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RISK AND PROTECTIVE FACTORS FOR MENTAL HEALTH AND WELLBEING IN CHILDHOOD AND ADOLESCENCE

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ESRI ECONOMIC & SOCIAL RESEARCH INSTITUTE

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Table of contents

List of tables

List of figures

Abbreviations

CAPI	Computer-Aided Personal Interview
CSO	Central Statistics Office
EU	European Union
GUI	Growing Up in Ireland
HSE	Heath Service Executive
NCCA	National Council for Curriculum and Assessment
SDQ	Strengths and Difficulties Questionnaire
SES	Socio-Economic Status
SPHE	Social Personal and Health Education
UK	United Kingdom
US	United States
WHO	World Health Organization

EXECUTIVE SUMMARY

Mental health matters for the wellbeing of children and young people in the here and now as well as influencing their life chances as adults. This report draws on *Growing Up in Ireland* (GUI) data for two cohorts (Cohort '08 followed from infancy and Cohort '98 followed from middle childhood) to look at two aspects of mental health and wellbeing from infancy to early adulthood: internalising difficulties (that is, emotional symptoms and peer problems measured using the Strengths and Difficulties Questionnaire) and happiness/life satisfaction. The analyses look not just at the levels of difficulties among young people but at the potential risk and protective factors that shape their outcomes. The study is timely given the current policy focus, reflected in *Sharing the Vision* (Government of Ireland, 2020a), on promoting positive mental health through early support and intervention. While the data examined in this report were collected prior to the onset of the COVID-19 pandemic, the impact of the pandemic and associated public health restrictions on mental health and wellbeing makes it all the more important as a policy issue.

GENDER AND FAMILY BACKGROUND

In general, the findings point to low levels of internalising difficulties and high levels of happiness and life satisfaction among children and young people in Ireland. However, internalising difficulties are found to increase between three and nine years of age, before falling slightly between nine and 13. Between 13 and 17 years of age, levels remain stable for males but increase very significantly for females. At this age too, young women tend to have slightly lower levels of life satisfaction than young men. Looking at the dynamics of development, there is both stability and change, with early difficulties predictive of later problems but also a good deal of fluidity in the experience of difficulties.

Internalising difficulties are found to be socially structured, with higher levels found among more socio-economically disadvantaged families and among those living in lone-parent families or experiencing family separation. In contrast, life satisfaction varies less markedly by socio-economic background, but is lower in lone-parent families. The families of both cohorts experienced a dramatic change in circumstances over the recession, and those living in families with difficulties making ends meet have poorer socio-emotional wellbeing; teenagers in these families were also less satisfied with their lives.

Having a chronic illness or special educational need (SEN) is strongly associated with poorer adolescent wellbeing, with a greater prevalence of internalising difficulties and lower levels of life satisfaction among this group. In fact, the level

of socio-emotional difficulties increases more for those with SEN between 13 and 17 years of age than for other young people.

FAMILY RELATIONSHIPS

GUI data point to generally positive relationships between parents and children, with low levels of conflict. For younger children, a positive relationship with their mother is associated with lower internalising difficulties, while difficulties are greater in families where there is mother-child conflict and the mother displays a more hostile parenting style. Regular family activities, especially eating together or playing sport, are associated with fewer socio-emotional difficulties. For adolescents, family relationships matter too but friendship and, to some extent, school factors become more influential than for younger children. Young people who get on well with their parents and have low levels of conflict with them are more satisfied with their lives and have fewer internalising difficulties. In addition, young people who speak openly to their parents about their lives have fewer such difficulties.

For both cohorts, maternal depression is found to have a consistent negative effect on wellbeing, with lower life satisfaction and more internalising difficulties. No such effect is found for paternal depression.

PEER RELATIONSHIPS

Friendships are found to play a protective role in relation to adolescent wellbeing, reflecting the growing importance of peers at this phase of young people's lives. Internalising difficulties are less prevalent among young people with larger friendship networks, though at age 17, when the quality of friendships could be assessed, life satisfaction is influenced by friendship quality rather than size. Having poor-quality relationships with friends or having experienced bullying are associated with lower life satisfaction and greater internalising difficulties. Break-ups with a boy- or girlfriend are also associated with poorer wellbeing.

Wellbeing is influenced by the activities in which children and young people are involved. Participation in sports, especially team sports, serves to enhance wellbeing while engagement in cultural activities (such as drama or music clubs) is also associated with greater life satisfaction at age 17. For the 17-year-olds, the local context makes a difference; good facilities for young people are associated with fewer difficulties and greater life satisfaction. Living in an area that is perceived as safe for young people to hang out in is linked to fewer difficulties for young women but not significantly so for young men.

SCHOOL FACTORS

The quality of relationships with teachers emerges as an important factor in wellbeing. Even for younger children, conflict with teachers is associated with more internalising difficulties. For adolescents, positive interaction with teachers in the form of praise or positive feedback is linked to fewer socio-emotional difficulties and greater life satisfaction. Negative interaction (being given out to) is linked to lower life satisfaction but, surprisingly, is also linked to slightly fewer internalising difficulties. It may be that those who have conflictual relationships with teachers externalise rather than internalise their difficulties or that the greatest difficulties are found among those who are relatively isolated in the school context, having lower levels of positive *and* negative relationships with teachers.

Among both children and adolescents, higher levels of achievement are linked to fewer internalising difficulties and greater life satisfaction. In contrast, those who are disengaged from school or regret the subjects they have chosen have significantly greater difficulties, a pattern that is more marked for females than males. As with previous research (see, for example, Dooley et al., 2019), having an adult to talk to about problems is associated with fewer socio-emotional difficulties and greater life satisfaction at age 17.

IMPLICATIONS FOR POLICY

The new policy document, *Sharing the Vision*, highlights the importance of a holistic approach to mental health and wellbeing, focusing on the role of early intervention and prevention strategies. The study findings point to the role of the relationships and networks within which children and young people are embedded in either enhancing their wellbeing or contributing to socio-emotional difficulties. Relationships with parents, peers and teachers emerge as crucial protective factors from infancy to early adulthood. Children and young people have fewer difficulties where they have close relationships with their parents, with low levels of conflict. Maternal depression emerges as an important risk factor for difficulties in both middle childhood and late adolescence, highlighting the importance of taking a holistic approach to treating adult depression and the need for family support services to cater for this group. Access to wider resources also makes a difference; more internalising difficulties and lower levels of satisfaction are found among more socio-economically disadvantaged groups. Broader measures to promote financial wellbeing will therefore have a positive spillover effect for child socio-emotional outcomes, an important consideration in the context of ongoing relatively high levels of child poverty and the prospect of continuing high unemployment rates.

Greater internalising difficulties and lower levels of life satisfaction are found among young people with chronic illness or a special educational need, indicating

ongoing challenges in securing the full inclusion of this group. There is scope for further research to look at the specific conditions associated with greater difficulties and to identify particular risk or protective factors for this group.

The availability of local facilities is found to play a role in enhancing wellbeing among adolescents, though there is variation across areas in the provision of such facilities. Involvement in sports, particularly team sports, serves as a protective factor. Given gender gaps in participation, there seems to be considerable scope to encourage young women to take part to a greater extent.

Educational policy is placing an increasing focus on wellbeing, with initiatives at primary and junior cycle levels. The study findings suggest that the success of such provision depends on the school climate (that is, the relationships between teachers and students, and among students) within which it is embedded. Being bullied emerges as a particular risk factor in poor and declining wellbeing, reiterating the value of anti-bullying initiatives at school level. Positive relations with teachers are a key protective factor in wellbeing and life satisfaction, indicating the importance of focusing on positive feedback rather than negative reprimand in schools. There is currently a gap in curricular provision for wellbeing at senior cycle level, an area that was highlighted in recent policy consultations (Smyth et al., 2019). Addressing this gap is all the more important given the increase in internalising difficulties found among young women at this stage of their education.

The study uses measures of broader wellbeing – happiness/life satisfaction and internalising difficulties – rather than identifying children and young people with clinical diagnoses. Nonetheless, the scale of difficulties among some young people highlights the role for primary care and specialist services as well as broader preventive strategies. Research has pointed to the high levels of unmet demand for child and adolescent mental health services in Ireland (Brick et al., 2020) and waiting lists are likely to have grown as a result of the pandemic restrictions, indicating the importance of directing resources to such services. More broadly, there is emerging research on the negative experiences of children and young people in Ireland during the pandemic. It is likely that young people's wellbeing has suffered as a result of the direct effects of interruption to their education and social interaction and the indirect effects of the strain of income and job loss affecting their parents.

CHAPTER 1: INTRODUCTION

1.1 BACKGROUND

Mental health is an integral and essential component of health. More than just the absence of mental disorders or disabilities, it is defined by the World Health Organization (WHO) as 'a state of well-being in which an individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and is able to make a contribution to his or her community'.[1]

Childhood and adolescence are critical periods for the development and maintenance of the social and emotional capabilities important for mental health and wellbeing throughout life. Estimates of mental health difficulties have tended to focus on adolescents rather than children. Globally, between 10 and 20 per cent of adolescents are estimated to experience mental health problems, and approximately half of all mental health disorders first emerge before the age of 14 (Kessler et al., 2007; WHO, 2018a, 2018b). Mental health issues are the leading cause of disability in adolescents aged 15–19 years, accounting for 45 per cent of the overall burden of disease among this age group (The Lancet, 2017). There is evidence too of an increase in emotional difficulties among adolescents in many European countries in recent years (Collishaw, 2012; Hogberg et al., 2020), with increases in feelings of depression and anxiety also apparent among young people in Ireland (Dooley et al., 2019).[2]

Poor mental health in childhood and adolescence has been shown to affect adult health and socio-economic status, by disrupting educational attainment and early labour-market participation (Attanasio et al., 2020; Currie et al., 2010; Fletcher, 2008; Goodman et al., 2011; Lundborg et al., 2014; Smith and Smith, 2010). Negative effects on other outcomes, such as partnership stability, cognitive abilities and social mobility, have also been observed (Goodman et al., 2011). A number of these studies note that poor mental health in childhood and adolescence has more detrimental effects on later-life outcomes than physical health problems (Attanasio et al., 2020; Currie et al., 2010; Goodman et al., 2011). Early-onset depression (before the age of 21) has also been of concern because individuals have longer first episodes, higher rates of recurrence, longer

1 https://www.who.int/news-room/fact-sheets/detail/mental-health-strengthening-our-response

2 Hogberg et al. (2020) cite a number of possible explanations for the increasing prevalence of mental health difficulties in recent decades, including greater openness about reporting problems, a shift in thresholds for rating symptoms and behaviours as problematic, and greater sensitivity to children's problems due perhaps to societal medicalization of symptoms previously seen as normal. However, they also note that, in general, time trends in symptom reports do in fact reflect real changes in population prevalence of mental health problems.

hospitalisations, and higher overall rates of comorbid disorders, including substance-use disorders (Fletcher, 2008).

Increasingly, however, researchers from a children's rights perspective have highlighted the importance of considering mental health difficulties as an issue in the here and now, arguing for a focus on (current) wellbeing rather than well-becoming (childhood experiences as a precursor of adult life chances) (see, for example, Ben-Arieh et al., 2014; Fattore et al., 2016). In tandem with this focus, there has been increased recognition that flourishing is more than just the absence of problems, necessitating the use of both positive and negative measures to capture the wellbeing of children and young people (Kim et al., 2020). Thus, the concept of positive mental health as an entity is seen as distinct from, and more than the absence of, mental disorder (Barry, 2009). Indeed, approaches to addressing problems in child and adolescent health have moved beyond traditional risk-factor reduction focused on the individual to emphasise the importance of enhancing protective factors in young people's lives. These approaches have focused on family and peer factors as important in protecting young people from harm, and also emphasise that a successful and healthy transition to adulthood needs promotion of positive social and emotional development as much as avoiding drugs, violence and sexual risks (Viner et al., 2012).

The social determinants of health offer a useful framework for thinking about the factors that influence child and adolescent mental health. In a review of the evidence on the effects of the social determinants on health (both physical and mental) in adolescence, Viner et al. (2012) note that the strongest determinants of adolescent health worldwide are structural factors such as national wealth, income inequality, and access to education. Supportive parenting, a secure home life and a positive learning environment in school are also key factors in building and protecting mental health and wellbeing in adolescence (Viner et al., 2012; WHO, 2018a). In addition, the emergence of strong peer relationships is one of the key developmental changes of early adolescence; peers can have a positive or a negative influence on young people's health. In addition, increasing autonomy and time spent outside the home increases the importance of the local environment for adolescents (Viner et al., 2012). The centrality of interpersonal relationships with family and friends emerges strongly from Irish research with children and young people, as does the value of 'things to do' (Nic Gabhainn and Sixsmith, 2005), echoing international research on the importance of adult-child and child-child relationships in children's wellbeing (Fattore et al., 2016).

This report draws on analyses of both cohorts of the *Growing Up in Ireland* study to provide new insights into the dynamics of mental health and wellbeing from infancy to early adulthood. The approach taken in the study recognises the importance of positive mental health by including a measure of happiness/life

satisfaction as well as a measure of difficulties (internalising behaviour). Furthermore, the analyses take account of measures reported by the child/young person themselves[3] as well as measures reported by their mothers (primary caregivers). For Cohort '08, whose families were first surveyed when they were nine months old, a shortened version of the Piers-Harris Children's Self-Concept Scale 2nd Edition was used, with six items used to measure Happiness and Life Satisfaction at nine years of age. This subscale captures feelings of happiness and satisfaction with life, including items such as 'I am a happy person'. Members of Cohort '98, whose families were first surveyed when they were nine years of age, were asked to rate their overall satisfaction with their lives on a 10-point scale at 17[4] years of age. To capture potential difficulties, the Strengths and Difficulties Questionnaire (SDQ) (Goodman, 1997) was completed by mothers at regular intervals – 3, 5 and 9 years for Cohort '08, and 9, 13 and 17 years for Cohort '98. The SDQ is widely used internationally to assess child socio-emotional and behavioural wellbeing. It is a screening tool that asks about behaviour over the previous six months in relation to four 'negative' dimensions (emotional symptoms, hyperactivity/inattention, conduct problems and peer relationship problems) and one 'positive' dimension (prosocial behaviour). Here the analyses focus on internalising behaviour, which combines measures of emotional symptoms (with items such as 'Child has many fears, is easily scared') and peer relationship problems (with items such as 'Child is rather solitary, tends to play alone').

1.2 THE POLICY CONTEXT

This report is timely in following on from the recent publication of *Sharing the Vision*, the national policy for mental health in Ireland (Government of Ireland, 2020). This policy document acknowledges that the foundations for mental wellbeing are established before birth and that much can be achieved through interventions and supports to build resilience and improve wellbeing throughout childhood, the teenage years and on into adulthood and later life. It also notes that mental health policy is not just concerned with health policy, but that resources from all sectors of society, including health, education, employment and transport, are important to promote mental health. It posits a stepped care approach, ranging from broad social supports to specialist inpatient care.

The Child and Adolescent Mental Health Service (CAMHS) accepts referrals 'for moderate-to-severe mental health difficulties of children and adolescents which cannot be managed within primary care' (Government of Ireland, 2020, p.47).

[3] The importance of the perspective of the child/young person in assessing their wellbeing has been widely acknowledged in academic research (see, for example, Fattore et al., 2016). The vision of the national policy framework for children and young people, *Brighter Outcomes, Better Futures*, highlights the importance of reflecting the voice of young people in policy formation.

[4] One-fifth of Cohort '98 were 18 years old at the time of the survey. However, for simplicity, the sample is referred to as 17-year-olds throughout the report.

Despite increased CAMHS staffing from 2008 to 2017 (Government of Ireland, 2020), evidence 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). The HSE provides funding to other services to support children and young people, including Childline (which provides a telephone helpline for those under 18) and Jigsaw (which provides one-to-one face-to-face and online brief counselling to those aged 12 to 25).

The current strategy for children and young people, *Better Outcomes, Brighter Futures (BOBF)*, 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 (Department of Children and Youth Affairs, 2014). It also highlights the importance of positive parental mental health, particularly in the child's early years, and the wider role of parents and families in promoting positive mental health and wellbeing among young people. More broadly, the recent Programme for Government commits to the introduction of a series of wellbeing indicators that will supplement existing economic indicators of development (Government of Ireland, 2020b).

Both *BOBF* and *Sharing the Vision* highlight the important role of schools in promoting child and adolescent wellbeing. The latter report commits to a rollout of a wellbeing promotion process across all schools and other centres of education by 2023. This initiative builds upon ongoing work in schools around student wellbeing. One of the four key themes of *Aistear*, the curriculum framework spanning pre-school and primary education, is wellbeing (National Council for Curriculum and Assessment, 2009). The Framework for Junior Cycle has designated wellbeing as a new area of learning at junior cycle, with 400 timetabled hours allocated to it (Department of Education and Skills, 2015). Its aim is to enhance the physical, mental, emotional and social wellbeing of students by adopting a whole-school approach incorporating, but not limited to, existing curricular provision in the form of Social, Personal and Health Education, Relationships and Sexuality Education and Physical Education (National Council for Curriculum and Assessment, 2017). The *Wellbeing Policy Statement and Framework for Practice 2018–2023* further emphasises a whole-school approach to promoting wellbeing, taking a cross-departmental perspective between the Department of Education and Skills and the Department of Health/Health Services Executive, and integrating the existing Health Promoting Schools initiative (Department of Education and Skills, 2018). Support for schools around setting up a student support team and dealing with critical incidents (such as the death of a student) is provided by the National Educational Psychological Service (NEPS). In terms of more serious

difficulties, the Children First Act of 2015 includes a requirement on teachers to report child protection concerns to Tusla.

While wellbeing in schools is being given renewed policy focus, there is a long legacy in second-level schools of social and personal supports for student welfare, although the extent and nature of such supports has been found to vary across schools (Smyth et al., 2004). Guidance counsellors have played a dual role in Irish schools, providing advice around educational choices and career decisions as well as offering individual support to students experiencing particular difficulties. However, research points to challenges in responding to student need, given the available resources (especially in the wake of the recession cutbacks). In addition, guidance counsellors often combine the functions of 'teacher' and 'counsellor' so that students may be less willing to go to them for help because of their role as a teacher (McCoy et al., 2007; Leahy et al., 2017). In many schools, guidance counsellors are part of a broader student support team (often termed a 'care team' or 'pastoral care team') which also involves class tutors and year heads.

The issue of mental health and wellbeing has been further thrown into sharp focus by the COVID-19 pandemic. Research across very different settings has shown increased reports of feeling depressed and anxious during the lockdown period, with greater difficulties found among women and younger adults (Niedzwiedz et al., 2020; Etheridge and Spantig, 2020). Research in the UK indicates that those with previous mental health difficulties experienced the greatest decline in wellbeing (Banks and Xu, 2020). Irish research has pointed to similar patterns, with a significant proportion of adults feeling depressed and a marked decline in life satisfaction compared with the pre-COVID period, especially among women and younger adults (those aged 18 to 34) (CSO, 2020). There has been a lack of systematic research on the experiences of children and young people in Ireland but school principals have reported perceived negative effects on second-level students (Mohan et al., 2020). In addition, young people's wellbeing is likely to have suffered as a result of the direct effects of interruption to their education and social interaction and the indirect effects of the strain of income and job loss affecting their parents (Darmody et al., 2020). For some young people, these effects may be temporary; for others, they may be more severe. Indeed, research on children's experience of traumatic events, such as natural disasters, indicates long-lasting effects on psychological wellbeing (Abramson et al., 2010; Banks and Weems, 2014; Hoven et al., 2005; Fujiwara et al., 2016), effects which are greater for more disadvantaged families (Pfefferbaum et al., 2015). The psychological effects of the pandemic make it all the more important to be able to identify protective factors[5] which will help enhance young people's wellbeing.

[5] While not examined directly in this report, there is a large literature that examines the role of resilience, i.e., the ability to cope in the face of significant adversity or risk, in promoting positive outcomes among children and young people

1.3 REPORT STRUCTURE

In this report, we use data from *Growing Up in Ireland* (GUI) to examine the risk and protective factors associated with mental health outcomes in childhood and adolescence. The availability of two cohorts of children and young people in GUI allows us to focus on two key stages of life: middle childhood (age 9) and the transition to young adulthood (age 17). For each cohort, we focus on indicators that capture aspects of internalising behaviour,[6] which are linked to depressive and anxiety disorders (Reiss, 2013), and more positive measures of wellbeing (happiness/life satisfaction), and examine the role of family background, and the nature of parental, peer and school relationships in shaping these mental health outcomes. Where available, longitudinal data are used to examine trajectories of change over time. Longitudinal data allow for an analysis of change in mental health outcomes as children age through adolescence, and also help to identify the relative importance of risk and protective factors at different points in young people's lives.

In particular, the following four research questions are examined:

1. How do young people in middle childhood (age 9) and late adolescence (age 17) fare in terms of a measure of their emotional wellbeing reported by their mothers (i.e. internalising Strengths and Difficulties score)?
2. How do young people in middle childhood (age 9) and late adolescence (age 17) fare in terms of a measure of their happiness or life satisfaction, as reported by the young person themselves?
3. For SDQ internalising problems (which are measured at each wave of data collection), how does this measure of emotional wellbeing evolve over time as young people age through adolescence?
4. What are the risk and protective factors that shape these outcomes in young people? What are the roles of family, peer and school relationships in shaping these outcomes in middle childhood and late adolescence?

Chapter 2 presents an overview of relevant literature on the topic while Chapter 3 describes the data and methods used in the study. Chapters 4 and 5 focus on the '08 (Infant) cohort, examining SDQ internalising problem scores in Chapter 4 and happiness/life satisfaction in Chapter 5. Chapter 6 presents the results from the analyses of SDQ internalising problem scores for the '98 (Child) cohort, while Chapter 7 focuses on life satisfaction for this cohort. Chapter 8 concludes and discusses implications for policy.

(see, for example, Gartland et al., 2019). However, commentators have emphasised the importance of viewing resilience in terms of the interaction between a child/young person and their environment rather than as a personal attribute (Schoon and Bynner, 2003).

6 Externalising disorders capture social adaption problems (e.g. attention deficit/hyperactivity disorder and conduct disorder) (Reiss, 2013). An analysis of externalising behaviour among 17-year-olds using GUI data is available in Smyth and Darmody (forthcoming, 2021).

CHAPTER 2: PREVIOUS LITERATURE

2.1 INTRODUCTION

In this chapter, we review the Irish and international evidence on the risk and protective factors for mental health outcomes in childhood and adolescence. Reflecting the framework put forward by Viner et al. (2012), discussed above, the evidence is presented on each of the key factors in turn, starting with the socio-economic status of the family.

2.2 SOCIO-ECONOMIC STATUS (SES)

As with other health outcomes, there is clear evidence that SES is strongly related to child and adolescent mental health outcomes (Meyrose et al., 2018; Reiss, 2013; Viner et al., 2012). Reiss (2013) undertook a systematic review of the relationship between various commonly used indicators of SES (such as parental education, social class and income) and mental health outcomes for children and adolescents aged four to 18 years.[7] Socio-economically disadvantaged children and adolescents were two to three times more likely to develop mental health problems, with the gap particularly large in early and middle childhood. Persistently low SES was strongly related to higher rates of mental health difficulties. Furthermore, those in families that experienced a decline in income (or class) had increasing mental health problems. The strength of the correlation varied with age and with different indicators of SES, and heterogeneous findings were also reported by gender and types of mental health problems. For example, the evidence of a link between SES and mental health problems appeared to be stronger for externalising than for internalising problems. A relationship between SES and overall life satisfaction is also evident. Zaborskis and Grincaite (2018), using data from the 2013/2014 round of the Health Behaviour in School-Aged Children (HBSC) study in 39 countries, found that adolescents from more affluent families showed higher satisfaction with their life than did those from less affluent families (even after controlling for gender, age and family structure).

Focusing on a particular dimension of low SES, poverty, Green et al. (2018) examined whether the timing[8] of poverty in childhood matters for the

[7] There are two major theoretical approaches to explaining the underlying association between SES and mental health problems (and they are not mutually exclusive). The social causation hypothesis implies that the stress associated with a low social position contributes to the development of mental disorders, whereas the social selection hypothesis suggests that individuals predisposed to poor mental health drift down to such a position via lower participation in education and the labour market.

[8] Life-course epidemiology often contrasts models of accumulation, where exposure effects depend on the duration of exposure and are independent of timing, with critical or sensitive period models, where exposure effects depend on the timing of exposure. In addition, social mobility models differ by emphasising the sequencing of exposure and the direction of change in SES over time; i.e. particularly detrimental effects might be associated with particular patterns of exposure, such as moving into poverty or persistent poverty.

development of adolescent health problems (including mental distress), using data from the UK and US.[9] Measuring poverty in terms of relative income (with households on below 60 per cent of equivalised median income classified as poor), they found no significant relationship between poverty and adolescent psychiatric distress in either country. The non-significance of the effect for psychiatric distress was explained by the possibility that adolescents from high-income families may also experience stress, albeit of a different kind, related to educational achievement. In contrast, other studies have found greater incidence of mental health difficulties in poor households. Doan et al. (2012) explain how poverty leads to poorer mental health outcomes in families; families living in poverty are disproportionately exposed to threatening, destabilising, and uncontrollable life events, such as violence, unstable employment and family dissolution, as well as environmental stressors, such as noise, substandard housing, and crowding. In particular, parents are more likely to be less child-centred and less nurturing, and are more likely to engage in rejecting and inconsistent parenting behaviours, which in turn lead to lower levels of psychological wellbeing in children. Food poverty[10] was found to be associated with a variety of indicators of mental health (including life satisfaction, happiness, somatic symptoms and psychological symptoms), based on data from over 8,000 children from the 2002 Irish component of the HBSC study (Molcho et al., 2007). Stronger associations were observed for boys than for girls. Overall, just under 17 per cent of the sample reported experiencing food poverty.

A number of studies have focused not only on family disadvantage but on the broader effects of living in a disadvantaged neighbourhood. Flouri et al. (2020), for example, explored the effect of different forms of area-level deprivation (e.g. income, education and health) on the development of child problem behaviour (measured using the four subscales of the Strengths and Difficulties Questionnaire (SDQ)) from ages 3 to 14, using data from the Millennium Cohort Study in England. Most types of deprivation[11] were moderately predictive of child problem behaviour at around age 8 years. However, they were not related to longitudinal changes in problem behaviour; in other words, the development of problem behaviour followed a similar trajectory across areas but levels were higher in more deprived communities. Overall, socio-economic aspects of deprivation, including income, employment and education deprivation, were most consistently related to emotional and behavioural problems.

9 Understanding Society, and the National Longitudinal Survey of Youth, respectively.

10 Children in food poverty were identified as those reporting 'sometimes, often or always' to the question 'Some young people go to school or to bed hungry because there is not enough food at home. How often does this happen to you?'.

11 Seven different domains of deprivation were examined: income deprivation, employment deprivation, health deprivation and disability, education skills and training deprivation, barriers to housing and services, living environment deprivation, and crime.

A number of papers have examined the impact of changes in economic circumstances, particularly the shock of an economic recession, on child and adolescent socio-emotional outcomes. Using the 2001–2013 US National Health Interview Survey, Golberstein et al. (2019) examined the effects of unemployment rates and housing prices on child and adolescent mental health outcomes and the use of special education services for emotional problems. They found that children's mental health outcomes (as measured by the SDQ) worsened as the economy weakened. The use of special education services for emotional problems also increased when economic conditions deteriorated. Parental unemployment did not fully explain the association, suggesting that other mechanisms (e.g. fear of job loss, stress from reduced income, etc) were also at play. Using *Growing Up in Ireland* data, Watson et al. (2014) found that economic vulnerability[12] among families increased during the recession, with a resulting growth in socio-emotional difficulties among both younger and older children. The greatest difficulties were found among children living in families experiencing persistent economic vulnerability.

Rathmann et al. (2016) examined the extent to which the positive relationship between economic downturns and poor mental health in adolescence can be buffered by higher public social spending. Using data from the 27 countries participating in the HBSC study between 2005 and 2010, they found that the absolute rate of public spending on family benefits in 2010 did not show a significant association with adolescent psychological health complaints. However, relatively larger increases in public social spending between 2006 and 2010 were associated with fewer psychological complaints among adolescents. A related study by Mínguez (2017) examined the role of differences in family policies in explaining subjective child wellbeing across different European countries. Using data from the HBSC, she found that the index of child subjective wellbeing was comparatively higher in those countries where family policies were more generous in the areas of preschool education, family services, family spending and duration of paid parental leave. These studies suggest that national policy can directly and/or indirectly shape child and adolescent wellbeing.

