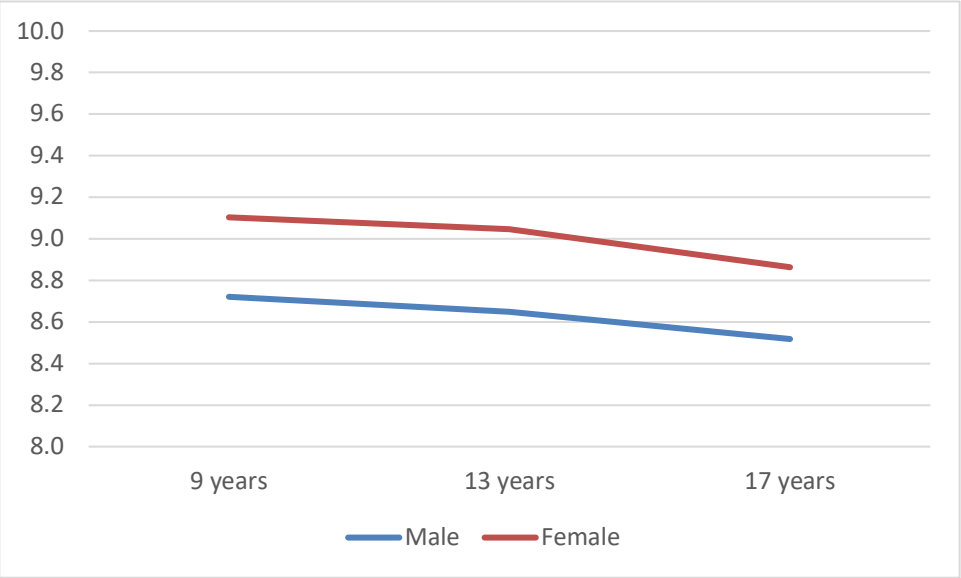
2.2.3 Prosocial behaviour

FIGURE 2.7: MEAN SDQ PROSOCIAL BEHAVIOUR BY GENDER AND FAMILY BACKGROUND



In contrast to internalising and externalising behaviour, prosocial behaviour represents a positive measure of young people's socio-emotional development. Scores were generally high, with a mean of 8.7 out of 10. Differences by gender and social background were modest in size (though statistically significant), with somewhat higher scores among females and those from less advantaged backgrounds (in terms of social class, education and income).

FIGURE 2.8: MEAN SDQ PROSOCIAL BEHAVIOUR BY GENDER BETWEEN 9 AND 17 YEARS OF AGE



The slight gender difference found at 17 was also evident at both nine and 13 years of age (Figure 2.8). For both males and females, prosocial behaviour declined very slightly between nine and 13 and again between 13 and 17. A pattern of slight decline over time was evident across all social classes; the exception was the professional group where there was a somewhat larger decline between 13 and 17, resulting in a larger gap by social class at age 17 than previously. The potential factors underlying this pattern will be examined in the chapters that follow.

FIGURE 2.6: MEAN SDQ PROSOCIAL BEHAVIOUR BY SOCIAL CLASS BETWEEN 9 AND 13 YEARS OF AGE

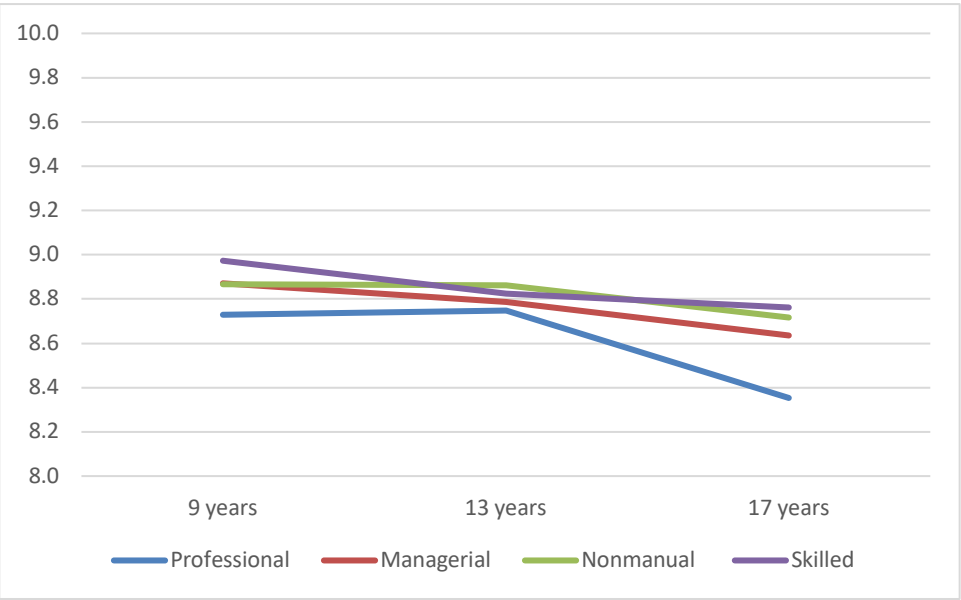


TABLE 2.3 CROSS-CLASSIFIED MULTILEVEL MODEL OF SDQ PROSOCIAL SCORE AT 17 (WITH YOUNG PEOPLE CLUSTERED WITHIN SECOND-LEVEL SCHOOLS AND NEIGHBOURHOODS)

Characteristic	Coefficient
Constant	8.899
Female (Ref.: male)	0.366***
Social class:	
Professional	-0.205*
Managerial	-0.142±
Nonmanual	-0.051
Skilled	-0.145
Non-employed (Ref. Semi/unskilled manual)	-0.092
Mother's education:	
Leaving Certificate	-0.111±
Post-secondary	-0.166*
Degree	-0.270**
Postgraduate degree (Ref.: Junior Certificate)	-0.251**
Household equivalised income:	
2nd	0.072
3rd	-0.108±
4th	0.019
Highest (Ref.: Lowest quintile)	-0.123*
Experienced financial strain at 13	-0.030
Experienced financial strain at 17	-0.093±
Lone parent family at 9	-0.163*
Moved from two- to lone-parent family	-0.189*
Migrant background	0.034
Special educational need	-0.099*
Mother has chronic illness at 9	0.101±
Father has chronic illness at 9	-0.034
Maternal depression at 9	-0.224**
Maternal depression at 13	-0.094
Maternal depression at 17	-0.111±
Paternal depression at 9	-0.078
Paternal depression at 13	-0.245
Paternal depression at 17	-0.078*
N	5,937
% variance explained at the individual level	0.9

*Note: *** p<.001; ** p<.01; * p<.05; ± p<.10.*

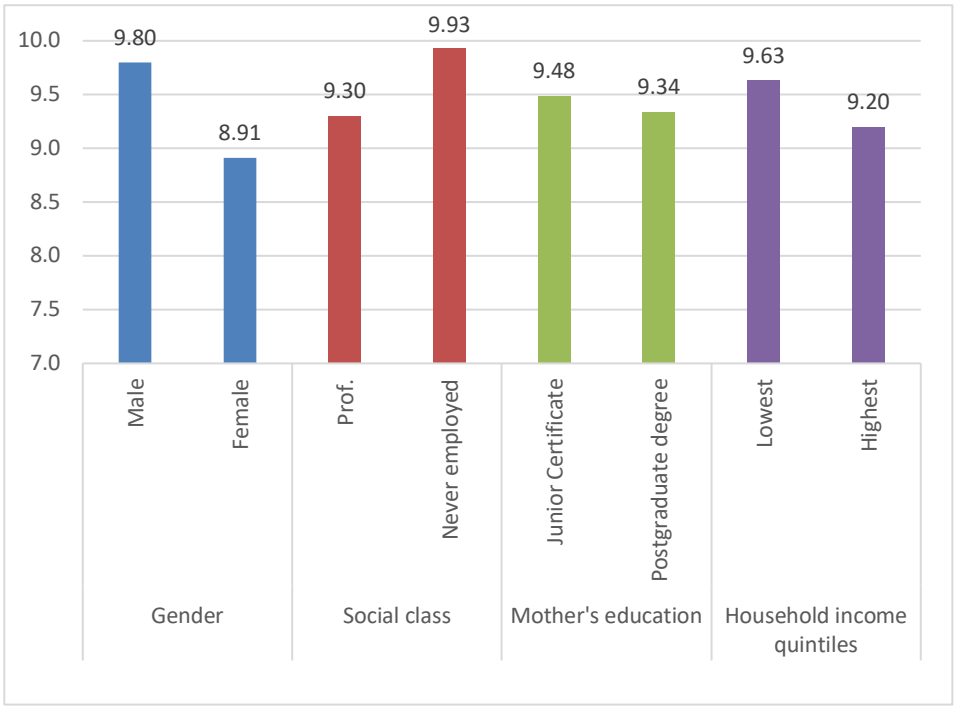
Multivariate models show that females displayed significantly more prosocial behaviour than males at 17 years of age (Table 2.3). The degree of variation in prosocial behaviour by family background was relatively modest. Somewhat lower levels of prosocial behaviour were found among those from more advantaged families (professional, graduate and/or higher income). Levels of prosocial behaviour were found to be lower among young people in families that were or became lone-parent households. Levels of prosocial behaviour were lower among those with a SEN but the difference was smaller in scale than for internalising and externalising behaviour. Prosocial behaviour was also less common where there was early maternal depression (at age 9) or current paternal depression (at age

17). Just under 1 per cent of variation in prosocial behaviour was related to gender, SEN and family background – much lower than for internalising and externalising behaviour.

2.3 BACKGROUND FACTORS AND BEHAVIOUR IN THE SCHOOL CONTEXT

As discussed in Chapter 1, two measures of school-based misbehaviour were available from GUI: self-reported misbehaviour at school at age 13 and whether the young person had truanted from school (at 13 and/or 17).

FIGURE 2.10: MEAN SELF-REPORTED SCHOOL MISBEHAVIOUR BY GENDER AND FAMILY BACKGROUND[17]



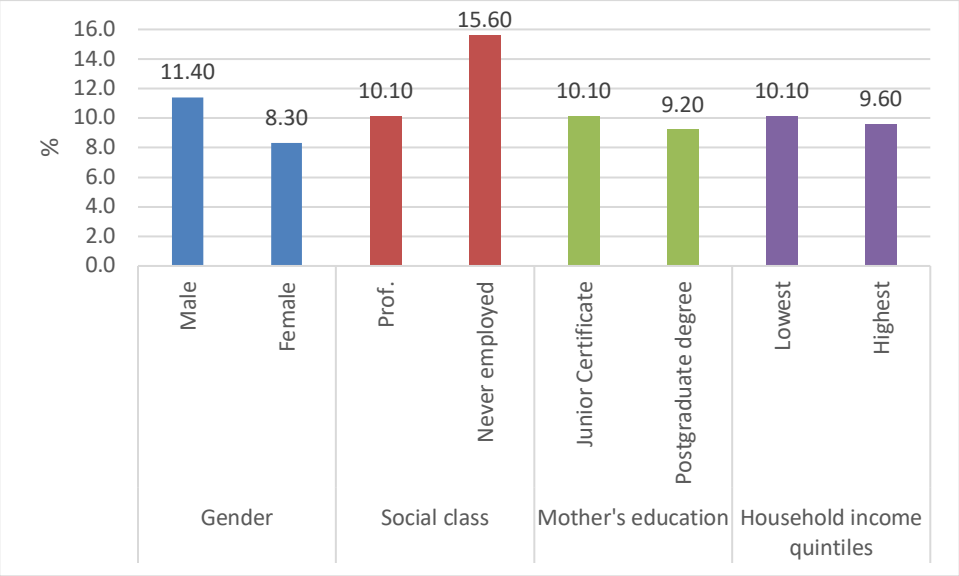
There was a sizeable gender gap in self-reported misbehaviour (almost half a standard deviation), with higher levels among males (Figure 2.10). There was a significant gap in misbehaviour by social class – those from never-employed families had the highest levels – and, to a certain extent, by household income. However, variation by maternal education was modest in scale.

Levels of self-reported truancy were relatively low, at 10 per cent for the total group (Figure 2.11). There was a sizeable gap – over 2 percentage points – by gender and a very large gap (over 5 percentage points) between the professional and the never-employed groups. Variation by maternal education and income was

[17] It should be noted that Figure 2.10 is scaled differently because the minimum value is seven (with a maximum value of 28).

not as marked as for social class, but nonetheless sizeable, at least for education.

FIGURE 2.11: PROPORTION WHO HAD TRUANTED AT 13 AND/OR 17 YEARS OF AGE BY GENDER AND FAMILY BACKGROUND



Tables 2.4a shows the cross-classified multilevel model for misbehaviour while Table 2.4b shows the model for truancy. Truancy is a binary variable so the coefficients presented are in the form of odds ratios; values above one indicate that the explanatory variable is associated with higher levels of truancy while values below one indicate that the factor is related to lower truancy levels. In keeping with the descriptive patterns, young women had significantly lower levels of misbehaviour and truancy than young men. Female truancy was only just over half that of male truancy levels. There was relatively little systematic variation by the three dimensions of family resources, though experience of financial strain was associated with higher levels of misbehaviour. Both misbehaviour and truancy were more common among those from lone-parent or separated families, with significant and sizeable differences evident. For example, levels of truancy were 1.7 times higher among those from a lone-parent family than for those from a two-parent family, even taking account of income, education, social class and financial strain.

TABLE 2.4A CROSS-CLASSIFIED MULTILEVEL MODELS OF SELF-REPORTED MISBEHAVIOUR AT 13 (WITH YOUNG PEOPLE CLUSTERED WITHIN SECOND-LEVEL SCHOOLS AND NEIGHBOURHOODS)

Characteristic	Coefficient
Constant	9.760
Female (Ref.: male)	-0.935***
Social class:	
Professional	0.030
Managerial	-0.112
Nonmanual	-0.083
Skilled	-0.224*
Non-employed (Ref. Semi/unskilled manual)	-0.124
Mother's education:	
Leaving Certificate	-0.172*
Post-secondary	-0.015
Degree	-0.060
Postgraduate degree (Ref.: Junior Certificate)	0.055
Household equivalised income:	
2nd	-0.134±
3rd	-0.112
4th	-0.114
Highest (Ref.: Lowest quintile)	-0.114
Experienced financial strain at 13	0.168*
Lone parent family at 9	0.684***
Moved from two- to lone-parent family	0.502***
Migrant background	-0.123
Special educational need	0.166*
Mother has chronic illness at 9	-0.166
Father has chronic illness at 9	0.017
Maternal depression at 9	-0.075
Maternal depression at 13	0.338
Paternal depression at 9	-0.021
Paternal depression at 13	-0.036
N	5,875
% variation explained at the individual level	3.2

*Note: *** p<.001; ** p<.01; * p<.05; ± p<.10.*

TABLE 2.4B CROSS-CLASSIFIED MULTILEVEL MODELS OF TRUANCY (AT 13/17) (WITH YOUNG PEOPLE CLUSTERED WITHIN SECOND-LEVEL SCHOOLS AND NEIGHBOURHOODS): ODDS RATIOS

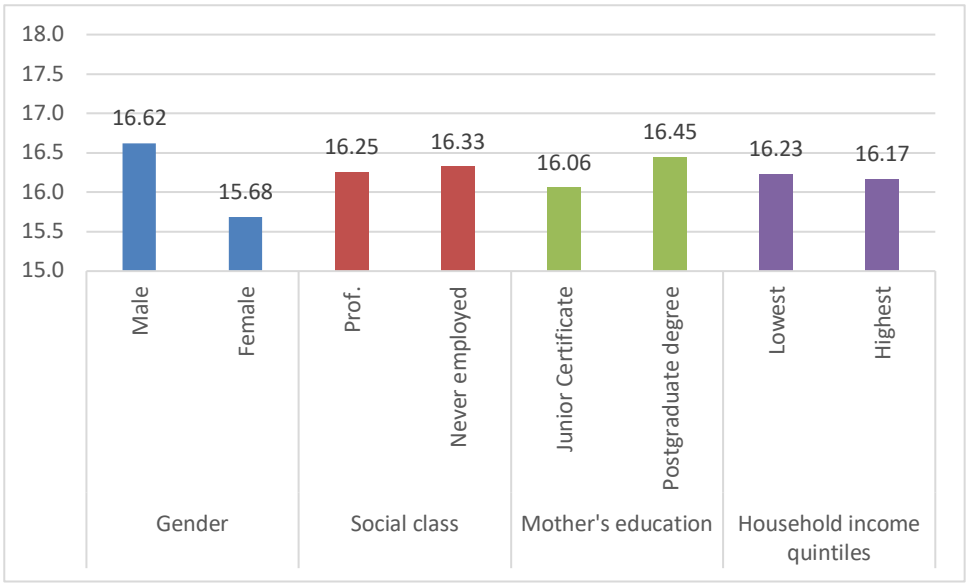
Characteristic	Coefficient (odds ratios)
Constant	0.094
Female (Ref.: male)	0.574***
Social class:	
Professional	0.846
Managerial	0.934
Nonmanual	0.801
Skilled	0.760
Non-employed (Ref. Semi/unskilled manual)	1.265
Mother's education:	
Leaving Certificate	0.882
Post-secondary	0.848
Degree	1.016
Postgraduate degree (Ref.: Junior Certificate)	0.931
Household equivalised income:	
2nd	1.214
3rd	1.087
4th	1.368*
Highest (Ref.: Lowest quintile)	1.207
Experienced financial strain at 13	1.175
Lone parent family at 9	1.730***
Moved from two- to lone-parent family	1.859***
Migrant background	0.547**
Special educational need	1.223*
Mother has chronic illness at 9	0.931
Father has chronic illness at 9	1.149
Maternal depression at 9	1.232
Maternal depression at 13	1.265±
Paternal depression at 9	1.141
Paternal depression at 13	0.712
N	5,935

*Note: *** p<.001; ** p<.01; * p<.05; ± p<.10.*

Misbehaviour and truancy were also more common among young people with a special educational need. Migrant students did not differ in their levels of misbehaviour but had significantly lower truancy levels – just over half those of young people whose parents were born in Ireland. School-related behaviour (misbehaviour or truancy) was not systematically associated with parental illness or depression. Gender, SEN and family background accounted for 3 per cent of the variation in school-based misbehaviour. For multilevel logistic regression models, the proportion of variance explained cannot be calculated in the same way.

2.4 BACKGROUND FACTORS AND BEHAVIOUR IN THE COMMUNITY CONTEXT

FIGURE 2.12: MEAN ANTISOCIAL BEHAVIOUR AT 17 BY GENDER AND FAMILY BACKGROUND[18]



Rates of antisocial behaviour at 17 were much higher among males than females, with a difference of over a third of a standard deviation (Figure 2.12); this is the equivalent of males, on average, committing one more act of antisocial behaviour than females. In contrast, differences by social class or household income were not significant, while variation by maternal education was significant but small and, contrary to expectations, higher among more advantaged groups (those with graduate mothers). Levels of antisocial behaviour had increased somewhat between 13 and 17 years of age (from 14.9 to 16.2), with differences by gender and maternal education remaining stable (not shown here).

Multivariate models show that the descriptive differences found by maternal education were not significant when other dimensions of family background and the clustering of young people within schools and neighbourhoods were taken into account (Table 2.5). Only a few factors were significantly related to levels of antisocial behaviour, with higher rates among males, those from lone-parent or separated families and those with a special educational need. Overall, only 2 per cent of the variation in antisocial behaviour was related to gender, SEN and family background characteristics.

[18] It should be noted that Figure 2.12 is scaled differently because the minimum value for the antisocial behaviour measure is 15 (with a maximum value of 60) (see Chapter 1).

TABLE 2.5 CROSS-CLASSIFIED MULTILEVEL MODEL OF ANTISOCIAL BEHAVIOUR AT 17 (WITH YOUNG PEOPLE CLUSTERED WITHIN SECOND-LEVEL SCHOOLS AND NEIGHBOURHOODS)

Characteristic	Coefficient
Constant	16.401
Female (Ref.: male)	-0.946***
Social class:	
Professional	0.047
Managerial	0.068
Nonmanual	0.072
Skilled	0.038
Non-employed (Ref. Semi/unskilled manual)	0.077
Mother's education:	
Leaving Certificate	-0.061
Post-secondary	0.016
Degree	0.103
Postgraduate degree (Ref.: Junior Certificate)	0.146
Household equivalised income:	
2nd	-0.120
3rd	0.016
4th	0.032
Highest (Ref.: Lowest quintile)	-0.028
Experienced financial strain at 13	0.075
Experienced financial strain at 17	0.083
Lone parent family at 9	0.306**
Moved from two- to lone-parent family	0.300***
Migrant background	0.019
Special educational need	0.164*
Mother has chronic illness at 9	-0.069
Father has chronic illness at 9	-0.004
Maternal depression at 9	-0.058
Maternal depression at 13	0.204
Maternal depression at 17	0.006
Paternal depression at 9	0.097
Paternal depression at 13	0.018
Paternal depression at 17	0.000
N	5,888
% variance explained at the individual level	2.1

*Note: *** p<.001; ** p<.01; * p<.05; ± p<.10.*

2.5 CONCLUSIONS

This chapter has explored variation in six dimensions of adolescent behaviour by gender, family resources and other socio-demographic characteristics. The analyses show some commonality but also important differences in the factors associated with behaviour difficulties across different domains. Young women were less likely than young men of similar backgrounds to 'act out' at home, school or in the community, with significantly lower levels of externalising difficulties, school-based misbehaviour and antisocial behaviour. At the same time, they were

more likely to internalise their difficulties, with this tendency increasing during adolescence.

A consistent finding was the greater behaviour difficulties across all domains for those in lone-parent or separated families, a pattern that was not reducible to differences in family resources or experience of economic strain. A complex relationship emerged between behaviour and (dis)advantage. Internalising and externalising difficulties were less prevalent among those whose parents had higher levels of education, but this group had somewhat poorer levels of prosocial behaviour. Furthermore, school- and community-based behaviour patterns did not tend to vary by long-term parental resources. However, the financial strain resulting from the recession was associated with worsening internal, externalising and school-based behaviour. The extent to which the concentration of disadvantage at school or neighbourhood level affects adolescent behaviour, over and above individual background, is explored in the following chapters.

CHAPTER 3

School social mix and adolescent behaviour

3.1 INTRODUCTION

This chapter examines the extent to which adolescent behaviour varies by school social mix, using DEIS, non-DEIS and fee-paying schools as proxies for working-class, socially mixed and middle-class schools respectively. As in Chapter 2, behaviour is examined across the domains of family, school and community. Each section begins by showing descriptive patterns before using cross-classified multilevel models to examine whether behaviour varies significantly across individual second-level schools and whether school social mix plays a part in shaping this behaviour.

3.2 SCHOOL FACTORS AND BEHAVIOUR IN THE FAMILY CONTEXT

Figures 3.1a to 3.1c show the three SDQ measures – externalising, internalising and prosocial behaviour – by school social mix, distinguishing between DEIS, fee-paying and other non-DEIS schools at second level and between Urban Band 1 DEIS and all other schools at primary level. Both externalising and internalising difficulties were more significantly prevalent in DEIS second-level schools and less prevalent in fee-paying schools. They were also more prevalent among those who had attended an Urban Band 1 DEIS primary school than those who had attended another primary school type. Variation in prosocial behaviour by school social mix was modest, being very slightly lower in fee-paying schools. There was no significant difference in prosocial behaviour between those who had been at Urban Band 1 schools and other students.

FIGURE 3.1A: SDQ EXTERNALISING BEHAVIOUR BY SCHOOL SOCIAL MIX

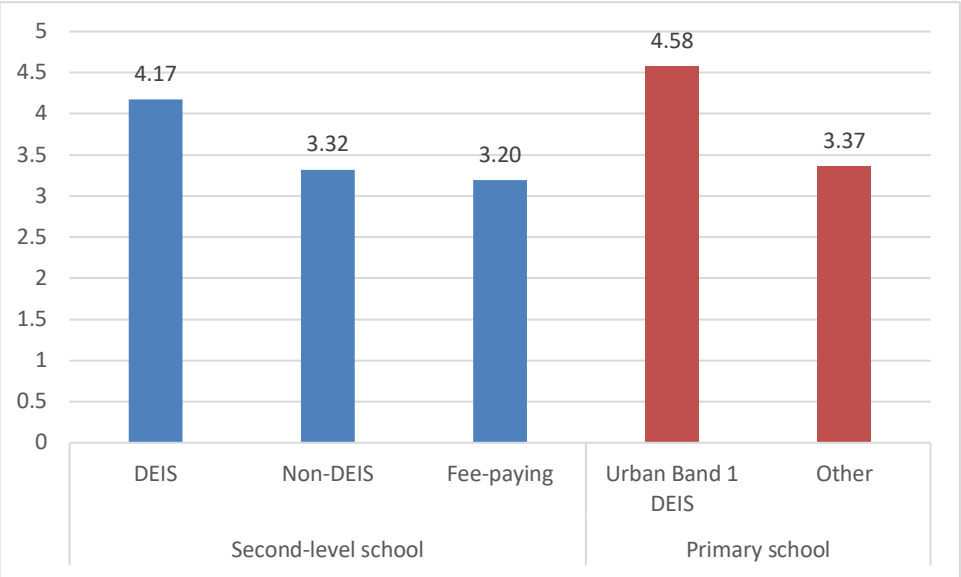


FIGURE 3.1B: SDQ INTERNALISING BEHAVIOUR BY SCHOOL SOCIAL MIX

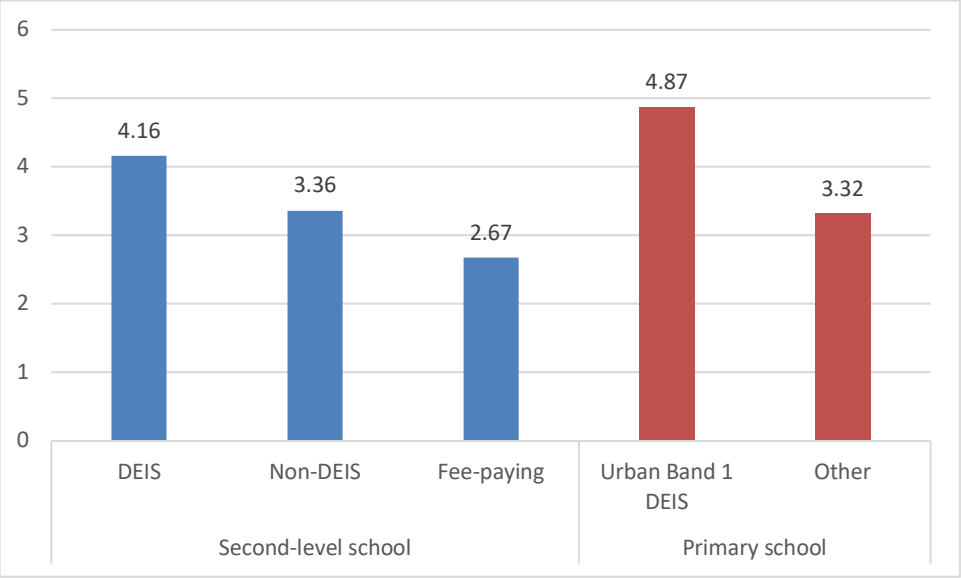
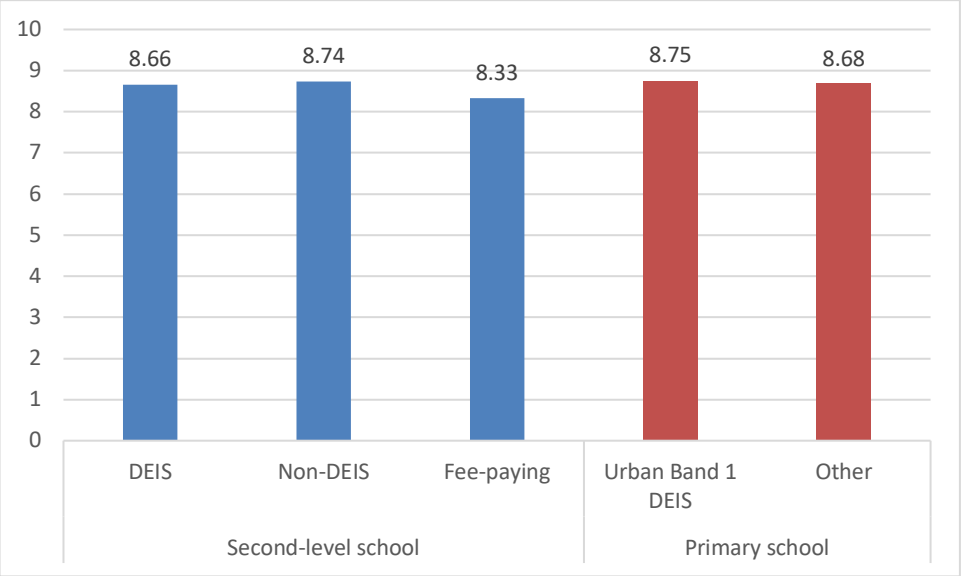


FIGURE 3.1C: SDQ PROSOCIAL BEHAVIOUR BY SCHOOL SOCIAL MIX



A crucial issue is whether these differences reflect the profile of students in the school (composition) or whether the concentration of young people from particular social backgrounds in a school has an additional effect (context). Table 3.1 shows the influence of school social mix on behaviour outcomes, controlling for the family background factors considered in Chapter 2. The family factors are not shown in this table for clarity of presentation but are included in Table A3.1. The gender mix and size of the school are also taken into account.

Those who (had) attended a DEIS second-level school had higher levels of internalising and externalising difficulties than those in non-DEIS schools, even taking account of the more disadvantaged profile of the student population in

these schools. However, from a more positive perspective, those in DEIS schools also had higher levels of prosocial behaviour. Attendance at a disadvantaged (Urban Band 1) primary school had long-term effects, with higher levels of internalising and externalising difficulties, even taking account of the school social mix of the second-level school attended. However, once again levels of prosocial behaviour were higher. Once individual and family background characteristics were taken into account, there were no differences between those in fee-paying and other schools in internalising, externalising or prosocial behaviour.

No significant differences in adolescent behaviour were found between single-sex and coeducational schools or between schools of different sizes. Those who had already left school by the time of the wave three interview had higher levels of externalising, internalising and prosocial behaviour. This may reflect greater school disengagement among this group (see Chapter 5). In addition, young people in their Leaving Certificate year had higher levels of internalising difficulties than those in fifth year.

It is worth noting that the influence of individual and family factors remains largely unchanged when school characteristics are taken into account (see Tables A3.1 to A3.5). The effects of maternal education and being from a lone-parent family on internalising and externalising behaviour reduce very slightly in size. Thus, a small part of the effect of being from a more highly educated family is explained by the lower likelihood of attending a DEIS school while a very small part of the effect of being from a lone-parent family is explained by the greater likelihood of attending a DEIS school.

TABLE 3.1 CROSS-CLASSIFIED MULTILEVEL MODELS OF SCHOOL FACTORS AND SDQ EXTERNALISING, INTERNALISING AND PROSOCIAL BEHAVIOUR AT 17

	Externalising			Internalising			Prosocial		
Characteristic	Null model (1)	Family background (2)	School factors (3)	Null model (1)	Family background (2)	School factors (3)	Null model (1)	Family background (2)	School factors (3)
Second-level school mix:									
DEIS			0.366**			0.272*			0.366**
Fee-paying (Ref.: Non-DEIS)			0.171			-0.138			0.171
Primary school mix:									
Urban Band 1 DEIS (Ref.: Other)			0.644***			0.858***			0.644***
Gender mix:									
Boys' single-sex			-0.091			0.169±			-0.091
Girls' single-sex			0.101			0.102			0.101
School size:									
200-399			-0.128			-0.123			-0.128
400-599			-0.184			0.029			-0.184
600+ (Ref.: <200)			-0.209			0.014			-0.209
School stage:									
LC year			0.022			0.212**			0.022
Left school (Ref.: 5th year)			0.257*			0.210*			0.257*
Random intercept									
Between-school variation	0.104	0.056	0.031	0.407***	0.137*	0.097±	0.049**	0.027	0.018
Number of schools	608	608	608	608	608	608	608	608	608
Number of young people	5,937	5,937	5,937	5,937	5,937	5,937	5,937	5,937	5,937
% variance explained:									
Individual level		7.0	7.3		8.7	8.9		0.8	1.0
School level		46.2	70.2		66.3	76.2		44.9	63.3

*Note: *** p<.001; ** p<.01; * p<.05; ± p<.10.*

School characteristics and educational stage add modestly to the explanation of variation at the individual level (improving the proportion of variance explained by less than 1 per cent). The random intercepts in Table 3.1 show the extent of variation between individual second-level schools in behaviour outcomes, allowing us to unpack the relative influence of composition and context. The table compares coefficients for the null model (the 'raw' differences) (1), the model which controls for family background factors (2) and the model which controls for school characteristics (3). The profile of students in the school (Model 2) explains a good deal of the between-school variation in these three behaviours – 45 per cent for prosocial behaviour, 46 per cent for externalising behaviour and 66 per cent for internalising behaviour. However, context does matter; school characteristics and educational stage explain a good deal of between-school variation (compare Models 2 and 3).

In raw terms, the level of externalising difficulties did not vary significantly across individual second-level schools. In contrast, internalising behaviour did vary significantly (Model 1) and this variation was still apparent controlling for individual and background factors (Model 2). In other words, variation in internalising difficulties across schools was not solely due to the types of students who attended these schools. When school social mix and educational stage are taken into account (Model 3), the between-school variation reduces in size and is on the margins of significance ($p<.10$). Thus, schools vary very little in internalising difficulties once we take account of these factors. Prosocial behaviour differs significantly across schools in the null model but this is solely due to the family background of students who attended these schools (compare Models 1 and 2).

3.3 SCHOOL FACTORS AND SCHOOL-BASED MISBEHAVIOUR

Levels of self-reported misbehaviour at school among 13-year-olds were somewhat more common in DEIS second-level schools and lowest for non-DEIS schools (Figure 3.2a). Those who had attended an Urban Band 1 school had higher levels of misbehaviour at 13 than those who had attended another primary school type. The pattern for truancy was quite different, with the highest levels reported in fee-paying second-level schools; those who had attended Urban Band 1 schools had higher truancy levels than those from other primary schools (Figure 3.2b).