Another important institutional feature is the degree of economic inequality in a society. A number of papers have exploited comparable data across countries participating in the HBSC study to examine the influence of socio-economic inequality at country level on child and adolescent mental health. Dierckens et al. (2020) used data on 17 countries participating in three consecutive waves (2010, 2014 and 2018) of the HBSC study to examine the association between life satisfaction, psychosomatic symptoms[13] and wealth and income inequality. They

12 The measure of economic vulnerability was based on low income, household joblessness and economic stress.

13 Psychosomatic symptoms were identified by the HBSC Symptom Checklist which assesses the frequency of four psychological symptoms (feeling low, irritability or bad temper, feeling nervous, and difficulty sleeping) and four somatic symptoms (headache, stomach ache, backache, and feeling dizzy) experienced over the past six months.

found that higher levels of national wealth inequality were associated with fewer average psychosomatic symptoms among children and young people, while higher levels of national income inequality were associated with more psychosomatic symptoms. No associations between either national wealth inequality or income inequality and life satisfaction were found. Trying to explain the counterintuitive association between wealth inequality and psychosomatic symptoms, the authors suggested that it is possible that a positive spillover effect may be at play in which countries with higher wealth inequalities have better social and environmental structures that everyone benefits from, resulting in better mental wellbeing.[14] Similarly, Elgar et al. (2017) used HBSC data over the period 1994 to 2014 across 40 countries to examine the associations between the level of national income inequality experienced in early life and life satisfaction and psychosomatic symptoms during adolescence. The results showed that exposure to income inequality from 0 to 4 years predicted psychosomatic symptoms and lower life satisfaction in females (but not in males). In addition, the average level of income inequality experienced through the first 10 years of life uniquely related to life satisfaction in female adolescents, suggesting that a high average level of inequality during infancy and childhood related to lower wellbeing. However, this association was not found in males, nor in terms of female psychosomatic symptoms. Finally, individual trajectories in income inequality from birth to age 10 related to more symptoms and lower life satisfaction in females, suggesting that earlier exposures to inequality were more toxic than later ones. Again, this association was not found in males.[15]

2.3 GENDER

The extent to which socio-emotional wellbeing differs by gender is found to vary over the life-course. Across 36 countries, HSBC data show higher average life satisfaction among adolescent boys than girls, but greater social inequality in life satisfaction among girls (Zaborskis et al., 2018). However, in a meta-analysis of 46 studies, Chen et al. (2019) point to only slight male advantage in relation to life satisfaction. Using Millennium Cohort Study data, Gutman and McMaster (2020) indicate few gender differences in internalising behaviour until the age of 14, when girls are found to have significantly greater such difficulties than boys. Depressive symptoms are found to be more prevalent among females than males, with the gender gap widening from 14 years of age (Ge et al., 2001). In a meta-analysis of studies across a wide variety of countries, Salk et al. (2017) find that the gender gap in depressive symptoms peaks at age 16 to 19, thereafter declining until the 30s, though remaining significantly higher among women throughout the life-course.

[14] The authors also acknowledge that their analysis is based on population-level aggregates rather than multilevel models which would better unpack the relative effects of family and country-level factors.

[15] The authors suggested that the lack of significance of effects for males could be attributed to their lower prevalence of symptoms and higher life satisfaction, or to gender differences in physiological and psychosocial impacts of early-life stress.

Patterns in Ireland are broadly similar. Nixon (2012), using data from the '98 Cohort at nine years of age, found that girls were more likely than boys to have problems of an emotional nature, while boys were more likely than girls to have behavioural problems, and to display more difficulties overall. At 13 years of age, girls are more likely to display internalising difficulties and depressive symptoms, while boys are more likely to have externalising problems (Nixon, 2020). The My World Survey (Dooley et al., 2019) indicates a significant gender gap among 12- to 19-year-olds in levels of depression and anxiety, with a 12 percentage-point difference for depressive symptoms and a 13-point difference for anxiety.

Gender differences are evident not only in the level and type of socio-emotional difficulties but in the types of processes that influence these difficulties. For example, Nixon (2020) found that relationships with mothers operated as stronger predictors for girls' internalising difficulties while conflict with fathers played a stronger role in influencing boys' depressed mood. Furthermore, late pubertal development acted as a risk factor for boys while early maturation was associated with higher internalising and externalising difficulties for girls. The consequences of such difficulties can also differ, with girls with internalising difficulties at a young age subsequently manifesting early sexual activity and increased cigarette and cannabis use (Gutman and McMaster, 2020).

2.4 FAMILY

A number of studies in Ireland and internationally have looked at how family processes and structures are associated with socio-emotional outcomes. The quality of relationships with parents acts as a strong protective factor in enhancing young people's wellbeing and avoiding mental health difficulties. Looking at 14-year-olds, using the UK Millennium Cohort Study, Hartas (2019) found that young people who felt 'extremely close' to their mothers or fathers had better life satisfaction and self-concept as well as a lower incidence of negative mood. Parental control, in the form of parents always knowing where their teenagers were, had comparable protective effects. The quality of parent-child relationships was also linked to fewer socio-emotional difficulties among this cohort when they were at the preschool stage (Hartas, 2011). Similarly, using Growing Up in Scotland data, Parkes et al. (2014) found lower life satisfaction levels among seven-year-olds in families with greater parent-child conflict and less positive parenting.

Nixon (2012), using data from the GUI '98 Cohort at nine years of age, found that parenting styles and the quality of mother-child and father-child relationships were associated with social and emotional outcomes. Children whose parents used an authoritarian parenting style (characterised by low levels of responsiveness and high levels of control) had more difficulties, as did children whose parents were

neglectful (with low responsiveness and low control). In addition, high levels of mother-child and father-child conflict were associated with elevated levels of difficulty, while low levels of closeness in the mother-child relationship were important for girls' but not boys' outcomes. Father-child closeness was not associated with children's social and emotional outcomes. Overall, however, while the quality of parent-child relationships was important for socio-emotional outcomes, the magnitude of the effects was not as great as those found for child gender, health status and temperament. In a follow-up study that incorporated measures of socio-emotional outcomes at age 13 as well as at age 9,[16] relationships with families were also important for 13-year-olds' outcomes; in particular, high levels of parent-child conflict were an important predictor of negative outcomes (Nixon, 2020). For girls' internalising difficulties, it was processes involving mothers that emerged as stronger predictors, rather than processes involving fathers. For boys' internalising difficulties and depressed mood, again parent-child conflict had a key role, although it was conflict with fathers rather than mothers that mattered more, particularly in terms of depressed mood. Also using GUI, this time from the '98 cohort at age 13, McMahon et al. (2020) examined the quality of both parent and peer relationships as potential mechanisms explaining the association between stressful life events and psychological wellbeing indices in adolescents. The research showed that stressful life events negatively affected the psychological wellbeing of adolescents, and that both parent and peer relationship quality mediated this association (particularly for girls).

Looking at the most extreme levels of family difficulties, Negriff (2020) examined the impact of adverse childhood experiences (ACEs)[17] on adolescent mental health, comparing a 'maltreatment' group of children referred to child protection services in a US west coast city with a 'comparison' group of similarly aged children in the same city. She found that the maltreatment ACEs (e.g. emotional abuse, emotional neglect) were more strongly related to adolescent mental health (depression, anxiety, trauma, externalising problems) than the household dysfunction items (e.g. parental divorce, alcoholism, etc). While household dysfunction and child mistreatment were related, the authors noted that the maltreatment ACEs were the more salient and significant predictors of mental health outcomes in these samples of US adolescents.

Studies have looked at the effects of family structure as well as family processes. Bjarnason et al. (2012) examined differences in life satisfaction among nearly 200,000 children in different family structures collected as part of the 2006 HBSC study in 36 Western, industrialised countries. Children living with both biological

16 In total, eight outcomes were investigated: total SDQ scores, SDQ internalising scores, SDQ externalising scores, Short Mood and Feelings Questionnaire (SMFQ) scores, anti-social behaviour score and use of alcohol, cigarettes and drugs.

17 ACEs encompass various aspects of family dysfunction such as parental incarceration, witnessing parental intimate partner violence (IPV), and parental substance use; they also include maltreatment experiences of sexual abuse, physical abuse, emotional abuse, and physical neglect (Negriff, 2020).

parents reported the highest levels of life satisfaction. Once the perceived economic status of the family and problems communicating with mother and father had been controlled for, the highest level of life satisfaction was found in intact families, second highest in single-mother, mother–stepfather or joint physical custody, and the lowest level in single-father and father–stepmother households. The authors therefore concluded that not living with one's mother had a greater impact on life satisfaction than not living with one's father. However, they found that family structure accounted for only a relatively small amount of variation in life satisfaction. Papachristou et al. (2020), using UK Millennium Cohort Study (MCS) data, found higher levels of internalising and externalising behaviour among 14-year-olds in non-intact families, even controlling for other family and school factors. Using GUI data, Nixon and Swords (2016) found higher levels of emotional and behavioural difficulties among 13-year-olds in lone-parent families, patterns that were only partly accounted for by lower education and income in these households. At age nine, much (though not all) of the higher levels of socio-emotional difficulties among children in lone-parent families was accounted for by poorer parent-child relationships (Nixon, 2012). Brady et al. (2015) found that childhood internalising and externalising behaviour problems (at age nine) were significantly higher among the children of teenage mothers. However, teenage motherhood was not associated with child behavioural problems directly, but rather operated via lone parenthood, low socio-economic status, maternal depression and conflict in the household.

Some of the effects of family structure have been found to vary by gender. In comparison with those in stable two-parent households, girls who transitioned from a single-parent to a two-parent household had higher internalising and externalising difficulties (Nixon, 2020). Change in household structure was not associated with boys' internalising difficulties, but boys who transitioned from single-parent to two-parent and from two-parent to single-parent households had higher levels of externalising difficulties.

Family history of mental illness (e.g. maternal depression) has been shown to be a powerful predictor of children's mental health problems (Reiss, 2013). Johnston et al. (2013) examined the intergenerational persistence of mental health difficulties, using data from the 1970 British Cohort Study. They found strong intergenerational persistence in mental health difficulties, with maternal mental ill-health associated with lasting effects on the child's educational attainment, future household income and the probability of having criminal convictions. These results did not disappear after controlling for children's own childhood and adulthood mental health. They also found that that the strength of the correlation increased with the age at which the child was exposed to episodes of maternal mental health problems, and that the inter-generational correlation was stronger through the maternal than the paternal line. On a similar theme, Schepman et al. (2011) found that increases in

maternal mental health problems partly explained the increasing prevalence of adolescent mental health problems observed in English adolescents over the period 1986 to 2006.[18] Tokunaga et al. (2019) used data on a small sample of Japanese children to examine the association between parental stress and child mental health (SDQ). They found that parenting stress experienced by fathers was significantly related to hyperactivity/inattention, while parenting stress experienced by mothers was significantly related to peer relationship problems and emotional symptoms.

Using GUI data, maternal depression was associated with poorer SDQ scores at age nine, but the strength of the association was attenuated substantially once the quality of the mother-child relationship was accounted for, suggesting that maternal depression may be important for children's social and emotional outcomes via its association with mother-child relationship difficulties (Nixon, 2012). Fathers' depression was not associated with children's social and emotional outcomes. Among teenage mothers, maternal depression was associated with both internalising and externalising problems for nine-year-olds, an effect that was related to higher levels of familial conflict (Brady et al., 2015).

2.4 PEERS

Peer relationships are important in middle childhood but assume an even more significant role in adolescence (Viner et al., 2012). Walsh et al. (2020) used data from 37 countries on 15-year-olds from the HBSC in 2017/2018 to examine the relationship between clusters of 21 risk factors and poor mental wellbeing. They identified seven risk clusters: substance use and early sex, low social support, insufficient nutrition, bullying, sugary foods and drinks, physical health risk, and problematic social media use (SMU). Low social support and SMU were the strongest predictors of low life satisfaction and psychosomatic complaints. Exposure to bullying was also a strong predictor for psychosomatic complaints. The findings highlight the pivotal role of a lack of strong connection (parental, peer, and teacher support) as a risk to young people's mental wellbeing.

MCS data show that spending time with friends was associated with increased wellbeing among teenagers, while being bullied was associated with reduced wellbeing and more negative mood (Hartas, 2019). Those who reported having bullied others did not differ from their peers in life satisfaction or negative mood. In Korea, teenagers who had had more frequent interactions with their close friends were more likely to be in better emotional health; network size did not matter in itself (Kim, 2015). Long et al. (2020) examined the relationship between adolescent mental health and peer relationships using data from 602 15-year-old

[18] Data from two cohorts (the BCS at age 16 in 1986 and the HSE at age 16 in 2006) were used to examine trends in adolescent mental health problems across cohorts.

students in four Scottish secondary schools. Focusing on disruptive behaviour disorders (DBDs)[19] and anxiety disorders, they found that adolescents with DBDs were more popular than their peers without DBDs. Friendship was also more likely between two adolescents both with, or both without, DBDs, demonstrating peer homophily. There was no evidence that anxiety disorders were related to adolescent peer relationships. In other words, adolescent DBDs may be socially rewarded (e.g. peer popularity) and socially clustered (e.g. peer homophily), whereas adolescent anxiety disorders showed no such trends. Students whose friends have been disciplined, suspended or expelled from school or arrested by the police were significantly more likely to exhibit mental health problems (Kim, 2015). In keeping with these patterns, GUI data show that, at age 13, the key predictors of internalising difficulties were difficulties in the peer domain – involvement in bullying, as a victim or a perpetrator, and poorer-quality peer relationships, indicated by lower trust and higher alienation (Nixon, 2020).

A large and growing literature has investigated the use of social media on adolescent mental health. While social media use can promote interaction with peers with similar interests, facilitate communication, provide information on sensitive topics, and be a vehicle of collaboration and involvement with the community, it can also facilitate the sourcing and transmission of harmful content (McNamee et al., 2019). Boer et al. (2020) used data from 29 countries on young people (average age 13.5) from the 2017/2018 HBSC to examine the relationship between social media use and mental wellbeing (life satisfaction and psychological complaints). They found that, while problematic social media use[20] was associated with lower wellbeing across all domains, the relationship for intense social media use[21] was more mixed as, in some cases, intense social media use was found to contribute positively to specific domains of adolescent wellbeing (e.g. in countries with a high prevalence of social media use, intense social media use was associated with higher life satisfaction).

A number of UK studies have unpacked the relationship further. Using data from the UK Understanding Society survey on a sample of children and adolescents aged

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19 Disruptive behaviour disorders consisted of attention-deficit hyperactivity disorder, conduct disorder, and oppositional defiant disorder.

20 Respondents indicated whether they, in the past year, regularly could not think of anything else but social media (preoccupation), regularly felt dissatisfied because they wanted to spend more time on social media (tolerance), often felt bad when they could not use social media (withdrawal), failed to spend less time on social media (persistence), regularly neglected other activities because of social media (displacement), regularly had arguments with others because of their SMU (problem), regularly lied to parents or friends about their time spent on social media (deception), often used social media to escape from negative feelings (escape), and had serious conflicts with parents or siblings because of their SMU (conflict). Response options were *1 yes* and *0 no*. Respondents who answered positively to at least six items were classified as *1 problematic user*, and the remainder as *0 non-problematic user.*

21 Respondents were asked how often they had online contact through social media with close friends, friends from a larger friend group, friends they had met through the Internet, and other people (e.g. parents, siblings, classmates, teachers), with responses ranging from *1 never/almost never* to *5 almost all the time throughout the day*, and a *do not know/does not apply* option. Respondents who answered *almost all the time throughout the day* on at least one item were classified as *1 intense user*, and the remainder as *0 non-intense user.*

10–15 years old, McNamee et al. (2019) found that prolonged use of social media (more than four hours per day) was significantly associated with poorer emotional health and more behavioural difficulties, and in particular decreased perception of self-value and increased incidence of hyperactivity, inattention and conduct problems. However, limited use of social media (less than three hours per day) had some positive effect on peer relationships. Again using Understanding Society, Booker et al. (2018) examined the association between adolescents' level of interaction on social media and their wellbeing (as measured by reported happiness and SDQ levels). At baseline (age 10), higher social media interaction was correlated with lower levels of happiness and higher levels of socio-emotional difficulties. Increased social media interaction between the ages of 10 and 15 was associated with lower happiness and greater socio-emotional difficulties, but only among girls. Using MCS data, Kelly et al. (2018) found a very marked increase in depressive symptoms among 14-year-olds using social media for three or more hours a day, with a much larger effect for girls than boys. This effect was related to the experience of online harassment, poorer sleep, lower self-esteem and poorer body image among heavy consumers of social media.[22]

As well as peer relationships, the social world of children and adolescents often involves engagement in structured activities such as sports or culture (including music and drama lessons or clubs). Using UK Millennium Cohort Study data, Ahn et al. (2018) found that physical activity at age seven was associated with fewer peer problems at 11, but did not have a significant impact on emotional problems. Also in the UK, using Understanding Society data, Booker et al. (2015) reported that adolescent participation in sports was associated with greater levels of happiness and fewer socio-emotional difficulties (using the SDQ total score). The GUI Cohort '98 show lower happiness levels among 9- and 13-year-old boys and girls with less frequent involvement in sport (Smyth, 2015). For older age-groups, sports emerge as an important protective factor from school-related stress (Banks and Smyth, 2015). The evidence on the impact of participation in cultural activities is more mixed. Some studies report improved socio-emotional wellbeing (Mak and Fancourt, 2019a; Metsäpelto and Pulkkinnen, 2012) or self-esteem and life satisfaction (Mak and Fancourt, 2019b; Martin et al., 2013) among those taking part in cultural activities. However, other reviews of research (See and Kokotsaki, 2015) have pointed to the lack of a strong evidence base on the impact of arts education on wellbeing. Using *Growing Up in Ireland* data, Smyth (2020) found that being involved in playing a musical instrument/singing and going to the cinema were associated with higher life satisfaction, while watching a lot of TV or playing a lot of computer games were related to lower satisfaction.

[22] Using data from the '98 cohort of GUI, Dempsey et al. (2020) found no relationship between early mobile-phone ownership and the total (and component subscales) of the SDQ.

2.5 SCHOOL

A large body of international research from a number of countries (including the United States, Britain and Australia) shows a strong association between various aspects of the schooling context, particularly the quality of relationships between teacher and students, and student engagement and performance in school (see, for example, Martin and Dowson, 2009; Roorda et al., 2011). However, research indicates that schools also play a role in shaping young people's broader wellbeing. Reviews of research studies showed that positive relationships with teachers were associated with enhanced student wellbeing and prosocial behaviour as well as decreased prevalence of mental health issues such as internalising or externalising behaviours (Aldridge and McChesney, 2018; Wang et al., 2020). Using the US National Longitudinal Study of Adolescent Health, Crosnoe et al. (2004) found that feeling teachers cared about them, treated students fairly and got on with students was associated with lower levels of disciplinary problems. Similar findings on the relationship between school connectedness and misbehaviour were evident in a Flemish longitudinal study (Demanet and Van Houtte, 2012). In one US study, Joyce and Early (2014) found that school connectedness and getting on with teachers were associated with fewer depressive symptoms among adolescents. Even among younger children, teachers are found to have a significant effect on the development of interpersonal skills and self-control on the part of students (Jennings and DiPrete, 2010). A positive relationship with the teacher was also seen as having a moderating effect for children with initially high levels of internalising behaviour (O'Connor et al., 2011). Using GUI Cohort '98 data, Smyth (2015) found lower levels of happiness and life satisfaction among nine-year-olds who did not like their teacher or school and who had discipline problems.

While positive relationships with teachers and feelings of connectedness to school act as a protective factor for wellbeing, aspects of the school experience may directly contribute to anxiety and stress among young people. Several studies have indicated that examinations, particularly high-stakes exams that have consequences for later life chances, can be a significant source of stress for young people (see, for example, Denscombe, 2000; Putwain, 2009). Indeed, a study by Högberg et al. (2020), using data from the Swedish HBSC over the period 1993 to 2018, found that school stress accounted for a substantial portion of the increase over time in psychosomatic symptoms for girls, but only a minor share of the increase for boys.[23] Previous research in Ireland shows very high levels of psychological distress among Leaving Certificate students, particularly girls (Hannan et al., 1996; Smyth et al., 2011). The stress associated with terminal exams as a mode of assessment has also been highlighted in the accounts of principals, teachers, parents and students (McCoy et al., 2019; Smyth et al., 2020). Positive

[23] In contrast, Cosma et al. (2020), using HSBC data on 36 countries, found that only a very small proportion of changes in adolescent mental wellbeing over time was accounted for by changes in schoolwork pressure, suggesting that these patterns may vary across country and by gender.

relationships with teachers are found to act as a buffer to this exam-related stress (Banks and Smyth, 2015).

2.6 SUMMARY

This chapter has presented an overview of Irish and international research on the factors influencing wellbeing and mental health among children and young people. Gender and social background emerge as important factors, with a growing gender gap in mental health difficulties in adolescence and a persistent socio-economic gap over the life-course. Social relationships emerge as a key influence on socio-emotional outcomes; high-quality relationships with parents, peers and teachers are significantly associated with enhanced wellbeing and reduced difficulties. Research also points to the growing importance of friendship networks in young people's lives as they move into adolescence. Many of the studies focus on a single domain – such as family – rather than looking at the full set of relationships within which young people are embedded. This study therefore builds upon the research by looking at family and peer relationships as well as school experiences and access to facilities and activities in shaping socio-emotional outcomes from infancy to early adulthood.

CHAPTER 3: DATA AND METHODS

3.1 DATA

Growing Up in Ireland (GUI), the National Longitudinal Study of Children in Ireland, surveys two cohorts of children and young people. In this report, data from the most recently available waves of the '08 and '98 Cohorts are used. Analyses are based on the Anonymised Microdata Files (AMFs), available from the Irish Social Science Data Archive (ISSDA) at University College Dublin.

The '08 Cohort (previously known as the Infant Cohort) contains information on 11,134 nine-month-old children and their families who were first surveyed between September 2008 and April 2009. The sampling frame was the Child Benefit Register (Quail et al., 2011). The children and their families have been followed up on five occasions since then, most recently between June 2017 and February 2018, when the cohort was nine years of age. At this wave (age 9), 8,032 children and their families participated in the survey.

The '98 Cohort (previously known as the Child Cohort) represents 8,568 children and their families first surveyed between August 2007 and May 2008, when they were nine years old (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 were then randomly generated from within those schools. Wave 3 of the survey was conducted between April 2015 and August 2016 (when the young people were approximately 17/18 years of age[24]). A total of 6,216 young people and their families participated in Wave 3 (Murphy et al., 2018).

For both cohorts, data were collected primarily via computer-aided personal interviewing (CAPI) with the primary caregiver (who, in most cases, was the young person's mother), and increasingly with the young people themselves as they aged into adolescence and young adulthood. Sensitive self-completion questionnaires were also conducted with parents and young people. In this report, the main focus is on indicators of mental health and wellbeing measured at age nine ('08 Cohort) and age 17 ('98 Cohort). However, data on other individual characteristics, family background and parental, peer and teacher relationships at earlier waves, where available, are also employed (see Section 3.1.2 for further details).

[24] For simplicity, these young people are referred to as 17-year-olds throughout the remainder of the report.

3.1.1 Indicators of mental health and wellbeing

As noted in Chapter 1, for each cohort, we focus on indicators that capture aspects of internalising behaviour, which are linked to depressive and anxiety disorders (Reiss, 2013).[25] These are reported by the young person's primary caregiver, generally the mother. To capture a positive aspect of wellbeing, reported by the young person themselves, we also examine happiness/life satisfaction (for the '08 Cohort) and life satisfaction (for the '98 Cohort). Table 3.1 summarises the indicators examined in this report.

TABLE 3.1 INDICATORS OF MENTAL HEALTH AND WELLBEING

Indicator	'08 Cohort (age 9)	'98 Cohort (age 17)
Internalising problems	Internalising SDQ (reported by primary caregiver)	Internalising SDQ (reported by primary caregiver)
Life satisfaction	Piers-Harris happiness/ satisfaction (reported by the child)	Life satisfaction (reported by young person)

Source: GUI, '08 Cohort (age 9) and '98 Cohort (age 17).
Note: Population weights are employed.

The Strengths and Difficulties Questionnaire (SDQ) is a brief screening questionnaire for mental health problems in children and young people aged 4–17 years of age, which can be completed by parents, teachers, and children (over the age of 11) (Goodman and Goodman, 2009). The 25 items relating to emotional symptoms, conduct problems, hyperactivity, peer problems and prosocial behaviour are often summed to create a 'total difficulty score' ranging from 0 to 40. Researchers also 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).[26] Internalising difficulties refer to problems that involve disturbances in emotion or mood, or dysregulation of emotion (like sadness, worry, guilt) (see Appendix Table A3.1 for the full list of 10 items that comprise the SDQ internalising problems subscale). Externalising difficulties refer to problems that involve dysregulation of behaviour (such as aggression, impulsivity) (Nixon, 2020). In this report, for both cohorts, we use the SDQ internalising scores reported by the primary caregiver.[27] Scores on the 'internalising difficulties' SDQ range from 0–20, with higher scores referring to more difficulties.[28]

25 See Nixon (2020) on 13-year-olds and Smyth and Darmody (forthcoming, 2021) on 17-year-olds for an analysis of externalising as well as internalising difficulties in the GUI '98 Cohort.

26 Goodman et al. (2010) advised that, in low-risk, epidemiological samples, the five SDQ subscales may not all tap into distinct aspects of child mental health. Avoiding these five subscales and instead using the broader internalising and externalising subscales may therefore be more appropriate when selecting explanatory and outcome variables for epidemiological studies.

27 As a robustness check, teacher-reported SDQ was analysed but largely yielded the same results (see Chapters 4 and 5).

28 See McNamara et al. (2020) and Murphy et al. (2019) for further details on the SDQ scales, including internal reliability, for the '08 and '98 cohorts respectively.

Life satisfaction is a cognitive evaluation of subjective wellbeing (Fumarco et al., 2020) that is strongly related to depression (Headey et al., 1993). The Piers-Harris scale is designed to measure a child's self-concept, with a higher score indicating a more positive self-concept.[29] In the GUI '08 Cohort at age nine, the 31-item version of the questionnaire was used, with young people recording their answers in the sensitive questionnaire (Quail et al., 2019).[30] The 'happiness and satisfaction' subscale generally has 10 items reflecting feelings of happiness and satisfaction with life (e.g. 'I am a happy person') but, for Wave 5 of Cohort '08, was reduced to six items. Scores on this subscale range from 0 to 6.[31] In the '98 Cohort at age 17, the young person is asked 'If you were to describe how satisfied you are with your own life in general how would you rate it on a scale of 0 to 10, 0 meaning you are extremely unsatisfied with your life in general, and 10 meaning that you are extremely satisfied with your life?'.

3.1.2 Independent variables

A core set of demographic characteristics (characterising the gender and school stage and chronic illness status or having a SEN for the child or young person) are included in all analyses. For Cohort '98, having a SEN is identified on the basis of the mother's report as to whether the young person at age 13 has a range of conditions, including physical or sensory disabilities, learning disabilities, emotional/behavioural disorders, ASD, and speech and language difficulties. Whether the young person has a long-standing illness is also reported by the mother. For Cohort '08, a different approach is used, as having some types of SEN may only be identified when the child is older. Instead, having a chronic illness at three years of age is included in the models; this covers ongoing illnesses (such as asthma) as well as learning or other developmental disabilities. Having a chronic illness/disability may affect children's emotional and behaviour development (Nixon, 2012) but may also be a precursor to later identification of a SEN. Previous research (Banks and McCoy, 2011) has used high SDQ total difficulties scores as a criterion for inclusion in the SEN category. This approach is not used in this report as we are concerned with looking at the relationship between chronic illness/SEN and particular kinds of difficulties (internalising behaviour) and happiness/life satisfaction. Internalising difficulties may reflect particular conditions, but the focus here is to highlight the groups of young people with positive or negative mental health and the risk and protective factors that operate.

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29 There are six domains in the Piers-Harris: behavioural adjustment; intellectual and school status; physical appearance and attributes; freedom from anxiety; popularity; happiness and satisfaction.

30 Each of the 31 items has answer categories of yes or no (due to copyright issues it is not possible to share an example).

31 See McNamara et al. (2020) for further details on the psychometric properties of the scale. While happiness and life satisfaction are generally considered to be distinct concepts (see also Section 8.3), the Piers-Harris total score and subscales have been used extensively in previous research on children and young people (Butler and Gasson, 2005; Gallagher et al., 2020). It is also noted in the literature that the influences on subjective wellbeing among children are likely to be very different to those for adults (Holder and Coleman, 2009), so happiness and life satisfaction may not be as clearly distinguishable for them.

We then focus on the role of socio-economic status. SES (or social background) refers to position in the social stratification system and is usually measured by variables capturing education, occupation, employment, income, and/or wealth. These components of SES may not be interchangeable and may have different kinds of influences on mental health and wellbeing. SES can reflect diverse underlying theoretical concerns such as material wellbeing, human capital, prestige, and cultural or social connections (Pampel et al., 2010; Sacker et al., 2001). To capture these elements, we include variables for household equivalised income, household social class, and highest level of education (of the primary caregiver). Because the study covers the period of the 'Great Recession', measures of financial strain (having difficulty or great difficulty making ends meet) are included to capture changing family circumstances. Other family structural characteristics are also included, i.e. lone-parent household status and migrant status (of the primary caregiver). Lone-parent status is included as there is extensive evidence demonstrating that growing up in a family structure headed by a single parent carries negative implications for children's developmental outcomes (Nixon, 2012), although lone parenthood is correlated with other important influences on child outcomes such as SES (Hannan and Halpin, 2014). The effects of moving from a two- to one-parent family are also captured for Cohort '98. For the '08 Cohort, all SES variables are measured at age five, while for the '98 Cohort, all SES variables refer to when the young person was aged nine years of age.