FIGURE 3.2A: SCHOOL-BASED MISBEHAVIOUR AT 13 AND SCHOOL SOCIAL MIX

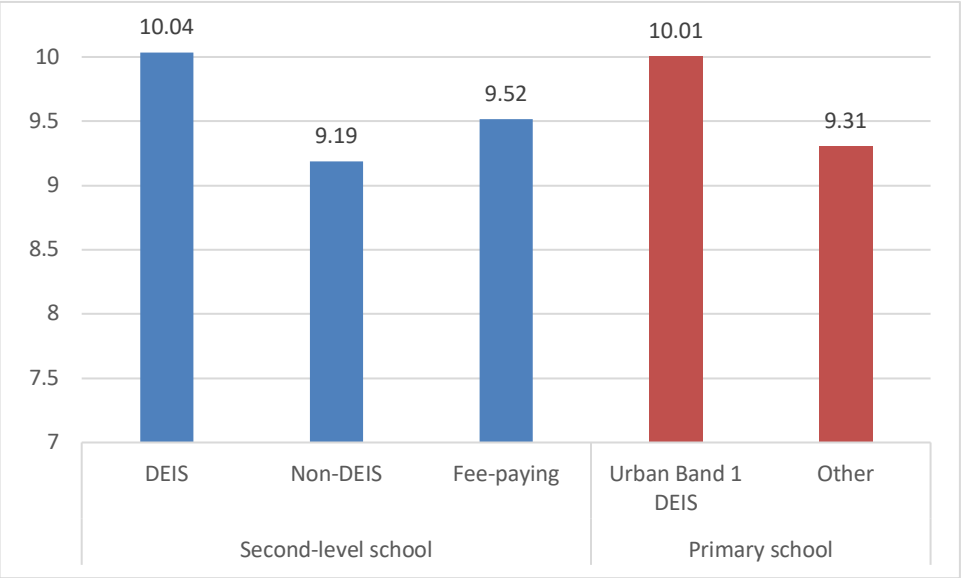
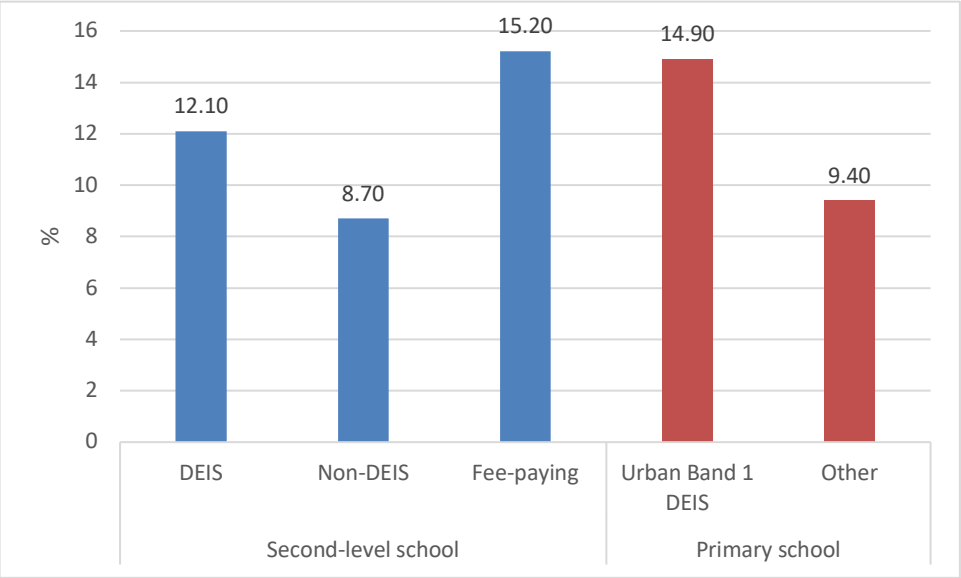


FIGURE 3.2B: TRUANCY AT 13 AND/OR 17 AND SCHOOL SOCIAL MIX



Controlling for family background, school-based misbehaviour is higher in DEIS than in non-DEIS schools. Truancy is higher in DEIS than in non-DEIS schools (but only at the level of p<.10) but is found to be 1.5 times higher in fee-paying schools than in non-DEIS schools. Having attended an Urban Band 1 primary school was associated with higher rates of misbehaviour at second level but was not significantly related to truancy. Misbehaviour levels were lower in single-sex, especially girls', schools, with girls' schools also having lower truancy rates. There were no systematic differences in either outcome by school size. Misbehaviour and truancy rates were higher among those in second year at the time of the wave two survey, in keeping with previous research which indicates that school disengagement sets in at this phase for some groups of students (Smyth et al., 2006).

The levels of misbehaviour and truancy varied significantly across individual second-level schools. A good deal of this difference was accounted for by the profile of students in the school (compare Models 1 and 2) but significant variation remained, even taking account of student composition and school type.

TABLE 3.2A CROSS-CLASSIFIED MULTILEVEL MODELS OF SCHOOL FACTORS AND SCHOOL-BASED MISBEHAVIOUR

Characteristic	Null model (1)	Family background (2)	School factors (3)
Second-level school mix:			
DEIS			0.270**
Fee-paying (Ref.: Non-DEIS)			0.060
Primary school mix:			
Urban Band 1 DEIS (Ref.: Other)			0.251*
Gender mix:			
Boys' single-sex			-0.145*
Girls' single-sex			-0.418***
School size:			
200-399			-0.216
400-599			-0.135
600+ (Ref.: <200)			-0.249±
School stage:			
Second year			0.464***
Random intercept			
Between-school variation	0.305***	0.088**	0.046±
Number of schools	607	607	607
Number of young people	5,875	5,875	5,875
% variance explained:			
Individual level		3.2	4.5
School level		71.1	84.9

*Note: *** p<.001; ** p<.01; * p<.05; ± p<.10.*

The effects of the individual and family factors discussed in Chapter 3 on school-based misbehaviour and truancy remain largely unchanged when school characteristics are taken into account (see Tables A3.4 and A3.5). The exception is a slight reduction in the gender difference when the gender mix of the school is included; in other words, part of the lower rates of misbehaviour and truancy among females is due to the much lower rates found in girls' schools.

TABLE 3.2B CROSS-CLASSIFIED MULTILEVEL MODELS OF SCHOOL FACTORS AND TRUANCY

Characteristic	Null model (1)	Family background (2)	School factors (3)
Second-level school mix:			
DEIS			1.275±
Fee-paying (Ref.: Non-DEIS)			1.489*
Primary school mix:			
Urban Band 1 DEIS (Ref.: Other)			1.026
Gender mix:			
Boys' single-sex			1.015
Girls' single-sex			0.743*
School size:			
200-399			0.975
400-599			1.166
600+ (Ref.: <200)			1.259
School stage:			
Second year			1.184*
Random intercept			
Between-school variation	0.174*	0.172**	0.167*
Number of schools	608	608	608
Number of young people	5,935	5,935	5,935

*Note: *** p<.001; ** p<.01; * p<.05; ± p<.10.*

3.4 SCHOOL FACTORS AND ANTISOCIAL BEHAVIOUR

Figure 3.3 shows that levels of antisocial behaviour tended to be higher among those who attended fee-paying schools compared with those in other non-DEIS or DEIS schools (Figure 3.3) – an average difference of almost one (0.7) antisocial act. No difference was apparent between those who had attended an Urban Band 1 school and other groups.

FIGURE 3.3: ANTISOCIAL BEHAVIOUR AT 17 AND SCHOOL SOCIAL MIX

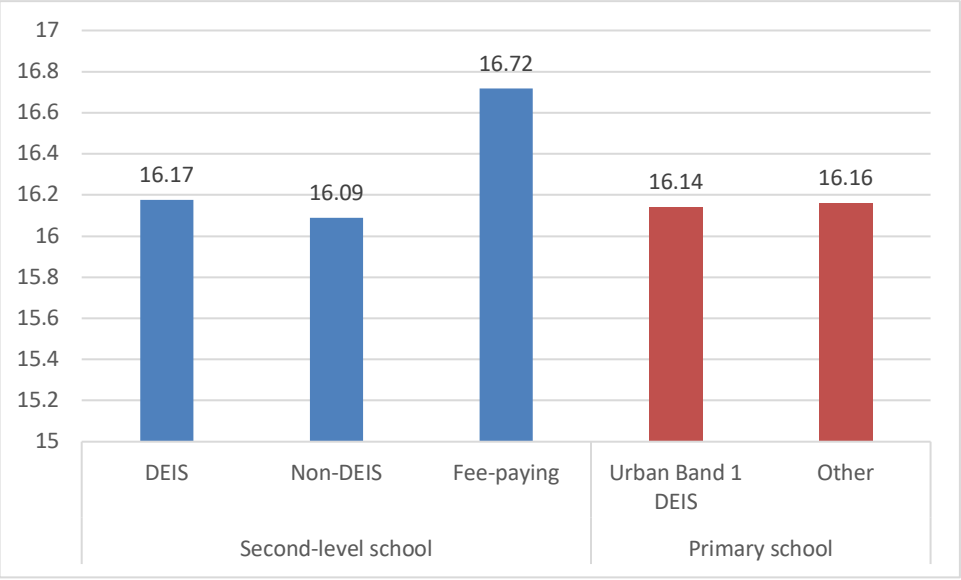


TABLE 3.3 CROSS-CLASSIFIED MULTILEVEL MODEL OF SCHOOL FACTORS AND ANTISOCIAL BEHAVIOUR AT 17

	Null model (1)	Family background (2)	School factors (3)
Characteristic			
Second-level school mix:			
DEIS			0.227*
Fee-paying (Ref.: Non-DEIS)			0.389**
Primary school mix:			
Urban Band 1 DEIS (Ref.: Other)			-0.114
Gender mix:			
Boys' single-sex			0.035
Girls' single-sex			0.079
School size:			
200-399			-0.001
400-599			0.009
600+ (Ref.: <200)			-0.061
School stage:			
LC year			0.016
Left school (Ref.: 5th year)			0.216*
Random intercept			
Between-school variation	0.210***	0.089*	0.066
Number of schools	607	607	607
Number of young people	5,875	5,875	5,875
% variance explained:			
Individual level		2.1	1.8
School level		57.6	68.6

*Note: *** p<.001; ** p<.01; * p<.05; ± p<.10.*

Controlling for individual and background factors, antisocial behaviour levels were higher in fee-paying[19] and DEIS schools than in non-DEIS schools (Table 3.4). In keeping with the descriptive patterns, there was no significant variation related to having attended an Urban Band 1 primary school. Antisocial behaviour did not vary by school size or gender mix. Levels of antisocial behaviour were somewhat higher among those who had already left school; the extent to which this reflects other factors such as disengagement will be explored in Chapter 5. Individual second-level schools varied significantly in their levels of antisocial behaviour. Much of this difference was related to the profile of students in the school (compare Models 1 and 2); the remainder of the between-school variation was accounted for by school

[19] Further analyses indicate that this pattern is not driven by a small set of schools. The effect of being in a fee-paying school does not vary significantly across individual schools, indicating similar patterns within the sector. The difference was not related to one item only; among those items with sufficient cell size for separate analyses, rates for the following items were significantly higher in fee-paying than in other non-DEIS schools: taking something from a shop without paying (18% vs. 12%), behaving badly in public (22% vs. 10%), taking money or something else from school (11% vs. 5%) and taking money or something else from school (28% vs. 11%).

type and the young person's educational stage (compare Models 2 and 3). The effects of individual and family background factors remained unchanged when school characteristics were taken into account (see Table A3.6).

3.5 CONCLUSIONS

This chapter has presented two sets of findings: the extent to which different dimensions of adolescent behaviour vary across individual schools, and the extent to which adolescent behaviour is related to the social mix of the school they attend. Between-school variation in outcomes can reflect two sets of processes: the concentration of particular groups of students in a school (composition), and the effect of school characteristics and processes on student outcomes (context). Even if school differences reflect composition rather than context, targeting supports on particular schools may still represent an effective way of supporting students with difficulties. There are significant raw differences between second-level schools in internalising behaviour, prosocial behaviour, school misbehaviour, truancy and antisocial behaviour. The variation in prosocial behaviour reflects differences in student composition – differences which also explain most of the difference in internalising behaviour. Perhaps not surprisingly, student profile does not explain between-school differences in school-related behaviour (misbehaviour and truancy) or in antisocial behaviour. Differences in these outcomes were largely explained by school social mix (and other school characteristics) but, even taking these into account, between-school variation in school misbehaviour and truancy remained.

Many behaviour outcomes appeared to be exacerbated by the concentration of disadvantage within schools, with higher levels of misbehaviour, truancy, externalising, internalising and antisocial behaviour in DEIS schools. Socio-emotional wellbeing (internalising and externalising difficulties) was also poorer among those who had attended Urban Band 1 primary schools, schools that had a higher concentration of disadvantage but also more complex needs among students (see Chapter 1). Whether these patterns represent a school effect or are the result of living in a more deprived neighbourhood will be further disentangled in Chapter 4. At the same time, levels of prosocial behaviour were better in DEIS settings, suggesting that friendships may act as a resource for these young people (an issue explored in Chapter 5).

Perhaps the most surprising finding, and one not highlighted in the research literature to date, was that the concentration of advantage at school level did not have a positive effect on behaviour outcomes. In fact, levels of truancy and antisocial behaviour were higher in fee-paying schools than in other non-DEIS schools.

CHAPTER 4
Neighbourhood mix and adolescent behaviour

4.1 INTRODUCTION

This chapter looks at the extent to which adolescent behaviour varies across neighbourhoods (electoral divisions) and whether objective and subjective neighbourhood characteristics are associated with that behaviour. As indicated in Chapter 1, a composite measure of area-level disadvantage is used based on the method used by Quail (2010); areas are then divided into four groups (quartiles). As in Chapter 3, each section starts by presenting descriptive analyses of the variation in the type of behaviour by neighbourhood socio-economic composition, before presenting the results of cross-classified multilevel models. The tables give the estimates for neighbourhood characteristics but also control for the individual and family background characteristics described in Chapter 2 and the school characteristics described in Chapter 3. The models allow us to disentangle the relative influence of schools and neighbourhoods on the six dimensions of adolescent behaviour.

4.2 NEIGHBOURHOOD FACTORS AND BEHAVIOUR IN THE FAMILY CONTEXT

The three SDQ measures were found to have very different patterns across levels of objective neighbourhood (dis)advantage based on Census Small Area Population (SAPS) data. A linear relationship was evident for internalising behaviour, with higher levels in the most disadvantaged quartile and lowest levels in the least disadvantaged quartile (Figure 4.1b). Externalising behaviour was also higher in more disadvantaged areas, but the area with the second highest level of disadvantage had the highest level of externalising difficulties (Figure 4.1a). In contrast, prosocial behaviour did not vary significantly by neighbourhood composition (Figure 4.1c).

FIGURE 4.1A: NEIGHBOURHOOD SOCIO-ECONOMIC COMPOSITION AND EXTERNALISING BEHAVIOUR

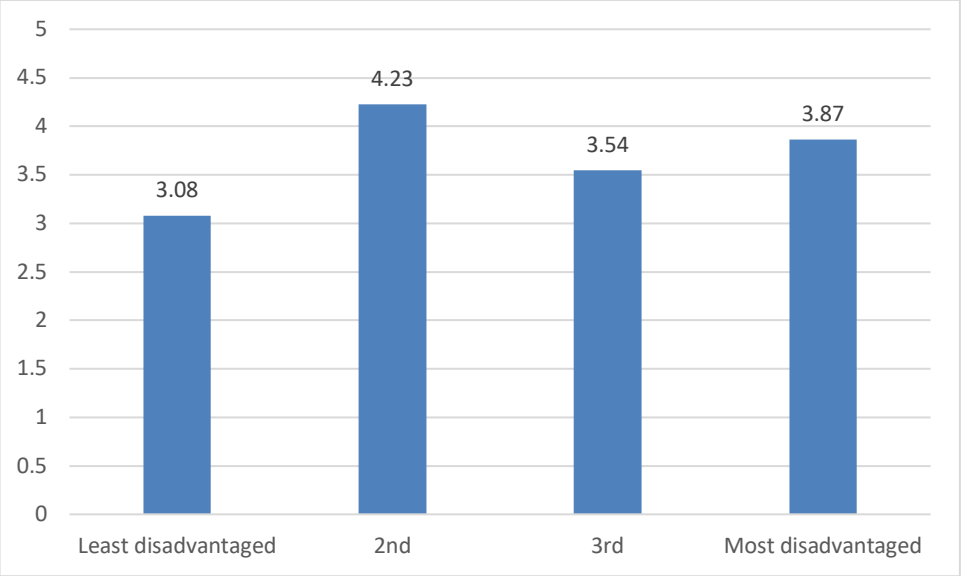


FIGURE 4.1B: NEIGHBOURHOOD SOCIO-ECONOMIC COMPOSITION AND INTERNALISING BEHAVIOUR

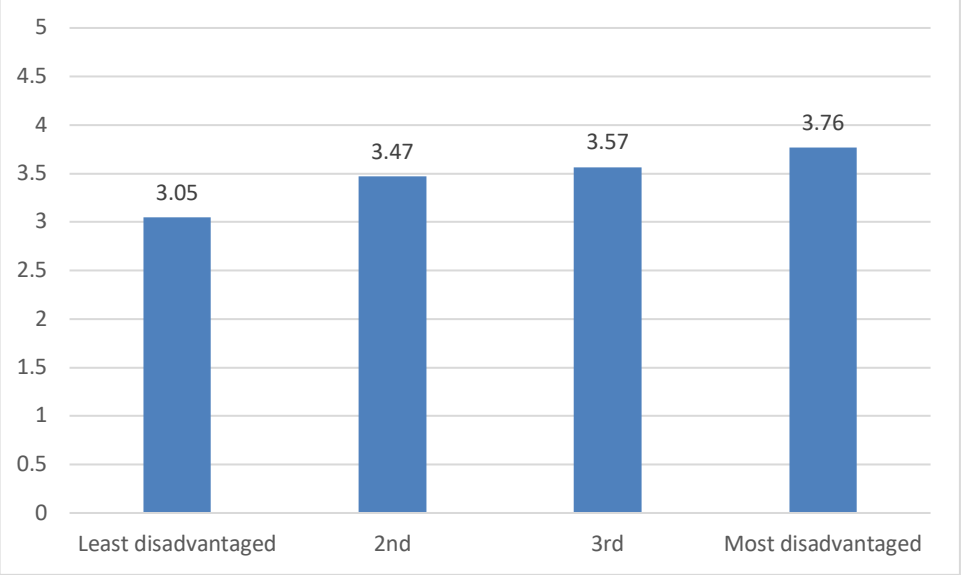


FIGURE 4.1C: NEIGHBOURHOOD SOCIO-ECONOMIC COMPOSITION AND PROSOCIAL BEHAVIOUR

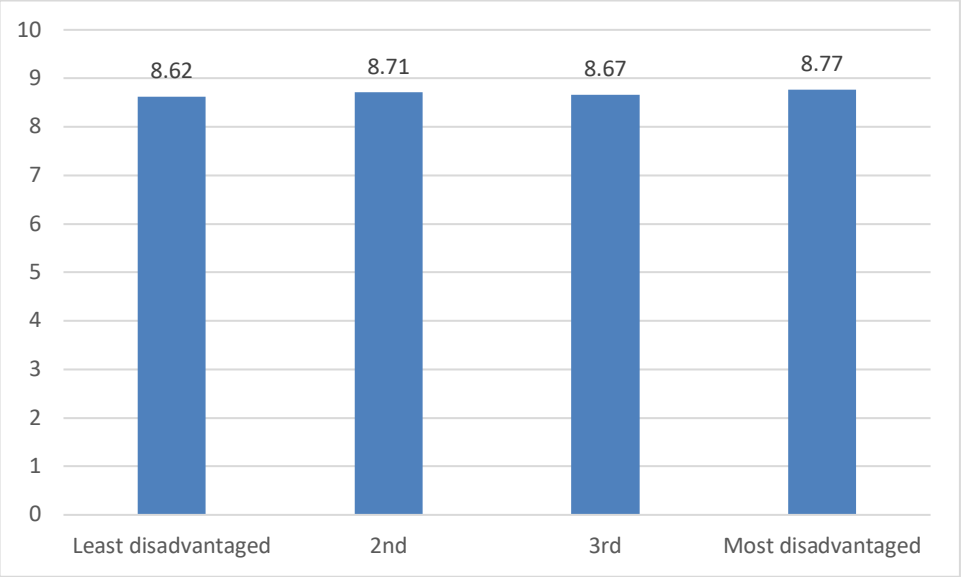


Table 4.1 shows the relationship between neighbourhood characteristics and SDQ externalising behaviour. This model also includes the family and school factors discussed in Chapters 2 and 3 but, for ease of presentation, the coefficients are not shown in the table (they are shown instead in Appendix Table A4.1). Young people living in the most disadvantaged areas showed significantly higher levels of externalising behaviour than those in more advantaged areas. Levels of externalising behaviour were also higher in small towns than in rural areas, but young people in larger urban settings did not vary significantly in behaviour levels from those in rural areas. There were somewhat greater levels of externalising behaviour in areas characterised by primary caregivers as disorderly. Being in an area where gang activity was seen as a problem was associated with externalising behaviour, but this relationship was only significant at the $p<.10$ level. Externalising behaviour did not vary across individual neighbourhoods (at least at this level of aggregation) (Model 1, Table 4.1), and levels of variation between schools (although not statistically significant) were larger than those between neighbourhoods.

The coefficients for family and school factors remain largely unchanged when neighbourhood factors are taken into account (Table A4.1). The exception is the reduction by a third in the size of the Urban Band 1 effect; thus, some of the effect of having attended an Urban Band 1 primary school is related to living in a more disadvantaged area, most likely reflecting the closer link between school and neighbourhood at primary level. In addition, the effects for maternal education and lone-parent family are slightly reduced, reflecting the lower concentrations of highly educated mothers and two-parent families in more deprived areas.

TABLE 4.1 CROSS-CLASSIFIED MULTILEVEL MODELS OF NEIGHBOURHOOD FACTORS AND SDQ EXTERNALISING BEHAVIOUR

	Externalising			
Characteristic	Null model (1)	Family background (2)	School factors (3)	Neighbourhood factors (4)
Neighbourhood composition:				
Second most advantaged				0.089
Second most disadvantaged				0.140
Most disadvantaged				0.238*
(Ref.: Most advantaged)				
Population density:				
Large urban				0.149
Other urban				0.039
Small town				0.223*
(Ref.: Rural)				
Perceived disorder				0.060***
Concerned about local gangs				0.181±
Moved between wave 1 and wave 2				0.211*
Moved between wave 2 and wave 3				0.100
Random intercept				
Between-neighbourhood variation	0.059	0.004	0.015	0.003
Between-school variation	0.104	0.056	0.031	0.009
Individual-level variation	8.471	7.787	7.855	7.845
% variance explained at individual level		7.0	7.3	7.4
Number of schools	608	608	608	608
Number of neighbourhoods	1,588	1,588	1,588	1,588
Number of young people	5,937	5,937	5,937	5,937

*Note: *** p<.001; ** p<.01; * p<.05; ± p<.10.*

Internalising behaviour does not vary significantly across individual neighbourhoods or by the socio-economic composition of the local area (Table 4.2). As with externalising behaviour, between-neighbourhood differences tended to be smaller than between-school differences. Internalising behaviour was more prevalent in large cities and small towns than in rural areas, even taking account of socio-economic profile. Internalising behaviour was related to perceptions of the local neighbourhood, being significantly higher where the mother saw the area as disorderly and was concerned about local gang activity.

The effects of family and school factors remain largely unchanged when neighbourhood characteristics are included in the model (Table A4.2). The exception is a slight reduction in the effect of maternal education (reflecting the educational profile of more disadvantaged areas) and the reduction in the effect of having attended an Urban Band 1 primary school, though the latter remains a sizeable and significant relationship.

TABLE 4.2 CROSS-CLASSIFIED MULTILEVEL MODELS OF NEIGHBOURHOOD FACTORS AND SDQ INTERNALISING BEHAVIOUR

Characteristic	Null model (1)	Family background (2)	School factors (3)	Neighbourhood factors (4)
Neighbourhood composition:				
Second most advantaged				0.155±
Second most disadvantaged				0.045
Most disadvantaged				0.101
(Ref.: Most advantaged)				
Population density:				
Large urban				0.226*
Other urban				0.073
Small town				0.355**
(Ref.: Rural)				
Perceived disorder				0.046***
Concerned about local gangs				0.312**
Moved between wave 1 and wave 2				0.108
Moved between wave 2 and wave 3				-0.245*
Random intercept				
Between-neighbourhood variation	0.036	0.004	0.016	0.003
Between-school variation	0.407***	0.137*	0.097±	0.048
Individual-level variation	8.278	7.560	7.539	7.545
% variance explained at individual level		8.7	8.9	8.9
Number of schools	608	608	608	608
Number of neighbourhoods	1,588	1,588	1,588	1,588
Number of young people	5,937	5,937	5,937	5,937

*Note: *** p<.001; ** p<.01; * p<.05; ± p<.10.*

Prosocial behaviour does not vary by neighbourhood composition or across individual neighbourhoods; between-school differences are larger than those between neighbourhoods (Table 4.3). Levels of prosocial behaviour were found to be higher in rural areas than in cities or small towns. They were also lower in areas seen as disorderly. The influence of family and school factors remains unchanged when neighbourhood characteristics are taken into account (Table A4.3). The exception is that being in a lone-parent family at age 9 becomes non-significant; in other words, the lower prosocial behaviour found among young people in lone-parent families was primarily due to their concentration in areas with more disorder or gang activity.

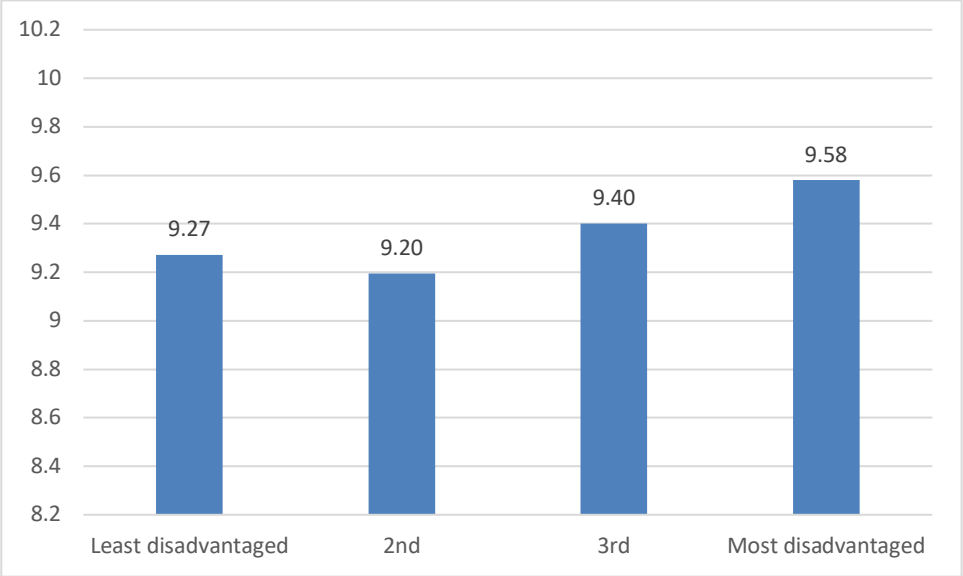
TABLE 4.3 CROSS-CLASSIFIED MULTILEVEL MODELS OF NEIGHBOURHOOD FACTORS AND SDQ PROSOCIAL BEHAVIOUR

Characteristic	Null model (1)	Family background (2)	School factors (3)	Neighbourhood factors (4)
Neighbourhood composition:				
Second most advantaged				-0.034
Second most disadvantaged				-0.045
Most disadvantaged				0.059
(Ref.: Most advantaged)				
Population density:				
Large urban				-0.134*
Other urban				-0.100±
Small town				-0.122±
(Ref.: Rural)				
Perceived disorder				-0.025***
Concerned about local gangs				0.054
Moved between wave 1 and wave 2				-0.148*
Moved between wave 2 and wave 3				-0.026
Random intercept				
Between-neighbourhood variation	0.025±	0.005	0.005	0.005
Between-school variation	0.049**	0.027	0.014	0.018
Individual-level variation	2.625	2.602	2.602	2.602
% variation explained at individual level		0.9	1.0	0.9
Number of schools	608	608	608	608
Number of young people	5,937	5,937	5,937	5,937

*Note: *** p<.001; ** p<.01; * p<.05; ± p<.10.*

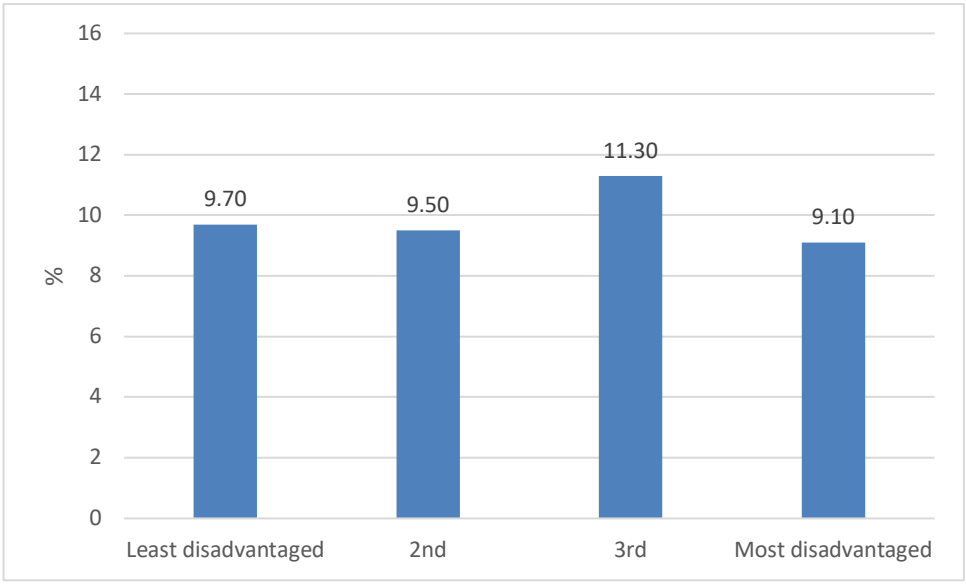
4.3 NEIGHBOURHOOD FACTORS AND SCHOOL-BASED MISBEHAVIOUR

FIGURE 4.2A: NEIGHBOURHOOD SOCIO-ECONOMIC COMPOSITION AND MISBEHAVIOUR AT 13



School-based misbehaviour is found to be higher in the most disadvantaged areas but the relationship between area composition and misbehaviour is not linear in nature (Figure 4.2a). In contrast, truancy did not vary significantly by neighbourhood composition (Figure 4.2b).

FIGURE 4.2B: NEIGHBOURHOOD SOCIO-ECONOMIC COMPOSITION AND TRUANCY



Taking account of family background and school factors, no difference in school-based misbehaviour was found by neighbourhood socio-economic composition (Table 4.4). Similarly, these behaviours did not vary by subjective characteristics such as perceived disorder or concern about gangs. School-based misbehaviour

was, however, more prevalent in large cities and small towns than in rural areas. and, in the case of misbehaviour, also in large cities. This behaviour varied across individual second-level schools, perhaps not surprisingly given the role of school climate in influencing student behaviour (Smyth, 2016) but did not differ significantly across neighbourhoods.

TABLE 4.4 CROSS-CLASSIFIED MULTILEVEL MODELS OF NEIGHBOURHOOD FACTORS AND SCHOOL-BASED MISBEHAVIOUR

Characteristic	Null model (1)	Family background (2)	School factors (3)	Neighbourhood factors (4)
Neighbourhood composition:				
Second most advantaged				-0.064
Second most disadvantaged				0.046
Most disadvantaged				0.072
(Ref.: Most advantaged)				
Population density:				
Large urban				0.231**
Other urban				0.070
Small town				0.305**
(Ref.: Rural)				
Perceived disorder				0.012
Concerned about local gangs				-0.001
Moved between wave 1 and wave 2				0.141±
Random intercept				
Between-neighbourhood variation	0.004	0.026	0.024	0.007
Between-school variation	0.305***	0.088**	0.046±	0.040±
Between-individual variation	4.219	4.082	4.029	4.038
% variance explained at individual level		3.2	4.5	4.3
Number of schools	607	607	607	607
Number of neighbourhoods	1,583	1,583	1,583	1,583
Number of young people	5,875	5,875	5,875	5,875

*Note: *** p<.001; ** p<.01; * p<.05; ± p<.10.*

The influence of family and school factors remains largely unchanged when neighbourhood is taken into account (see Table A4.4). The exception relates to the reduced coefficient for having attended an Urban Band 1 primary school; as with behaviour in the home (externalising, internalising and prosocial), more school-based misbehaviour among those who had been in Urban Band 1 reflects both the school composition and the disadvantage at local area level. Furthermore, the relationship becomes negative and significant for young people from migrant backgrounds, indicating that they act out less in school than might be expected given their representation in more disadvantaged neighbourhoods.

There is little systematic variation in truancy levels by socio-economic composition of the neighbourhood or by perceptions of the local area, though truancy levels were somewhat higher in small towns than in rural areas (Table 4.5). Both the school attended and the neighbourhood in which young people live matter for truancy levels, though variation between schools is greater than between neighbourhoods. The only change to the family and school factors relates to a reduction in the size of the coefficient for Urban Band 1 primary schools; as with other forms of behaviour (see above), this effect appears to reflect both attending a school with a concentration of disadvantage and living in a disadvantaged area (Table A4.5).

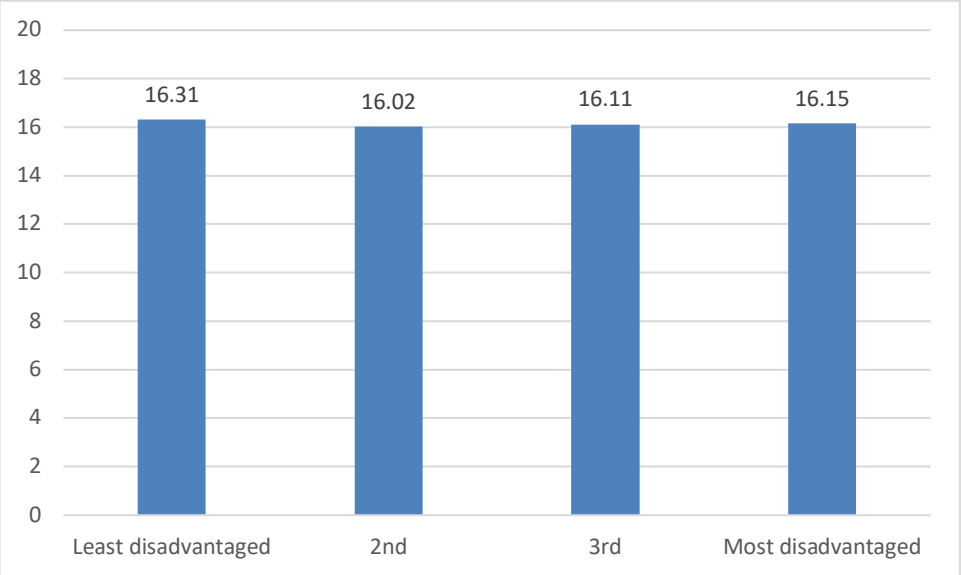
TABLE 4.5 CROSS-CLASSIFIED MULTILEVEL MODELS OF NEIGHBOURHOOD FACTORS AND TRUANCY (ODDS RATIOS)

Characteristic	Null model (1)	Family background (2)	School factors (3)	Neighbourhood factors (4)
Neighbourhood composition:				
Second most advantaged				0.820±
Second most disadvantaged				0.984
Most disadvantaged				0.873
(Ref.: Most advantaged)				
Population density:				
Large urban				1.170
Other urban				1.217±
Small town				1.366*
(Ref.: Rural)				
Perceived disorder				1.020
Concerned about local gangs				0.895
Moved between wave 1 and wave 2				1.121
Random intercept				
Between-neighbourhood variation	0.052*	0.034*	0.017	0.049±
Between-school variation	0.174*	0.172**	0.112	0.151±
Between-individual variation	1.000	1.000	1.000	1.000
Number of schools	608	608	608	608
Number of neighbourhoods	1,588	1,588	1,588	1,588
Number of young people	5,935	5,935	5,935	5,935

*Note: *** p<.001; ** p<.01; * p<.05; ± p<.10.*

4.4 NEIGHBOURHOOD FACTORS AND BEHAVIOUR IN THE COMMUNITY

FIGURE 4.3: NEIGHBOURHOOD SOCIO-ECONOMIC COMPOSITION AND ANTISOCIAL BEHAVIOUR AT 17



Somewhat higher levels of antisocial behaviour were found in the least disadvantaged areas, though the differences between areas were small (Figure 4.3). In fact, controlling for family background factors, antisocial behaviour was significantly more prevalent in the most advantaged settings (Table 4.6). Antisocial behaviour was also more prevalent in cities and small towns as well as in areas where parents were concerned about gang activity. Levels did not vary across individual neighbourhoods in contrast to the significant variation found according to the school attended. Thus, the school attended made more difference to levels of antisocial behaviour than the neighbourhood in which young people lived. Including neighbourhood factors makes little difference to the coefficients for family and school characteristics (Table A4.6), though the coefficient for fee-paying schools reduces somewhat, indicating that the higher level of antisocial behaviour among this group at least partly reflects their living in more advantaged areas.