Next, we include a set of variables that characterise the quality of the parent-child relationship. In all cases, the questions were asked separately in relation to mothers and fathers. For the '08 Cohort at age five, the Pianta child-parent relationship scale (CPRS) consists of 15 statements that describe both positive and negative aspects of the relationship between parent and child. The measure produces a 'positive' aspects subscale and a 'negative' aspects subscale (Murray et al., 2015). We also include scores from the 15-item Parenting Style Inventory (PSI) measure. Scores for three dimensions of parenting are used in this report: warmth; hostility, and consistency. The Pianta positive/closeness and negative/conflict subscales are also used with Cohort '98 as a measure of quality of relationships. To reflect the changing dynamics of relationships as young people move into early adulthood, at age 17 measures from the German PAIRFAM study (Thonnissen et al., 2014) are used to examine four dimensions: intimacy, admiration, conflict and reliability. Here we focus on intimacy and conflict, which are more closely related to the Pianta sub-scales used at earlier waves. In addition, to capture the views of young people themselves, we use the control subscale of the Stattin and Kerr (2000) Monitoring and Disclosure measure. The control subscale consisted of six items rated on a five-point scale from *1 almost never or never* to *5 almost always or always*. The sample of items included 'Do you need your parent's permission before going out on week nights?'.

Mothers' (and fathers') psychological wellbeing is measured using the Center for Epidemiological Studies Depression Scale (CES-D) (Radloff, 1977). This is a widely used screening tool to assess depression in the general population. It is a 20-item scale in which individuals are asked to report how they have been feeling for the past week on a four-point scale ranging from 'rarely or none of the time' (score of 0) to 'most or all of the time' (score of 3). A short (8-item) version of the scale was used in GUI. Sample items include: 'I felt that I could not shake off the blues even with help from my family or friends', 'My sleep was restless' and 'I felt sad'. The range of possible scores is from 0 to 24. Based on the guidelines stipulated by the authors of the scale, parents who scored above six were classified as being depressed (Nixon, 2012).[32] For the '08 Cohort, parental depression status is available at Wave 1 (9 months) and Wave 5 (9 years); for the '98 Cohort, it is available at all waves, but here we use reports when young people were 13 and 17 years of age. For the younger cohort, a categorical variable is created that indicates whether the child's mother suffered from depression at both time-points, in infancy only, at age nine only, or at neither time-point.

We also include a set of variables to capture the role of participation in sport, family and cultural activities. For the GUI '08 Cohort at age five, parents are asked how frequently their child attends a sports club or activities. They are also asked how frequently they participate in joint activities with their child such as visiting a museum, library or going shopping.[33] An indicator for the number of days that the family sit down to eat an evening meal together is also included. Finally, in this section, we include a variable that captures the child's screen time. At age five, the child's primary caregiver is asked how much time their child spends on screens on an average weekday, with responses ranging from 'none' to '3+ hours'. For Cohort '98, at 13 years of age, young people were asked whether they took part in individual sports, team sports and cultural activities (such as drama or music lessons). They were also asked about participation in cultural activities at age 17 and, in this wave, they were asked about sports in general (rather than distinguishing between individual and team sports). To capture whether young people felt they could avail of local service provision, they were asked whether

[32] Parental mental health is clearly endogenous to child mental health. However, Golberstein et al. (2019) found that the relationship between economic conditions and child mental health was not affected by controls for parental mental health, suggesting that differential reporting of child mental health by parents with and without mental health problems did not appear to be an issue.

[33] The full list of possible activities is:
- Play with <child> using toys or games/puzzles
- Play computer games with <child>
- Visit the library
- Listen to <child> read
- Read to <child>
- Use computer with <child> in educational way
- Sport or physical activities
- Go on educational visits outside home such as museums, farms
- Go shopping

there were good facilities for young people in their area and whether they felt it was safe for young people to hang around locally.

We then focus on the role of peer relationships. For the ’08 Cohort, we include a variable that indicates the number of friends that the child had at nine years of age (as reported by the primary caregiver). To capture negative aspects of peer relationships, parents were asked whether their child had been bullied in the last year. Reflecting the greater importance of peer relationships for adolescents, 13- and 17-year-olds were asked about the size of their friendship network, and friendship quality was captured using the Inventory of Parent and Peer Attachment (IPPA) (Armsden and Greenberg, 1987). At 13, the dimensions of degree of mutual trust, and the extent of anger and alienation were measured. At 17, an additional dimension – quality of communication – was measured. Self-reported experience of being bullied at 13 was also used as a potential predictor of changes in internalising difficulties.

Finally, we include a number of variables that characterise the school environment. For the ’08 Cohort at age five, the teacher-child Pianta relationship scores (positive and conflict subscales) are included. For this cohort, student achievement is proxied by the score on the numeracy subscale from the teacher-reported achievement scale (originally used in the Millennium Cohort Study) (Murray et al., 2015). For Cohort ’98, we use their Drumcondra verbal reasoning test score and, later, the number of higher-level subjects they are taking/took, as a measure of prior achievement. Relationships with teachers are based on self-reported items capturing positive interaction (e.g. receiving praise or positive feedback) and negative interaction (e.g. being given out to or reprimanded). In addition, we control for the educational stage; that is, whether young people are in fifth year, in Leaving Certificate year or have already left school.

A number of measures of self-image were collected for Cohort ’98 at 17 years of age. These included: the Rosenberg self-esteem scale, which was used as a global measure of self-image; a self-efficacy scale, which captured the extent to which people felt in control of their actions; and coping strategies, which distinguished between problem-solving, seeking social support and avoidance (see Murphy et al., 2019). While some caution is needed as they were measured at the same time as the outcomes (internalising difficulties and life satisfaction), their inclusion in the analysis provides useful insights into whether the influence of peer relationships, for example, operates by enhancing the self-image or coping abilities of the young person.

Table A3.2 contains further details on independent variables used in the ’08 Cohort analyses, while Table A3.3 does the same for the ’98 Cohort.

3.2 METHODS

Each of the chapters begins by describing how the outcome variables are distributed across young people, before looking at how these outcomes vary by key demographic and family background measures. Multivariate regression models are then used to look at the factors influencing internalising difficulties and happiness/satisfaction, looking at the effects of family, friendship and school characteristics in turn. To ensure that reverse causality is minimised, for both cohorts, independent variables measured at earlier waves are used as control variables. For the ’08 Cohort, all independent variables (with the exception of peer characteristics and mother’s depression) are measured at the latest available full wave (i.e. age five), while for the ’98 Cohort, independent variables are measured at age 13 (and in some cases, at age nine). As well as looking at the effects on wellbeing, controlling for earlier measures of wellbeing, the analyses examine the factors accounting for change (improvement, stability or decline) in the mental health of children and young people.

TABLE A3.1 SDQ INTERNALISING PROBLEMS SUBSCALE ITEMS

Item	Description
Emotional Problems	
- Somatic	Often complains of headaches, stomach aches or sickness
- Worries	Many worries, often seems worried
- Unhappy	Often unhappy, down-hearted or tearful
- Clingy	Nervous or clingy in new situations, easily loses confidence
- Fears	Many fears, easily scared
Peer Problems	
- Solitary	Rather solitary, tends to play alone
- Good Friend	Has at least one good friend
- Popular	Generally liked by other children
- Bullied	Picked on or bullied by other children
- Best with Adults	Gets on better with adults than with other children

Source: GUI, '08 Cohort, Wave 5 (age 9) and '98 Cohort, Wave 3 (age 17).
Notes: Parents/teachers can answer 'not true', 'somewhat true' or 'certainly true' for each item.

TABLE A3.2 GUI '08 COHORT AT AGE 9 – INDEPENDENT VARIABLES

Variable	Definition	%[1] (age 5)[2]
Male	=1 if male	51.3
Female	=1 if female	48.7
2nd class	=1 if child is in 2nd class	8.9
3rd class	=1 if child is in 3rd class	65.9
4th class	=1 if child is in 4th class	25.2
Rural	=1 if child lives in a rural area	58.4
Urban	=1 if child lives in an urban area	41.6
One-parent family	=1 if child lives in a one-parent family	15.9
Two-parent family	=1 if child lives in a two-parent family	84.1
Not born in Ireland	=1 if primary caregiver (PCG) was not born in Ireland	19.4
Born in Ireland	=1 if PCG was born in Ireland	80.6
Lower second-level	=1 if highest level of education of PCG is primary or lower second-level	13.0
Upper second-level	=1 if upper second-level	16.7
Post-secondary	=1 if vocational/technical qualification or certificate/diploma	41.0
Degree	=1 if degree or higher	29.2
Income quintile 1	=1 if household equivalised income quintile 1 (lowest)	20.7
Income quintile 2	=1 if household equivalised income quintile 2	21.1
Income quintile 3	=1 if household equivalised income quintile 3	19.8
Income quintile 4	=1 if household equivalised income quintile 4	19.5
Income quintile 5	=1 if household equivalised income quintile 5 (highest)	18.9
Professional	=1 if household social class is professional	12.6
Managerial/technical	=1 if managerial/technical	32.0
Non-manual/skilled	=1 if non-manual/skilled	33.2
Unskilled	=1 if semi-/unskilled	10.5
Never worked/unknown	=1 if never worked or unknown	11.8
Chronic illness	=1 if child does have a chronic illness/disability	18.5
No chronic illness	=1 if child does not have a chronic illness/disability	81.5
Ends meet (great difficulty)	=1 if household reports great difficulty in making ends meet	10.5
Difficulty	=1 if difficulty in making ends meet	15.7
Some difficulty	=1 if some difficulty in making ends meet	41.8
Fairly easy	=1 if fairly easy to make ends meet	23.6
Easy	=1 easy to make ends meet	6.1
Very easy	=1 if very easy to make ends meet	2.3
Much better off	=1 if household reports being much better off now	10.3
Somewhat better	=1 if somewhat better off now	34.2

Variable	Definition	%[1] (age 5)[2]
No change	=1 if no change	39.9
Somewhat worse	=1 if somewhat worse off now	13.1
Much worse	=1 if much worse off now	2.5
Pianta (parent) – positive	Score on the Pianta parent-child relationship – positive aspects subscale	33.7 (2.0)
Pianta (parent) – conflict	Score on the Pianta parent-child relationship – conflict subscale	15.0 (5.8)
PSI – warmth	Score on the Parenting Style Inventory (PSI) – warmth subscale	4.7 (0.4)
PSI – hostility	Score on the Parenting Style Inventory (PSI) – hostility subscale	1.8 (0.5)
PSI – consistency	Score on the Parenting Style Inventory (PSI) – consistency subscale	4.1 (0.7)
Mother never depressed	=1 if mother never depressed	81.1
Mother depressed – age 9 months	=1 if mother was depressed when child was aged 9 months only	8.0
Mother depressed – age 9 years	=1 if mother was depressed when child was aged 9 years only	7.3
Mother depressed – ages 9 months and 9 years	=1 if mother was depressed when child was aged 9 months and 9 years	3.7
Number close friends	Number of close friends that the child has	3.7 (0.9)
Bullied	=1 if child was bullied in the last year	21.6
Not bullied	=1 if child was not bullied in the last year	78.4
Never attends sports club	=1 if child never attends a sports club or group	49.7
Twice a month	=1 if twice a month	2.0
One hour p/w	=1 if regularly, one hour per week	29.3
Two hours p/w	=1 if regularly, two hours per week	12.4
Two+ hours p/w	=1 if regularly, more than two hours per week	6.6
No screen time	=1 if child spends no time on screens on an average weekday	2.3
Less than two hours	=1 if less than two hours	54.6
Two to three hours	=1 if two to three hours	28.8
Three+ hours	=1 if more than three hours	14.3
Evening meal p/w	Number of times family has sat down together for evening meal	5.5 (2.1)
Never visits library	=1 if PCG never visits library with child	38.0
Hardly ever	=1 if hardly ever	13.6
Occasionally	=1 if occasionally	36.3
At least one/two times p/w	=1 if one or two times per week/everyday	12.1
Never plays sport	=1 if PCG never plays sport/does physical activity with child	6.0
Hardly ever	=1 if hardly ever	6.8

Variable	Definition	%[1] (age 5)[2]
Occasionally	=1 if occasionally	24.6
One/two times p/w	=1 if one/two times per week	41.0
Everyday	=1 if everyday	21.6
Never goes shopping	=1 if never goes shopping with child	1.3
Hardly ever	=1 if hardly ever	5.3
Occasionally	=1 if occasionally	29.6
One/two times p/w	=1 if one/two times per week	58.7
Everyday	=1 if everyday	5.2
Pianta (teacher) – positive	Score on the Pianta teacher-child relationship – positive aspects subscale	30.3 (4.2)
Pianta (teacher) – conflict	Score on the Pianta teacher-child relationship – conflict subscale	11.3 (4.6)
Numeracy	Achievement on numeracy subscale	7.7 (1.5)

Source: GUI, '08 Cohort, Waves 3 (age 5) and 5 (age 9).
Notes: Population weights are employed.
[1] Figures for Pianta scores, PSI scores, number of close friends, number of evening meals per week and numeracy scores relate to the mean and standard deviation (in parentheses) of the variable, while the percentage in each category is reported for all other variables.
[2] Gender, school class, 'change in financial circumstances since last interview', number of close friends and bullying are measured at age 9. Mother's depression combines measures at age 9 months and 9 years of age. All other variables are measured at age 5.

TABLE A3.3 GUI '98 COHORT AT AGE 17 – INDEPENDENT VARIABLES

Variable	Definition	%
Male	=1 if male	51.0
Female	=1 if female	49.0
Educational stage:	5th year	32.4
	Leaving Certificate year	51.0
	Left school	16.6
Rural	=1 if lives in a rural area (Wave 1)	56.0
Urban	=1 if lives in an urban area	44.0
One-parent family at W1	=1 if lives in a one-parent family	17.3
Became one-parent family by W2	=1 if family structure changed from two- to one-parent between 9 and 13 years	4.3
Became one-parent family by W3	=1 if family structure changed from two- to one-parent between 13 and 17 years	3.5
Not born in Ireland	=1 if primary caregiver (PCG) was not born in Ireland	14.9
Born in Ireland	=1 if PCG was born in Ireland	85.1
Junior Certificate or less	=1 if highest level of education of PCG is primary or lower second-level (Wave 1)	29.2
Leaving Certificate	=1 if upper second-level	37.1
Post-secondary	=1 if vocational/technical qualification or certificate/diploma	16.5
Degree	=1 if degree or higher	17.3
Income quintile 1	=1 if household equivalised income quintile 1 (lowest) (Wave 1)	18.2
Income quintile 2	=1 if household equivalised income quintile 2	21.0
Income quintile 3	=1 if household equivalised income quintile 3	20.4
Income quintile 4	=1 if household equivalised income quintile 4	20.3
Income quintile 5	=1 if household equivalised income quintile 5 (highest)	20.2
Professional	=1 if household social class is professional (Wave 1)	8.7
Managerial/technical	=1 if managerial/technical	33.6
Non-manual/skilled	=1 if non-manual/skilled	36.1
Unskilled	=1 if semi-/unskilled	11.0
Never employed/unknown	=1 if never worked or unknown	10.7
Chronic illness	=1 if young person has a chronic illness	10.6
SEN	=1 if young person has a special educational need (SEN)	19.3
Financial strain at W2	=1 if household reports great difficulty or difficulty in making ends meet	22.4
Financial strain at W3	=1 if household reports great difficulty or difficulty in making ends meet	18.1
Pianta (PCG) – positive	Mean score on the Pianta parent-child relationship for primary caregiver – positive aspects subscale (standard deviation in brackets) W2	32.2 (3.2)
Pianta (SCG) – positive	Mean score on the Pianta parent-child relationship for secondary caregiver – positive aspects subscale (standard deviation in brackets) W2	30.5 (3.2)

Variable	Definition	%
Pianta (PCG) – conflict	Mean score on the Pianta parent-child relationship for primary caregiver – conflict subscale (standard deviation in brackets) W2	15.1 (6.4)
Pianta (SCG) – conflict	Mean score on the Pianta parent-child relationship for secondary caregiver – conflict subscale (standard deviation in brackets) W2	14.9 (4.9)
PCG – intimacy	Score on the Network of Relationships Inventory in relation to primary caregiver – intimacy subscale (W3)	6.1 (2.0)
SCG – intimacy	Score on the Network of Relationships Inventory in relation to secondary caregiver – intimacy subscale (W3)	5.1 (1.9)
PCG – conflict	Score on the Network of Relationships Inventory in relation to primary caregiver – hostility subscale (W3)	5.2 (1.6)
SCG – conflict	Score on the Network of Relationships Inventory in relation to secondary caregiver – hostility subscale (W3)	4.9 (1.6)
Mother depressed W1	=1 if mother was depressed when YP was 9 years old	11.1
Mother depressed W2	=1 if mother was depressed when YP was 13 years old	11.1
Mother depressed W3	=1 if mother was depressed when YP was 17 years old	13.0
Father depressed W1	=1 if father was depressed when YP was 9 years old	3.9
Father depressed W2	=1 if father was depressed when YP was 13 years old	3.9
Father depressed W3	=1 if father was depressed when YP was 17 years old	4.0
Got on with mother very well W2	=1 if YP reported getting on 'very well' with primary caregiver	80.0
Got on with father very well W2	=1 if YP reported getting on 'very well' with secondary caregiver	73.8
Friends at 13	None to two	8.0
	3-5	37.4
	6-10	36.3
	More than 10	18.3
Friends at 17	None to two	10.0
	3-5	46.3
	6-10	36.1
	More than 10	7.5
Quality of friendship	Trust in friends W2	43.0 (7.2)
	Alienation from friends W2	13.9 (4.3)
	Trust in friends W3	41.9 (6.9)
	Alienation from friends W3	16.5 (4.7)
	Communication with friends W3	30.5 (6.3)
Quality of interaction with teachers	Positive interaction W2	2.8 (0.6)
	Negative interaction W2	1.7 (0.6)
	Positive interaction W3	2.8 (0.5)
	Negative interaction W3	1.8 (0.7)

Variable	Definition	%
Verbal reasoning test score W2	Mean score and standard deviation on Drumcondra test (standardised)	100.0 (15.0)
Number of higher level Leaving Certificate subjects	Mean and standard deviation	4.5 (2.4)
Talking about problems	Mother	80.3
	Father	63.2
	Another adult	49.1
Activities	Individual/unstructured sports at 13	77.9
	Team sports at 13	66.8
	Sports at 17	56.3
	Cultural activities at 13	33.8
	Cultural activities at 17	23.4
Coping strategies	Problem-solving	16.5 (5.2)
	Seeking social support	13.9 (4.8)
	Avoidance	13.7 (5.6)
Rosenberg self-esteem scale	Mean score and standard deviation of measure of global self-esteem	12.0 (3.5)
Total self-efficacy score	Mean score and standard deviation of measure of self-efficacy (feeling in control of own actions)	18.4 (2.8)

Source: GUI Cohort '98.
Notes: Population weights are employed.

CHAPTER 4: SDQ INTERNALISING PROBLEMS AMONG THE ’08 COHORT AT AGE 9

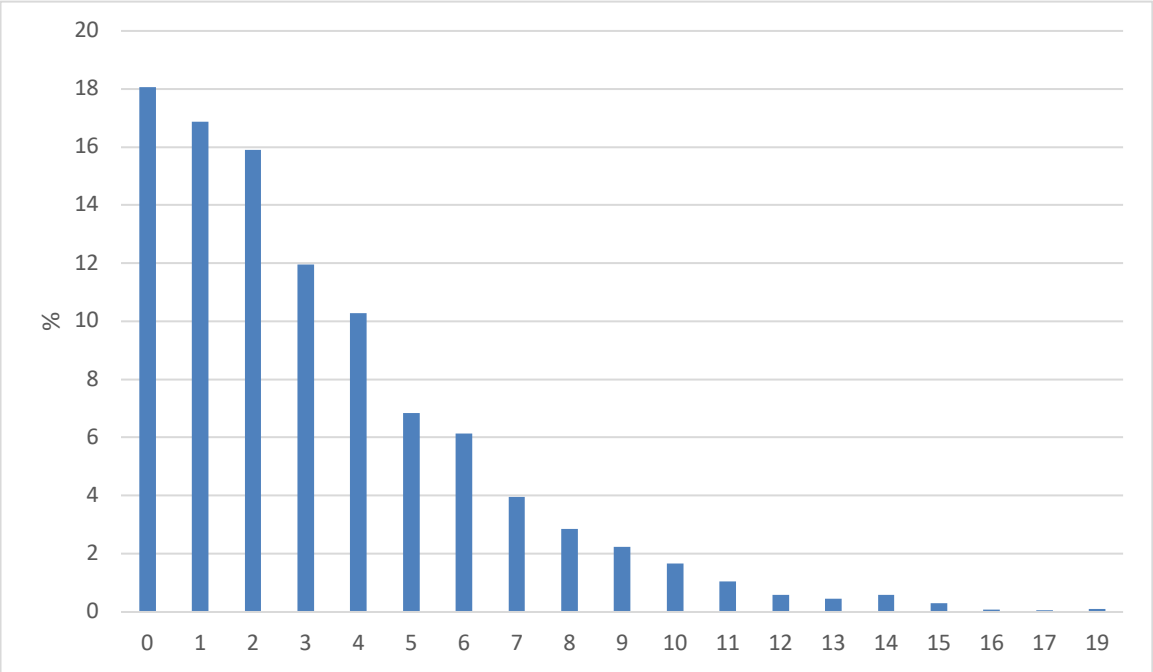
4.1 INTRODUCTION

Chapter 3 introduced the data and methods that are used in this report. In this chapter, we focus on the children from the ’08 Cohort, examining their levels of internalising socio-emotional difficulties at age nine. Section 4.2 presents an overview of internalising difficulties at age nine, and discusses how levels of internalising difficulties vary by key demographic and socio-economic characteristics of the young person and their families. In Section 4.3, we examine how these patterns are influenced by the addition of variables characterising the quality of relationships with parents, peers and teachers, as well as participation in social, family and cultural activities. As the SDQ was also asked of the parents of the children at ages three and five, Section 4.4 looks at how SDQ internalising problem scores have evolved over this six-year period. Chapter 5 then moves on to examine another dimension of wellbeing at age nine, i.e. happiness/life satisfaction.

4.2 DESCRIPTIVE STATISTICS

Figure 4.1 illustrates the distribution of the Strengths and Difficulties (SDQ) internalising score, which combines the scores from the emotional symptoms and peer problems subscales from the SDQ. A higher score indicates poorer behaviour. Scores ranged from 0–20, and the average (median) score was 3.3 (2), indicating positive levels of wellbeing overall for this cohort.

FIGURE 4.1 SDQ INTERNALISING PROBLEMS SCORE AT AGE 9



Source: GUI, '08 Cohort, Wave 5 (age 9).
Notes: Population weights are employed.

In Table 4.1, we show how average SDQ internalising problems scores vary across key individual and family-level characteristics. With the exception of gender and school class, all other characteristics (e.g. household social class) are measured at age five.

TABLE 4.1 SDQ INTERNALISING PROBLEMS SCORE BY DEMOGRAPHIC AND SOCIO-ECONOMIC CHARACTERISTICS

Characteristic	Average score
Gender	
Male	3.32
Female	3.19
*School Class **	
2nd class	3.62
3rd class	3.11
4th class	3.45
*Chronic Illness ****	
Yes	4.22
No	3.04

Characteristic	Average score
Region **	
Urban	3.39
Rural	3.15
Family Type ***	
Lone-parent family	4.32
Two-parent family	3.05
PCG Migrant *	
PCG born in Ireland	3.26
PCG born outside Ireland	3.24
*Household Social Class***	
Professional	2.64
Managerial	2.82
Other non-manual/skilled	3.43
Semi-skilled/unskilled	3.67
Unknown/never worked	4.23
*PCG Highest Level of Education****	
Junior Certificate or less	4.12
Leaving Certificate	3.48
Post-secondary	3.27
Degree or higher	2.72
*Household Equivalised Income Quintile****	
Lowest	3.71
2	3.71
3	3.22
4	2.91
Highest	2.71

Source: GUI, '08 Cohort, Waves 3 (age 5) and 5 (age 9).
Notes: Population weights are employed.
Gender and school class are measured at age 9, while all other variables are measured at age 5.
SDQ Internalising scores range from 0-20.
Indicates statistically significant difference: *** p<0.001; ** p<0.01; * p<0.05; ± p<0.10 (based on Mann-Whitney and Kruskal-Wallis tests).

There is no statistically significant difference in SDQ internalising scores between boys and girls, while children with a chronic illness had significantly higher scores than children without a chronic illness. Scores varied somewhat across school class groups; those in third class had significantly lower scores than those in either 2nd or 4th class. At age nine, the majority (nearly two-thirds) of children were in 3rd class, while a further 25 per cent were in 4th class, and less than 10 per cent were in 2nd class.

Children from lone-parent families, those living in urban areas and (to a lesser extent) those whose mothers had been born in Ireland all had significantly higher internalising problem scores. SDQ internalising problems were significantly higher for children from more disadvantaged social backgrounds, with statistically different scores observed across most of the dimensions of family socio-economic status examined; i.e. household social class, mother's highest level of education, and household equivalised income level. For example, the difference in internalising problem scores between children whose mothers were educated to lower second-level or less and those whose mothers were educated to degree or higher was approximately 1.4, which is about half of a standard deviation.

4.3 MULTIVARIATE REGRESSION RESULTS

In this section, we move on to consider how these patterns are influenced by the addition of controls for the quality of parental, peer and teacher relationships. As with the descriptive patterns presented in Section 4.2, we use covariates measured at age five to explain SDQ 'internalising problems' scores at age nine. In some cases, however (e.g. parental depression scores), measures from other waves are used instead. A negative binomial regression model is used to model SDQ internalising scores.[34] Results are presented as average marginal effects, and can be interpreted as the change in the score (e.g. an average marginal effect of 0.254 for urban residents means that, in comparison with those living in rural areas, children living in urban areas score 0.254 points higher on the SDQ internalising score).

Column (1) of Table A4.1 presents the results of a negative binomial model of SDQ internalising problem scores at age nine, controlling for gender, school class, presence of a chronic illness and a set of family demographic and socio-economic controls. The results are broadly consistent with the descriptive patterns presented in Table 4.1; scores are higher for children with a chronic illness/disability, living in urban areas and from one-parent families. There is no significant difference

[34] Negative binomial models are used when the dependent variable (in this case, SDQ internalising scores) is characterised by overdispersion; i.e. the variance is greater than the mean. See Figure 4.1 for illustration.

between boys and girls.[35] Scores varied significantly across school class groups; those in third class in particular had significantly lower scores than those in second class. Of the three indicators of socio-economic status examined, mother's highest level of education emerges as the most important, with large and statistically significant negative effects on SDQ internalising problem scores.[36]

Column (3) adds controls for difficulty making ends meet (measured at age five) and experience of financial strain over the period between ages five and nine. Both are statistically significant, indicating a direct impact of financial strain on internalising problems at age nine. In particular, those children whose family reported that it was 'very easy' for their household to make ends meet at age five scored nearly 1.2 points lower on the SDQ internalising problems scale at age nine. Large and significant effects were also observed for the experience of financial stress between ages five and nine, with children from families experiencing less financial stress displaying significantly lower SDQ scores.

Column (4) adds controls for the quality of the parent-child relationship. Both aspects of the Pianta child-parent relationship scale were significantly associated with SDQ internalising problem scores: children with more positive relationships with their mothers at age five, and more conflictual relationships with their mothers at age five, had lower and higher scores at age nine respectively. Parenting style was also associated with SDQ internalising scores; children whose mothers reported a more 'hostile' parenting style exhibited significantly higher SDQ internalising problem scores.

The results in column (5) control for maternal mental health. At Waves 1 (9 months) and 5 (age 9), both mothers and fathers completed the Center for Epidemiological Studies Depression (CES-D) scale. We focus here on the results for mother's depression status.[37] Those whose mothers were not depressed at either wave have significantly lower SDQ internalising problem scores than those whose mothers were depressed at both waves. Experiencing depression in either the child's early life or at age nine also results in lower SDQ internalising scores in comparison with mothers who were depressed at both stages of the child's life. In other words, persistent maternal depression emerges as a more significant risk

35 While not the focus of this report, previous research has examined gender differences in the emotional and peer subscales of the internalising problems subscale. Boys tend to score higher than girls in terms of peer problems, while girls score more highly in terms of emotional problems (Nixon, 2012; Russell et al., 2016).

36 In order to retain consistency with the models for happiness/life satisfaction presented in Chapter 5, we focus on mother's education as our indicator of family socio-economic status. Column (2) presents the results for this model with the other indicators of SES, social class and household income, excluded.

37 We focus on maternal depression as the number of fathers who completed the CES-D was considerably smaller. In any case, repeating the analysis with paternal depression scores shows that paternal depression has no impact on child SDQ internalising problem scores (results available on request from the authors).

factor for SDQ internalising problems at age nine than depression in either early or middle childhood.