TABLE 4.6 CROSS-CLASSIFIED MULTILEVEL MODEL OF NEIGHBOURHOOD FACTORS AND ANTISOCIAL BEHAVIOUR AT 17

	Null model (1)	Family background (2)	School factors (3)	Neighbourhood factors (4)
Characteristic				
Neighbourhood composition:				
Second most advantaged				-0.206*
Second most disadvantaged				-0.169*
Most disadvantaged				-0.161±
(Ref.: Most advantaged)				
Population density:				
Large urban				0.278**
Other urban				0.106
Small town				0.364**
(Ref.: Rural)				
Perceived disorder				0.007
Concerned about local gangs				0.201*
Moved between wave 1 and wave 2				-0.012
Moved between wave 2 and wave 3				0.140
Random intercept				
Between-neighbourhood variation	0.023	0.017	0.030	0.023
Between-school variation	0.210***	0.089*	0.066*	0.067*
Between-individual variation	5.968	5.841	5.860	5.858
% variance explained at individual level		2.1	1.8	1.8
Number of schools	607	607	607	607
Number of neighbourhoods	1,583	1,583	1,583	1,583
Number of young people	5,875	5,875	5,875	5,875

4.5 CONCLUSIONS

This chapter has looked at the role of neighbourhood factors in adolescent behaviour. For all outcomes, variation tended to be more marked at the school than the neighbourhood level; only truancy was found to vary significantly across individual neighbourhoods. Neighbourhood socio-economic composition was found to have little influence over and above the effects of the family's own resources, the exceptions being more externalising behaviour in the most disadvantaged quartile of areas and more antisocial behaviour in the most advantaged quartile of areas. Subjective perceptions of the neighbourhood appeared to make more of a difference, with more internalising and externalising difficulties and less prosocial behaviour in areas characterised by mothers as disorderly. Furthermore, internalising difficulties and antisocial behaviour were more prevalent in areas with gang activity. Population density also had an impact;

larger urban areas and small towns had poorer behaviour outcomes, even taking account of family, school and other neighbourhood factors.

CHAPTER 5

Risk and protective factors in youth behaviour

5.1 INTRODUCTION

This chapter examines the risk and protective factors associated with youth behaviour. For clarity, the four sets of factors – parent-child relationships, peer relationships, school experiences and neighbourhood characteristics – are examined separately. All of the models presented in this chapter control for the family background, school and neighbourhood characteristics analysed in Chapters 2 to 4. To obtain a clearer picture of potential influence, the analyses generally focus on factors measured at wave two (13 years) or earlier rather than factors measured at the time of the survey. This helps us to identify the influence of earlier experiences on later behavioural outcomes.

5.2 FAMILY RELATIONSHIPS

The measures of parent-child relationships examined were the Pianta scale of positive relationships, the Pianta measure of parent-child conflict and the Stattin and Kerr measures of parental monitoring and disclosure (see Chapter 1); information from both the mother and father was used to take account of potential differences in the quality of relationships. A positive relationship with the mother (primary caregiver) was significantly associated with reduced school misbehaviour, truancy and antisocial behaviour, and enhanced prosocial behaviour (Table 5.1). However, no significant relationship with externalising or internalising behaviour was apparent. A positive relationship with the father operated as a protective factor for school misbehaviour and truancy but not for other dimensions of behaviour.

Overall, conflict with parents emerged as a stronger driver of all six measures of behaviour, perhaps because levels of positive relationships were relatively high across the cohort of young people. Conflict between the young person and their mother was associated with greater behaviour difficulties across all domains, as well as less prosocial behaviour. Conflict with their father mattered, too, for all domains except truancy and antisocial behaviour, though generally the effects were not as strong as for maternal conflict.

Much of the effect of the quality of parental relationships at age 9 operated through relationship quality four years later. However, earlier conflict with both parents remained significantly related to externalising difficulties, even taking account of later conflict. Similarly, maternal conflict at age nine was related to later

internalising and prosocial behaviour.[20]

Higher levels of maternal monitoring of adolescent activities were related to less antisocial behaviour, truancy and externalising difficulties. Paternal monitoring was significantly related to lower levels of truancy and, to some extent, antisocial behaviour. Disclosure – that is, the extent to which young people were open with their parents about their activities – had few systematic effects when other aspects of the relationship were taken into account. Disclosure to mothers was linked to enhanced prosocial behaviour.[21] In contrast, disclosure to fathers was associated with reduced antisocial behaviour.

Looking at the proportion of variation explained at the individual level, family factors are found to be more influential on behaviour at home, especially externalising behaviour, than on behaviour at school or in the community. Taking account of parent-child relationships explains much more of the variation than family background, school or neighbourhood characteristics (compare with the proportion of variance explained reported in Chapter 4).

[20] The puzzling relationship between positive relations at 9 and externalising behaviour and truancy is because of the high correlation between positive relations at 9 and 13, and not an 'effect' *per se*.
[21] The puzzling positive coefficient for disclosure to mothers and antisocial behaviour is not evident without controlling for disclosure to fathers, so relates to disclosure to mothers and fathers being strongly related in the same family.

TABLE 5.1 CROSS-CLASSIFIED MULTILEVEL MODELS OF FAMILY FACTORS AND ADOLESCENT BEHAVIOUR

	Externalising	Internalising	Prosocial	Misbehaviour	Truancy (Odds ratios)	Antisocial behaviour
Pianta positive at 9 – PCG	0.030***	0.007	0.036***	0.008	1.027*	-0.003
Pianta conflict at 9 – PCG	0.052***	0.041***	-0.018***	-0.001	0.995	0.000
Pianta positive at 9 – SCG	-0.012	-0.006	0.002	0.012±	1.000	0.009
Pianta conflict at 9 – SCG	0.030***	0.003	0.002	-0.005	1.004	0.007
Pianta positive at 13 – PCG	0.001	-0.012	0.060***	-0.074**	0.949***	-0.046***
Pianta conflict at 13 – PCG	0.129***	0.059***	-0.043***	0.042**	1.046***	0.027***
Pianta positive at 13 – SCG	0.016	-0.017	0.004	-0.024**	0.966*	-0.009
Pianta conflict at 13 – SCG	0.040***	0.014*	-0.009*	0.018**	0.991	0.002
Parental monitoring at 13 – PCG	-0.023**	-0.001	0.009±	0.008	0.978*	-0.021**
Parental disclosure at 13 – PCG	0.004	-0.010	0.011*	0.004	1.022*	0.019*
Parental monitoring at 13 – SCG	-0.010	-0.009	0.006	-0.010	0.972*	-0.013±
Parental disclosure at 13 – SCG	0.001	0.014	0.006	0.003	1.075	-0.018*
Number of young people	5,878	5,878	5,878	5,833	5,871	5,935
% variation explained at the individual level	24.0	14.8	13.3	9.0	-	2.4

*Note: *** p<.001; ** p<.01; * p<.05; ± p<.10. These models control for the individual, family background, school and neighbourhood characteristics analysed in Chapters 2 to 4.*

5.3 PEER FACTORS

The peer factors considered were the size of the friendship group, whether friends tended to be older, and the quality of friendships (see Chapter 1). Overall, family factors explain more of the variation between young people in externalising, internalising and prosocial behaviour than peer factors.[22] However, reflecting the growing importance of peers in the lives of young people at this stage in their development, several of the individual peer characteristics were larger in impact than the family factors. For school-based misbehaviour and antisocial behaviour, peer factors explained more of the variation than family factors, suggesting the importance of friends in influencing behaviour at home and in the neighbourhood.

The size of the friendship network acted as both a risk and a protective factor, depending on the type of behaviour in question (Table 5.2). Having more friends was significantly linked to fewer internalising difficulties, perhaps not surprisingly given that the measure takes account of issues in interacting with peers. However, larger friendship groups were also related to more externalising difficulties, school-based misbehaviour and antisocial behaviour, which most likely reflects young people showing off to 'an audience' (Jenkinson, 2011). The age composition of the group also emerged as an important factor. Those who socialised with older peers tended to have more externalising difficulties and higher levels of misbehaviour and antisocial behaviour. They were also almost twice as likely to truant as those with friends their own age (or younger).

Two dimensions of friendship quality were assessed: the degree of trust in their friends, and alienation from their friends. Young people who had friends they could trust engaged less frequently in all kinds of negative behaviour (except truancy) and more frequently in prosocial behaviour. On the other hand, feelings of alienation from friends were linked to all types of negative behaviour (except, perhaps surprisingly, internalising difficulties) as well as reduced prosocial behaviour.

[22] It should be noted that more measures of parent-child relationships were used than of peer relationships, which will also affect the proportion of variance explained.

TABLE 5.2 CROSS-CLASSIFIED MULTILEVEL MODELS OF PEER FACTORS AND ADOLESCENT BEHAVIOUR

	Externalising	Internalising	Prosocial	Misbehaviour	Truancy (Odds ratios)	Antisocial behaviour
Size of friendship network at 13:						
3-5	0.069	-0.639***	0.043	0.262*	0.898	0.351**
6-10	0.274*	-0.864***	0.030	0.514***	1.255	0.484***
More than 10	0.360*	-0.837***	0.057	0.966***	1.242	0.697***
Ref. (Two or fewer)						
Friends mostly older	0.403***	0.104	0.020	0.773***	1.914***	0.448***
Trust in friends	-0.013*	-0.032***	0.012***	-0.009*	0.991	-0.019***
Alienation from friends	0.032***	0.050	-0.017**	0.066***	1.051***	0.030***
Number of young people	5,825	5,825	5,825	5,822	5,824	5,777
% variation explained at individual level	8.8	11.6	3.2	11.2	-	5.6

*Note: *** p<.001; ** p<.01; * p<.05; ± p<.10. These models control for the individual, family background, school and neighbourhood characteristics analysed in Chapters 2 to 4.*

5.4 SCHOOL FACTORS

Table 5.3a looks at the relationship between school experiences and adolescent behaviour while Table 5.3b examines whether these relationships are explained by young people's engagement in school.

Overall, school experiences explain a good deal of the variation (43%) in school-based misbehaviour and more of the variation in antisocial behaviour than family or peer factors. School experiences explain less of the variation in behaviour in the home than family factors, but explain more of the variation in externalising behaviour than peer factors.

The quality of relationships with teachers was strongly associated with all aspects of behaviour. Those who experienced more positive interaction with their teachers at 13 years of age in the form of praise and positive feedback displayed more prosocial behaviour and had lower levels of all negative behaviours at 17. Positive interaction continued to be strongly related to all types of behaviour, even taking account of measures of school engagement (that is, attitudes to school and to Maths as well as achievement levels). The exception was for externalising difficulties, where the effect of positive interaction with teachers operated through more positive attitudes to school and school subjects (Maths) as well as higher levels of achievement. On the other hand, more negative interaction with teachers was strongly associated with all types of negative behaviour (except internalising difficulties) and lower levels of prosocial behaviour. These effects remained strong even taking account of school engagement (compare Tables 5.3a and 5.3b).

It could be argued that young people who act out are likely to have more negative or less positive relationships with teachers, and that this accounts for the patterns found. Additional analyses (Table A5.3) show that controlling for externalising behaviour at nine and 13 reduces the size of the coefficient for negative interaction with teachers, but it still has a significant influence. Similarly, controlling for earlier internalising behaviour only slightly reduces the protective influence of positive interaction. Thus, even controlling for prior levels of externalising or internalising behaviour, the quality of teacher-student relationships is significantly related to these behaviours. In contrast, the relationship between teacher interaction and prosocial behaviour is largely related to differences in earlier prosocial behaviour. For antisocial behaviour, the protective effect of positive interaction with teachers is largely explained by differences in antisocial behaviour at age 13. However, negative interaction with teachers continues to have a sizeable and positive relationship with antisocial behaviour regardless of earlier such behaviour.

It is more difficult to disentangle this relationship for school-based misbehaviour as there is no prior measure of such behaviour and it is measured at the same time

as the quality of interaction with teachers. Additional analyses (not shown here) looked at the influence of teacher interaction on school-based misbehaviour, controlling for measures of externalising behaviour at nine and 13 years.[23] However, the relationship remains largely unaltered, suggesting that school-based misbehaviour is, at least in part, a reaction to day-to-day interaction with teachers (see also Smyth, 2016).

Compared to those in mixed-ability base classes, those allocated to higher-stream classes at junior cycle tended to have less negative behaviour (except truancy where the difference was not significant) and more prosocial behaviour. A good deal of this difference was accounted for by greater school engagement among this group. Those placed in middle, lower-stream or special classes tended to have more externalising and internalising difficulties[24] and, to some extent, higher truancy rates. Contrary to expectations, the school disciplinary climate (as measured by the frequency of use of different forms of discipline; see Chapter 1) was not significantly related to individual behaviour, though truancy rates were somewhat lower in stricter schools.

Young people's own engagement in school was significantly related to their behaviour. There was a linear relationship between liking school and misbehaviour and internalising difficulties, with both behaviours more prevalent among those who disliked school. For externalising difficulties, truancy and antisocial behaviour, the main contrast was between the small group who hated school and all others. This group was more than twice as likely to truant. Over and above general attitudes to school, attitudes to school subjects were also related to behaviour, with lack of interest in Maths (a good indicator of engagement in school-specific subject areas) associated with all types of negative behaviour as well as lower levels of prosocial behaviour.

Higher grades in the Junior Certificate exam were associated with lower levels of externalising, internalising and antisocial behaviour. There was no significant relationship between academic performance and prosocial behaviour. School misbehaviour and truancy were only measured prior to the Junior Certificate exam so the relationship with academic performance cannot be assessed.

School engagement increases the variance explained in all behaviour outcomes by a modest amount (around 1%). In the case of externalising behaviour, the increase is larger (from 12% to 17%), indicating disengagement from school as a driver of

[23] This is quite a stringent test as misbehaviour is also measured at age 13.
[24] This pattern largely reflects more externalising and internalising difficulties at nine and 13 years among this group, with no change in such difficulties between 13 and 17 for those previously placed in a middle/lower-stream/special class.

young people 'acting up'. It could be argued that young people who were already displaying behaviour difficulties would be more negative about school and school subjects. Additional analyses (Table A5.3) examined these effects, controlling for measures of behaviour at waves one and two (9 and 13 years of age). The effects reduced somewhat in size but remained large and significant, suggesting that school disengagement in junior cycle was associated with worsening behaviour over the course of adolescence.

TABLE 5.3A CROSS-CLASSIFIED MULTILEVEL MODELS OF SCHOOL FACTORS AND ADOLESCENT BEHAVIOUR

	Externalising	Internalising	Prosocial	Misbehaviour	Truancy (Odds ratios)	Antisocial behaviour
Reading test score at 9	-0.025***	0.002	-0.005**	0.005***	1.023***	0.004*
Positive interaction with teachers	-0.190**	-0.333***	0.198***	-0.481***	0.641***	-0.195***
Negative interaction with teachers	0.767***	-0.082±	-0.175***	2.026***	2.743***	0.851***
Class group:						
Higher stream	-0.299**	-0.184*	0.091*	-0.162**	0.859	-0.118±
Middle/lower stream/special class	0.791***	0.270*	-0.056	0.021	1.323±	0.140
(Ref.: Mixed ability class)						
School disciplinary climate	-0.002	0.001	0.007	0.005	0.982±	-0.009
Number of young people	5,878	5,878	5,878	5,875	5,878	5,707
% variation explained at individual level	12.2	9.3	2.2	43.3	-	4.7

*Note: *** p<.001; ** p<.01; * p<.05; ± p<.10. These models control for the individual, family background, school and neighbourhood characteristics analysed in Chapters 2 to 4.*

TABLE 5.3B CROSS-CLASSIFIED MULTILEVEL MODELS OF SCHOOL FACTORS, SCHOOL ENGAGEMENT AND ADOLESCENT BEHAVIOUR

	Externalising	Internalising	Prosocial	Misbehaviour	Truancy (Odds ratios)	Antisocial behaviour
Reading test score at 9	-0.007*	0.007*	-0.004**	0.005**	1.023***	0.010***
Positive interaction with teachers	-0.057	-0.190**	0.155***	-0.366***	0.694***	-0.105*
Negative interaction with teachers	0.575***	-0.225***	-0.136***	1.940***	2.583***	0.747***
Class group:						
Higher stream	-0.162*	-0.134±	0.086±	-0.146**	0.876	-0.075
Middle/lower stream/special class	0.589***	0.214±	-0.048	0.027	1.318±	0.076
(Ref.: Mixed ability class)						
School disciplinary climate	-0.008	-0.001	0.007	0.004	0.982±	-0.011±
Attitudes to school:						
Like it quite a bit	-0.178*	0.197*	-0.012	0.128**	0.877	0.036
Like it a bit	-0.088	0.213*	-0.141*	0.299***	1.031	0.068
Don't like it very much	-0.301*	0.402**	-0.268**	0.504***	1.012	-0.072
Hate it	0.451*	1.351***	-0.143	0.928***	2.164***	1.085***
(Ref.: Like it very much)						
Interest in Maths:						
OK	-0.072	0.041	-0.007	0.046	0.939	-0.020
Not interesting	0.267***	0.326**	-0.157**	0.251***	1.385*	0.144±
(Ref. Interesting)						
Junior Certificate grade point average	-0.626***	-0.184***	0.001	-	-	-0.207***
Number of young people	5,707	5,707	5,707	5,704	5,666	5,659
% variation explained at individual level	17.2	10.4	2.4	44.3	-	7.8

*Note: *** p<.001; ** p<.01; * p<.05; ± p<.10. These models control for the individual, family background, school and neighbourhood characteristics analysed in Chapters 2 to 4.*

TABLE 5.4 CROSS-CLASSIFIED MULTILEVEL MODELS OF NEIGHBOURHOOD FACTORS AND ADOLESCENT BEHAVIOUR

	Externalising	Internalising	Prosocial	Misbehaviour	Truancy	Antisocial behaviour
Has an adult to talk to about problems	-0.841***	-0.651***	0.329***	-0.310***	0.631***	-0.808***
Local facilities for teenagers	-0.124±	-0.153**	0.063	-0.002	0.833±	-0.059
Safe place for teenagers to hang out locally	-0.172*	-0.349***	0.035	-0.045	0.888	-0.203***
School extracurricular provision of sports	0.034	-0.215**	0.008	0.104±	1.102	-0.040
School extracurricular provision of cultural activities	0.007	0.092**	0.001	-0.017	0.947	0.012
Involvement in unstructured sport	0.058±	-0.131***	0.046*	0.126***	1.102*	0.113***
Involvement in structured sport	-0.002	-0.348***	0.020	0.033	0.884*	-0.017
Involvement in cultural activities	0.240**	-0.022***	-0.073±	0.204***	1.150	0.118*
Number of young people	5,870	5,870	5,870	5,866	5,864	5,819
% variance explained at individual level	8.4	11.3	3.4	5.3	-	3.2

*Note: *** p<.001; ** p<.01; * p<.05; ± p<.10. These models control for the individual, family background, school and neighbourhood characteristics analysed in Chapters 2 to 4.*

5.5 NEIGHBOURHOOD AND COMMUNITY FACTORS

Neighbourhood and community factors were measured in terms of having an adult to talk to about problems, access to local or school-based facilities, perceived safety of the local area, and engagement in activities such as sports and cultural pursuits (see Chapter 1). The proportion of variation explained by neighbourhood and community factors varies markedly across the different types of behaviour (Table 5.4). These factors explain about the same amount of variation in externalising behaviour as peer factors (perhaps not surprisingly as involvement in different activities will also involve interaction with peers) but much less than family or school factors. The pattern for prosocial behaviour is broadly comparable with similar explanatory power for neighbourhood and peer factors. For internalising behaviour, neighbourhood factors are similar in impact to school and peer factors. For school-based misbehaviour, neighbourhood factors explain less than school, peer or family characteristics, while for antisocial behaviour neighbourhood factors are a less important driver than school or peer factors.

Having an adult to talk to about their problems appeared to operate as a strong protective factor for all types of behaviour, with much lower incidence of negative behaviours and enhanced prosocial behaviour (Table 5.4). Having local facilities for teenagers was linked to lower levels of internalising and externalising difficulties and, to some extent, truancy, but was not significantly associated with antisocial behaviour. Feeling the area was safe for teenagers to hang around in was linked to lower internalising and externalising difficulties and antisocial behaviour. School misbehaviour was not related to local facilities, reinforcing findings presented earlier (Chapter 1) about the extent to which behaviour in different domains may not be strongly linked.

Information was collected from school principals on whether the school provided sports and/or cultural activities (such as choir or musical instrument tuition) on an extracurricular basis. Internalising difficulties were found to be lower where young people attended a school that provided more extracurricular sport. Surprisingly, they were slightly higher in schools offering more cultural activities. This may reflect the gendered nature of internalising difficulties and the greater provision of cultural activities in girls' schools (see Smyth, 2020).

Young people were asked about their engagement in three kinds of activities: cultural activities (such as taking a music or drama class), structured sports (involving a team or club) and unstructured sport (which could include activities such as going for a run or playing football on the street with friends). Participation in cultural activities was not significantly related to any of the dimensions of behaviour once the profile of those taking part in such activities was taken into account (Table A5.4). Table 5.4 shows a positive and significant coefficient for cultural participation and school-based misbehaviour. However, this appears to be driven by the high correlation between such participation and gender, social

background and school attended. A bivariate analysis indicates that misbehaviour tends to be lower among those who engage in cultural activities at 13.

Involvement in structured sport (teams or clubs) was found to have a protective effect on internalising difficulties and truancy. Involvement in unstructured sport was also associated with fewer internalising difficulties but was linked to all other types of negative behaviour. This would suggest that the protective effect of sport was not related to physical activity but rather to the social context within which it occurred. In addition, it should be noted that those who engaged in unstructured sport tended to have larger friendship groups and were more likely to have older friends, both risk factors for negative behaviour (see above). Further analyses indicated that the relationship between unstructured sport and negative behaviours was significant only for males, a pattern also found in international research (Mahoney and Stattin, 2000).

5.6 RISK AND PROTECTIVE FACTORS AS MEDIATORS

Chapter 2 highlighted gender and family background differences in different kinds of behaviour. To what extent are any of these differences explained by the risk and protective factors considered here? Gender differences in internalising, antisocial and prosocial behaviour are remarkably constant even when these other factors are taken into account (detailed analyses not shown here). In contrast, for externalising behaviour, school-based misbehaviour and truancy, some of the gender gap is due to greater school engagement and better-quality relationships with teachers on the part of females. Similarly, part of the explanation for lower levels of internalising and externalising behaviour for young people in more highly educated families relates to greater school engagement and higher achievement levels among these groups. In contrast, the difference between those in lone-parent or separated families and those in two-parent families is evident even taking account of a wide range of other factors. However, some of the difference in externalising, antisocial, school behaviour and truancy by family structure is found to be related to school social mix and school engagement, while part of the gap for internalising behaviour is due to both school and neighbourhood factors. Thus, it appears that the overrepresentation of lone-parent families in disadvantaged schools and neighbourhoods accounts for some of the behavioural differences found. These patterns would merit further research.

The effect on adolescent behaviour of attending a DEIS school is at least partly due to differences in school climate (teacher-student interaction) and school engagement, while neighbourhood factors also play a part in influencing greater internalising difficulties among this group of young people. Greater externalising difficulties and antisocial behaviour among those who had already left school by the time of the wave three interview were found to be related to poorer family and peer relationships as well as poorer school engagement and poorer-quality neighbourhoods for this group of young people. However, this group had greater

internalising difficulties than those still in school, even taking account of their greater exposure to these risk factors. Data collected at 20 years of age could help disentangle the extent to which these patterns reflect the socio-emotional difficulties experienced by early school-leavers as opposed to those who have completed second-level education.

5.7 CONCLUSIONS

This chapter has shown that adolescent behaviour in different domains is not closely related. School-based misbehaviour largely reflects experience of, and interaction with, school, with school experiences also playing a stronger role than other factors in antisocial behaviour. In contrast, family relationships are an important driver of internalising, externalising and prosocial behaviour, with peer factors being as important as family factors for internalising behaviour and school-based misbehaviour.

As indicated in Chapter 1, while earlier behaviour difficulties are a risk factor for later difficulties, there is evidence of considerable change over time, reflecting, at least in part, young people's exposure to different risk and protective factors. Positive relationships with parents, peers and teachers emerged as highly protective factors, a pattern which has important implications for policy relating to schools, youth services and parenting support. In keeping with previous research on the importance of 'one good adult' (Dooley and Fitzgerald, 2019), young people who had an adult they could turn to with problems experienced fewer behaviour difficulties. Access to local facilities in a safe neighbourhood also had protective effects.

While the quality of peer relations was an important protective factor, the size and composition of young people's friendship networks led to some risks. Larger groups of friends were linked to fewer internalising difficulties but were also related to a greater incidence of 'acting out' at home and school as well as in the community, suggesting that membership of a large group can serve to spur some negative behaviour, perhaps reflecting showing off to friends or being egged on to do certain things (Jenkinson, 2011). Socialising with older friends also posed a risk in terms of these kinds of acting out.

School disengagement emerged as a significant risk factor across all types of negative behaviour. Poorer behaviour was found among those who disliked school and school subjects, who were frequently reprimanded by their teachers and who underperformed academically.

CHAPTER 6
Conclusions and implications for policy

6.1 BACKGROUND TO THE STUDY

Adolescent behaviour has often been the subject of public censure, not least during the current pandemic (see Day et al., 2020). Much less emphasis has been placed on the extent to which young people do, in fact, 'act out' on a frequent basis and, if they do, whether they do so across all of the different social arenas in which they operate. This study draws on Growing Up in Ireland (GUI) data on Cohort '98 to take a broad view of the processes and factors that are likely to influence (mis)behaviour among 17-year-olds, looking at family, school and neighbourhood factors simultaneously, and taking a longitudinal perspective on young people over a crucial period of their development. The study adopts a multidimensional approach to understanding adolescent behaviour, looking at six types of behaviour: externalising behaviour (which involves conduct or attention problems), internalising behaviour (low mood and peer difficulties), prosocial behaviour (positive engagement with others), school-based misbehaviour, truancy and antisocial behaviour (including stealing, graffiti, etc.). It therefore encompasses outcomes that capture behaviour within the family (internalising, externalising and prosocial behaviour), school (misbehaviour and truancy) and community contexts (antisocial behaviour).

6.2 MAIN FINDINGS

In general, 17-year-olds were found to have low levels of behaviour difficulties (internalising and externalising) and to display prosocial behaviour. Levels of antisocial behaviour and truancy were relatively low, as was school-based misbehaviour, with the exception of low-level behaviour such as 'messing' in class. Table 6.1 summarises the main findings emerging from the study, indicating commonalities as well as differences in the factors associated with different types of behaviour.

6.2.1 Gender and family background

The analyses identified a number of individual and family characteristics that were associated with greater difficulties. Behaviour that involved externalising or acting out – that is, externalising behaviour at home, school-based misbehaviour and antisocial behaviour – was much more prevalent among young men. In contrast, young women were more likely to internalise their difficulties, with a significant growth in the gender gap in such behaviour between 13 and 17 years of age.

The analyses did not confirm a picture of consistent behaviour difficulties among more socio-economically disadvantaged groups. Financial strain did contribute to

worse behaviour (internalising, externalising and school-based behaviour) and those from more highly educated families had fewer internalising and externalising difficulties. However, there was no consistent variation in antisocial or school-based behaviour by long-term family resources (social class, maternal education or household income) and more disadvantaged groups of young people displayed more prosocial behaviour.

Family structure emerged as having a significant and consistent relationship with adolescent behaviour, with poorer behaviour across all domains for those in lone-parent families or families that experienced separation during the young person's adolescence. This pattern held even taking account of the socio-economic characteristics of these households and was not fully explained by other factors.[25]

6.2.2 School factors

The second-level school young people attended made a difference to certain types of behaviour, namely, school-based misbehaviour, truancy, internalising difficulties and prosocial behaviour, with significant variation found between schools even taking account of the background of their students. The concentration of advantage or disadvantage at school level was found to shape patterns of behaviour, over and above the influence of individual social background. Higher levels of school-based misbehaviour, truancy, externalising, internalising and antisocial behaviour were found among young people who were attending or had attended DEIS schools. At the same time, this group of young people also displayed more prosocial behaviour than those in non-DEIS schools. Internalising and externalising difficulties were also greater among those who had attended the most disadvantaged category of primary schools (Urban Band 1); this pattern partly related to this group of young people being more likely to live in a highly disadvantaged area. Somewhat surprisingly perhaps, levels of antisocial behaviour and truancy were found to be higher in fee-paying than in non-DEIS schools. School social mix explained much of the between-school variation found in adolescent behaviour, though differences in school misbehaviour and truancy remained significant, suggesting the influence of school policy and climate on these behaviours.

6.2.3 Neighbourhood factors

In contrast to the variation between schools, adolescent behaviour patterns did not vary significantly across neighbourhoods (measured in terms of electoral divisions) and variation at the school level tended to be larger than that at the area level. The exception was truancy, where between-area variation largely reflected the type of schools attended by young people. This finding has important implications for targeting policy, an issue that is discussed further in section 6.3.

[25] School experiences and educational outcomes did appear to play a small role in explaining the gap, an issue that would merit further research.

There was no consistent evidence that behaviour difficulties were greater in more disadvantaged areas, when individual and school factors were taken into account, though externalising behaviour was more prevalent in the most disadvantaged quarter of areas. Young people in larger urban areas and small towns tended to have poorer behaviour outcomes, even taking account of family, school and other neighbourhood factors. There were also more internalising and externalising difficulties and less prosocial behaviour in areas viewed by parents as disorderly. Internalising difficulties and antisocial behaviour were more prevalent in areas with gang activity.

6.2.4 Behaviour or behaviours?

Behaviour does not happen in a vacuum – it is necessary to look at the broader contexts in which young people function (Lyons and O'Connor, 2006; Weermann et al., 2007). The analyses show that adolescent behaviour in different domains is not closely related but rather changes between contexts and over time. As a result, few young people consistently 'act out' across the arenas of home, school and community. There is evidence too of considerable change over time, reflecting, at least in part, young people's exposure to different risk and protective factors.

TABLE 6.1 SUMMARY OF ANALYSES OF THE FACTORS ASSOCIATED WITH ADOLESCENT BEHAVIOUR AT 17 YEARS OF AGE

	Home-based behaviour			School-based behaviour		Behaviour in the community
	Externalising behaviour	**Internalising behaviour**	**Prosocial behaviour**	**School-based misbehaviour**	**Truancy**	**Antisocial behaviour**
Gender	Higher among males	Higher among females	Higher among females	Higher among males	Higher among males	Higher among males
Social background	Higher where maternal education is lower and where financial strain experienced	Higher where maternal education is lower and where financial strain experienced	Higher where maternal education is lower	Higher where financial strain experienced	NS	NS
Family structure	Higher in lone-parent and families that separated between waves	Higher in lone-parent and families that separated between waves	Lower in lone-parent and families that separated between waves	Higher in lone-parent and families that separated between waves	Higher in lone-parent and families that separated between waves	Higher in lone-parent and families that separated between waves
Parental health	Higher if parental depression and father has a chronic illness	Higher if parental depression and parents have a chronic illness	Slightly lower if parental depression (but inconsistent across measures)	NS	NS	NS
Migrant status	NS	Slightly higher for those with migrant background	NS	NS	Much lower for those with migrant background	NS
SEN	Much higher for SEN	Much higher for SEN	Slightly lower for SEN	Slightly higher for SEN	Higher for SEN	Higher for SEN
Educational stage	Higher among those who had left school	Higher in 6th year and among those who had left school	Higher among those who had left school	Higher among those in 2nd year	Higher among those in 2nd year	Higher among those who had left school
School social mix	Higher if in DEIS second-level and had attended an Urban Band 1 primary school	Higher if in DEIS second-level and had attended an Urban Band 1 primary school	Higher if in DEIS second-level and had attended an Urban Band 1 primary school	Higher if in DEIS second-level and had attended an Urban Band 1 primary school	Higher in fee-paying schools and slightly higher in DEIS second-level	Higher in DEIS and fee-paying schools
School gender mix	NS	NS	NS	Lower in single-sex schools (especially girls' schools)	Lower in girls' schools	

Neighbourhood factors	Higher in most socio-economically disadvantaged and disorderly areas	Higher in disorderly areas with gang activity; large urban and small towns	Lower in disorderly areas; higher in rural areas	Higher in large urban areas and small towns	Higher in small towns	Somewhat higher in most advantaged areas, large urban and small towns; higher where gang activity
Risk and protective factors						
Parent-child relationships	Higher where conflict with parents and lower with maternal monitoring	Higher where conflict with parents	Higher where positive relationship with, and disclosure to, mothers; lower where conflict with parents	Higher where conflict with parents; lower if positive relationship	Lower if parental monitoring; slightly higher if conflict with mother and slightly lower if positive relationship with both parents	Lower if positive relationship with mother and parental monitoring; higher if conflictual relationship with mother
Peer relationships	Higher if larger friendship group, older friends and alienated from friends; lower if has trust in friends	Lower if larger friendship group and has trust in friends	Slightly higher if alienated from friends and slightly lower if has trust in friends	Higher if larger friendship group, older friends and alienated from friends; slightly lower if has trust in friends	Higher if older friends and alienated from them	Higher if larger friendship group, older friends and alienated from friends; lower if has trust in friends
School experiences	Higher if negative interaction with teachers, hate school, not interested in Maths and lower grades	Lower if more positive or negative interaction with teachers; higher if don't like school, not interested in Maths and lower grades	Higher if positive interaction with teachers and lower if negative interaction, don't like school and not interested in Maths	Much higher if negative interaction with teachers, don't like school, not interested in Maths; lower if positive interaction with teachers	Higher if negative interaction with teachers, hate school and not interested in Maths; lower if positive interaction with teachers	Much higher if negative interaction with teachers and hate school; lower if positive interaction with teachers and higher grades
Local facilities and engagement in activities	Lower if adult to talk to and safe places locally	Lower if adult to talk to, local facilities, school provision of sports, and involved in structured or unstructured sport	Higher if adult to talk to and involved in unstructured sport	Lower if adult to talk to and higher if involved in unstructured sport	Lower if adult to talk to and involved in structured sport	Lower if adult to talk to and safe places locally; higher if involved in unstructured sport

6.2.5 Risk and protective factors

Four sets of risk and protective factors were examined, grouped into: family relationships and processes; peer relationships and composition; school experiences; and local facilities and engagement in different activities. Reflecting the way in which behaviour is responsive to context, variation in behaviour across different domains was differentially influenced by the four sets of factors. Thus, variation in school-based misbehaviour was more strongly related to school factors and the interaction between the individual and the school context than to family, peer or neighbourhood factors. Both peer and school factors played a stronger role in antisocial behaviour while externalising behaviour reflected family and school factors to a greater extent. Interestingly, internalising behaviour was more or less equally explained by family, peer, school and neighbourhood factors.

Positive relationships with parents, peers and teachers emerged as important protective factors. Behavioural difficulties were greater where there were conflictual relations with parents and teachers and where young people did not have an adult in their lives to turn to for help and support ('one good adult', in Dooley and Fitzgerald's (2019) terminology). School disengagement emerged as a significant risk factor across all types of negative behaviour; poorer behaviour was found among those who disliked school and school subjects, who were frequently reprimanded by their teachers and who underperformed academically. Larger friendship groups had both positive and negative effects, with fewer internalising difficulties but greater risk of school misbehaviour, antisocial and externalising behaviour. Socialising with older friends also served as a risk factor for these behaviours. Access to local facilities in a safe neighbourhood had protective effects on adolescent behaviour.

6.3 IMPLICATIONS FOR POLICY

This study looks at different dimensions of adolescent behaviour and the varying contexts within which it occurs. The study findings therefore have implications for policy across a range of domains, including (but not limited to) mental health, education, parenting support, income support, youth services and recreational facilities.

6.3.1 A holistic approach to wellbeing

The findings highlight the importance of taking a holistic approach to youth mental health and wellbeing, in keeping with the emphasis of the recent mental health policy document, *Sharing the Vision* (Government of Ireland, 2020), in engaging in early prevention to build resilience and improve wellbeing throughout childhood, adolescence and into adulthood. The current strategy for children and young

people, *Better Outcomes, Brighter Futures (BOBF)*, also recognises the importance of positive mental health and wellbeing among children and young people for their social and cognitive development, as well as for their ability to meet their full potential and to live a life that is filled with positive experiences (DCYA, 2014). This policy approach highlights the important role of universal services such as schools in promoting young people's positive mental health and wellbeing.

6.3.2 The role of schools

The study findings support this perspective on schools as an important arena for potential intervention and support. They indicate that negative experiences of school (including disengagement and poor-quality relationships with teachers) are related to all types of behaviour difficulties, while the individual school attended matters for most kinds of behaviour outcomes. It is worth noting that school experiences and processes emerge as a more important influence on adolescent behaviour than the neighbourhood in which they live, reinforcing the importance of support and intervention at school level.