Table A4.2 presents the findings for the role of peers, school and engagement in sport, family and cultural activities. Column (6) examines the role of the young person's friendship network (reported at age nine by the primary caregiver). Children who had larger friendship networks had lower SDQ internalising problem scores than those with smaller networks. Children who were not bullied at age nine had significantly lower problem scores. However, given that the peer variables were measured at the same time, there should be some caution in interpreting these patterns as 'effects' (i.e. it could also be the case that children with greater socio-emotional difficulties find it harder to make friends). In addition, the SDQ internalising problems scale includes the 'peer relationships' subscale of the SDQ, so it is expected that peer relationship variables would be significantly associated with SDQ internalising problems.

Column (7) adds controls for participation in social, cultural and family activities (all recorded at the age of five). Children who were more frequent participants in a sports club or group, who ate an evening meal with their family more frequently and who went to the library with their family in the last month had significantly better outcomes at age nine. Mothers' reports of 'sport or physical activity' with the child in the last month were also somewhat associated with lower SDQ internalising scores. Other family and cultural activities (e.g. reading with child, etc.) were not statistically significant.[38] There is evidence of a protective effect for between one and two hours of screen time per day on SDQ internalising scores. In comparison with those who spend 3+ hours on a typical weekday in front of a screen, those who spent between one and two hours had significantly lower scores (although scores did not differ for those who spent less than an hour, or between two and three hours per day on screens).[39]

The model in column (7) adds controls for the quality of the teacher-child relationship (measured by the Pianta teacher-child 'positive' and 'conflict' subscales) and child academic achievement (indicated by teacher report of the child's numerical ability). A more conflictual relationship between teacher and child is associated with a higher SDQ internalising problem score. Children with higher achievement on the numerical ability test have significantly lower problem scores.

38 In total, nine activities were reported (playing with child using toys/games; playing computer games with child; visiting the library; listening to child read; reading to child; using computer with child in educational way; sport or physical activities; going to museums, farms, etc; going shopping).

39 Bohnert and Gracia (2020), using data from the two GUI cohorts at 9 years of age, found that 3+ hours of daily TV time was associated with greater SDQ total scores, but that the negative effect of screen time emerged at lower frequencies (1 to 3 hours) for other digital screen time (particularly media use).

The model in column (9) presents the results when all of the above controls are added to the model simultaneously.[40] Of the demographic and socio-economic factors, chronic illness, lone parenthood, mother's highest level of education and the difficulty of the family in 'making ends meet' remain strong and significant predictors of SDQ internalising problem scores. Household location (urban/rural) and the change in the experience of financial stress do not retain statistical significance once the full set of family, peer and school factors is taken into account. Parental and peer relationships remain statistically significant predictors of SDQ internalising problem scores, as does maternal depression (although the effect for depression in infancy does not differ from that for the mother never being depressed). In terms of sport, family and cultural activities, participation in a sports club is the only variable that retains statistical significance once all other controls are added to the model.

The SDQ scores used in this chapter are based on the reports of the primary caregiver (generally the mother) at age nine. How do the results differ if we use teacher reports of SDQ internalising scores at age nine? There is a weak but statistically significant correlation between the assessments of parents and teachers (r=0.28). There are valid reasons why parent and teacher assessments would differ, as parents and teachers base their assessments of child behaviour on different norms, reference groups and expectations of behaviour. In addition, children themselves may behave differently in different contexts (e.g. home vs. school) (Cheng et al., 2018; De Los Reyes et al., 2015; Gutman et al., 2018). Overall, teachers are more positive in their assessments of SDQ internalising problems among their students – while the average (median) PCG-reported score among children is 3.2 (2), it is 2.5 (1) for the same group of children based on teacher assessments.[41] Running the models reported in column (9) of Table A4.2 above with teacher-reported SDQ internalising problem scores as the dependent variable results in consistent results.[42]

4.4 LONGITUDINAL PATTERNS

SDQ internalising scores were also reported by the child's mother at ages three and five. This allows us to examine stability and change in SDQ internalising problem scores over time. There is a moderate correlation between scores at the three time-points, as illustrated in Table 4.2.

40 The variance inflation factor (VIF) test was used to test for multicollinearity.

41 A similar discrepancy in parent- and teacher-reported SDQ scores was reported in the UK MCS (Lewis et al., 2015).

42 The one exception is the effect for parenting style – hostile, which switches from a positive effect for parent-reported SDQ, to a negative effect for teacher-reported SDQ (results available on request from the authors).

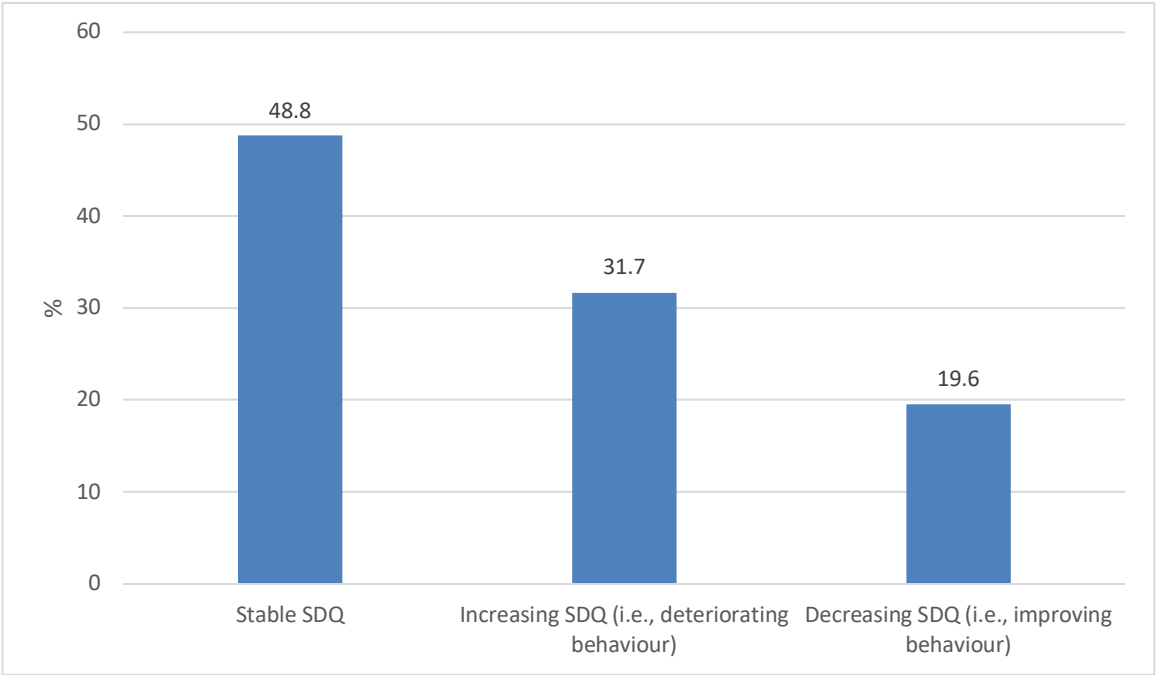
TABLE 4.2 SPEARMAN CORRELATION COEFFICIENTS

	SDQ Internalising (age 3)	SDQ Internalising (age 5)	SDQ Internalising (age 9)
SDQ Internalising (age 3)	-	0.43 ***	0.32 ***
SDQ Internalising (age 5)	-	-	0.45 ***

Source: GUI, '08 Cohort, Waves 2, 3 and 5.
Indicates statistically significant difference: *** p<0.001; ** p<0.01; * p<0.05; ± p<0.10

In Figure 4.2, we show how SDQ internalising scores change between the ages of five and nine. Children were divided into three groups: stable scores (where SDQ internalising scores were within ±1 point at the two time-points), deteriorating scores (where scores rose by two or more points) and improving scores (where scores dropped by two or more points). Just under half the sample exhibited stable SDQ internalising scores between the ages of five and nine; approximately 32 per cent experienced an increase (i.e. a deterioration) in their SDQ internalising score between the two time-points and the remaining 20 per cent experienced a decrease (i.e. an improvement) in their SDQ internalising problem score between ages five and nine. On average, scores increased by approximately 0.6 points between ages five and nine, with the scores for boys and girls increasing by equivalent amounts.[43]

FIGURE 4.2 CHANGE IN SDQ INTERNALISING SCORES BETWEEN AGES 5 AND 9



Source: GUI, '08 Cohort, Waves 3 (age 5) and 5 (age 9).
Notes: Population weights are employed.

[43] Gutman and McMaster (2020) used the UK MCS to examine trajectories of SDQ internalising problems between ages 3 and 14. In addition to stable low and stable high trajectories, they identified an increasing trajectory for both boys and girls that showed an increasing probability of internalising problems, which continued to rise for girls, but levelled off for boys from age 11.

In Table A4.3, we present the results of a multinomial logit model of change in SDQ scores between ages five and nine (controlling for SDQ internalising score at age five).[44] Those with stable SDQ scores between the two time-points are regarded as the reference category. In terms of demographic and family socio-economic characteristics, the children of two-parent families are significantly less likely to be members of the ‘increasing SDQ score’ group, as are those whose mothers have higher levels of education, and those without a chronic illness. Children whose relationship with their mother was characterised as ‘positive’ at age five were significantly less likely to be in the ‘increasing SDQ’ score group. The absence of maternal depression had a protective effect; those whose mothers were never depressed (or who were depressed when the child was an infant only) were significantly less likely to belong to the ‘increasing SDQ’ group. The number of friends, as well as the absence of bullying, had strong protective effects.[45] In terms of school factors, having a conflictual relationship with one’s teacher at age five was associated with an increasing SDQ score over the period between ages five and nine.

Looking at the factors that are associated with improving SDQ internalising scores between ages five and nine (i.e. ‘decreasing SDQ’), the results indicate that there was little variation by family SES and demographic characteristics, although children with Irish-born mothers were less likely to report decreasing SDQ internalising scores over this four-year period. A more conflictual relationship between mother and child at age five was associated with a lower probability of belonging to the ‘decreasing SDQ’ group. A parenting style that was described as ‘warm’ by the primary caregiver was also associated with a lower probability of the child experiencing an improvement in their SDQ internalising score between ages five and nine, although it is not clear why this effect was observed. Children who were not bullied at age five, and who had more friends, were significantly more likely to display improvements in their SDQ internalising scores between ages five and nine. Compared with 3+ hours of screen time per day, children who spent 1–3 hours on screens per day were less likely to experience decreasing SDQ scores over the period, indicating a protective effect for moderate amounts of screen time.

4.5 SUMMARY

This chapter has examined the prevalence of internalising problems (i.e. emotional and peer problems) among nine-year-old children. Overall, parents report few difficulties, with the average child scoring three (median two) on a scale that ranges from 0 to 20. Consistent with previous results for the older ’98 Cohort at

44 We control for SDQ internalising score at baseline (i.e. age 5) as SDQ internalising scores differ substantially across the three ‘change’ categories; the average (median) SDQ internalising score at age 5 for the stable, increasing and decreasing SDQ groups are 1.8 (1), 1.9 (1) and 4.9 (4) respectively.

45 However, as noted above, the SDQ internalising problems subscale includes difficulties related to peer relationships, and peer variables were measured at age 9, meaning that these associations should be interpreted with caution.

age nine (Nixon, 2020), there was no difference in scores between boys and girls. However, we show later in this report (in Chapter 6) that gender differences in SDQ internalising problem scores begin to emerge as the '98 Cohort ages into adolescence. SDQ internalising problem scores are strongly socially patterned. For example, the children of mothers with the highest levels of education display significantly lower scores than the children of mothers with a lower secondary level of education or less. The quality of relationships – with parents, peers and teachers – is a significant positive influence, although there is a suggestion that teacher relationships are not as important as parent or peer relationships at this age. Lone parenthood also emerges as a risk factor for low scores, even after controlling for SES, parental relationships and parental depression, suggesting that there are other unobserved factors correlated with lone parenthood that are associated with lower scores among children in these families.

TABLE A4.1 SDQ INTERNALISING SCORES AMONG 9-YEAR-OLDS: DEMOGRAPHIC, SOCIO-ECONOMIC AND FAMILY FACTORS

	(1)	(2)	(3)	(4)	(5)
Male	ref	ref	ref	ref	ref
Female	-0.053	-0.055	-0.054	0.020	-0.029
	(0.093)	(0.091)	(0.090)	(0.090)	(0.090)
2nd class	ref	ref	ref	ref	ref
3rd class	-0.481	-0.460	-0.479	-0.310	-0.397
	(0.181)**	(0.177)**	(0.181)**	(0.156)*	(0.164)*
4th class	-0.245	-0.206	-0.242	-0.035	-0.197
	(0.202)	(0.197)	(0.201)	(0.180)	(0.183)
Rural	ref	ref	ref	ref	ref
Urban	0.254	0.193	0.191	0.141	0.124
	(0.098)**	(0.096)*	(0.096)*	(0.094)	(0.094)
One-parent family	ref	ref	ref	ref	ref
Two-parent family	-0.834	-0.995	-0.911	-0.874	-0.707
	(0.193)***	(0.168)***	(0.168)***	(0.169)***	(0.156)***
PCG not born in Ireland	ref	ref	ref	ref	ref
PCG born in Ireland	0.040	-0.031	-0.005	-0.011	-0.068
	(0.117)	(0.115)	(0.116)	(0.116)	(0.116)
Lower second-level	ref	ref	ref	ref	ref
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Upper second-level	-0.460	-0.508	-0.385	-0.513	-0.435
	(0.211)*	(0.219)*	(0.213)	(0.222)*	(0.212)*
Post-secondary	-0.449	-0.632	-0.469	-0.624	-0.580
	(0.194)*	(0.194)**	(0.189)*	(0.201)**	(0.185)**
Degree or higher	-0.650	-1.105	-0.858	-1.065	-0.929
	(0.205)**	(0.193)***	(0.192)***	(0.204)***	(0.186)***
Quintile 1 (lowest)	ref				
Quintile 2	0.048				
	(0.158)				
Quintile 3	-0.112				
	(0.165)				
Quintile 4	-0.268				
	(0.158)				
Quintile 5 (highest)	-0.246				
	(0.180)				
Never worked/unknown	ref				
Professional	-0.412				
	(0.238)				
Managerial/technical	-0.286				
	(0.220)				
Non-manual/skilled	0.114				
	(0.209)				
Unskilled	0.186				
	(0.238)				
Chronic illness	ref	ref	ref	ref	ref
No chronic illness	-0.988	-0.994	-0.943	-0.738	-0.960
	(0.135)***	(0.133)***	(0.133)***	(0.128)***	(0.130)***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Ends meet (great difficulty)			ref		
Difficulty			-0.297		
			(0.206)		
Some difficulty			-0.582		
			(0.181)**		
Fairly easily			-0.847		
			(0.191)***		
Easily			-0.865		
			(0.235)***		
Very easily			-1.188		
			(0.262)***		
Financial situation (much worse off)			ref		
Much better off			-0.889		
			(0.353)*		
Somewhat better off			-1.018		

	(1)	(2)	(3)	(4)	(5)
			(0.334)**		
No change			-0.841		
			(0.335)*		
Somewhat worse off			-0.495		
			(0.347)		
Pianta (parent) – positive				-0.143	
				(0.023)***	
Pianta (parent) – conflict				0.095	
				(0.009)***	
PSI – warmth				0.090	
				(0.106)	
PSI – hostility				0.254	
				(0.109)*	
PSI – consistency				-0.035	
				(0.071)	
Mother depressed – 9 months and 9 years					ref
Mother never depressed					-2.624
					(0.315)***
Mother depressed age 9 months					-1.664
					(0.365)***
Mother depressed age 9 years					-1.042
					(0.365)**
Observations	6,856	7,162	7,150	7,154	6,983

Notes: Standard errors in parentheses
* $p<0.05$; ** $p<0.01$; *** $p<0.001$
Gender, school class, 'change in financial circumstances since last interview', number of close friends and bullying are measured at age 9. Mother's depression combines measures at age 9 months and 9 years of age. All other variables are measured at age 5.

TABLE A4.2 SDQ INTERNALISING SCORES AMONG 9-YEAR-OLDS: PEER, SCHOOL AND ALL FACTORS

	(6)	(7)	(8)	(9)
Male	ref	ref	ref	ref
Female	-0.040	-0.079	0.129	0.065
	(0.084)	(0.091)	(0.102)	(0.092)
2nd class	ref	ref	ref	ref
3rd class	-0.351	-0.464	-0.015	-0.144
	(0.149)*	(0.177)**	(0.168)	(0.161)
4th class	-0.152	-0.160	0.201	0.034
	(0.170)	(0.200)	(0.195)	(0.185)
Rural	ref	ref	ref	ref
Urban	0.123	0.179	0.112	0.002
	(0.087)	(0.095)	(0.104)	(0.093)
One-parent family	ref	ref	ref	ref
Two-parent family	-0.648	-1.000	-0.919	-0.446
	(0.146)***	(0.171)***	(0.185)***	(0.158)**
PCG not born in Ireland	ref	ref	ref	ref
PCG born in Ireland	0.070	0.074	0.114	0.233
	(0.103)	(0.115)	(0.125)	(0.116)*
Lower second-level	ref	ref	ref	ref
Upper second-level	-0.374	-0.408	-0.273	-0.240
	(0.205)	(0.213)	(0.232)	(0.209)
Post-secondary	-0.571	-0.486	-0.360	-0.309
	(0.180)**	(0.191)*	(0.206)	(0.185)
Degree or higher	-0.978	-0.826	-0.860	-0.517
	(0.179)***	(0.194)***	(0.203)***	(0.192)**
Chronic illness	ref	ref	ref	ref
No chronic illness	-0.741	-0.965	-0.885	-0.554
	(0.125)***	(0.133)***	(0.143)***	(0.133)***
Number close friends	-0.398 (0.027)***			-0.267 (0.022)***
Bullied in last year	ref			ref
Not bullied in last year	-2.072			-1.679
	(0.120)***			(0.094)***
Never attends sports club		ref		ref
Attends twice p/m		0.245		0.381
		(0.310)		(0.303)
Regularly, one hour p/w		-0.109		-0.084
		(0.112)		(0.108)
Regularly, two hours p/w		-0.433		-0.391
		(0.137)**		(0.135)**
Regularly, three+ hours p/w		-0.566		-0.512
		(0.181)**		(0.182)**
3+ hours screen time		ref		ref
No screen time		-0.291		0.172
		(0.325)		(0.347)
1-2 hours screen time		-0.449		-0.167
		(0.151)**		(0.139)
2-3 hours screen time		-0.189		0.007
		(0.157)		(0.147)
Evening meal p/w		-0.051		-0.037
		(0.022)*		(0.021)
Never visits library w/child		ref		ref
Hardly ever visits library		-0.394		-0.107

	(6)	(7)	(8)	(9)
		(0.136)**		(0.139)
Occasionally visits library		-0.304		-0.147
		(0.112)**		(0.106)
Visits library at least one/two times p/w		-0.333		-0.244
		(0.162)*		(0.154)
Never plays sport w/child		ref		ref
Hardly ever plays sport		0.089		0.299
		(0.284)		(0.263)
Occasionally plays sport		-0.312		0.021
		(0.233)		(0.212)
One/two times p/w		-0.362		-0.016
		(0.229)		(0.208)
Every day		-0.495		-0.066
		(0.238)*		(0.220)
Pianta (teacher) – positive			-0.019	-0.019
			(0.012)	(0.011)
Pianta (teacher) – conflict			0.058	0.014
			(0.010)***	(0.009)
Numeracy			-0.100	-0.049
			(0.033)**	(0.032)
Ends meet (great difficulty)				ref
Difficulty				-0.137
				(0.198)
Some difficulty				-0.235
				(0.170)
Fairly easily				-0.469
				(0.180)**
Easily				-0.608
				(0.215)**
Very easily				-0.562
				(0.265)*
Financial situation (much worse off)				ref
Much better off				-0.483
				(0.391)
Somewhat better off				-0.662
				(0.370)
No change				-0.438
				(0.374)
Somewhat worse off				-0.347
				(0.381)
Pianta (parent) – positive				-0.096
				(0.022)***
Pianta (parent) – conflict				0.078
				(0.009)***
PSI – warmth				0.087
				(0.107)
PSI – hostility				0.212
				(0.103)*
PSI – consistency				0.056
				(0.070)
Mother depressed – 9 months and 9 years				ref
Mother never depressed				-1.255
				(0.289)***

	(6)	(7)	(8)	(9)
Mother depressed age 9 months				-0.833
				(0.320)**
Mother depressed age 9 years				-0.391
				(0.329)
Observations	7,139	7,147	5,876	5,714

Notes: Standard errors in parentheses
* $p<0.05$; ** $p<0.01$; *** $p<0.001$
Gender, school class, ‘change in financial circumstances since last interview’, number of close friends and bullying are measured at age 9. Mother’s depression combines measures at age 9 months and 9 years of age. All other variables are measured at age 5.

TABLE A4.3 CHANGE IN SDQ INTERNALISING SCORES BETWEEN 5 AND 9 YEARS OF AGE (RELATIVE RISK RATIOS) (REF: STABLE SDQ INTERNALISING PROBLEM SCORES)

	Increasing SDQ internalising problem score	**Decreasing** SDQ internalising problem score
SDQ internalising score (age 5)	-0.131 (0.026)***	0.649 (0.032)***
Male	ref	ref
Female	0.057	0.024
	(0.081)	(0.110)
2nd class	ref	ref
3rd class	0.056	0.225
	(0.140)	(0.192)
4th class	0.188	0.017
	(0.157)	(0.219)
Rural	ref	ref
Urban	-0.008	0.159
	(0.084)	(0.108)
One-parent family	ref	ref
Two-parent family	-0.356	-0.126
	(0.141)*	(0.187)
PCG born in Ireland	ref	ref
PCG not born in Ireland	-0.110	-0.422
	(0.107)	(0.131)**
Lower second-level	ref	ref
Upper second-level	-0.178	-0.013
	(0.191)	(0.269)
Post-secondary	-0.263	-0.053
	(0.171)	(0.245)
Degree or higher	-0.374	0.091
	(0.176)*	(0.248)
Chronic illness	ref	ref
No chronic illness	-0.307	0.278
	(0.107)**	(0.149)
Ends meet (great difficulty)	ref	ref
Difficulty	-0.012	0.231
	(0.174)	(0.258)
Some difficulty	-0.047	0.051
	(0.154)	(0.241)
Fairly easily	-0.181	0.008
	(0.165)	(0.247)
Easily	-0.258	0.079
	(0.200)	(0.288)
Very easily	-0.301	0.197
	(0.268)	(0.329)
Financial situation (much worse off)	ref	ref
Much better off	-0.039	0.239
	(0.321)	(0.376)
Somewhat better off	-0.011	0.137
	(0.299)	(0.358)
No change	-0.056	-0.094
	(0.299)	(0.354)
Somewhat worse off	0.339	0.049
	(0.311)	(0.375)
Pianta – positive	-0.055	0.021

	Increasing SDQ internalising problem score	**Decreasing** SDQ internalising problem score
	(0.024)*	(0.034)
Pianta – conflict	0.007	-0.055
	(0.009)	(0.013)***
PSI – warmth	-0.041	-0.346
	(0.115)	(0.141)*
PSI – hostility	0.114	-0.098
	(0.098)	(0.137)
PSI – consistency	0.102	0.087
	(0.065)	(0.083)
Mother depressed – 9 months and 9 years	ref	ref
Mother never depressed	-0.756	0.707
	(0.254)**	(0.470)
Mother depressed age 9 months	-0.760	0.383
	(0.288)**	(0.517)
Mother depressed age 9 years	-0.195	0.636
	(0.292)	(0.513)
Number of close friends	-0.170	0.104
	(0.026)***	(0.035)**
Bullied in last year	ref	ref
Not bullied in last year	-1.039	0.902
	(0.098)***	(0.184)***
Never attends sports club	ref	ref
Attends twice p/m	0.454	0.287
	(0.273)	(0.328)
Regularly, one hour p/w	0.010	0.127
	(0.095)	(0.129)
Regularly, two hours p/w	-0.100	0.181
	(0.123)	(0.151)
Regularly, three+ hours p/w	-0.218	0.390
	(0.169)	(0.227)
3+ hours screen time	ref	ref
No screen time	-0.006	-0.362
	(0.283)	(0.361)
1-2 hours screen time	-0.110	-0.339
	(0.131)	(0.159)*
2-3 hours screen time	-0.021	-0.395
	(0.140)	(0.170)*
Evening meal p/w	-0.024	-0.007
	(0.019)	(0.026)
Never visits library w/child	ref	ref
Hardly ever visits library	-0.078	0.062
	(0.130)	(0.163)
Occasionally visits library	-0.100	0.014
	(0.096)	(0.127)
Visits library at least one/two times p/w	-0.234	-0.014
	(0.133)	(0.195)
Never plays sport w/child	ref	ref
Hardly ever plays sport	0.366	-0.007
	(0.240)	(0.313)
Occasionally plays sport	0.065	-0.003
	(0.209)	(0.259)
One/two times p/w	0.098	-0.027

	Increasing SDQ internalising problem score	**Decreasing** SDQ internalising problem score
	(0.201)	(0.247)
Every day	0.296	0.247
	(0.209)	(0.269)
Pianta (teacher) – positive	0.003	0.019
	(0.010)	(0.014)
Pianta (teacher) – conflict	0.022	0.001
	(0.009)*	(0.014)
Numeracy	-0.015	0.033
	(0.031)	(0.042)
Observations	5,714	

Notes: Standard errors in parentheses
* $p<0.05$; ** $p<0.01$; *** $p<0.001$
Gender, school class, 'change in financial circumstances since last interview', number of close friends and bullying are measured at age 9. Mother's depression combines measures at age 9 months and 9 years of age. All other variables are measured at age 5.

CHAPTER 5: HAPPINESS IN THE ’08 COHORT AT AGE 9

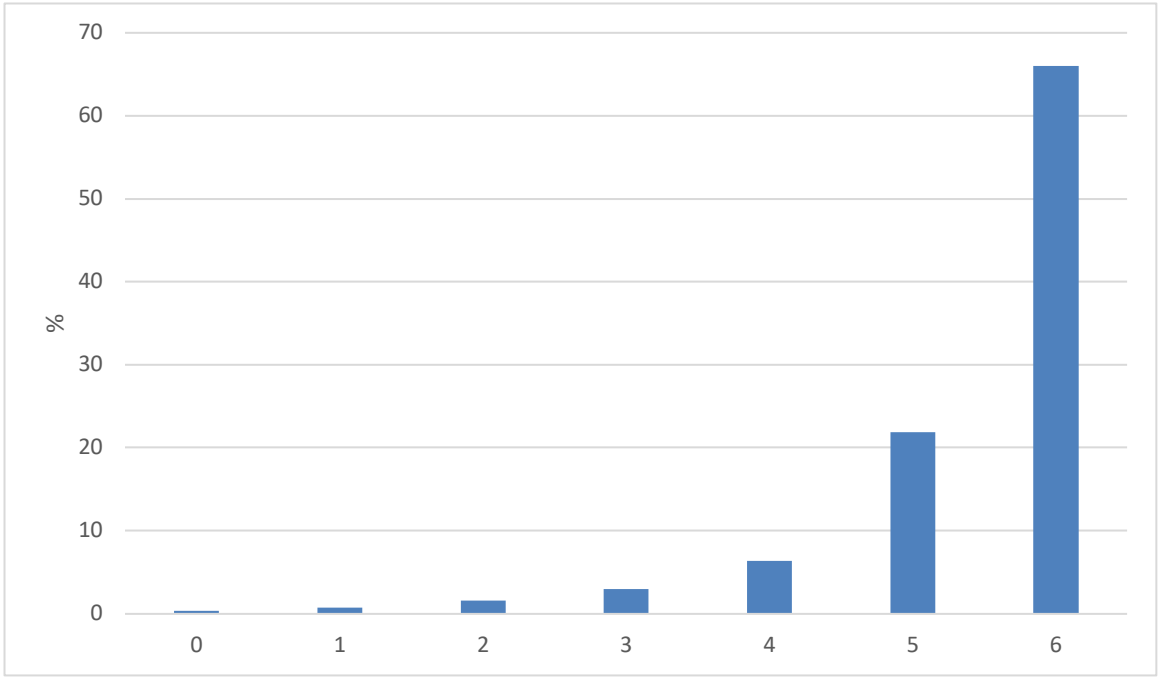
5.1 INTRODUCTION

In this chapter, we focus on a positive dimension of mental wellbeing at nine years of age that is directly reported by the young person themselves, i.e. happiness/life satisfaction. As described in Chapter 3, the ‘happiness and satisfaction’ subscale of the Piers-Harris self-concept scale consists of items exploring feelings of happiness and satisfaction with life. Scores on this subscale range from 0 to 6, with higher scores reflecting higher levels of happiness.

5.2 DESCRIPTIVE STATISTICS

Figure 5.1 illustrates the distribution of the total score for the happiness and life satisfaction subscale of the Piers Harris self-concept scale, with higher scores indicating higher self-concept on this dimension. Scores ranged from 0-6, and the average (median) score was 5.4 (6), indicating very high levels of happiness and satisfaction with life overall in the cohort.[46]

FIGURE 5.1 PIERS HARRIS HAPPINESS AND LIFE SATISFACTION SCORE AT AGE 9



Source: GUI, ’08 Cohort, Wave 5 (age 9).
Notes: Population weights are employed.