Wellbeing has become a central focus of educational policy in recent years, serving as a key theme in the early-years curriculum (NCCA, 2009) and forming a new area of learning at junior cycle (DES, 2015).[26] The *Wellbeing Policy Statement and Framework for Practice 2018–2023* emphasises a whole-school approach to promoting wellbeing and the importance of wellbeing in school self-evaluation (DES, 2018), building on a long history in Irish second-level education of providing personal and social supports for students (Hearne and Galvin, 2015). To date, however, wellbeing has not been a central focus of the senior cycle curriculum, a lacuna raised in consultations with students, parents and teachers (Smyth et al., 2019). Guidance counsellors and school support teams have an important role to play in supporting student wellbeing, but increasingly the focus has shifted to a whole-school approach, with guidance activities ranging from guidance 'for all' (such as wellbeing provision involving a broader set of staff) to guidance 'for a few' (involving more intensive supports in times of crisis provided by more specialist staff) (NCGE, 2017). The study findings highlight the importance of any formal interventions or supports being underpinned by a positive school climate, with the quality of interaction with teachers emerging as a key influence on adolescent behaviour. Such a climate would be characterised by a greater emphasis on praise and positive feedback and a reduced emphasis on negative reprimand. The use of conflict resolution and restorative justice approaches has shown considerable potential as a basis for managing behaviour in schools (McCluskey, 2018). Such an approach may also have positive spill-over effects in enabling young people to

[26] Wellbeing is also attracting broader policy attention. The *Programme for Government* commits to the development of new wellbeing indices, with the potential for such measurement explored in a scoping document (Government of Ireland, 2020).

handle potential conflict with their peers and parents (see Rawdon et al., 2020 for an overview on the role of schools in social and emotional learning).

Teachers may not be aware of the extent to which they influence young people's outcomes on an informal level and may not feel confident in understanding the sometimes complex relationship between mental health and behavioural difficulties (Rothi et al., 2008). Some behaviours may be more 'visible', leaving internalising difficulties among some young people (disproportionately females) receiving less attention where they do not 'act out' in the classroom context. Teachers need to be aware that young people vary in how they deal with problems (externalising and/or internalising them) so that they can build a bond of trust and find the best way to support individuals. Their role highlights the importance of training for teachers (see Department of Health, 2017). Initial teacher education and continuous professional development could usefully build upon existing provision by Education Centres and organisations such as Jigsaw. However, research points to the potential fragmentation of provision in teacher professional learning on wellbeing, with a variety of providers and approaches and more potential for sharing of practice and consistency of methods across contexts (Rawdon et al., 2020).

The study findings add to the body of evidence which indicates that young people attending schools with a concentration of disadvantage tend to have poorer outcomes, even taking account of their family resources, and provide further support for the channelling of additional resources to those schools serving students with complex needs. The School Completion Programme (SCP) offers the flexibility to respond to student need and in some schools has been used to focus on behaviour management and therapeutic supports (Smyth et al., 2015). However, resources to the SCP were reduced during the last recession and have not yet been restored to pre-recession levels (Smyth et al., 2015). In DEIS schools, Home-School-Community Liaison Coordinators (HSCLs) play an important role as a conduit of information between parents and teachers (Weir et al., 2018) and serve as a potential channel for supporting parents in addressing their children's challenging behaviour.

Behaviour difficulties are found to be significantly related to school disengagement in both DEIS and non-DEIS schools. Greater difficulties are found among those who dislike school and are not interested in their school subjects. In this context, it is important to have systematic evidence on the implementation of junior cycle reform as well as making it a policy priority to ensure that senior cycle is a more engaging experience for the entire cohort of young people.

6.3.3 Mental health services

Schools play an important role as part of a continuum of care for young people but some groups of young people experience more serious behaviour and mental health difficulties than others. However, research points to significant levels of unmet demand for child/adolescent community mental health services (Brick et al., 2020), with '[d]edicated adolescent mental health services… virtually non-existent on a national basis' (HSE, 2020, p.84), creating challenges for young people being able to access appropriate services in a timely way. Concerns have also been expressed about lack of continuity of support in the transition between adolescent and adult mental health services (Department of Health, 2017). This issue is all the more pressing in a context where young people's wellbeing and mental health have been disproportionately affected by the pandemic and related restrictions (Darmody et al., 2020).

The study findings point to the importance of parents' own mental health in shaping young people's wellbeing, highlighting the potential value of adopting an intergenerational approach to adult mental health services. The implementation of such an approach would be challenging, given that research has pointed to the high level of unmet demand for community mental health services (Brick et al., 2020) – again a situation that is likely to have been exacerbated by growing anxiety and depression in the wake of pandemic restrictions (CSO, 2020).

6.3.4 Support for parents

In looking at family resources and relationships, the role of financial strain in exacerbating behaviour difficulties highlights the importance of a broader anti-poverty strategy in enhancing outcomes for children and young people. This is all the more important given the job/income loss due to the pandemic.

Conflict with parents emerges as significantly related to a number of dimensions of adolescent behaviour. In recent years, family support policies in Ireland have moved towards a greater focus on early prevention as well as integrated service provision with the child/young person at its core (Tusla, 2013a, 2013b; DCYA, 2015). However, implementation faces ongoing challenges around resourcing (McGregor and Devaney, 2020) as well as parental awareness of available supports (Rochford et al., 2014). Parenting support[27] is conceptualised in broad terms, incorporating information and advice, emotional and practical supports as well as more formal interventions (Tusla, 2013b; Rochford et al., 2014). An overview of

[27] The concept of parenting support is not uncontested. Some commentators argue that it shifts attention from the socio-economic and gender inequalities faced by families (Hartas, 2014; Daly, 2013).

initiatives suggests that interventions which address children's behaviour across multiple settings (e.g. home and school) and involve interagency cooperation are more effective (CES, 2016). Information for parents of adolescents could usefully draw on the study findings to increase awareness of the different risk and protective factors identified.

6.3.5 SEN and inclusion

The study findings have pointed to greater behaviour difficulties across a number of dimensions among young people with special educational needs (SEN). This group of young people are diverse in their needs; further research could usefully disentangle the extent to which behaviour difficulties reflect specific conditions or are more closely related to the interaction between the individual and their context. Previous research has pointed to greater isolation from peers among children and young people with SEN, especially those with emotional-behavioural difficulties (Banks et al., 2017) so there are challenges for schools and youth services or facilities to recognise diversity, be fully inclusive and help foster social integration. As is the case for young people without SEN, school principals and teachers adopting a positive approach to dealing with emotional-behavioural difficulties is seen as key to effective support (Carroll and Hurry, 2018; Tiernan et al., 2020). Supports for parents of young people with SEN also appear to have a potential positive impact on adolescent behaviour (McMahon and Wilson, 2020).

6.3.6 Youth services and recreational provision

Friends occupy a very important place in young people's lives. Friendships *per se* are not amenable to policy intervention. However, young people can be supported in developing the skills to resolve conflict with their peers, potentially through school-based programmes. Having opportunities for meaningful (supervised) activities in the neighbourhood may provide young people with more like-minded friends. These opportunities need to be free of charge for more disadvantaged families. Involvement in structured sport emerges as a protective factor for young people. However, access to extracurricular sport varies across different types of schools (Nolan and Smyth, 2020), and involvement is less prevalent among young women and among more disadvantaged groups (McNamara et al., 2020). The need to support greater female participation in sports has been specified as an important policy objective in the *National Strategy for Women and Girls* (Department of Justice, 2017) while the *National Sports Policy* (Government of Ireland, 2018) highlights the importance of providing a diverse range of activities to engage females and other underrepresented groups.

Youth services can facilitate the opportunity to have 'one good adult' to whom young people can turn for advice and support, and are likely to be particularly important for those experiencing disadvantage (NYCI, 2012), who are disengaged

from school and/or are experiencing family conflict. Youth workers developing relationships of trust with young people can help gain insight into the factors triggering disruptive behaviour (Jenkinson, 2011). These services can also provide an important arena for young people to develop the kinds of social and emotional skills which will enable them to cope with conflict and any difficulties they encounter. As in the case of teachers, professional development for youth workers is crucial in enabling them to support young people's positive mental health. Research points to the importance of youth workers in a particular setting taking a consistent approach to managing behaviour (Jenkinson, 2011). Like schools, youth services are part of a continuum of care and support; in this respect, the potential to link to other provision for those with more serious difficulties is crucial.

While the study findings indicate that neighbourhood factors appear to be less influential than family, school or peer factors, living in areas with a lot of antisocial behaviour or gang activity is related to behaviour difficulties among young people. The concentration of such problems is viewed as best tackled through a holistic approach encompassing education and employment opportunities, improvement in the physical infrastructure and service integration, and policies to tackle crime (NIEC, 2017).

In conclusion, the study has looked at adolescent behaviour in the period prior to the pandemic. Emerging evidence suggests that young people have been disproportionately affected by the period of restrictions in terms of their access to education and employment, as well as their mental health and wellbeing. This impact makes it all the more important to develop policies to support young people's wellbeing into the future.

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APPENDIX TABLES

TABLE A1 ITEMS INCLUDED IN THE MEASURES OF BEHAVIOUR

Strengths and Difficulties Questionnaire **Responses: Not True, Somewhat True or Certainly True**
Externalising behaviour
Often has temper tantrums or hot tempers
Generally obedient, usually does what adults request
Often fights with other children or bullies them
Often lies or cheats
Steals from home, school or elsewhere
Restless, overactive, cannot stay still for long
Constantly fidgeting or squirming
Easily distracted, concentration wanders
Thinks things out before acting
Sees tasks through to the end, good attention span
Internalising behaviour
Often complains of headaches, stomach aches or sickness
Many worries, often seems worried
Often unhappy, down-hearted or tearful
Nervous or clingy in new situations, often loses confidence
Many fears, easily scared
Rather solitary, tends to prefer to be alone
Has at least one good friend
Generally liked by other children
Picked on or bullied by other children
Gets on better with adults than with other children
Prosocial behaviour
Considerate of other people's feelings
Shares readily with other children (treats, toys, pencils etc.)
Helpful if someone is hurt, upset or feeling ill
Kind to younger children
Often volunteers to help others (parents, teachers, other children)
School-based misbehaviour **Responses: Never; now and again; quite often; all the time**
I was late for school
I got into trouble for not following the school rules
I skipped classes or 'mitched'
I 'messed' in class
I had to do extra work as punishment (including lines)
I had to do detention (after school or at lunchtime)
I was suspended from school
Truancy (recoded into never or ever)
I skipped classes or 'mitched' (13 years)
Truanted from school (17 years)
Antisocial behaviour **Reponses: Never; once; 2-5 times; 6 or more times**
Taken something from a shop or store without paying for it

Behaved badly in public so that people complained and you got into trouble
Stolen or ridden in a stolen car or a van or on a stolen motorbike
Taken money or something else that did not belong to you from school
Carried a knife or weapon with you in case it was needed in a fight
Deliberately damaged or destroyed property that did not belong to you (e.g., windows, cars, streetlights)
Broken into a house or building to steal something
Written things or sprayed paint on things that do not belong to you (for example, a phone box, car, building, bus shelter)
Used force, threats or a weapon to get money or something else from somebody
Taken money or something else that did not belong to you from your home without permission
Broken into a car or van to steal something from it
Deliberately set fire or tried to set fire to someone's property or a building (e.g. school or shed)
Hit, kicked or punched someone on purpose in order to hurt or injure them
Been involved in a serious physical fight where someone got badly hurt or needed to see a doctor
Purposely hurt or injured a bird or an animal

TABLE A3.1 RELATIONSHIP BETWEEN INDIVIDUAL AND FAMILY FACTORS AND EXTERNALISING BEHAVIOUR, CONTROLLING FOR SCHOOL FACTORS

Characteristic	Coefficient
Constant	2.917
Female (Ref.: male)	-0.621***
Social class:	
Professional	0.098
Managerial	0.158
Nonmanual	0.228±
Skilled	0.199
Non-employed (Ref. Semi/unskilled manual)	0.234
Mother's education:	
Leaving Certificate	-0.215*
Post-secondary	-0.267*
Degree	-0.432**
Postgraduate degree (Ref.: Junior Certificate)	-0.334*
Household equivalised income:	
2nd	-0.091
3rd	0.213*
4th	0.052
Highest (Ref.: Lowest quintile)	0.182±
Experienced financial strain at 13	0.269**
Experienced financial strain at 17	0.310**
Lone parent family at 9	0.584***
Moved from two- to lone-parent family	0.482***
Migrant background	0.054
Special educational need	1.275***
Mother has chronic illness at 9	0.068
Father has chronic illness at 9	0.241*
Maternal depression at 9	0.255±
Maternal depression at 13	0.656***
Maternal depression at 17	0.655***
Paternal depression at 9	0.384
Paternal depression at 13	-0.009
Paternal depression at 17	0.105*

*Note: *** p<.001; ** p<.01; * p<.05; ± p<.10.*

TABLE A3.2 RELATIONSHIP BETWEEN INDIVIDUAL AND FAMILY FACTORS AND INTERNALISING BEHAVIOUR, CONTROLLING FOR SCHOOL FACTORS

Characteristic	Coefficient
Constant	1.787
Female (Ref.: male)	1.092***
Social class:	
Professional	0.039
Managerial	0.086
Nonmanual	0.034
Skilled	-0.120
Non-employed (Ref. Semi/unskilled manual)	0.133
Mother's education:	
Leaving Certificate	-0.141
Post-secondary	-0.221*
Degree	-0.381**
Postgraduate degree (Ref.: Junior Certificate)	-0.328*
Household equivalised income:	
2nd	0.114
3rd	0.240*
4th	0.224*
Highest (Ref.: Lowest quintile)	0.117
Experienced financial strain at 13	0.532***
Experienced financial strain at 17	0.396***
Lone parent family at 9	0.457**
Moved from two- to lone-parent family	0.329*
Migrant background	0.266*
Special educational need	1.149***
Mother has chronic illness at 9	0.251*
Father has chronic illness at 9	0.272*
Maternal depression at 9	0.629***
Maternal depression at 13	0.465**
Maternal depression at 17	0.864***
Paternal depression at 9	0.241
Paternal depression at 13	0.197
Paternal depression at 17	0.289±

*Note: *** p<.001; ** p<.01; * p<.05; ± p<.10.*

TABLE A3.3 RELATIONSHIP BETWEEN INDIVIDUAL AND FAMILY FACTORS AND PROSOCIAL BEHAVIOUR, CONTROLLING FOR SCHOOL FACTORS

Characteristic	Coefficient
Constant	9.078
Female (Ref.: male)	0.382***
Social class:	
Professional	-0.206*
Managerial	-0.152*
Nonmanual	-0.055
Skilled	-0.153±
Non-employed (Ref. Semi/unskilled manual)	-0.086
Mother's education:	
Leaving Certificate	-0.132*
Post-secondary	-0.193**
Degree	-0.287***
Postgraduate degree (Ref.: Junior Certificate)	-0.269**
Household equivalised income:	
2nd	0.063
3rd	-0.121*
4th	0.012
Highest (Ref.: Lowest quintile)	-0.115±
Experienced financial strain at 13	-0.027
Experienced financial strain at 17	-0.092±
Lone parent family at 9	-0.148*
Moved from two- to lone-parent family	-0.181*
Migrant background	0.036
Special educational need	-0.093±
Mother has chronic illness at 9	0.102±
Father has chronic illness at 9	-0.026
Maternal depression at 9	-0.228**
Maternal depression at 13	-0.093
Maternal depression at 17	-0.108±
Paternal depression at 9	0.019
Paternal depression at 13	-0.076
Paternal depression at 17	-0.236*

*Note: *** p<.001; ** p<.01; * p<.05; ± p<.10.*

TABLE A3.4 RELATIONSHIP BETWEEN INDIVIDUAL AND FAMILY FACTORS AND SCHOOL-BASED MISBEHAVIOUR, CONTROLLING FOR SCHOOL FACTORS

Characteristic	Coefficient
Constant	9.679
Female (Ref.: male)	-0.830***
Social class:	
Professional	0.076
Managerial	-0.087
Nonmanual	-0.087
Skilled	-0.242
Non-employed (Ref. Semi/unskilled manual)	-0.168
Mother's education:	
Leaving Certificate	-0.120±
Post-secondary	0.052
Degree	0.010
Postgraduate degree (Ref.: Junior Certificate)	0.124
Household equivalised income:	
2nd	-0.129±
3rd	-0.084
4th	-0.093
Highest (Ref.: Lowest quintile)	-0.074
Experienced financial strain at 13	0.127*
Experienced financial strain at 17	0.147*
Lone parent family at 9	0.650***
Moved from two- to lone-parent family	0.475***
Migrant background	-0.130
Special educational need	0.194***
Mother has chronic illness at 9	-0.182*
Father has chronic illness at 9	0.007
Maternal depression at 9	-0.092
Maternal depression at 13	0.342***
Paternal depression at 9	0.004
Paternal depression at 13	-0.043

*Note: *** p<.001; ** p<.01; * p<.05; ± p<.10.*

TABLE A3.5 RELATIONSHIP BETWEEN INDIVIDUAL AND FAMILY FACTORS AND TRUANCY, CONTROLLING FOR SCHOOL FACTORS (ODDS RATIOS)

Characteristic	Coefficient
Constant	0.071
Female (Ref.: male)	0.676***
Social class:	
Professional	0.807
Managerial	0.891
Nonmanual	0.778
Skilled	0.731±
Non-employed (Ref. Semi/unskilled manual)	1.192
Mother's education:	
Leaving Certificate	0.890
Post-secondary	0.865
Degree	1.029
Postgraduate degree (Ref.: Junior Certificate)	0.937
Household equivalised income:	
2nd	1.219
3rd	1.085
4th	1.358
Highest (Ref.: Lowest quintile)	1.156
Experienced financial strain at 13	1.154
Lone parent family at 9	1.702**
Moved from two- to lone-parent family	1.866***
Migrant background	0.547**
Special educational need	1.226*
Mother has chronic illness at 9	0.915
Father has chronic illness at 9	1.143
Maternal depression at 9	1.226
Maternal depression at 13	1.273±
Paternal depression at 9	1.157
Paternal depression at 13	0.715±

*Note: *** p<.001; ** p<.01; * p<.05; ± p<.10.*

TABLE A3.6 RELATIONSHIP BETWEEN INDIVIDUAL AND FAMILY FACTORS AND ANTISOCIAL BEHAVIOUR, CONTROLLING FOR SCHOOL FACTORS

Characteristic	Coefficient
Constant	16.285
Female (Ref.: male)	-0.951***
Social class:	
Professional	0.050
Managerial	0.078
Nonmanual	0.085
Skilled	0.046
Non-employed (Ref. Semi/unskilled manual)	0.076
Mother's education:	
Leaving Certificate	-0.046
Post-secondary	0.040
Degree	0.112
Postgraduate degree (Ref.: Junior Certificate)	0.152
Household equivalised income:	
2nd	-0.110
3rd	0.038
4th	0.053
Highest (Ref.: Lowest quintile)	-0.040
Experienced financial strain at 13	0.076
Experienced financial strain at 17	0.075
Lone parent family at 9	0.297*
Moved from two- to lone-parent family	0.285*
Migrant background	0.014
Special educational need	0.152*
Mother has chronic illness at 9	-0.073
Father has chronic illness at 9	-0.013
Maternal depression at 9	-0.052
Maternal depression at 13	0.204*
Maternal depression at 17	0.015
Paternal depression at 9	0.106
Paternal depression at 13	0.002
Paternal depression at 17	-0.005

*Note: *** p<.001; ** p<.01; * p<.05; ± p<.10.*

TABLE A4.1 RELATIONSHIP BETWEEN FAMILY AND SCHOOL FACTORS AND EXTERNALISING BEHAVIOUR, CONTROLLING FOR NEIGHBOURHOOD FACTORS

Characteristic	Coefficient
Constant	2.724
Female (Ref.: male)	-0.629***
Social class:	
Professional	0.107
Managerial	0.172
Nonmanual	0.235±
Skilled	0.215
Non-employed (Ref. Semi/unskilled manual)	0.232
Mother's education:	
Leaving Certificate	-0.148
Post-secondary	-0.203±
Degree	-0.353*
Postgraduate degree (Ref.: Junior Certificate)	-0.251±
Household equivalised income:	
2nd	-0.072
3rd	0.226*
4th	0.079
Highest (Ref.: Lowest quintile)	0.202±
Experienced financial strain at 13	0.224*
Experienced financial strain at 17	0.291**
Lone parent family at 9	0.445***
Moved from two- to lone-parent family	0.396**
Migrant background	0.022
Special educational need	1.235***
Mother has chronic illness at 9	0.071
Father has chronic illness at 9	0.203±
Maternal depression at 9	0.215±
Maternal depression at 13	0.610***
Maternal depression at 17	0.630***
Paternal depression at 9	0.141*
Paternal depression at 13	0.012
Paternal depression at 17	0.372*
Second-level school mix:	
DEIS	0.309**
Fee-paying (Ref.: Non-DEIS)	0.130
Primary school mix:	
Urban Band 1 DEIS (Ref.: Other)	0.390*
Gender mix:	
Boys' single-sex	-0.098
Girls' single-sex	0.078
School size:	
200-399	-0.159
400-599	-0.195
600+ (Ref.: <200)	-0.227
School stage:	
LC year	0.017
Left school (Ref.: 5th year)	0.206±

*Note: *** p<.001; ** p<.01; * p<.05; ± p<.10.*

TABLE A4.2 RELATIONSHIP BETWEEN FAMILY AND SCHOOL FACTORS AND INTERNALISING BEHAVIOUR, CONTROLLING FOR NEIGHBOURHOOD FACTORS

Characteristic	Coefficient
Constant	1.654
Female (Ref.: male)	1.064***
Social class:	
Professional	0.028
Managerial	0.086
Nonmanual	0.035
Skilled	-0.110
Non-employed (Ref. Semi/unskilled manual)	0.126
Mother's education:	
Leaving Certificate	-0.080
Post-secondary	-0.162
Degree	-0.304*
Postgraduate degree (Ref.: Junior Certificate)	-0.254±
Household equivalised income:	
2nd	0.145
3rd	0.266*
4th	0.248*
Highest (Ref.: Lowest quintile)	0.138
Experienced financial strain at 13	0.500***
Experienced financial strain at 17	0.376***
Lone parent family at 9	0.394*
Moved from two- to lone-parent family	0.343*
Migrant background	0.255*
Special educational need	1.109***
Mother has chronic illness at 9	0.252*
Father has chronic illness at 9	0.235*
Maternal depression at 9	0.585***
Maternal depression at 13	0.437**
Maternal depression at 17	0.828***
Paternal depression at 9	0.287
Paternal depression at 13	0.220
Paternal depression at 17	0.272±
Second-level school mix:	
DEIS	0.222*
Fee-paying (Ref.: Non-DEIS)	-0.189±
Primary school mix:	
Urban Band 1 DEIS (Ref.: Other)	0.638**
Gender mix:	
Boys' single-sex	0.124
Girls' single-sex	0.056
School size:	
200-399	-0.182
400-599	-0.021
600+ (Ref.: <200)	-0.053
School stage:	
LC year	0.211**
Left school (Ref.: 5th year)	0.233*

*Note: *** p<.001; ** p<.01; * p<.05; ± p<.10.*

TABLE A4.3 RELATIONSHIP BETWEEN FAMILY AND SCHOOL FACTORS AND PROSOCIAL BEHAVIOUR, CONTROLLING FOR NEIGHBOURHOOD FACTORS

Characteristic	Coefficient
Constant	9.114
Female (Ref.: male)	0.382***
Social class:	
Professional	-0.196*
Managerial	-0.152*
Nonmanual	-0.060
Skilled	-0.154±
Non-employed (Ref. Semi/unskilled manual)	-0.075
Mother's education:	
Leaving Certificate	-0.144*
Post-secondary	-0.200**
Degree	-0.304**
Postgraduate degree (Ref.: Junior Certificate)	-0.290**
Household equivalised income:	
2nd	0.057
3rd	-0.124*
4th	0.008
Highest (Ref.: Lowest quintile)	-0.108±
Experienced financial strain at 13	-0.020
Experienced financial strain at 17	-0.098±
Lone parent family at 9	-0.079
Moved from two- to lone-parent family	-0.153*
Migrant background	0.051
Special educational need	-0.081±
Mother has chronic illness at 9	0.106±
Father has chronic illness at 9	0.001
Maternal depression at 9	-0.216**
Maternal depression at 13	-0.042
Maternal depression at 17	-0.087±
Paternal depression at 9	0.003
Paternal depression at 13	-0.084
Paternal depression at 17	-0.238*
Second-level school mix:	
DEIS	-0.147*
Fee-paying (Ref.: Non-DEIS)	-0.107±
Primary school mix:	
Urban Band 1 DEIS (Ref.: Other)	0.012
Gender mix:	
Boys' single-sex	-0.060
Girls' single-sex	-0.079
School size:	
200-399	-0.036
400-599	0.026
600+ (Ref.: <200)	-0.030
School stage:	
LC year	-0.069±
Left school (Ref.: 5th year)	-0.151*

*Note: *** p<.001; ** p<.01; * p<.05; ± p<.10.*

TABLE A4.4 RELATIONSHIP BETWEEN FAMILY AND SCHOOL FACTORS AND SCHOOL-BASED MISBEHAVIOUR, CONTROLLING FOR NEIGHBOURHOOD FACTORS

Characteristic	Coefficient
Constant	9.619
Female (Ref.: male)	-0.833***
Social class:	
Professional	0.066
Managerial	-0.088
Nonmanual	-0.096
Skilled	-0.251
Non-employed (Ref. Semi/unskilled manual)	-0.179
Mother's education:	
Leaving Certificate	-0.100
Post-secondary	0.077
Degree	0.004
Postgraduate degree (Ref.: Junior Certificate)	0.156
Household equivalised income:	
2nd	-0.126±
3rd	-0.080
4th	-0.085
Highest (Ref.: Lowest quintile)	-0.083
Experienced financial strain at 13	0.119±
Experienced financial strain at 17	0.149*
Lone parent family at 9	0.584***
Moved from two- to lone-parent family	0.444***
Migrant background	-0.178*
Special educational need	0.186**
Mother has chronic illness at 9	-0.186*
Father has chronic illness at 9	0.000
Maternal depression at 9	-0.107
Maternal depression at 13	0.336***
Paternal depression at 9	0.023
Paternal depression at 13	-0.043
Second-level school mix:	
DEIS	0.237**
Fee-paying (Ref.: Non-DEIS)	-0.011
Primary school mix:	
Urban Band 1 DEIS (Ref.: Other)	0.131
Gender mix:	
Boys' single-sex	-0.182*
Girls' single-sex	-0.442***
School size:	
200-399	-0.260*
400-599	-0.157
600+ (Ref.: <200)	-0.288±
School stage:	
2nd year (Ref.: 1st year)	0.464***

*Note: *** p<.001; ** p<.01; * p<.05; ± p<.10.*

TABLE A4.5 RELATIONSHIP BETWEEN INDIVIDUAL AND FAMILY FACTORS AND TRUANCY, CONTROLLING FOR SCHOOL FACTORS (ODDS RATIOS)

Characteristic	Coefficient
Constant	15047.9
Female (Ref.: male)	0.435***
Social class:	
Professional	1.068
Managerial	0.916
Nonmanual	0.908
Skilled	0.778*
Non-employed (Ref. Semi/unskilled manual)	0.836
Mother's education:	
Leaving Certificate	0.905
Post-secondary	1.080
Degree	1.041
Postgraduate degree (Ref.: Junior Certificate)	1.169
Household equivalised income:	
2nd	0.882±
3rd	0.923
4th	0.919
Highest (Ref.: Lowest quintile)	0.920
Experienced financial strain at 13	1.126±
Lone parent family at 9	1.793***
Moved from two- to lone-parent family	1.559***
Migrant background	0.837*
Special educational need	1.204**
Mother has chronic illness at 9	0.830*
Father has chronic illness at 9	1.00
Maternal depression at 9	0.898
Maternal depression at 13	1.399***
Paternal depression at 9	1.023
Paternal depression at 13	0.958
Second-level school mix:	
DEIS	1.267**
Fee-paying (Ref.: Non-DEIS)	0.989
Primary school mix:	
Urban Band 1 DEIS (Ref.: Other)	1.140
Gender mix:	
Boys' single-sex	0.834*
Girls' single-sex	0.643***
School size:	
200-399	0.771±
400-599	0.855
600+ (Ref.: <200)	0.750±
School stage:	
2nd year (Ref.: 1st year)	1.590***

*Note: *** p<.001; ** p<.01; * p<.05; ± p<.10.*

TABLE A4.6 RELATIONSHIP BETWEEN FAMILY AND SCHOOL FACTORS AND ANTISOCIAL BEHAVIOUR, CONTROLLING FOR NEIGHBOURHOOD FACTORS

Characteristic	Coefficient
Constant	16.351
Female (Ref.: male)	-0.960***
Social class:	
Professional	0.028
Managerial	0.071
Nonmanual	0.076
Skilled	0.057
Non-employed (Ref. Semi/unskilled manual)	0.051
Mother's education:	
Leaving Certificate	-0.029
Post-secondary	0.060
Degree	0.132
Postgraduate degree (Ref.: Junior Certificate)	0.169
Household equivalised income:	
2nd	-0.103
3rd	0.038
4th	0.048
Highest (Ref.: Lowest quintile)	-0.073
Experienced financial strain at 13	0.056
Experienced financial strain at 17	0.083
Lone parent family at 9	0.253*
Moved from two- to lone-parent family	0.250*
Migrant background	-0.023
Special educational need	0.127±
Mother has chronic illness at 9	-0.078
Father has chronic illness at 9	-0.005
Maternal depression at 9	-0.080
Maternal depression at 13	0.197*
Maternal depression at 17	-0.006
Paternal depression at 9	0.104
Paternal depression at 13	0.016
Paternal depression at 17	-0.013
Second-level school mix:	
DEIS	0.234*
Fee-paying (Ref.: Non-DEIS)	0.241*
Primary school mix:	
Urban Band 1 DEIS (Ref.: Other)	-0.216
Gender mix:	
Boys' single-sex	-0.022
Girls' single-sex	0.041
School size:	
200-399	-0.046
400-599	-0.025
600+ (Ref.: <200)	-0.132
School stage:	
LC year	0.036
Left school (Ref.: 5th year)	0.200*

*Note: *** p<.001; ** p<.01; * p<.05; ± p<.10.*

TABLE A5.1 CROSS-CLASSIFIED MULTILEVEL MODELS OF FAMILY FACTORS AND ADOLESCENT BEHAVIOUR, CONTROLLING FOR BEHAVIOUR AT WAVE 1 AND 2

	Externalising	Internalising	Prosocial	Antisocial behaviour
Pianta positive at 9 – PCG	0.000	0.016±	0.011*	-0.001
Pianta conflict at 9 - PCG	0.012**	0.014**	-0.007*	0.001
Pianta positive at 9 – SCG	0.017	0.000	-0.003	0.005
Pianta conflict at 9 - SCG	-0.002	-0.001	0.002	0.005
Pianta positive at 13 – PCG	0.021*	-0.016±	0.013*	-0.034**
Pianta conflict at 13 - PCG	0.041***	0.016**	-0.019***	0.017**
Pianta positive at 13 – SCG	0.022*	-0.009	-0.010±	-0.004
Pianta conflict at 13 - SCG	0.022**	0.017	-0.007±	-0.001
Parental monitoring at 13 – PCG	-0.007	0.008	0.002	-0.022**
Parental disclosure at 13 – PCG	0.009	-0.012	0.006	0.020**
Parental monitoring at 13 – SCG	-0.002	-0.006	0.009*	-0.011
Parental disclosure at 13 – SCG	-0.012	0.017*	0.006	-0.019*
Behaviour at wave one	0.152***	0.170***	0.192***	-
Behaviour at wave two	0.415***	0.370***	0.382***	0.323***
Number of young people	5,878	5,878	5,878	5,935
% variation explained at the individual level	41.6	30.9	27.3	10.3

*Note: *** p<.001; ** p<.01; * p<.05; ± p<.10. These models control for the individual, family background, school and neighbourhood characteristics analysed in Chapters 2 to 4. For externalising behaviour, behaviour at wave one refers to externalising behaviour at wave one, and so on.*

TABLE A5.2 CROSS-CLASSIFIED MULTILEVEL MODELS OF PEER FACTORS AND ADOLESCENT BEHAVIOUR, CONTROLLING FOR BEHAVIOUR AT WAVES 1 AND 2

	Externalising	Internalising	Prosocial	Antisocial behaviour
Size of friendship network at 13:				
3-5	-0.038	-0.185±	0.061	0.302**
6-10	0.044	-0.332*	0.105±	0.375***
More than 10	-0.025	-0.216±	0.113±	0.465***
Ref. (Two or fewer)				
Friends mostly older	0.155*	0.176*	0.050	0.209**
Trust in friends	0.002	-0.016**	0.000	-0.012**
Alienation from friends	0.004	0.011±	-0.013**	0.014*
Behaviour at wave one	0.166***	0.182***	0.217***	-
Behaviour at wave two	0.463***	0.389***	0.432***	0.303***
Number of young people	5,825	5,825	5,825	5,777
% variation explained at individual level	40.9	30.6	27.1	12.7

*Note: *** p<.001; ** p<.01; * p<.05; ± p<.10. These models control for the individual, family background, school and neighbourhood characteristics analysed in Chapters 2 to 4.*

TABLE A5.3 CROSS-CLASSIFIED MULTILEVEL MODELS OF SCHOOL FACTORS, SCHOOL ENGAGEMENT AND ADOLESCENT BEHAVIOUR, CONTROLLING FOR BEHAVIOUR AT WAVE 1 AND 2

	Externalising	Internalising	Prosocial	Antisocial behaviour
Reading test score at 9	0.000	0.007**	-0.001	0.008**
Positive interaction with teachers	0.064	-0.147*	0.036	-0.023
Negative interaction with teachers	0.165***	-0.046	0.011	0.454***
Class group:				
Higher stream	-0.034	-0.182*	0.043	-0.068
Middle/lower stream/special class	0.083	0.086	0.035	0.053
(Ref.: Mixed ability class)				
School disciplinary climate	-0.008	-0.004	0.004	-0.009
Attitudes to school:				
Like it quite a bit	-0.062	0.123±	-0.013	0.003
Like it a bit	-0.095	0.143±	-0.071	0.037
Don't like it very much	-0.248	0.152	-0.127±	-0.093
Hate it	0.228	0.634**	-0.018	0.872***
(Ref.: Like it very much)				
Interest in Maths:				
OK	-0.012	0.008	0.021	-0.031
Not interesting	0.223**	0.265**	-0.057	0.103
(Ref. Interesting)				
Junior Certificate grade point average	-0.326***	-0.119***	0.011	-0.195***
Behaviour at wave one	0.161***	0.184***	0.214***	-
Behaviour at wave two	0.424***	0.399***	0.431***	0.275***
Number of young people	5,707	5,707	5,707	5,659
% variation explained at individual level	42.5	31.1	26.1	13.4

*Note: *** p<.001; ** p<.01; * p<.05; ± p<.10. These models control for the individual, family background, school and neighbourhood characteristics analysed in Chapters 2 to 4.*

TABLE A5.4 CROSS-CLASSIFIED MULTILEVEL MODELS OF NEIGHBOURHOOD FACTORS AND ADOLESCENT BEHAVIOUR, CONTROLLING FOR BEHAVIOUR AT WAVE 1 AND 2

	Externalising	Internalising	Prosocial	Antisocial behaviour
Has an adult to talk to about problems	-0.544***	-0.590***	0.238***	-0.698***
Local facilities for teenagers	-0.101±	-0.058	0.058	-0.056
Safe place for teenagers to hang out locally	-0.117*	-0.310*	0.067±	-0.184**
School extracurricular provision of sports	0.041	-0.159*	-0.011	-0.052
School extracurricular provision of cultural activities	-0.004	0.053*	0.005	0.009
Involvement in unstructured sport	0.054*	-0.046±	0.021	0.082***
Involvement in structured sport	0.016	-0.183***	0.016	-0.032
Involvement in cultural activities	0.010	0.045	-0.029	0.110±
Behaviour at wave one	0.166***	0.179***	0.211***	-
Behaviour at wave two	0.461***	0.390***	0.431***	0.310***
Number of young people	5,870	5,870	5,870	5,819
% variance explained at individual level	41.2	31.2	26.6	10.5

*Note: *** p<.001; ** p<.01; * p<.05; ± p<.10. These models control for the individual, family background, school and neighbourhood characteristics analysed in Chapters 2 to 4.*

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