[46] The original version of the Piers Harris scale has 60 items across the six dimensions of self-concept. For the ’08 Cohort at 9 years of age, this was reduced to 31 items, with the result that clustering at the higher levels was more likely with the shortened scale (Quail et al., 2019).

TABLE 5.1 AVERAGE PIERS-HARRIS HAPPINESS AND LIFE SATISFACTION SCORE BY DEMOGRAPHIC AND SOCIO-ECONOMIC CHARACTERISTICS

Characteristic	Average score
*Gender ** *	
Male	5.39
Female	5.49
*School Class **	
2nd class	5.42
3rd class	5.43
4th class	5.47
Chronic Illness	
Yes	5.40
No	5.45
*Region **	
Urban	5.39
Rural	5.48
*Family Type ****	
Lone-parent family	5.23
Two-parent family	5.48
*PCG Migrant ****	
PCG born in Ireland	5.46
PCG born outside Ireland	5.34
*Household Social Class ****	
Professional	5.52
Managerial	5.54
Other non-manual/skilled	5.41
Semi-skilled/unskilled	5.37
Unknown/never worked	5.23
*PCG Highest Level of Education ****	
Junior Certificate or less	5.23
Leaving Certificate	5.37

Characteristic	Average score
Post-secondary	5.49
Degree or higher	5.50
*Household Equivalised Income Quintile ****	
Lowest	5.29
2	5.40
3	5.46
4	5.53
Highest	5.54

Source: GUI, '08 Cohort, Waves 3 (age 5) and 5 (age 9).
Notes: Population weights are employed.
Gender and school class are measured at age 9, while all other variables are measured at age 5.
Indicates statistically significant difference: *** p<0.001; ** p<0.01; * p<0.05; ± p<0.10 (based on Mann-Whitney and Kruskal-Wallis tests).

In Table 5.1, we show how average scores on the Piers-Harris happiness and life satisfaction subscale at age nine vary across key individual and family-level characteristics. With the exception of gender and school class, all other characteristics (e.g. household social class) are measured at age five. There was a statistically significant difference in average scores between boys and girls, with girls reporting higher happiness levels. At age nine, the majority (nearly two-thirds) of the sample were in 3rd class, a quarter were in 4th class and less than 10 per cent were in 2nd class (see also Table A3.1). The average happiness score was slightly higher in the later school classes (i.e. 3rd and 4th class), compared with 2nd class. At age nine, 18.5 per cent of the sample were reported to suffer from a chronic illness, but average happiness scores did not differ significantly between those with and without a chronic illness. Children from lone-parent families, those living in urban areas and those whose mothers were born outside Ireland all had significantly lower scores. Piers-Harris happiness scores were significantly lower for children from more disadvantaged social backgrounds, with statistically different scores observed across all the dimensions of family socio-economic status examined, i.e. household social class, mother's highest level of education, and household equivalised income level.

5.3 MULTIVARIATE REGRESSION RESULTS

In this section, we move on to analyse variation in happiness scores using multivariate regression modelling. Following previous research on life satisfaction (Shields et al., 2004), we use an ordered logit model to investigate the impact of demographic, family, peer and school variables on the happiness of young people at the age of nine. We consider how the demographic and socio-economic patterns identified in Table 5.1 are influenced by the addition of controls for the quality of

parental, peer and teacher relationships, parental mental health, and participation in family, social and sporting activities. As with the descriptive patterns presented in Section 5.1, we use covariates measured at age five to explain Piers-Harris happiness and life satisfaction scores at age nine. In some cases, where age five values of key variables are not available (e.g. parental depression scores; friendship networks, etc), measures from other waves are used instead (see Table A3.1 for further details).

Column (1) of Table A5.1 presents the results of the ordered logit model of happiness and life satisfaction scores at age nine, controlling for gender, school class, presence of a chronic illness and a set of family demographic and socio-economic controls. The results (presented as marginal effects) are broadly consistent with the descriptive patterns presented in Table 5.1; scores are higher for girls, children living in rural areas, children living in two-parent families and children with mothers born in Ireland. Of the three indicators of socio-economic status examined, mother's highest level of education emerges as the most important, with large and statistically significant positive effects on happiness scores. For the remainder of the models therefore, we focus on mother's education as our indicator of family socio-economic status. Column (2) presents the results for this model with the other indicators of SES, social class and household income, excluded.

In column (3), we assess the extent to which changes in financial circumstances over the period since the child was aged five, controlling for the ability of the family to 'make ends meet' at age five, affected happiness scores. In contrast to the results for internalising difficulties presented in Chapter 4, none of these effects was statistically significant in explaining variation in happiness scores.

Column (4) adds controls for the quality of the parent-child relationship. Scores from the Pianta child-parent relationship subscales for 'positive aspects' and 'conflicts' were reported by the primary caregiver. In addition, three subscales from the Parenting Style inventory were used to assess the level of 'warmth', 'hostility' and 'consistency' in parenting style. Overall, happiness scores did not vary by parenting style but those whose mother reported a more conflictual relationship at age five reported lower levels of happiness at age nine.

The results in column (5) examine the impact of maternal mental health. Those whose mothers were not depressed at either wave have significantly higher happiness scores than those whose mothers were depressed at both waves. Somewhat higher scores were also observed for those whose mothers were

depressed at either age nine months or nine years, but these results did not reach statistical significance.[47]

We move on to the role of peers, school and engagement in sport and cultural activities in Table A5.2.[48] Column (6) focuses on the role of the young person's friendship network (measured at age nine). Children who had larger friendship networks had higher happiness scores than those with smaller networks. Consistent with previous research on child and adolescent mental health (Nixon, 2020; Walsh et al., 2020), children who were not bullied reported significantly higher happiness levels. However, caution must be exercised in interpreting these results, as the outcome variable and peer effects variables are measured at the same time, meaning that the direction of the effect cannot be identified.

Column (7) adds controls for participation in social, cultural and family activities (all recorded at the age of five). Children who were regular participants in a sports club or group had significantly higher scores at age nine. Interestingly, in contrast to the results for SDQ internalising problems, of the nine activities that parents were asked about, none was associated with happiness scores at age nine (and so are omitted from these models).

The model in column (8) adds controls for the quality of the teacher-child relationship (measured by the Pianta teacher-child 'positive' and 'conflict' subscales) and child academic achievement (indicated by teacher report of the child's numerical ability). Similar to the results for parent-child relationship quality, a more conflictual relationship between teacher and child is associated with a lower level of happiness. Higher numerical ability is associated with higher levels of happiness.

Finally, in column (9), we add all covariates to the model. While many covariates are correlated (e.g. quality of the parent-child relationship and family activities), the final model satisfies statistical tests of multicollinearity.[49] This model indicates the largest and most statistically significant influences on happiness scores at age nine. Among the demographic and socio-economic factors, lone parenthood and mother's highest level of education remain significant predictors of happiness scores. The quality of the parent-child relationship is not significantly associated with happiness/life satisfaction, although the quality of the teacher-child relationship and the strength/quality of the peer network remain significant. In

47 As with SDQ internalising scores (Chapter 4), paternal depression was not associated with happiness/life satisfaction at age 9 (results available on request from the authors).

48 In contrast to the models in Chapter 4, screen time was never associated with happiness (and so was omitted from the models in Table A5.2).

49 The variance inflation factor (VIF) test was used to test for multicollinearity.

terms of sport, family and cultural activities, the protective effect of sport club participation remains statistically significant.

5.4 SUMMARY

In this chapter, we focused on a positive dimension of mental health, namely happiness/life satisfaction, as reported by the young person themselves. Overall, nine-year-olds report very high levels of happiness and life satisfaction; two-thirds of children report the highest possible score. As a result of these high levels of reported happiness and life satisfaction, there were fewer significant associations uncovered than in the preceding chapter. However, in common with SDQ internalising scores, lone parenthood and low SES were associated with lower happiness/life satisfaction. In contrast to the results for SDQ internalising scores reported in the previous chapter, there was a significant gender difference in happiness/life satisfaction, with girls reporting higher levels. Important influences on SDQ internalising scores – such as the presence of a chronic illness, the effects of financial strain, screen time and family activities – were not associated with happiness/life satisfaction.

TABLE A5.1 HAPPINESS/LIFE SATISFACTION SCORES AMONG 9-YEAR-OLDS: DEMOGRAPHIC, SOCIO-ECONOMIC AND FAMILY FACTORS

	(1)	(2)	(3)	(4)	(5)
Male	ref	ref	ref	ref	ref
Female	0.052	0.052	0.051	0.051	0.051
	(0.015)***	(0.015)***	(0.015)***	(0.015)***	(0.015)***
2nd class	ref	ref	ref	ref	ref
3rd class	0.038	0.043	0.043	0.043	0.041
	(0.026)	(0.025)	(0.025)	(0.025)	(0.025)
4th class	0.051	0.057	0.057	0.057	0.061
	(0.029)	(0.028)*	(0.028)*	(0.028)*	(0.028)*
Rural	ref	ref	ref	ref	ref
Urban	-0.055	-0.052	-0.051	-0.048	-0.043
	(0.016)***	(0.016)***	(0.016)**	(0.016)**	(0.016)**
One-parent family	ref	ref	ref	ref	ref
Two-parent family	0.073	0.085	0.079	0.080	0.070
	(0.031)*	(0.026)**	(0.027)**	(0.027)**	(0.027)**
PCG not born in Ireland	ref	ref	ref	ref	ref
PCG born in Ireland	0.056	0.067	0.069	0.061	0.061
	(0.019)**	(0.019)***	(0.019)***	(0.019)**	(0.019)**
Lower second-level	ref	ref	ref	ref	ref
Upper second-level	0.064	0.054	0.054	0.050	0.051
	(0.037)	(0.036)	(0.036)	(0.036)	(0.036)
Post-secondary	0.096	0.101	0.101	0.092	0.102
	(0.034)**	(0.031)**	(0.032)**	(0.032)**	(0.032)**
Degree or higher	0.087	0.115	0.113	0.105	0.111
	(0.035)*	(0.031)***	(0.032)***	(0.032)**	(0.032)***
Quintile 1 (lowest)	ref				
Quintile 2	0.031				
	(0.027)				
Quintile 3	0.038				
	(0.027)				
Quintile 4	0.051				
	(0.027)				
Quintile 5 (highest)	0.062				
	(0.029)*				
Never worked/unknown	ref				
Professional	0.010				
	(0.041)				
Managerial/technical	0.006				
	(0.038)				
Non-manual/skilled	-0.027				
	(0.036)				
Unskilled	-0.016				
	(0.041)				
Chronic illness	ref	ref	ref	ref	ref
No chronic illness	-0.008	-0.001	0.000	-0.008	-0.002
	(0.021)	(0.021)	(0.021)	(0.021)	(0.020)
Ends meet (great difficulty)			ref		
Difficulty			-0.021		
			(0.034)		
Some difficulty			0.028		
			(0.030)		
Fairly easily			0.015		
			(0.032)		
Easily			0.007		
			(0.039)		
Very easily			0.038		
			(0.049)		

	(1)	(2)	(3)	(4)	(5)
Financial situation (much worse off)			ref		
Much better off			0.055		
			(0.063)		
Somewhat better off			0.026		
			(0.060)		
No change			0.026		
			(0.060)		
Somewhat worse off			0.000		
			(0.063)		
Pianta (parent) – positive				0.004	
				(0.005)	
Pianta (parent) – conflict				-0.005	
				(0.002)**	
PSI – warmth				0.009	
				(0.022)	
PSI – hostility				0.003	
				(0.019)	
PSI – consistency				0.017	
				(0.012)	
Mother depressed – 9 months and 9 years					ref
Mother never depressed					0.129
					(0.056)*
Mother depressed age 9 months					0.083
					(0.062)
Mother depressed age 9 years					0.116
					(0.063)
Observations	6,404	6,686	6,674	6,679	6,532

Notes: Standard errors in parentheses
* $p<0.05$; ** $p<0.01$; *** $p<0.001$
Gender, school class, 'change in financial circumstances since last interview', number of close friends and bullying are measured at age 9. Mother's depression combines measures at age 9 months and 9 years of age. All other variables are measured at age 5.

TABLE A5.2 HAPPINESS/LIFE SATISFACTION SCORES AMONG 9-YEAR-OLDS: PEER, SCHOOL AND ALL FACTORS

	(6)	(7)	(8)	(9)
Male	ref	ref	ref	ref
Female	0.053	0.057	0.033	0.041
	(0.015)***	(0.015)***	(0.017)*	(0.017)*
2nd class	ref	ref	ref	ref
3rd class	0.038	0.037	-0.012	-0.009
	(0.025)	(0.025)	(0.027)	(0.028)
4th class	0.056	0.049	0.002	0.012
	(0.027)*	(0.028)	(0.030)	(0.031)
Rural	ref	ref	ref	ref
Urban	-0.049	-0.052	-0.041	-0.028
	(0.016)**	(0.016)***	(0.017)*	(0.017)
One-parent family	ref	ref	ref	ref
Two-parent family	0.073	0.083	0.119	0.098
	(0.027)**	(0.026)**	(0.030)***	(0.031)**
PCG not born in Ireland	ref	ref	ref	ref
PCG born in Ireland	0.061	0.059	0.046	0.025
	(0.019)**	(0.019)**	(0.021)*	(0.021)
Lower second-level	ref	ref	ref	ref
Upper second-level	0.050	0.050	0.033	0.029
	(0.036)	(0.036)	(0.041)	(0.041)
Post-secondary	0.098	0.094	0.083	0.076
	(0.032)**	(0.032)**	(0.036)*	(0.037)*
Degree or higher	0.109	0.103	0.087	0.075
	(0.032)***	(0.032)**	(0.036)*	(0.037)*
Chronic illness	ref	ref	ref	ref
No chronic illness	-0.013	-0.003	-ref	-0.016
	(0.021)	(0.021)	(0.023)	(0.023)
Number close friends	0.028			0.022
	(0.005)***			(0.006)***
Bullied in last year	ref			ref
Not bullied in last year	0.084			0.078
	(0.021)***			(0.023)***
Never attends sports club		ref		ref
Attends twice p/m		0.002		-0.017
		(0.048)		(0.051)
Regularly, one hour p/w		0.060		0.049
		(0.017)***		(0.019)*
Regularly, two hours p/w		0.032		0.005
		(0.022)		(0.026)
Regularly, three+ hours p/w		0.073		0.069
		(0.029)*		(0.033)*
Evening meal p/w		0.004		0.004
		(0.003)		(0.004)
Pianta (teacher) – positive			-0.001	-0.001
			(0.002)	(0.002)
Pianta (teacher) – conflict			-0.006	-0.004
			(0.002)**	(0.002)*
Numeracy			0.025	0.020
			(0.006)***	(0.006)**
Pianta (parent) – positive				0.001

	(6)	(7)	(8)	(9)
				(0.005)
Pianta (parent) – conflict				-0.003
				(0.002)
PSI – warmth				0.001
				(0.025)
PSI – hostility				-0.019
				(0.022)
PSI – consistency				0.009
				(0.014)
Mother depressed – 9 months and 9 years				ref
Mother never depressed				0.099
				(0.062)
Mother depressed age 9 months				0.093
				(0.067)
Mother depressed age 9 years				0.124
				(0.069)
Observations	6,664	6,675	5,497	5,364

Notes: Standard errors in parentheses
* $p<0.05$; ** $p<0.01$; *** $p<0.001$
Gender, school class, 'change in financial circumstances since last interview', number of close friends and bullying are measured at age 9. Mother's depression combines measures at age 9 months and 9 years of age. All other variables are measured at age 5.

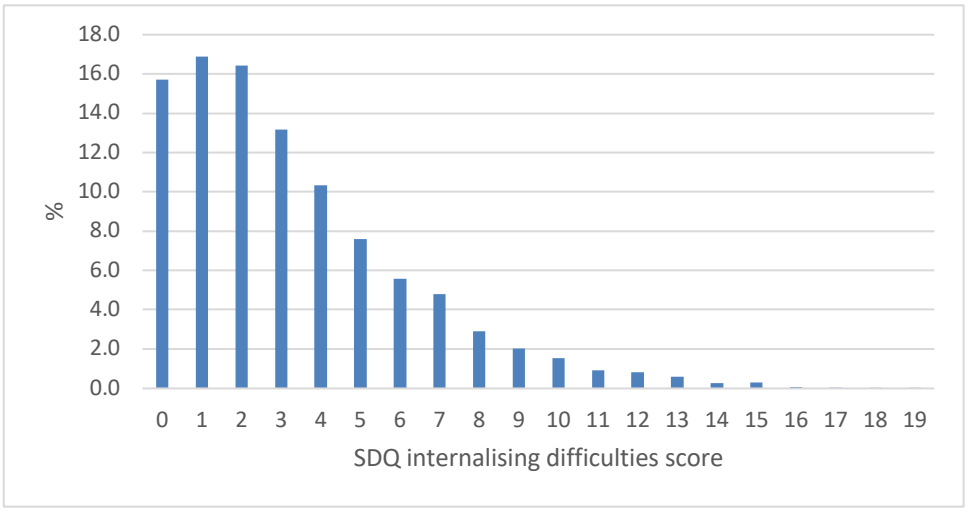
CHAPTER 6: INTERNALISING DIFFICULTIES AMONG 17-YEAR-OLDS

6.1 INTRODUCTION

This chapter looks at one dimension of socio-emotional wellbeing among young people – internalising difficulties, as measured by the Strengths and Difficulties Questionnaire (SDQ). As discussed in Chapter 3, the SDQ is a screening instrument for socio-emotional difficulties completed by the young person's mother at 9, 13 and 17 years of age. The level of internalising behaviour is based on two subscales: emotional symptoms (such as 'often happy, depressed or tearful') and peer relationship difficulties (such as 'rather solitary'). Research has found that high levels of internalising difficulties can be predictive of later depression (Toumbourou et al., 2011) among young people. The chapter begins by presenting descriptive analyses of differences in internalising difficulties by family and other background characteristics (Section 6.2). Section 6.3 then focuses on the effects of three sets of factors – family background, peer-group characteristics and school experiences – on the level of internalising difficulties. Section 6.4 looks at changes in internalising difficulties over time, highlighting the factors associated with improved or declining wellbeing between 13 and 17 years of age.

6.2 DESCRIPTIVE ANALYSES

FIGURE 6.1 DISTRIBUTION OF INTERNALISING BEHAVIOUR AMONG 17-YEAR-OLDS



Source: GUI Cohort '98 Wave 3.

Figure 6.1 indicates that, overall, 17-year-olds tend to have low scores (a mean of 3.4 out of a maximum of 20), indicating few internalising difficulties among the majority of young people.

TABLE 6.1 AVERAGE SDQ INTERNALISING SCORE AT 17 BY BACKGROUND CHARACTERISTICS (MEASURED AT WAVE 1)

Characteristic	Mean
Gender*	
Male	2.92
Female	3.97
Social class*	
Professional	2.72
Managerial	3.13
Other non-manual/skilled	3.46
Semi/unskilled	3.83
Never worked	4.46
Mother's education*	
Junior Certificate or less	4.05
Leaving Certificate	3.34
Post-secondary	3.17
Degree or higher	2.87
Family structure*	
Two parents	3.21
Lone parent	4.19
Equivalised income quintile*	
Lowest	3.97
2	3.78
3	3.41
4	3.34
Highest	2.86
Migrant status of mother	
Native-born	3.44
Migrant	3.43
SEN (as identified by mother at 13)*	
No SEN	3.13
SEN	4.70
Region*	
Urban	3.61
Rural	3.32
Year group at 17*	
5th year	3.18
LC year	3.46
Left school	3.88

Note: Indicates statistically significant difference: *** p<0.001; ** p<0.01; * p<0.05; ± p<0.10 (based on ANOVA test).

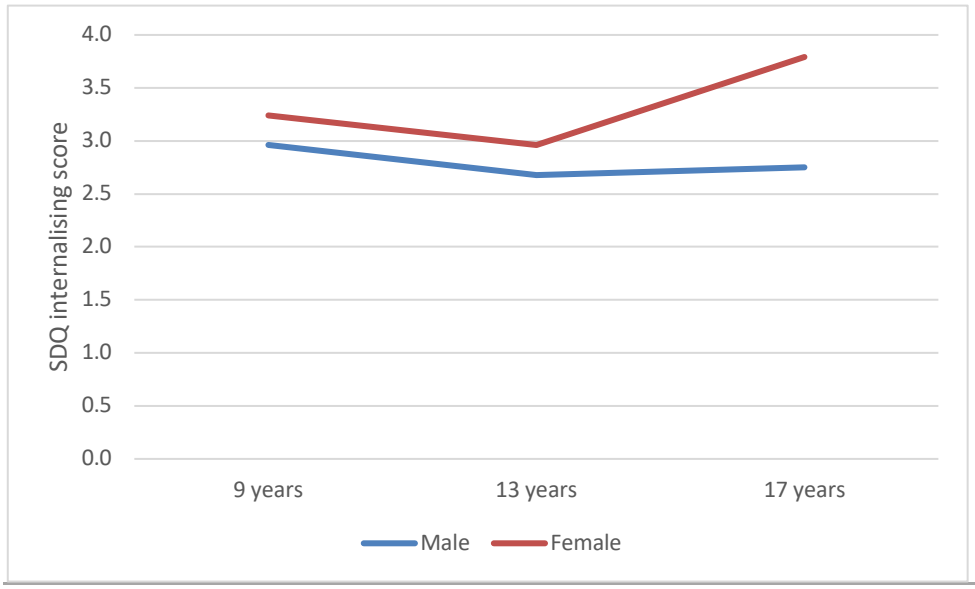
Table 6.1 shows the average SDQ internalising score by a range of background characteristics. There are marked gender differences; females have average internalising scores one point higher than males (about a third of a standard deviation).[50] There are very large differences (over half a standard deviation) between the most advantaged social class group, those in professional jobs, and those with no employment history. Similar gaps in internalising behaviour are evident between the most and least advantaged groups in terms of maternal education and household income.

Young people from lone-parent families have greater internalising difficulties than those in two-parent families (Table 6.1); the extent to which this is due to lower income or educational levels among lone parents will be explored in the models below. In contrast to the other family background measures, no differences are found in internalising behaviour between the children of migrants and those with native-born mothers. Internalising behaviour is slightly more prevalent in urban than rural areas. There is a large gap – over half a standard deviation – in scores between young people with a special educational need and those without.[51] Internalising behaviour varies by educational stage, being lowest in 5th year and highest among those who have already left school by 17. However, this latter group is more disadvantaged in profile (because they are early school-leavers and/or have not taken the Transition Year programme); the extent to which educational stage influences emotional wellbeing is explored below in the multivariate models.

[50] The gender difference is reversed for externalising behaviour (which relates to conduct problems and lack of concentration), with higher levels among males. However, externalising behaviour declines between 9 and 17 for both males and females (see Smyth and Darmody, forthcoming).

[51] Further research could usefully unpack variation in internalising difficulties by type of SEN. While it could be argued that internalising difficulties are related to the presence of certain conditions, it should be noted that levels are not static among those with SEN, with rates increasing between 9 and 17 for young women but not young men (analyses not shown here).

FIGURE 6.2 TRENDS IN INTERNALISING BEHAVIOUR BETWEEN 9 AND 17 YEARS BY GENDER



Source: GUI Cohort '98 Waves 1 to 3.

The advantage of the GUI data is that socio-emotional wellbeing at 17 can be placed in the context of earlier outcomes at 9 and 13 years. Figure 6.2 shows changes in internalising difficulties between the ages of 9 and 17. Very different patterns are found by gender. At 9 years of age, gender differences were already significant, with higher scores among females than males. This contrasts with the patterns found for Cohort '08 (see Chapter 4); the extent to which this reflects changes over time or differences in the profile of the two cohorts would merit further investigation. For males, the incidence of such difficulties declines somewhat between 9 and 13, remaining stable to 17. In contrast, after a decline between 9 and 13, there is a very substantial increase in internalising difficulties for young women between 13 and 17. Levels of internalising difficulties are higher for females than males at all time-points but, as shown in Table 6.1, this gender gap becomes quite large by 17.

6.3 MODELLING INTERNALISING DIFFICULTIES

Because of these gender differences, the factors associated with internalising difficulties are modelled separately for males and females. The distribution of the outcome means that ordinary least squares regression models are not suitable. A negative binomial regression model is used instead. The coefficients are presented in terms of marginal effects; thus, a coefficient of 0.2 indicates that people with that characteristic have levels of difficulties that are 0.2 points higher than for those without that characteristic. Because we seek to understand the influences on emotional wellbeing across a range of domains, the analyses presented in the remainder of this section focus on separate sets of factors – family background, parent-child relationships, peers and activities, and relationships with teachers – to tell a clearer story. The models then explore the extent to which these factors are mediated by young people's coping strategies and self-image at 17.

6.3.1 Family background

When both social class and maternal education are included in the model, only maternal education is significantly associated with internalising behaviour, with the lowest levels found among the sons and daughters of graduate mothers (Tables A6.1 and A6.2, Model 1). Both males and females who were living in lone-parent families at the age of 9 have higher levels of internalising behaviour eight years later. Subsequent parental separation (i.e. moving between a two- and one-parent family) between 9 and 13 or 13 and 17 is associated with more internalising difficulties.

As discussed in Chapter 3, financial stress reflects those who report having difficulties in making ends meet. This was reported by 7 per cent of families when the young person was 9 but increased to 22 per cent at the height of the recession (when the young people were 13) before dropping slightly to 18 per cent when the young person was 17. The effects of financial stress are stronger for males than females; experience of such strain associating with male internalising difficulties increased by 0.19 to 0.25 points across the waves (Table A6.1, Model 2). For females, financial stress since the middle of the recession is significantly associated with internalising behaviour, with no additional effect of early experience of financial stress (at 9) (Table A6.2, Model 2). Some of the initial difference by household type is due to greater financial stress among lone-parent households (compare Models 1 and 2) but starting in, or moving into, a one-parent household has a direct effect on internalising behaviour for both males and females.

As reported by their mother, 11 per cent of young people had a long-standing illness or condition while 19 per cent had a special educational need (SEN).[52] Having a long-standing illness and having an SEN are associated with more internalising behaviour, especially for males. For males, internalising difficulties are one-third of a point higher among those with a SEN than their counterparts without a SEN. Fifteen per cent of young people have mothers who were born outside Ireland but, in keeping with the descriptive analyses, no significant difference was found in internalising difficulties by migrant status. Living in a rural area is associated with less internalising behaviour for males but no significant difference is found for females.

Just over half of the 17-year-olds were in 6th (Leaving Certificate) year at the time of the survey, with 17 per cent having already left school. Internalising difficulties are higher among those in 6th year but the effect is modest in size – less than 0.1 points. In contrast to the descriptive findings, no difference is evident between those who have left school and those in 5th year (Tables A6.1 and A6.2, Model 3).

[52] These were measured at age 13 to allow for the potential delay in identification/diagnosis of specific conditions or needs.

The initial differences therefore relate to the social profile of those who have already left school.

6.3.2 Relationships with parents

Chapter 2 highlighted the importance of relationships with parents in influencing young people's socio-emotional wellbeing. At 13 years of age, young people tended to report a relationship that was close and involved relatively low levels of conflict with their mothers and fathers. Both closeness and conflict were slightly greater with mothers than fathers. In addition, young people were asked about how well they got on with their parents; 80 per cent described themselves as getting on 'very well' with their mother while 74 per cent got on 'very well' with their father.[53] Perhaps somewhat surprisingly, internalising behaviour at 17 is not strongly associated with relationships with parents at 13 years of age, though both males and females who reported higher levels of conflict with their mothers had slightly poorer outcomes (Tables A6.1 and A6.2). Young women who reported getting on very well with their father are less likely to display internalising behaviour, while such difficulties are somewhat more common where they report conflict with their father – patterns that do not apply to their male counterparts. Having a mother who was depressed when they were 13 is significantly associated with greater internalising behaviour, an effect that is on a par in scale with the effects of current financial stress. Earlier paternal depression has no significant effect on either males or females.

Young people were asked different questions about their relationships with their parents at 17 (see Section 3.1.2); the measures of intimacy and conflict are used here as they most closely mirror the dimensions of closeness and conflict captured four years earlier. A measure of disclosure is used to indicate the level of communication between parents and young adults. Levels of intimacy and conflict are, on average, around the mid-point of the scale, with more intimacy and conflict reported for mothers than fathers. Greater intimacy/closeness with their father serves a protective role for both males and females. This is not the case for mothers. In fact, young people who are closer to their mothers display more internalising difficulties. This may reflect those with problems relying on their mothers more as a result (rather than the closeness being a source of such difficulties). For females, but not for males, internalising difficulties are somewhat greater if they report conflict with their mother. Greater disclosure (that is, communication) is associated with fewer internalising difficulties for both males and females. It should be noted that conflict, closeness and internalising difficulties are measured at the same time. Therefore, they should not be interpreted as 'effects', rather as co-occurring experiences, whereby some young people with internalising difficulties are more likely to experience conflict and lack of

[53] Those who did not report on their relationship with their father were included in the analyses but assigned to the average value.

communication with their parents. Current maternal depression is associated with greater internalising difficulties for both males and females. The effect of earlier maternal depression is no longer significant, suggesting that short-term depression may not have a long-lasting effect.

6.3.3 Relationships with peers and involvement in structured activities

The analyses considered both the size of friendship groups as well as the quality of relationships at both 13 and 17. At 13 years of age, young people typically reported having between three and ten friends, with only 8 per cent having only one or two friends. These friendships were characterised as high in trust and relatively low in alienation. For males, internalising difficulties are greater among those with two or fewer friends at the age of 13, but size of the network does not matter for females (Tables A6.3 and A6.4). Higher levels of trust in friends are associated with slightly reduced internalising problems for males but not for females, while feelings of alienation are linked to greater difficulties for females. In addition, 13-year-olds were asked about their experiences of bullying; 10 per cent reported being bullied in the three months prior to the survey while 2 per cent said they had bullied someone else. Those who had bullied someone do not differ from their peers in their internalising behaviour four years later. Those who had experienced bullying, on the other hand, have significantly greater internalising difficulties, with a stronger effect for females than males. For males, the effect of being bullied is explained by having fewer friends or poorer-quality networks later on. For females, being bullied continues to have an impact, even taking account of later friendships.[54]

The size of the friendship network stays fairly stable between 13 and 17 years of age, though there is a reduction in the number who report very large networks (10 or more friends). The average levels of trust in, and alienation from, friends increase slightly over the four-year period. A measure collected for the first time at 17 revealed relatively high levels of communication with peers. Larger networks of friends are associated with fewer internalising difficulties for both males and females. Feelings of alienation contribute to internalising difficulties for both males and females, while trust slightly reduces such difficulties for females but not for males. There is no significant variation by communication for either gender.

At 17 years of age, young people were also asked whether they had a boy- or girlfriend, with 31 per cent reporting they did. In addition, 26 per cent had had a break-up with a boy/girlfriend. Having a partner was not significantly associated

[54] As in Chapters 4 and 5, there should be some caution in interpreting these patterns as peer relations were included in the overall measure of internalising difficulties.

with internalising difficulties. However, those who had broken up with a boy/girlfriend had somewhat higher levels of internalising difficulties.

At 13 years of age, over three-quarters of young people were involved in individual or team sports and just over a third took part in structured cultural activities (such as music or dance classes). Involvement in team sports at 13 reduces internalising behaviour four years later for both genders. Individual sports participation also has a protective effect for males. No such effect is apparent for involvement in cultural activities. Perceptions of the adequacy of local facilities for young people are associated with reduced internalising behaviour for both genders. However, having a safe place to hang around with friends affects females but not males. This may reflect greater concerns for their personal safety among young women.

By 17 years of age, participation in structured activities had declined, with 56 per cent taking part in sports activities and 23 per cent in cultural activities. Internalising behaviour is much lower among those who take part in sports at 17, with a larger effect for males, but earlier involvement in team sports still has a direct effect in reducing difficulties among females. Taking part in cultural activities is not significantly associated with internalising behaviour, all else being equal.

6.3.4 Relationships with teachers

Thirteen-year-olds characterised their interaction with their teachers as broadly positive (in terms of praise and feedback), with generally low levels of negative interaction (being reprimanded frequently). Verbal reasoning test score at 13 is taken into account so that the effect of teacher-student interaction can be examined over and above the effect of ability/achievement. For females, positive interaction appears to play a protective role in reducing internalising difficulties but the effects are not significant for males (Tables A6.5 and A6.6).[55] Negative interaction with teachers is associated with lower levels of internalising behaviour for males; this is somewhat surprising but may reflect males with negative relationships with their teachers acting out (that is, engaging in externalising rather than internalising behaviour). Levels of verbal reasoning do not affect internalising behaviour for either gender.

Both positive and negative interaction increased slightly between 13 and 17 years of age. Positive interaction at 17 plays a protective role for both males and females. Somewhat surprisingly, negative interaction is associated with slightly lower internalising difficulties among both genders too. It may be that those with negative interactions with their teachers externalise rather than internalise difficulties (see Smyth, Darmody, forthcoming). Alternatively, the pattern may

[55] The direction of the effect is similar for males but is only significant at the p<.10 level.

signal greater difficulties among those with lower levels of interaction with teachers overall, a group that were also found to have poor physical activity and diet (Nolan and Smyth, 2020). The number of higher-level subjects taken for the Leaving Certificate is used as a measure of achievement as well as academic orientation. Higher-achieving young women and men are found to have fewer internalising difficulties. This effect is larger for females than males; young women taking seven or more higher-level subjects have levels of internalising behaviour which are 0.42 per cent lower than for those not taking any higher-level subjects. The corresponding reduction is 0.22 per cent for males.

At 13 years of age, 29 per cent of young people reported liking school very much, 33 per cent liked it quite a bit, 27 per cent liked it a bit while 11 per cent did not like it at all or hated it. For males, attitudes to school at 13 are not associated with later internalising behaviour. However, there is a significant relationship for young women; the small group of young women who strongly dislike school have levels of internalising difficulties 0.3 points higher than those who like school very much. At 17 years of age, 24 per cent of young people agreed or strongly agreed with the statement 'I like(d) being at school'. Those who disliked school had higher levels of internalising difficulties, with somewhat stronger effects for females, as at age 13. A further measure of satisfaction with school centred on regrets over subject choice, with 36 per cent of young people expressing such regrets. Young women who had regrets over subject choice had greater internalising difficulties but no such effect was found for young men.

In addition to being asked about relationships with teachers, young people were asked whether there was an adult (or adults) from whom they could seek help or advice. They were not asked who that person was; it may have included a teacher but also could have been a family member, family friend, etc. The vast majority (90 per cent) indicated they had such a person. The small group of young people who did not had significantly greater internalising difficulties.

6.3.5 Coping strategies and self-image

The factors discussed so far may influence internalising difficulties because they increase (or reduce) the use of different approaches to coping with adversity and/or because they influence young people's views of themselves. Thus, young people who have had more positive relationships with their parents may have fewer internalising difficulties, at least in part, because they use more positive coping strategies such as seeking social support. Similarly, a large friendship network may result in a more positive self-image, which acts as a buffer in coping with difficult situations. At the same time, however, caution is necessary in interpreting these patterns as 'effects' given they are measured at the same time as internalising behaviour.

In terms of coping strategies, avoidance is associated with more internalising difficulties for both males and females, with a protective effect from seeking social support for both. The level of engagement in problem-solving approaches is, somewhat surprisingly, associated with slightly greater internalising behaviour for males but not for females. Internalising difficulties are less common where self-esteem and self-efficacy are higher.[56]

Some of the factors discussed above are found to operate through coping strategies and self-image. The effect of positive interaction with teachers halves in size when coping and self-image are taken into account, but a significant direct effect remains. Thus, a positive relationship with teachers matters partly because it makes young people feel better about themselves. For females, the effect of current conflict with mothers largely operates through its influence on self-image and coping strategies. Similarly, the effect of alienation from friends is explained by lower self-image among this group.

6.3.6 Past experience of internalising difficulties

Measures of internalising behaviour at 9 and 13 years of age are found to be significantly associated with internalising behaviour at 17, with a stronger relationship with the measure at 13. In these final sets of models (Tables A6.1 to A6.6), coefficients for the other variables should be interpreted as indicating their effects on changes in internalising behaviour. The influence of family background (measured in terms of maternal education) is found to operate through its influence on earlier internalising behaviour. Similarly, greater internalising difficulties among those who had a long-standing illness or condition are explained by their difficulties at a younger age. However, having a SEN is not only related to more internalising behaviour at 17 but to a somewhat greater increase in such behaviour between 13 and 17 than for other groups.[57]

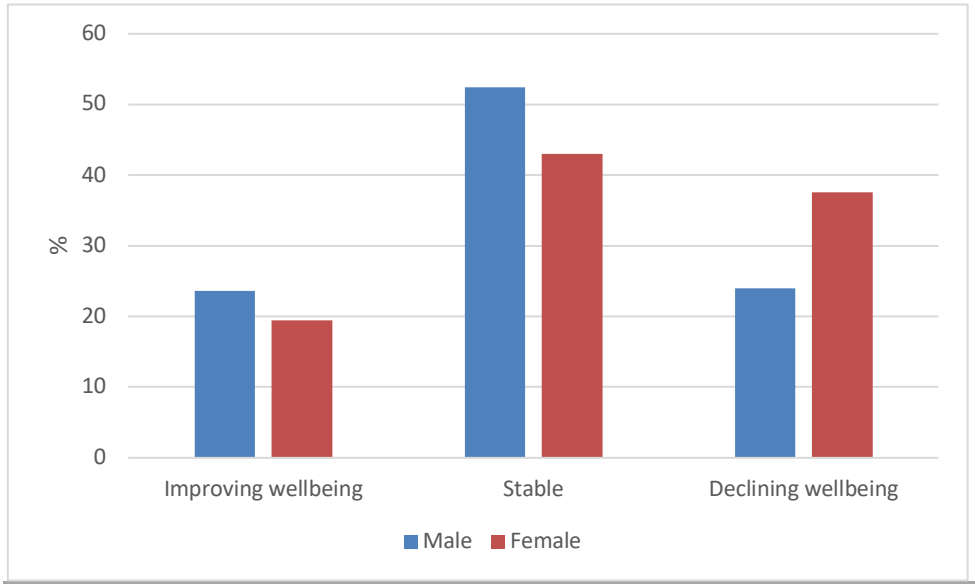
6.4 CHANGES IN INTERNALISING DIFFICULTIES

The models presented above highlight the main factors influencing internalising difficulties among young men and women at 17 years of age. However, it is also important to look at the dynamics of change. To examine the growth in difficulties for females and relatively stable scores for males between 13 and 17 years of age, additional analyses looked at change at the individual level. Young people were divided into three groups: stable wellbeing (where SDQ internalising scores were within ±1 point at the two time-points), improving wellbeing (where scores dropped by 2 or more points) and declining wellbeing (where scores rose by 2 or

[56] Locus of control was not included in these models as it was correlated with other factors, leading to multicollinearity.
[57] Further research could usefully examine whether this trend applies to all forms of SEN.

more points). Figure 6.3 shows that, in keeping with the changes in average scores shown in Figure 6.2, a higher proportion of females than males experience a decline in wellbeing between 13 and 17 (38 per cent compared with 24 per cent). However, a fifth of young women and almost a quarter (24 per cent) of young men experience an improvement in their wellbeing (i.e. a reduction in the level of internalising behaviour).

FIGURE 6.3 CHANGES IN INTERNALISING BEHAVIOUR BETWEEN 13 AND 17 YEARS BY GENDER



Source: GUI Cohort '98 Waves 2 to 3.

Membership of these groups was analysed using a multinomial logistic regression model, comparing improving or declining wellbeing to those for whom internalising difficulties were largely stable over the four-year period (Table A6.7). To identify the reasons for the greater decline for young women, the models pool both genders and use interaction terms to examine whether certain factors affect females but not males (or vice versa). Only a subset of the factors considered were linked to a decline in wellbeing between 13 and 17. Protective factors – that is, those which reduced the chances of a decline in wellbeing – included disclosure (that is, mother-child communication about their social activities), positive interaction with teachers, taking part in sports and having a large friendship network. Having 'one good adult' was on the borders of significance when other factors were taken into account. Negative factors (associated with declining wellbeing) included having a mother with depressive symptoms, disliking school, regretting the subjects taken, taking fewer higher-level subjects, feelings of alienation from friends, having a boy/girlfriend and/or having broken up with a boy/girlfriend. Including interaction terms in the model (not shown here) suggested no gender difference in the effects of these factors. What is striking, however, is the large gender gap remaining taking account of these factors, with young women much more likely than young men to experience an increase in internalising difficulties between 13 and 17 years of age.

6.5 CONCLUSIONS

This chapter has looked at internalising difficulties among young people; that is, the extent to which they display emotional symptoms and peer difficulties. The most striking pattern found is the increase in such difficulties between 13 and 17 years of age for young women but not for young men. Despite these differing trends, many of the factors influencing internalising difficulties for males and females are similar; the size and quality of peer groups, the absence of being bullied, involvement in sports and having an adult to talk to about problems emerge as important protective factors. Positive relationships with parents are important but the effects are not as strong as for other factors such as peers, most likely because of the very positive parent-child relationships found among these young people. Positive interaction with teachers also helps reduce internalising difficulties. Positive attitudes to school and greater academic engagement are particularly important for young women.

TABLE A6.1 SDQ INTERNALISING DIFFICULTIES AMONG 17-YEAR-OLD MALES – FAMILY FACTORS

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Social class:							
Professional	-0.222	-0.060	-0.051	-0.053	-0.088	-0.111	-0.085
	(0.122)	(0.121)	(0.121)	(0.119)	(0.122)	(0.116)	(0.106)
Managerial	-0.137	-0.002	0.002	0.021	0.008	-0.006	0.010
	(0.113)	(0.112)	(0.111)	(0.109)	(0.113)	(0.107)	(0.097)
Non-manual/skilled	-0.195	-0.071	-0.071	-0.068	-0.077	-0.069	-0.045
	(0.112)	(0.110)	(0.110)	(0.108)	(0.111)	(0.106)	(0.096)
Semi-/unskilled	-0.087	-0.017	-0.021	-0.008	-0.025	-0.056	-0.078
	(0.126)	(0.123)	(0.123)	(0.121)	(0.124)	(0.118)	(0.107)
Never employed	ref	ref	ref	ref	ref	ref	ref
Mother's education:							
Lower secondary	ref	ref	ref	ref	ref	ref	ref
Leaving Certificate	-0.119	-0.097	-0.092	-0.090	-0.114	-0.110	-0.067
	(0.063)	(0.061)	(0.061)	(0.060)	(0.060)	(0.057)	(0.053)
Post-secondary	-0.170**	-0.134*	-0.123	-0.114	-0.131*	-0.109	-0.067
	(0.066)	(0.064)	(0.064)	(0.063)	(0.063)	(0.061)	(0.055)
Degree	-0.235***	-0.209**	-0.200**	-0.205**	-0.198**	-0.187**	-0.082
	(0.068)	(0.066)	(0.066)	(0.065)	(0.066)	(0.063)	(0.058)
Lone-parent family (9)	0.224**	0.140*	0.132	0.096	0.084	0.093	0.033
	(0.072)	(0.071)	(0.071)	(0.071)	(0.073)	(0.070)	(0.064)
Lone-parent family (13)	0.050	-0.071	-0.078	-0.144	-0.150	-0.113	-0.186
	(0.107)	(0.104)	(0.104)	(0.103)	(0.108)	(0.104)	(0.095)
Lone-parent family (17)	0.347***	0.247**	0.238*	0.197*	0.106	0.150	0.079
	(0.097)	(0.094)	(0.094)	(0.093)	(0.101)	(0.097)	(0.089)
Financial strain (9)		0.247**	0.253**	0.273**	0.299**	0.284**	0.205*
		(0.095)	(0.095)	(0.093)	(0.094)	(0.090)	(0.081)
Financial strain (13)		0.202***	0.194***	0.142**	0.135**	0.110*	0.057
		(0.052)	(0.052)	(0.052)	(0.052)	(0.049)	(0.045)
Financial strain (17)		0.195***	0.192***	0.154**	0.138**	0.099	0.074
		(0.054)	(0.054)	(0.053)	(0.053)	(0.051)	(0.046)
Illness/condition		0.301***	0.303***	0.259***	0.255***	0.235***	0.064
		(0.059)	(0.059)	(0.058)	(0.058)	(0.056)	(0.051)
Special educational need		0.322***	0.331***	0.268***	0.274***	0.255***	0.089*

		(0.048)	(0.048)	(0.047)	(0.047)	(0.045)	(0.042)
Mother immigrant		0.083	0.080	0.068	0.066	0.047	0.024
		(0.052)	(0.052)	(0.051)	(0.051)	(0.049)	(0.045)
Rural area		-0.081*	-0.083*	-0.057	-0.055	-0.055	-0.040
		(0.037)	(0.037)	(0.037)	(0.037)	(0.035)	(0.032)
Year group:							
5th year			ref	ref	ref	ref	ref
6th year			0.088*	0.071	0.083*	0.082*	0.057
			(0.040)	(0.039)	(0.040)	(0.038)	(0.035)
Left school			0.106	0.066	0.072	0.103	0.073
			(0.064)	(0.063)	(0.064)	(0.061)	(0.056)
Mother Pianta conflict subscale – level of conflict with mother (13)				0.025***	0.023***	0.025***	0.008*
				(0.003)	(0.004)	(0.003)	(0.003)
Father Pianta conflict subscale – level of conflict with father (13)				0.006	0.006	0.005	0.003
				(0.004)	(0.004)	(0.004)	(0.004)
Mother Pianta positive subscale – level of closeness with mother (13)				-0.002	0.005	0.006	0.007
				(0.006)	(0.006)	(0.006)	(0.005)
Father Pianta positive subscale – level of closeness with father (13)				-0.001	0.003	0.003	0.005
				(0.006)	(0.006)	(0.006)	(0.005)
Got on with mother very well				0.077	0.074	0.096	0.026
				(0.050)	(0.052)	(0.050)	(0.046)
Got on with father very well				-0.070	-0.070	-0.023	0.033
				(0.046)	(0.048)	(0.046)	(0.042)
Maternal depression (13)				0.168**	0.113	0.100	0.006
				(0.060)	(0.063)	(0.060)	(0.055)
Paternal depression (13)				0.093	0.046	0.048	-0.008
				(0.082)	(0.086)	(0.082)	(0.075)
Mother intimacy subscale (17)					0.026*	0.037**	0.035**

					(0.012)	(0.012)	(0.011)
Mother conflict subscale (17)					0.007	-0.012	-0.001
					(0.013)	(0.013)	(0.012)
Father intimacy subscale (17)					-0.030*	-0.002	0.001
					(0.012)	(0.012)	(0.011)
Father conflict subscale					-0.007	-0.017	-0.002
					(0.013)	(0.012)	(0.011)
Mother disclosure (17)					-0.026***	-0.021***	-0.025***
					(0.005)	(0.005)	(0.004)
Maternal depression (17)					0.175**	0.136*	0.075
					(0.058)	(0.056)	(0.051)
Paternal depression (17)					0.141	0.087	0.100
					(0.086)	(0.081)	(0.074)
Coping – problem-solving subscale YP (17)						0.018***	0.012**
						(0.004)	(0.004)
Coping – seeking social support subscale YP (17)						-0.020***	-0.018***
						(0.005)	(0.004)
Coping – avoidance subscale YP (17)						0.011**	0.008*
						(0.004)	(0.004)
Rosenberg self-esteem scale						-0.043***	-0.034***
						(0.007)	(0.006)
Total self-efficacy score						-0.033***	-0.024**
						(0.008)	(0.007)
Internalising difficulties at 9							0.051***
							(0.007)
Internalising difficulties at 13							0.103***
							(0.007)
Constant	1.233***	0.948***	0.883***	0.500	0.691*	1.419***	0.957**
	(0.115)	(0.117)	(0.120)	(0.296)	(0.310)	(0.325)	(0.299)
Observations	2615	2615	2615	2615	2524	2524	2524

Standard errors in parentheses; * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

TABLE A6.2 SDQ INTERNALISING DIFFICULTIES AMONG 17-YEAR-OLD FEMALES – FAMILY FACTORS

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Social class:							
Professional	-0.121	0.016	0.013	0.035	0.043	0.086	0.064
	(0.100)	(0.100)	(0.101)	(0.097)	(0.100)	(0.093)	(0.086)
Managerial	-0.072	0.048	0.045	0.067	0.085	0.126	0.089
	(0.092)	(0.092)	(0.092)	(0.089)	(0.092)	(0.085)	(0.078)
Non-manual/skilled	-0.077	0.026	0.022	0.054	0.067	0.098	0.043
	(0.090)	(0.090)	(0.090)	(0.087)	(0.089)	(0.083)	(0.076)
Semi-/unskilled	-0.113	-0.028	-0.031	0.034	0.060	0.058	0.005
	(0.098)	(0.097)	(0.097)	(0.094)	(0.096)	(0.089)	(0.082)
Never employed	ref	ref	ref	ref	ref	ref	ref
Mother's education:							
Lower secondary	ref	ref	ref	ref	ref	ref	ref
Leaving Certificate	-0.110*	-0.079	-0.078	-0.112*	-0.119*	-0.130**	-0.019
	(0.050)	(0.049)	(0.049)	(0.047)	(0.048)	(0.045)	(0.042)
Post-secondary	-0.152**	-0.138**	-0.137**	-0.173***	-0.164**	-0.165***	-0.051
	(0.053)	(0.052)	(0.053)	(0.051)	(0.052)	(0.048)	(0.045)
Degree	-0.213***	-0.179**	-0.181**	-0.208***	-0.219***	-0.227***	-0.105*
	(0.057)	(0.056)	(0.056)	(0.055)	(0.055)	(0.052)	(0.048)
Lone-parent family (9)	0.204***	0.175**	0.176**	0.150*	0.158**	0.134*	0.094
	(0.060)	(0.060)	(0.060)	(0.059)	(0.061)	(0.057)	(0.052)
Lone-parent family (13)	0.246**	0.168*	0.166*	0.112	0.084	0.098	0.047
	(0.081)	(0.080)	(0.080)	(0.078)	(0.083)	(0.077)	(0.071)
Lone-parent family (17)	0.260***	0.243**	0.243**	0.216**	0.170*	0.148	0.146*
	(0.078)	(0.077)	(0.077)	(0.075)	(0.081)	(0.076)	(0.069)
Financial strain (9)		0.059	0.056	0.028	0.005	0.010	-0.073
		(0.082)	(0.082)	(0.079)	(0.081)	(0.075)	(0.069)
Financial strain (13)		0.158***	0.158***	0.130**	0.141***	0.149***	0.111**
		(0.043)	(0.043)	(0.041)	(0.042)	(0.039)	(0.036)
Financial strain (17)		0.149**	0.146**	0.113*	0.105*	0.101*	0.066
		(0.047)	(0.047)	(0.046)	(0.046)	(0.043)	(0.040)
Illness/condition		0.180**	0.177**	0.142*	0.147**	0.163**	0.050
		(0.058)	(0.058)	(0.056)	(0.056)	(0.052)	(0.048)
Special educational need		0.253***	0.257***	0.222***	0.235***	0.194***	0.090*

		(0.045)	(0.045)	(0.044)	(0.044)	(0.041)	(0.038)
Mother immigrant		0.025	0.030	0.008	-0.003	-0.019	-0.016
		(0.045)	(0.045)	(0.043)	(0.044)	(0.041)	(0.038)
Rural area		-0.049	-0.050	-0.033	-0.037	-0.023	-0.015
		(0.032)	(0.032)	(0.031)	(0.031)	(0.029)	(0.027)
Year group							
5th year			ref	ref	ref	ref	ref
6th year			0.077*	0.067*	0.072*	0.069*	0.057
			(0.034)	(0.033)	(0.034)	(0.032)	(0.029)
Left school			0.021	-0.034	-0.042	0.004	-0.034
			(0.053)	(0.052)	(0.053)	(0.050)	(0.046)
Mother Pianta conflict subscale – level of conflict with mother (13)				0.024***	0.021***	0.021***	0.005
				(0.003)	(0.003)	(0.003)	(0.003)
Father Pianta conflict subscale – level of conflict with father (13)				0.010**	0.009**	0.010**	0.010**
				(0.004)	(0.004)	(0.003)	(0.003)
Mother Pianta positive subscale – level of closeness with mother (13)				-0.005	-0.004	-0.005	-0.004
				(0.006)	(0.006)	(0.005)	(0.005)
Father Pianta positive subscale – level of closeness with father (13)				-0.002	0.000	0.002	0.007
				(0.005)	(0.005)	(0.005)	(0.005)
Got on with mother very well				0.021	0.021	0.049	0.031
				(0.040)	(0.042)	(0.039)	(0.036)
Got on with father very well				-0.072*	-0.042	-0.002	0.008
				(0.036)	(0.038)	(0.035)	(0.033)
Maternal depression (13)				0.108*	0.056	0.027	-0.017
				(0.054)	(0.056)	(0.052)	(0.048)
Paternal depression (13)				0.072	0.057	0.023	-0.021
				(0.078)	(0.081)	(0.075)	(0.069)
Mother Intimacy subscale (17)					0.032***	0.062***	0.052***

					(0.009)	(0.009)	(0.008)
Mother conflict subscale (17)					0.022*	-0.007	0.007
					(0.011)	(0.010)	(0.010)
Father intimacy subscale (17)					-0.034***	-0.016	-0.014
					(0.010)	(0.009)	(0.008)
Father conflict subscale					0.014	-0.001	-0.008
					(0.010)	(0.010)	(0.009)
Mother disclosure (17)					-0.019***	-0.018***	-0.020***
					(0.005)	(0.005)	(0.004)
Maternal depression (17)					0.186***	0.151***	0.069
					(0.049)	(0.046)	(0.042)
Paternal depression (17)					-0.030	-0.043	-0.009
					(0.085)	(0.079)	(0.073)
Coping – problem-solving subscale YP (17)						0.006	0.002
						(0.004)	(0.003)
Coping – seeking social support subscale YP (17)						-0.019***	-0.016***
						(0.004)	(0.003)
Coping – avoidance subscale YP (17)						0.010***	0.009***
						(0.003)	(0.003)
Rosenberg self-esteem scale						-0.049***	-0.044***
						(0.005)	(0.005)
Total self-efficacy score						-0.037***	-0.029***
						(0.007)	(0.006)
Internalising difficulties at 9							0.042***
							(0.005)
Internalising difficulties at 13							0.080***
							(0.006)
Constant	1.480***	1.266***	1.224***	0.971***	1.040***	2.089***	1.682***
	(0.092)	(0.096)	(0.099)	(0.263)	(0.282)	(0.288)	(0.267)
Observations	2779	2779	2779	2779	2697	2697	2697

Standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

TABLE A6.3 SDQ INTERNALISING DIFFICULTIES AMONG 17-YEAR-OLD MALES – PEERS AND ACTIVITIES

	(1)	(2)	(3)	(4)	(5)
Social class:					
Professional	-0.051	-0.024	-0.065	-0.074	-0.021
	(0.121)	(0.117)	(0.113)	(0.111)	(0.102)
Managerial	0.002	0.013	-0.046	-0.052	0.028
	(0.111)	(0.108)	(0.105)	(0.103)	(0.094)
Non-manual/skilled	-0.071	-0.049	-0.092	-0.093	-0.019
	(0.110)	(0.106)	(0.103)	(0.101)	(0.092)
Semi-/unskilled	-0.021	-0.033	-0.084	-0.113	-0.064
	(0.123)	(0.120)	(0.115)	(0.113)	(0.104)
Never employed	ref	ref	ref	ref	ref
Mother's education:					
Lower secondary	ref	ref	ref	ref	ref
Leaving Certificate	-0.092	-0.088	-0.077	-0.087	-0.040
	(0.061)	(0.059)	(0.057)	(0.056)	(0.052)
Post-secondary	-0.123	-0.135*	-0.108	-0.092	-0.042
	(0.064)	(0.062)	(0.060)	(0.059)	(0.054)
Degree	-0.200**	-0.190**	-0.179**	-0.172**	-0.066
	(0.066)	(0.065)	(0.063)	(0.062)	(0.057)
Lone-parent family (9)	0.132	0.089	0.009	0.025	-0.016
	(0.071)	(0.069)	(0.067)	(0.066)	(0.061)
Lone-parent family (13)	-0.078	-0.134	-0.157	-0.142	-0.236**
	(0.104)	(0.102)	(0.099)	(0.097)	(0.089)
Lone-parent family (17)	0.238*	0.209*	0.142	0.170	0.068
	(0.094)	(0.091)	(0.089)	(0.087)	(0.080)
Financial strain (9)	0.253**	0.251**	0.266**	0.253**	0.165*
	(0.095)	(0.093)	(0.089)	(0.088)	(0.080)
Financial strain (13)	0.194***	0.177***	0.162***	0.143**	0.066
	(0.052)	(0.051)	(0.049)	(0.048)	(0.044)
Financial strain (17)	0.192***	0.177***	0.152**	0.140**	0.094*
	(0.054)	(0.052)	(0.051)	(0.050)	(0.045)
Illness/condition	0.303***	0.274***	0.256***	0.250***	0.081
	(0.059)	(0.058)	(0.055)	(0.054)	(0.050)
Special educational need	0.331***	0.277***	0.269***	0.257***	0.082*

	(0.048)	(0.047)	(0.045)	(0.044)	(0.041)
Mother immigrant	0.080	0.074	0.036	0.031	0.011
	(0.052)	(0.050)	(0.049)	(0.048)	(0.044)
Rural area	-0.083*	-0.084*	-0.066	-0.070*	-0.052
	(0.037)	(0.037)	(0.036)	(0.035)	(0.032)
Year group:					
5th year	ref	ref	ref	ref	ref
6th year	0.088*	0.070	0.049	0.048	0.023
	(0.040)	(0.039)	(0.038)	(0.038)	(0.035)
Left school	0.106	0.077	0.032	0.034	0.010
	(0.064)	(0.062)	(0.061)	(0.060)	(0.055)
No. friends (13):					
One or two		ref	ref	ref	ref
Between 3 and 5		-0.150*	-0.109	-0.092	-0.009
		(0.069)	(0.067)	(0.065)	(0.059)
Between 6 and 10		-0.277***	-0.189**	-0.162*	-0.088
		(0.071)	(0.069)	(0.068)	(0.062)
More than 10		-0.242**	-0.119	-0.109	-0.019
		(0.077)	(0.076)	(0.074)	(0.068)
Trust in friends subscale (13)		-0.011***	-0.008**	-0.009**	-0.005*
		(0.003)	(0.003)	(0.003)	(0.002)
Alienation from friends subscale (13)		0.006	-0.000	-0.004	-0.010*
		(0.005)	(0.005)	(0.005)	(0.004)
Individual sports (13)		-0.157***	-0.117**	-0.097*	-0.024
		(0.045)	(0.044)	(0.043)	(0.040)
Team sports (13)		-0.227***	-0.088	-0.092	-0.038
		(0.048)	(0.049)	(0.048)	(0.044)
Cultural activities (13)		-0.049	-0.050	-0.046	-0.039
		(0.045)	(0.045)	(0.045)	(0.041)
Safe place to hang around		-0.110**	-0.086*	-0.082*	-0.044
		(0.040)	(0.038)	(0.038)	(0.035)
Local facilities for teenagers		-0.049	-0.046	-0.059	-0.066
		(0.042)	(0.041)	(0.040)	(0.037)
Was bullied at 13		0.164*	0.112	0.093	-0.013
		(0.065)	(0.063)	(0.062)	(0.056)

Bullied someone at 13		0.047	0.051	0.077	0.067
		(0.109)	(0.106)	(0.104)	(0.094)
Sports at 17			-0.303***	-0.241***	-0.149***
			(0.041)	(0.041)	(0.038)
Cultural activities (17)			-0.041	-0.035	-0.080
			(0.048)	(0.048)	(0.044)
No. friends (17):					
None to two			ref	ref	ref
Between 3 and 5			-0.300***	-0.264***	-0.161**
			(0.064)	(0.063)	(0.057)
Between 6 and 10			-0.399***	-0.341***	-0.246***
			(0.067)	(0.066)	(0.060)
More than 10			-0.539***	-0.449***	-0.314***
			(0.087)	(0.086)	(0.079)
Level of peer trust YP (17)			0.000	0.003	-0.001
			(0.005)	(0.004)	(0.004)
Level of peer communication YP (17)			-0.005	0.001	0.005
			(0.005)	(0.005)	(0.005)
Alienation from friends subscale – YP (17)			0.018***	-0.004	-0.001
			(0.004)	(0.005)	(0.005)
Has boy or girlfriend			-0.038	-0.028	-0.027
			(0.040)	(0.040)	(0.037)
Broke up with boy/girlfriend			0.098*	0.081	0.125**
			(0.048)	(0.047)	(0.043)
Coping – problem-solving subscale YP (17)				0.008*	0.006
				(0.004)	(0.004)
Coping – seeking social support subscale YP (17)				-0.012*	-0.014**
				(0.005)	(0.005)
Coping – avoidance subscale YP (17)				0.011*	0.009*
				(0.004)	(0.004)
Rosenberg self-esteem scale (17)				-0.039***	-0.032***
				(0.007)	(0.006)
Total self-efficacy score				-0.017*	-0.015*

				(0.008)	(0.007)
Internalising difficulties at 9					0.046***
					(0.006)
Internalising difficulties at 13					0.104***
					(0.007)
Constant	0.883***	1.903***	2.073***	2.795***	1.823***
	(0.120)	(0.207)	(0.254)	(0.285)	(0.263)
Observations	2615	2615	2615	2615	2615

Standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

TABLE A6.4 SDQ INTERNALISING DIFFICULTIES AMONG 17-YEAR-OLD FEMALES – PEERS AND ACTIVITIES

	(1)	(2)	(3)	(4)	(5)
Social class:					
Professional	0.013	0.051	0.098	0.111	0.094
	(0.101)	(0.099)	(0.095)	(0.092)	(0.083)
Managerial	0.045	0.091	0.122	0.143	0.108
	(0.092)	(0.090)	(0.086)	(0.084)	(0.076)
Non-manual/skilled	0.022	0.061	0.096	0.103	0.054
	(0.090)	(0.088)	(0.084)	(0.082)	(0.074)
Semi-/unskilled	-0.031	-0.017	0.006	0.013	-0.005
	(0.097)	(0.095)	(0.091)	(0.088)	(0.080)
Never employed	ref	ref	ref	ref	ref
Mother's education:					
Lower secondary	ref	ref	ref	ref	ref
Leaving Certificate	-0.078	-0.074	-0.100*	-0.094*	-0.001
	(0.049)	(0.048)	(0.046)	(0.045)	(0.041)
Post-secondary	-0.137**	-0.105*	-0.121*	-0.121*	-0.026
	(0.053)	(0.051)	(0.049)	(0.048)	(0.044)
Degree	-0.181**	-0.159**	-0.168**	-0.175***	-0.057
	(0.056)	(0.055)	(0.053)	(0.052)	(0.048)
Lone-parent family (9)	0.176**	0.140*	0.092	0.098	0.055
	(0.060)	(0.058)	(0.056)	(0.055)	(0.049)
Lone-parent family (13)	0.166*	0.133	0.082	0.094	0.033
	(0.080)	(0.078)	(0.075)	(0.073)	(0.066)
Lone-parent family (17)	0.243**	0.221**	0.153*	0.157*	0.133*
	(0.077)	(0.075)	(0.072)	(0.070)	(0.063)
Financial strain (9)	0.056	0.027	-0.001	0.002	-0.100
	(0.082)	(0.080)	(0.076)	(0.074)	(0.067)
Financial strain (13)	0.158***	0.141***	0.124**	0.125**	0.086*
	(0.043)	(0.041)	(0.040)	(0.039)	(0.035)
Financial strain (17)	0.146**	0.147**	0.133**	0.143***	0.067
	(0.047)	(0.046)	(0.044)	(0.043)	(0.039)
Illness/condition	0.177**	0.144*	0.148**	0.160**	0.027
	(0.058)	(0.056)	(0.054)	(0.052)	(0.047)
Special educational need	0.257***	0.221***	0.211***	0.202***	0.087*

	(0.045)	(0.044)	(0.042)	(0.041)	(0.037)
Mother immigrant	0.030	-0.007	-0.029	-0.033	-0.029
	(0.045)	(0.044)	(0.042)	(0.041)	(0.037)
Rural area	-0.050	-0.060	-0.050	-0.047	-0.034
	(0.032)	(0.032)	(0.030)	(0.030)	(0.027)
Year group:					
5th year	ref	ref	ref	ref	ref
6th year	0.077*	0.067*	0.059	0.054	0.043
	(0.034)	(0.034)	(0.033)	(0.032)	(0.029)
Left school	0.021	0.003	0.004	0.020	-0.050
	(0.053)	(0.052)	(0.051)	(0.050)	(0.045)
No. friends (13):					
One or two		ref	ref	ref	ref
Between 3 and 5		-0.101	-0.092	-0.066	0.050
		(0.069)	(0.066)	(0.065)	(0.059)
Between 6 and 10		-0.125	-0.105	-0.078	0.061
		(0.069)	(0.066)	(0.065)	(0.059)
More than 10		-0.098	-0.073	-0.059	0.100
		(0.075)	(0.072)	(0.070)	(0.064)
Trust in friends subscale (13)		-0.003		-0.001	0.002
		(0.003)	(0.002)	(0.002)	(0.002)
Alienation from friends subscale (13)		0.021***	0.010**	0.007	-0.003
		(0.004)	(0.004)	(0.004)	(0.003)
Individual sports (13)		-0.011	0.009	-0.002	0.004
		(0.037)	(0.035)	(0.034)	(0.031)
Team sports (13)		-0.181***	-0.116**	-0.104**	-0.073*
		(0.037)	(0.036)	(0.035)	(0.032)
Cultural activities (13)		-0.037	-0.025	-0.019	-0.009
		(0.032)	(0.032)	(0.031)	(0.028)
Safe place to hang around		-0.105**	-0.100**	-0.100**	-0.074**
		(0.034)	(0.032)	(0.031)	(0.029)
Local facilities for teenagers		-0.095**	-0.076*	-0.066*	-0.058
		(0.035)	(0.034)	(0.033)	(0.030)
Was bullied at 13		0.246***	0.208***	0.192***	0.075
		(0.054)	(0.052)	(0.050)	(0.045)
Bullied someone at 13		-0.057	-0.088	-0.033	-0.062

		(0.142)	(0.135)	(0.131)	(0.118)
Sports at 17			-0.114***	-0.064*	-0.046
			(0.032)	(0.031)	(0.028)
Cultural activities (17)			-0.019	-0.001	-0.008
			(0.033)	(0.032)	(0.030)
No. friends (17):					
None to two			ref	ref	ref
Between 3 and 5			-0.147**	-0.113*	-0.071
			(0.051)	(0.049)	(0.044)
Between 6 and 10			-0.257***	-0.196***	-0.171***
			(0.053)	(0.052)	(0.047)
More than 10			-0.286***	-0.198**	-0.132
			(0.076)	(0.075)	(0.068)
Level of peer trust YP (17)			-0.009*	-0.011*	-0.007
			(0.004)	(0.004)	(0.004)
Level of peer communication YP (17)			-0.002	0.006	0.003
			(0.005)	(0.005)	(0.005)
Alienation from friends subscale – YP (17)			0.024***	0.003	0.002
			(0.004)	(0.004)	(0.004)
Has boy or girlfriend			0.054	0.055	0.085**
			(0.032)	(0.031)	(0.028)
Broke up with boy/girlfriend			0.097**	0.091**	0.074**
			(0.032)	(0.031)	(0.028)
Coping – problem-solving subscale YP (17)				0.003	0.000
				(0.003)	(0.003)
Coping – seeking social support subscale YP (17)				-0.011*	-0.010**
				(0.004)	(0.004)
Coping – avoidance subscale YP (17)				0.006*	0.006*
				(0.003)	(0.003)
Rosenberg self-esteem scale (17)				-0.037***	-0.035***
				(0.006)	(0.005)
Total self-efficacy score				-0.028***	-0.024***
				(0.007)	(0.006)

Internalising difficulties at 9					0.042***
					(0.005)
Internalising difficulties at 13					0.088***
					(0.005)
Constant	1.224***	1.432***	1.555***	2.578***	1.871***
	(0.099)	(0.185)	(0.225)	(0.253)	(0.231)
Observations	2779	2779	2779	2779	2779

Standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

TABLE A6.5 SDQ INTERNALISING DIFFICULTIES AMONG 17-YEAR-OLD MALES – TEACHERS AND SCHOOL

	(1)	(2)	(3)	(4)	(5)
Social class:					
Professional	-0.051	-0.050	-0.019	-0.034	0.013
	(0.121)	(0.121)	(0.119)	(0.114)	(0.103)
Managerial	0.002	-0.002	0.019	0.008	0.080
	(0.111)	(0.112)	(0.110)	(0.106)	(0.095)
Non-manual/skilled	-0.071	-0.080	-0.055	-0.045	0.019
	(0.110)	(0.110)	(0.108)	(0.104)	(0.093)
Semi-/unskilled	-0.021	-0.022	-0.011	-0.059	-0.044
	(0.123)	(0.123)	(0.122)	(0.117)	(0.105)
Never employed	ref	ref	ref	ref	ref
Mother's education:					
Lower secondary	ref	ref	ref	ref	ref
Leaving Certificate	-0.092	-0.090	-0.067	-0.075	-0.025
	(0.061)	(0.061)	(0.061)	(0.058)	(0.053)
Post-secondary	-0.123	-0.120	-0.089	-0.071	-0.025
	(0.064)	(0.064)	(0.064)	(0.061)	(0.055)
Degree	-0.200**	-0.187**	-0.143*	-0.138*	-0.033
	(0.066)	(0.067)	(0.067)	(0.064)	(0.058)
Lone-parent family (9)	0.132	0.145*	0.135	0.127	0.045
	(0.071)	(0.071)	(0.071)	(0.068)	(0.061)
Lone-parent family (13)	-0.078	-0.082	-0.085	-0.089	-0.214*
	(0.104)	(0.104)	(0.104)	(0.100)	(0.091)
Lone-parent family (17)	0.238*	0.245**	0.219*	0.225*	0.090
	(0.094)	(0.095)	(0.093)	(0.089)	(0.081)
Financial strain (9)	0.253**	0.249**	0.228*	0.241**	0.158*
	(0.095)	(0.095)	(0.094)	(0.090)	(0.080)
Financial strain (13)	0.194***	0.194***	0.197***	0.162**	0.073
	(0.052)	(0.052)	(0.051)	(0.049)	(0.045)
Financial strain (17)	0.192***	0.193***	0.159**	0.122*	0.077
	(0.054)	(0.054)	(0.053)	(0.051)	(0.046)
Illness/condition	0.303***	0.298***	0.290***	0.269***	0.078
	(0.059)	(0.059)	(0.058)	(0.056)	(0.051)

Special educational need	0.331***	0.322***	0.301***	0.272***	0.072
	(0.048)	(0.048)	(0.048)	(0.046)	(0.042)
Mother immigrant	0.080	0.075	0.054	0.039	0.010
	(0.052)	(0.052)	(0.051)	(0.049)	(0.045)
Rural area	-0.083*	-0.084*	-0.088*	-0.081*	-0.052
	(0.037)	(0.037)	(0.037)	(0.036)	(0.032)
Year group					
5th year	ref	ref	ref	ref	ref
6th year	0.088*	0.093*	0.054	0.059	0.038
	(0.040)	(0.040)	(0.041)	(0.039)	(0.036)
Left school	0.106	0.108	0.006	0.053	0.014
	(0.064)	(0.065)	(0.069)	(0.066)	(0.060)
Positive interaction with teachers (13)		-0.067	-0.007	0.031	0.019
		(0.036)	(0.037)	(0.036)	(0.032)
Negative interaction with teachers (13)		-0.063*	-0.043	-0.025	-0.015
		(0.029)	(0.031)	(0.030)	(0.027)
Verbal reasoning test score		-0.001	0.001	-0.001	-0.002
		(0.001)	(0.001)	(0.001)	(0.001)
Like school quite a bit (13)		0.021	0.012	-0.017	-0.017
		(0.048)	(0.048)	(0.046)	(0.042)
Like school a bit (13)		0.006	-0.028	-0.047	-0.047
		(0.052)	(0.052)	(0.050)	(0.045)
Don't like/hate school (13)		0.044	-0.036	-0.066	-0.088
		(0.076)	(0.076)	(0.073)	(0.066)
No. higher-level subjects at LC			-0.034**	-0.036***	-0.025*
			(0.011)	(0.011)	(0.010)
Positive interaction with teachers (17)			-0.180***	-0.080*	-0.059
			(0.038)	(0.037)	(0.034)
Negative interaction with teachers (17)			-0.080*	-0.099**	-0.048
			(0.032)	(0.031)	(0.028)
Dislike school (17)			0.118*	0.073	0.090*
			(0.047)	(0.045)	(0.041)
Regret taking subject(s) (17)			0.062	0.021	0.018
			(0.038)	(0.037)	(0.033)

Has adult to talk to (17)			-0.132*	-0.015	-0.031
			(0.055)	(0.054)	(0.048)
Coping – problem-solving subscale YP (17)				0.014***	0.011**
				(0.004)	(0.004)
Coping – seeking social support subscale YP (17)				-0.013**	-0.013**
				(0.004)	(0.004)
Coping – avoidance subscale YP (17)				0.011**	0.009*
				(0.004)	(0.004)
Rosenberg self-esteem scale (17)				-0.044***	-0.034***
				(0.007)	(0.006)
Total self-efficacy score				-0.033***	-0.024***
				(0.008)	(0.007)
Internalising difficulties at 9					0.048***
					(0.007)
Internalising difficulties at 13					0.109***
					(0.007)
Constant	0.883***	1.275***	1.752***	2.551***	1.697***
	(0.120)	(0.211)	(0.229)	(0.263)	(0.241)
Observations	2615	2615	2608	2608	2608

Standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

TABLE A6.6 SDQ INTERNALISING DIFFICULTIES AMONG 17-YEAR-OLD FEMALES – TEACHERS AND SCHOOL

	(1)	(2)	(3)	(4)	(5)
Social class:					
Professional	0.013	0.005	0.113	0.133	0.099
	(0.101)	(0.100)	(0.098)	(0.093)	(0.084)
Managerial	0.045	0.047	0.135	0.158	0.120
	(0.092)	(0.091)	(0.089)	(0.085)	(0.076)
Non-manual/skilled	0.022	0.013	0.086	0.106	0.062
	(0.090)	(0.089)	(0.087)	(0.083)	(0.074)
Semi-/unskilled	-0.031	-0.047	0.020	0.007	-0.007
	(0.097)	(0.096)	(0.094)	(0.089)	(0.080)
Never employed	ref	ref	ref	ref	ref
Mother's education:					
Lower secondary	ref	ref	ref	ref	ref
Leaving Certificate	-0.078	-0.066	-0.036	-0.064	0.014
	(0.049)	(0.049)	(0.048)	(0.046)	(0.041)
Post-secondary	-0.137**	-0.132*	-0.092	-0.107*	-0.023
	(0.053)	(0.053)	(0.052)	(0.049)	(0.045)
Degree	-0.181**	-0.171**	-0.124*	-0.145**	-0.053
	(0.056)	(0.057)	(0.056)	(0.054)	(0.048)
Lone-parent family (9)	0.176**	0.143*	0.128*	0.117*	0.068
	(0.060)	(0.060)	(0.058)	(0.055)	(0.050)
Lone-parent family (13)	0.166*	0.152	0.101	0.087	0.017
	(0.080)	(0.079)	(0.077)	(0.074)	(0.066)
Lone-parent family (17)	0.243**	0.226**	0.177*	0.162*	0.131*
	(0.077)	(0.077)	(0.074)	(0.071)	(0.063)
Financial strain (9)	0.056	0.060	0.068	0.038	-0.080
	(0.082)	(0.081)	(0.079)	(0.075)	(0.067)
Financial strain (13)	0.158***	0.157***	0.130**	0.134***	0.089*
	(0.043)	(0.042)	(0.041)	(0.039)	(0.035)
Financial strain (17)	0.146**	0.135**	0.147**	0.145***	0.075
	(0.047)	(0.047)	(0.045)	(0.043)	(0.039)
Illness/condition	0.177**	0.182**	0.173**	0.190***	0.029
	(0.058)	(0.057)	(0.056)	(0.053)	(0.048)
Special educational need	0.257***	0.248***	0.191***	0.168***	0.059

	(0.045)	(0.045)	(0.045)	(0.043)	(0.039)
Mother immigrant	0.030	0.040	0.014	0.006	-0.003
	(0.045)	(0.044)	(0.043)	(0.041)	(0.037)
Rural area	-0.050	-0.040	-0.030	-0.018	-0.008
	(0.032)	(0.032)	(0.031)	(0.030)	(0.027)
Year group:					
5th year	ref	ref	ref	ref	ref
6th year	0.077*	0.061	0.010	0.022	0.015
	(0.034)	(0.034)	(0.034)	(0.033)	(0.029)
Left school	0.021	-0.026	-0.167**	-0.080	-0.125*
	(0.053)	(0.054)	(0.056)	(0.054)	(0.049)
Positive interaction with teachers (13)		-0.097**	-0.033	-0.028	-0.017
		(0.031)	(0.031)	(0.029)	(0.026)
Negative interaction with teachers (13)		0.017	0.008	-0.020	0.005
		(0.027)	(0.027)	(0.026)	(0.024)
Verbal reasoning test score		0.001	0.003**	0.002	0.003**
		(0.001)	(0.001)	(0.001)	(0.001)
Like school quite a bit (13)		0.093*	0.068	0.036	0.030
		(0.038)	(0.037)	(0.036)	(0.032)
Like school a bit (13)		0.165***	0.109*	0.056	0.036
		(0.044)	(0.044)	(0.042)	(0.038)
Don't like/hate school (13)		0.303***	0.199**	0.118*	0.014
		(0.063)	(0.062)	(0.059)	(0.053)
No. higher-level subjects at LC			-0.061***	-0.055***	-0.043***
			(0.010)	(0.009)	(0.008)
Positive interaction with teachers (17)			-0.154***	-0.061*	-0.052*
			(0.029)	(0.029)	(0.026)
Negative interaction with teachers (17)			-0.072*	-0.076**	-0.046
			(0.029)	(0.028)	(0.025)
Dislike school (17)			0.215***	0.115**	0.116***
			(0.038)	(0.037)	(0.033)
Regret taking subject(s) (17)			0.098**	0.071*	0.056*
			(0.032)	(0.031)	(0.028)
Has adult to talk to (17)			-0.159**	-0.019	-0.025

			(0.055)	(0.054)	(0.048)
Coping – problem-solving subscale YP (17)				0.004	0.000
				(0.004)	(0.003)
Coping – seeking social support subscale YP (17)				-0.013***	-0.011***
				(0.004)	(0.003)
Coping – avoidance subscale YP (17)				0.011***	0.008**
				(0.003)	(0.003)
Rosenberg self-esteem scale (17)				-0.042***	-0.037***
				(0.005)	(0.005)
Total self-efficacy score				-0.026	-0.020**
				(0.007)	(0.006)
Internalising difficulties at 9					0.045***
					(0.005)
Internalising difficulties at 13					0.086***
					(0.005)
Constant	1.224***	1.315***	1.776***	2.502***	1.675***
	(0.099)	(0.173)	(0.189)	(0.213)	(0.195)
Observations	2779	2779	2763	2763	2763

Standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

TABLE A6.7 MULTINOMIAL LOGIT MODEL OF CHANGES IN SDQ INTERNALIZING BEHAVIOUR BETWEEN 13 AND 17 YEARS OF AGE (BASE CATEGORY: STABLE WELLBEING)

	Declining difficulties	Increasing difficulties
Female	-0.314**	0.649***
	(0.096)	(0.074)
Mother's education:		
Lower secondary	ref	ref
Leaving Certificate	0.174	0.019
	(0.140)	(0.108)
Post-secondary	-0.073	-0.117
	(0.147)	(0.112)
Degree	0.064	-0.107
	(0.148)	(0.113)
Lone-parent family (Wave 3)	-0.229	0.021
	(0.244)	(0.170)
Financial strain (Wave 3	-0.182	0.196*
	(0.126)	(0.096)
Illness/condition	-0.265+	0.107
	(0.152)	(0.121)
SEN	-0.450***	0.086
	(0.128)	(0.096)
5th year/ other year groups	ref	ref
6th year	-0.062	0.121+
	(0.095)	(0.072)
Left school	0.041	-0.179
	(0.157)	(0.124)
Was bullied at 13	-0.110	0.160
	(0.153)	(0.125)
Mother disclosure (17)	0.028*	-0.049***
	(0.012)	(0.009)
Maternal depression (17)	-0.189	0.296**
	(0.142)	(0.108)
Disliked school	0.012	0.322***
	(0.117)	(0.083)
Regret taking subject(s) (17)	-0.118	0.145*
	(0.093)	(0.069)
Has adult to talk to (17)	0.126	-0.173
	(0.158)	(0.109)
No. higher-level subjects at LC	0.001	-0.054**
	(0.025)	(0.019)
Positive interaction with teachers (17)	0.115	-0.232***
	(0.085)	(0.065)
Sports at 17	0.153	-0.308***
	(0.096)	(0.071)
No. friends at 17:		
None to two	ref	ref
Between 3 and 5	0.453*	-0.358**
	(0.179)	(0.123)
Between 6 and 10	0.591**	-0.546***
	(0.182)	(0.128)
More than 10	0.750***	-0.578***
	(0.223)	(0.165)
Alienation from friends subscale – YP (17) (7	-0.028**	0.039***

items)		
	(0.010)	(0.008)
Has boy or girlfriend	0.011	0.129+
	(0.098)	(0.072)
Experienced a break-up with boy/girlfriend	-0.257*	0.149+
	(0.110)	(0.077)
Prior internalising difficulties	0.573***	-0.117***
	(0.021)	(0.018)
Constant	-3.732***	1.156***
	(0.482)	(0.349)
Observations	5388	

Standard errors in parentheses
+ $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

CHAPTER 7: LIFE SATISFACTION AMONG 17-YEAR-OLDS

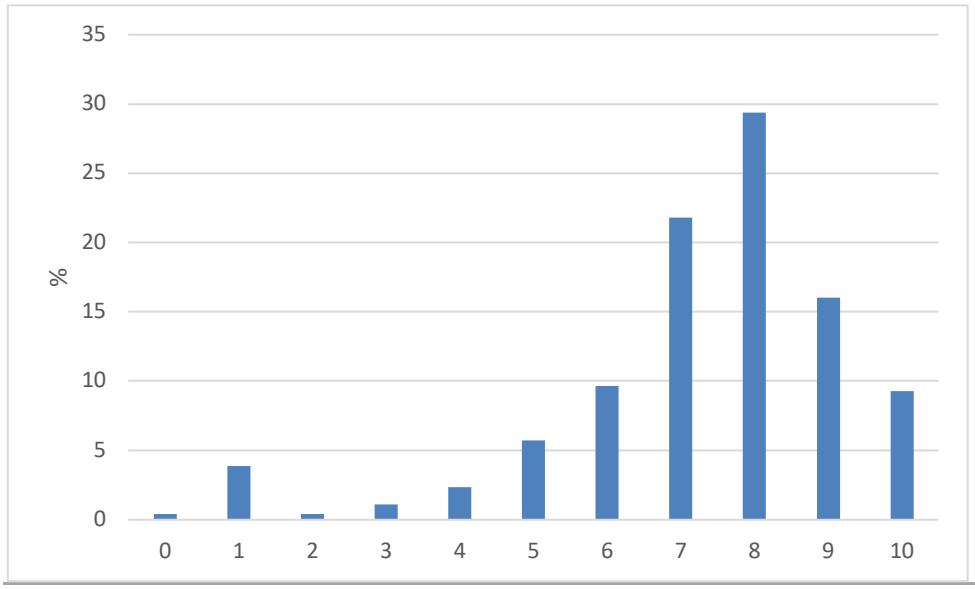
7.1 INTRODUCTION

Chapter 6 focused on difficulties among 17-year-olds. This chapter looks at a more positive aspect of young people's experience – life satisfaction. While life satisfaction and internalising difficulties are significantly related, the relationship (r=-0.25) is fairly weak in size, indicating that some young people may experience difficulties but still be broadly satisfied with their lives.[58] As with Chapter 6, descriptive analyses are presented (Section 7.1) before the family, peer and school factors associated with life satisfaction are examined (Section 7.2). Section 7.3 looks at the extent to which some young people have consistently low levels of satisfaction with their lives and what factors might account for this.

7.2 DESCRIPTIVE ANALYSES

Young people were asked to rate how satisfied they were with their life in general on a scale ranging from 0 to 10. As can be seen from Figure 7.1, there were relatively high ratings of life satisfaction, with mean scores of 7.2.

FIGURE 7.1 DISTRIBUTION OF RATINGS OF LIFE SATISFACTION AMONG 17-YEAR-OLDS



Source: GUI Cohort '98 Wave 3.

Table 7.1 shows the level of life satisfaction by a range of background characteristics. There are slight gender differences, with males being somewhat more satisfied with their lives than females. Life satisfaction varies significantly by maternal education and household income but the differences between the most and least advantaged groups are not large. Similarly, young people living in lone-

[58] This may, of course, arise because of their expectations as to what their life should be like or the individuals or groups with which they compare themselves.

parent families have somewhat lower levels of life satisfaction. The largest difference is found between the never-employed and professional groups, with a gap of almost one point on the 10-point scale.

TABLE 7.1 AVERAGE LIFE SATISFACTION RATING AT 17 BY BACKGROUND CHARACTERISTICS (MEASURED AT WAVE ONE)

Characteristic	Mean
Gender*	
Male	7.33
Female	7.07
Social class*	
Professional	7.47
Managerial	7.39
Other non-manual/skilled	7.19
Semi/unskilled	7.10
Never worked	6.53
Mother's education*	
Junior Certificate or less	6.95
Leaving Certificate	7.32
Post-secondary	7.28
Degree or higher	7.31
Family structure*	
Two parents	7.30
Lone parent	6.73
Equivalised income quintile*	
Lowest	6.88
2	7.11
3	7.24
4	7.30
Highest	7.40
Migrant status of mother*	
Native-born	7.23
Migrant	7.02
SEN (as identified by mother at 13)*	
No SEN	7.25
SEN	6.98
Region*	
Urban	7.13
Rural	7.26
Year group at 17*	
5th year	7.27
LC year	7.24
Left school	6.96

Note: Indicates statistically significant difference: *** p<0.001; ** p<0.01; * p<0.05; ± p<0.10 (based on ANOVA test).

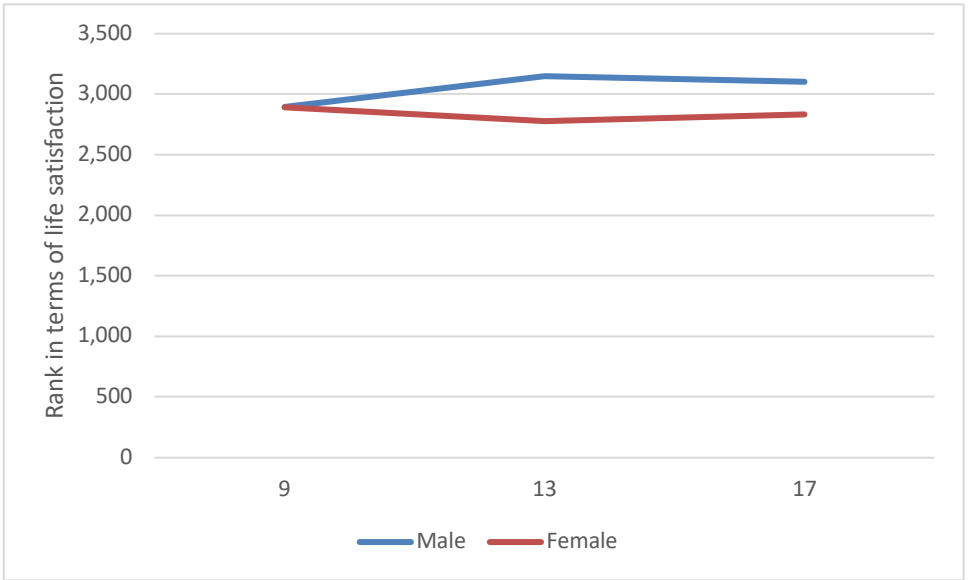
In contrast to the lack of difference in internalising difficulties (see Chapter 6), young people from migrant backgrounds have a significantly lower level of life satisfaction than those with Irish-born parents, though this difference is small. Young people with special educational needs have lower levels of life satisfaction than other 17-year-olds but the difference is small, especially compared to the stark contrast in internalising difficulties described in Chapter 6. Levels of life satisfaction are somewhat higher in rural than in urban areas. Those who had

already left school by 17 had lower levels of life satisfaction; later analyses will examine whether this is related to the more disadvantaged profile of this group.

Chapter 6 analysed changes between 9 and 17 years in internalising difficulties, a measure collected in the same way across all three waves. The fine-grained measure of life satisfaction was collected for the first time at 17, while the Piers-Harris measure of happiness and life satisfaction (used also in Chapter 5 for the '08 Cohort) was collected at 9 and 13 years of age. The use of different measures with different scales prevents us assessing whether life satisfaction improved or declined as young people grew older. However, we can use correlation measures to look at whether young people tend to have consistently high or low levels of life satisfaction between the ages of 9 and 17. Life satisfaction at 17 is significantly related to levels at 9 (r=0.107) and 13 (r=0.184).[59] However, the correlations are low, indicating that levels of life satisfaction are relatively fluid as young people move into adolescence and early adulthood.

In order to compare across the two different measures of life satisfaction, average rank scores were used to explore whether relative satisfaction levels differed by gender or family background. Figure 7.2 shows that male and female satisfaction levels diverge over the transition to second-level education, with female levels falling behind those of males. The difference narrows somewhat between 13 and 17 but a gender gap remains.

FIGURE 7.2 AVERAGE RANK OF LIFE SATISFACTION SCORES BETWEEN 9 AND 17 YEARS BY GENDER

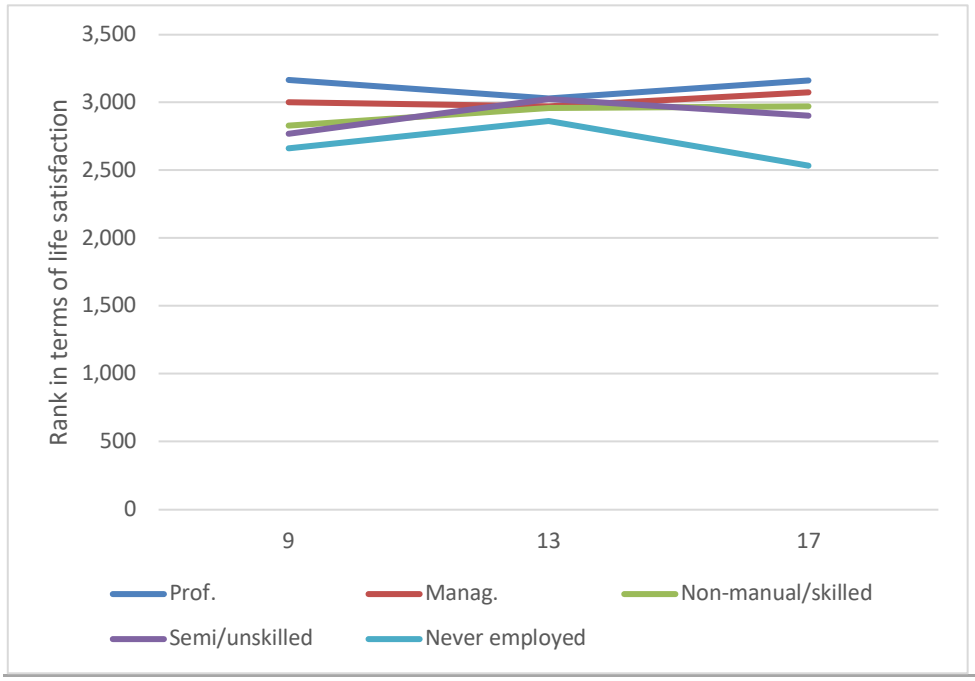


Source: GUI Cohort '98 Waves 1 to 3.

59 Pearson's correlation ranges from zero (completely unrelated) to one (perfectly related).

Social class differences in average rank narrow between 9 and 13 years of age as young people make the transition to second-level education. By 17 years, however, those from never-employed households have lost ground relative to those in other social classes. The potential factors explaining these gender and background patterns will be explored below using multivariate models.

FIGURE 7.3 AVERAGE RANK OF LIFE SATISFACTION SCORES BETWEEN 9 AND 17 YEARS BY SOCIAL CLASS



Source: GUI Cohort '98 Waves 1 to 3.

7.3 MODELLING LIFE SATISFACTION

This section looks at the factors influencing life satisfaction at 17 years of age. As gender differences are modest, compared to those in internalising difficulties, analyses are pooled, with gender included as an explanatory variable. The distribution of the outcome means that ordinary least squares regression models are not suitable. A generalized Poisson regression model is used instead. As in Chapter 6, the coefficients are presented in terms of marginal effects, and the analyses focus on separate sets of factors in turn: family background, parent-child relationships, peers and activities, and relationships with teachers. The models then explore the extent to which these factors are mediated by young people's coping strategies and self-image at 17.

7.3.1 Family background

Table A7.1 (Model 1) shows very little systematic variation in life satisfaction by family background (social class or maternal education), the exception being

somewhat lower levels among those in lone-parent families. As with the descriptive analyses, life satisfaction is somewhat lower among female than males. Model 2 shows that those living in households experiencing difficulty or great difficulty making ends meet are less satisfied with their lives. Young people with a special educational need have lower levels of life satisfaction, as do those from migrant backgrounds. Those living in rural areas are slightly more satisfied with their lives than those in urban areas, even taking account of other background factors. The difference discussed above between those who have left school and those in 5th or 6th year is found to be related to the more disadvantaged profile of the former group, with no significant difference in life satisfaction by school stage when family background is considered.

7.3.2 Relationships with parents

Life satisfaction is higher among those who describe themselves as getting on very well with their parents at 13, with a similar impact for mothers and fathers (Table A7.1). Over and above these factors, higher levels of conflict with their mothers at age 13 are associated with slightly lower life satisfaction. In contrast to the pattern for internalising difficulties, maternal depression at 13 is not significantly related to life satisfaction four years later.

Intimacy/closeness with both parents at 17 is associated with enhanced life satisfaction at the same time-point, while a conflictual relationship is linked to lower wellbeing. Those who are open with their parents about their lives are slightly more satisfied, though the difference is small when the other aspects of parent-child relationships are taken into account. Maternal depression at Wave 3 (17 years) is negatively related to life satisfaction, while earlier maternal depression (at age 13) or paternal depression have no significant effects.

7.3.3 Relationships with peers and involvement in structured activities

There is little systematic relationship between size of the friendship network at 13 and life satisfaction four years later, though young people are more satisfied with their lives if they describe their earlier friendships as high in trust and low in alienation (Table A7.2). Those who were bullied at 13 are less satisfied with their lives, though there is no difference between those who bullied someone else and those who did not. Like other aspects of friendship at 13, the effect of being bullied at 13 is mediated by the nature of friendship networks at 17. In other words, earlier friendship and being bullied make a difference because they are associated with the kinds of peer interaction young people have later on. Involvement in structured activities also makes a difference; there are higher levels of life satisfaction among those who had taken part in team sports at 13 and who were living in an area with good facilities for teenagers.

At 17, life satisfaction increases with the size of the friendship network, with the highest satisfaction levels among those with more than 10 friends. It is positively associated with peer trust and communication and negatively associated with alienation from peers. Life satisfaction is higher among those with a boy/girlfriend and lower among those who have broken up with a boy/girlfriend since 13 years of age. Those who take part in sports or cultural activities at 17 have higher levels of life satisfaction than their peers.

7.3.4 Relationships with teachers

Life satisfaction levels at 17 are higher where young people had more positive, and less negative, interaction with their teachers, and among those who liked school very much at 13 (Table A7.3). Verbal reasoning test scores at 13 were not associated with later life satisfaction.

The frequency of positive interaction with teachers at 17 enhances life satisfaction but, in contrast to the pattern at 13, negative interaction makes no significant difference at this stage. Satisfaction levels are higher among those who are taking more higher-level subjects for the Leaving Certificate and lower among those who dislike school and regret the subject(s) they chose. Those who have an adult in whom to confide have much higher levels of life satisfaction than other young people.

7.3.5 Coping strategies and self-image

Those who seek social support in coping with difficulties are more satisfied with their lives while those who use avoidance strategies are less satisfied. Not surprisingly, those with higher self-esteem and, to a lesser extent, higher self-efficacy are more satisfied with their lives.

The effect of better relationships with parents is largely, but not entirely, explained by a more positive self-image and better coping strategies among those who get on well with their parents. Some of the effects of friendship are also explained by these factors, but having a larger friendship group and a boy/girlfriend still have a significant impact on life satisfaction when self-image and coping are taken into account. Positive interaction with teachers and having a supportive adult similarly have both direct and indirect effects on life satisfaction.

7.3.6 Past levels of happiness and life satisfaction

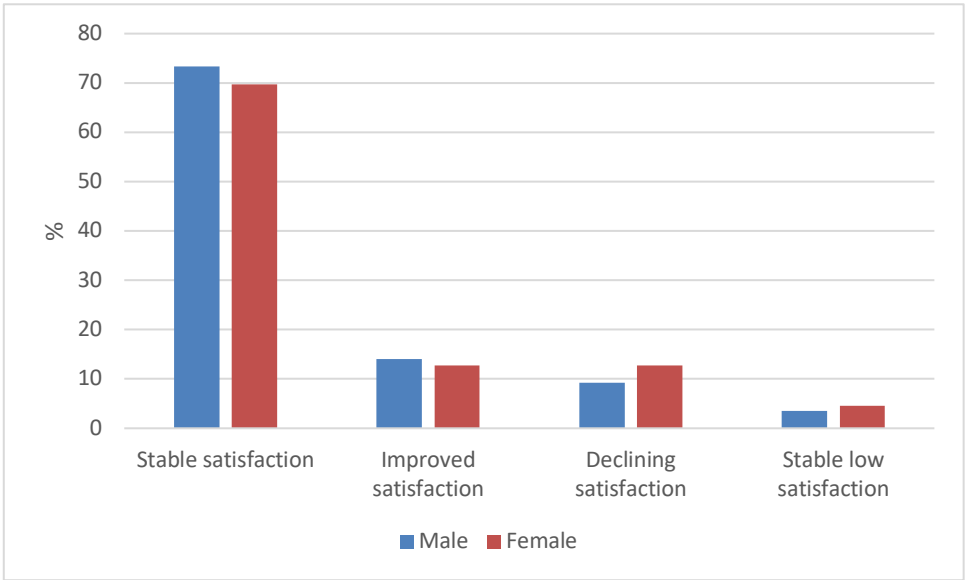
When family, friendship and/or teacher factors are taken into account, there is no significant relationship between happiness/life satisfaction at 9 and life satisfaction at 17. There is a significant but small relationship between life satisfaction levels at

13 and those at 17, indicating a good deal of fluidity in levels over that four-year period.

7.4 CHANGES IN LIFE SATISFACTION

To look at changes over time, young people were separated out into those who had low levels of life satisfaction over the three waves. For life satisfaction at 17 years of age, those with a score of five or below were included in the low-satisfaction group. At 9 and 13 years of age, this group was made up of those who scored seven or less on the Piers-Harris happiness and satisfaction scale. Because of different distributions over the waves, this group comprised 15 per cent of individuals at 17, 18 per cent at 13 and 20 per cent at 9 years of age. In keeping with the low correlations discussed above, there was evidence of considerable fluidity in satisfaction levels over time. Of those in the low-satisfaction group at 13, over three-quarters (77 per cent) had moved out of this group by 17; only 23 per cent of these young people had low levels of life satisfaction at both waves. On the other hand, 13 per cent of those who did not have low satisfaction at 13 became dissatisfied with their lives by 17. Looking at the group as a whole, only 4 per cent of the total sample had low levels of life satisfaction at both 13 and 17 years of age. Figure 7.4 shows that young women were somewhat more likely than young men to have low levels of life satisfaction at both waves or have declining satisfaction between 13 and 17.

FIGURE 7.4 CHANGES IN LIFE SATISFACTION BETWEEN 13 AND 17 YEARS BY GENDER



Source: *GUI Cohort '98 Waves 2 to 3.*

A multinomial logistic regression model was used to compare declining or consistently low life satisfaction with those who did not have low levels of satisfaction at either time-point (Table A7.4). To allow for comparison, the factors included are the same as in Chapter 6. In keeping with the descriptive patterns,

young women were found to be more likely to have consistently low or declining levels of life satisfaction. None of the family background factors was associated with changes in life satisfaction. In terms of family relationships, those who shared information with their parents had a reduced likelihood of declining satisfaction while those whose mother had depression were more likely to have consistently low levels of satisfaction.

Having broken up with a boy/girlfriend was associated with declining life satisfaction between 13 and 17. Reporting feelings of alienation from peers at 17 or having been bullied at 17 were risk factors for declining or consistently low satisfaction. Having a larger friendship group and being involved in sports appeared to protect against low or declining life satisfaction.

Those in 5th year were more likely to have declining satisfaction, which may reflect difficulties experienced in the transition to senior-cycle education. In terms of school, positive interaction with teachers at 17 and having an adult to talk to about problems protected against declining or consistently low satisfaction, while those taking more higher-level subjects were less likely to fall into the declining-satisfaction group. Risk factors included disliking school and regretting the school subjects taken, both of which were associated with consistently low or declining satisfaction.

7.5 CONCLUSIONS

High levels of life satisfaction are found among 17-year-olds. There is relatively little variation by background factors, but somewhat lower levels are found among young women, those in lone-parent families and households experiencing financial strain. Life satisfaction is influenced by the central relationships in young people's lives and is enhanced by large and close friendship networks, good relationships with parents, positive interaction with teachers and having an adult to talk to in times of difficulty. Sports participation also plays a role in boosting life satisfaction. Only a small number of young people have consistently low levels of satisfaction from adolescence into early adulthood. However, around one in ten have low satisfaction by 17, but not previously. Risk factors for this decline in satisfaction centre on the rupture of friendships or romantic relationships and disengagement from school.

TABLE A7.1 LIFE SATISFACTION AMONG 17-YEAR-OLDS – FAMILY FACTORS

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Female	-0.031***	-0.032***	-0.032***	-0.028***	-0.048***	0.010	0.011
	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)
Social class:							
Professional	0.035	0.019	0.020	0.009	0.015	0.014	0.014
	(0.022)	(0.022)	(0.022)	(0.022)	(0.022)	(0.020)	(0.020)
Managerial	0.020	0.006	0.007	-0.004	-0.001	0.004	0.003
	(0.021)	(0.021)	(0.021)	(0.021)	(0.020)	(0.018)	(0.018)
Non-manual/skilled	0.020	0.007	0.007	-0.003	0.000	0.003	0.003
	(0.020)	(0.021)	(0.021)	(0.020)	(0.020)	(0.018)	(0.018)
Semi-/unskilled	-0.002	-0.010	-0.010	-0.023	-0.022	-0.004	-0.004
	(0.022)	(0.023)	(0.023)	(0.022)	(0.022)	(0.020)	(0.020)
Never employed	ref	ref	ref	ref	ref	ref	ref
Mother's education:							
Lower secondary	ref	ref	ref	ref	ref	ref	ref
Leaving Certificate	0.021+	0.017	0.017	0.020+	0.019+	0.014	0.014
	(0.011)	(0.011)	(0.011)	(0.011)	(0.010)	(0.009)	(0.009)
Post-secondary	0.020+	0.017	0.018	0.023*	0.020+	0.012	0.012
	(0.012)	(0.012)	(0.012)	(0.011)	(0.011)	(0.010)	(0.010)
Degree	0.020	0.017	0.018	0.025*	0.026*	0.014	0.014
	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.010)	(0.010)
Lone-parent family (9)	-0.041**	-0.034*	-0.035**	-0.021	-0.026*	-0.024*	-0.025*
	(0.013)	(0.013)	(0.013)	(0.013)	(0.013)	(0.012)	(0.012)
Lone-parent family (13)	-0.032+	-0.020	-0.020	-0.000	0.004	-0.006	-0.007
	(0.018)	(0.018)	(0.018)	(0.018)	(0.019)	(0.017)	(0.017)
Lone-parent family (17)	-0.052**	-0.042*	-0.042*	-0.029	-0.015	-0.022	-0.022
	(0.018)	(0.018)	(0.018)	(0.018)	(0.018)	(0.017)	(0.017)
Financial strain (9)		-0.009	-0.009	-0.008	0.002	-0.006	-0.006
		(0.019)	(0.019)	(0.019)	(0.018)	(0.016)	(0.016)

Financial strain (13)		-0.020*	-0.020*	-0.015	-0.014	-0.014	-0.013
		(0.010)	(0.010)	(0.010)	(0.009)	(0.008)	(0.008)
Financial strain (17)		-0.032**	-0.032**	-0.027**	-0.030**	-0.022*	-0.022*
		(0.010)	(0.010)	(0.010)	(0.010)	(0.009)	(0.009)
Illness/condition		-0.021+	-0.021+	-0.012	-0.017	-0.016	-0.016
		(0.012)	(0.012)	(0.012)	(0.012)	(0.010)	(0.010)
Special educational need		-0.019*	-0.020*	-0.012	-0.010	0.001	0.001
		(0.010)	(0.010)	(0.009)	(0.009)	(0.008)	(0.008)
Mother immigrant		-0.019+	-0.019*	-0.017+	-0.019*	-0.013	-0.014+
		(0.010)	(0.010)	(0.009)	(0.009)	(0.008)	(0.008)
Rural area		0.014*	0.013*	0.010	0.010	0.005	0.005
		(0.007)	(0.007)	(0.007)	(0.006)	(0.006)	(0.006)
Year group:							
5th year			ref	ref	ref	ref	ref
6th year			-0.005	0.000	0.001	0.004	0.004
			(0.007)	(0.007)	(0.007)	(0.006)	(0.006)
Left school			0.006	0.021+	0.019+	0.010	0.010
			(0.011)	(0.011)	(0.011)	(0.010)	(0.010)
Mother Pianta conflict subscale – level of conflict with mother (13)				-0.002***	-0.001+	-0.001	-0.001
				(0.001)	(0.001)	(0.001)	(0.001)
Father Pianta conflict subscale – level of conflict with father (13)				-0.001	-0.001	-0.000	-0.000
				(0.001)	(0.001)	(0.001)	(0.001)
Mother Pianta positive subscale – level of closeness with mother (13)				0.000	-0.001	-0.001	-0.001
				(0.001)	(0.001)	(0.001)	(0.001)
Father Pianta positive subscale – level of closeness with father (13)				0.001	-0.000	-0.000	-0.000
				(0.001)	(0.001)	(0.001)	(0.001)

Got on with mother very well				0.045***	0.026**	0.013	0.010
				(0.009)	(0.009)	(0.008)	(0.008)
Got on with father very well				0.043***	0.023**	0.014+	0.012
				(0.008)	(0.008)	(0.007)	(0.008)
Maternal depression (13)				-0.018	-0.009	0.008	0.009
				(0.012)	(0.012)	(0.011)	(0.011)
Paternal depression (13)				-0.022	-0.015	-0.007	-0.007
				(0.017)	(0.017)	(0.015)	(0.015)
Mother intimacy subscale (17)					0.017***	0.009***	0.009***
					(0.002)	(0.002)	(0.002)
Mother conflict subscale (17)					-0.008**	0.001	0.001
					(0.002)	(0.002)	(0.002)
Father intimacy subscale (17)					0.012***	0.003	0.003
					(0.002)	(0.002)	(0.002)
Father conflict subscale					-0.011***	-0.007***	-0.007***
					(0.002)	(0.002)	(0.002)
Mother disclosure (17)					0.002*	0.001	0.001
					(0.001)	(0.001)	(0.001)
Maternal depression (17)					-0.035**	-0.017+	-0.017+
					(0.011)	(0.010)	(0.010)
Paternal depression (17)					-0.012	-0.003	-0.004
					(0.017)	(0.015)	(0.015)
Coping – problem-solving subscale YP (17)						0.001+	0.001+
						(0.001)	(0.001)
Coping – seeking social support subscale YP (17)						0.003***	0.003***
						(0.001)	(0.001)
Coping – avoidance						-0.003***	-0.003***

subscale YP (17)							
						(0.001)	(0.001)
Rosenberg self-esteem scale (17)						0.025***	0.025***
						(0.001)	(0.001)
Total self-efficacy score (17)						0.006***	0.006***
						(0.001)	(0.001)
Piers Harris happiness and satisfaction subscale (9)							-0.000
							(0.002)
Piers Harris happiness score (13)							0.004*
							(0.002)
Constant	1.976***	1.998***	1.999***	1.947***	1.932***	1.527***	1.501***
	(0.021)	(0.022)	(0.023)	(0.057)	(0.058)	(0.057)	(0.060)
Observations	5325	5325	5325	5325	5125	5125	5125

Standard errors in parentheses
+ $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

TABLE A7.2 LIFE SATISFACTION AMONG 17-YEAR-OLDS – PEERS AND ACTIVITIES

	(1)	(2)	(3)	(4)	(5)
Female	-0.032***	-0.035***	-0.029***	0.019**	0.020**
	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)
Social class:					
Professional	0.020	0.019	0.017	0.015	0.015
	(0.022)	(0.022)	(0.021)	(0.019)	(0.019)
Managerial	0.007	0.006	0.007	0.007	0.006
	(0.021)	(0.021)	(0.019)	(0.018)	(0.018)
Non-manual/skilled	0.007	0.005	0.003	0.004	0.003
	(0.021)	(0.020)	(0.019)	(0.018)	(0.018)
Semi-/unskilled	-0.010	-0.007	-0.002	0.004	0.002
	(0.023)	(0.022)	(0.021)	(0.019)	(0.019)
Never employed	ref	ref	ref	ref	ref
Mother's education:					
Lower secondary	ref	ref	ref	ref	ref
Leaving Certificate	0.017	0.015	0.019+	0.016+	0.016+
	(0.011)	(0.011)	(0.010)	(0.009)	(0.009)
Post-secondary	0.018	0.015	0.018+	0.011	0.012
	(0.012)	(0.011)	(0.011)	(0.010)	(0.010)
Degree	0.018	0.015	0.019+	0.011	0.011
	(0.012)	(0.012)	(0.011)	(0.010)	(0.010)
Lone-parent family (9)	-0.035**	-0.031*	-0.018	-0.020+	-0.019+
	(0.013)	(0.013)	(0.012)	(0.011)	(0.011)
Lone-parent family (13)	-0.020	-0.010	-0.007	-0.007	-0.007
	(0.018)	(0.018)	(0.017)	(0.016)	(0.016)
Lone-parent family (17)	-0.042*	-0.037*	-0.023	-0.025	-0.024
	(0.018)	(0.018)	(0.017)	(0.016)	(0.016)
Financial strain (9)	-0.009	-0.008	-0.008	-0.013	-0.013
	(0.019)	(0.019)	(0.017)	(0.016)	(0.016)
Financial strain (13)	-0.020*	-0.016+	-0.017+	-0.013	-0.012

	(0.010)	(0.010)	(0.009)	(0.008)	(0.008)
Financial strain (17)	-0.032**	-0.028**	-0.020*	-0.020*	-0.020*
	(0.010)	(0.010)	(0.010)	(0.009)	(0.009)
Illness/condition	-0.021+	-0.016	-0.015	-0.017	-0.016
	(0.012)	(0.012)	(0.011)	(0.010)	(0.010)
Special educational need	-0.020*	-0.011	-0.009	0.001	0.001
	(0.010)	(0.009)	(0.009)	(0.008)	(0.008)
Mother immigrant	-0.019*	-0.014	-0.006	-0.008	-0.009
	(0.010)	(0.009)	(0.009)	(0.008)	(0.008)
Rural area	0.013*	0.013+	0.008	0.007	0.007
	(0.007)	(0.007)	(0.006)	(0.006)	(0.006)
Year group:					
5th year	ref	ref	ref	ref	ref
6th year	-0.005	-0.002	0.001	0.005	0.005
	(0.007)	(0.007)	(0.007)	(0.006)	(0.006)
Left school	0.006	0.012	0.008	0.007	0.007
	(0.011)	(0.011)	(0.011)	(0.010)	(0.010)
No. friends (13):					
None to two		ref	ref	ref	ref
Between 3 and 5		0.020	0.018	0.008	0.008
		(0.015)	(0.014)	(0.013)	(0.013)
Between 6 and 10		0.035*	0.027+	0.014	0.013
		(0.015)	(0.014)	(0.013)	(0.013)
More than 10		0.019	0.008	-0.003	-0.003
		(0.016)	(0.015)	(0.014)	(0.014)
Trust in friends subscale (13)		0.002***	0.000	0.000	-0.000
		(0.001)	(0.001)	(0.000)	(0.000)
Alienation from friends subscale (13)		-0.005***	-0.002+	0.000	0.001
		(0.001)	(0.001)	(0.001)	(0.001)
Individual sports (13)		0.015+	0.005	0.001	-0.000
		(0.008)	(0.008)	(0.007)	(0.007)
Team sports (13)		0.025**	0.007	0.005	0.004

		(0.009)	(0.008)	(0.008)	(0.008)
Cultural activities (13)		0.008	0.001	-0.004	-0.004
		(0.007)	(0.007)	(0.007)	(0.007)
Safe place to hang around		0.013+	0.011	0.009	0.010
		(0.007)	(0.007)	(0.006)	(0.006)
Local facilities for teenagers		0.017*	0.011	0.009	0.008
		(0.008)	(0.007)	(0.007)	(0.007)
Was bullied at 13		-0.034**	-0.013	-0.003	-0.000
		(0.013)	(0.012)	(0.011)	(0.011)
Bullied someone at 13		0.009	0.014	0.005	0.007
		(0.025)	(0.024)	(0.022)	(0.022)
Sports at 17			0.029***	0.011+	0.010
			(0.007)	(0.007)	(0.007)
Cultural activities (17)			0.025***	0.019**	0.019**
			(0.008)	(0.007)	(0.007)
No. friends (17):					
None to two			ref	ref	ref
Between 3 and 5			0.030*	0.019+	0.019+
			(0.012)	(0.011)	(0.011)
Between 6 and 10			0.046***	0.028*	0.027*
			(0.013)	(0.012)	(0.012)
More than 10			0.065***	0.036*	0.036*
			(0.016)	(0.015)	(0.015)
Level of peer trust YP (17)			0.002**	0.001	0.001
			(0.001)	(0.001)	(0.001)
Level of peer communication YP (17)			0.004***	0.002*	0.002*
			(0.001)	(0.001)	(0.001)
Alienation from friends subscale – YP (17)			-0.013***	-0.003***	-0.003***
			(0.001)	(0.001)	(0.001)
Has boy or girlfriend			0.015*	0.016*	0.016*
			(0.007)	(0.006)	(0.006)
Broke up with boy/girlfriend			-0.014+	-0.005	-0.004

			(0.008)	(0.007)	(0.007)
Coping – problem-solving subscale YP (17)				0.003***	0.003***
				(0.001)	(0.001)
Coping – seeking social support subscale YP (17)				0.001	0.000
				(0.001)	(0.001)
Coping – avoidance subscale YP (17)				-0.003***	-0.003***
				(0.001)	(0.001)
Rosenberg self-esteem scale (17)				0.025***	0.024***
				(0.001)	(0.001)
Total self-efficacy score (17)				0.005***	0.004***
				(0.001)	(0.001)
Piers Harris happiness and satisfaction subscale (9)					0.001
					(0.002)
Piers Harris happiness score (13)					0.005*
					(0.002)
Constant	1.999***	1.918***	1.914***	1.449***	1.411***
	(0.023)	(0.040)	(0.047)	(0.049)	(0.052)
Observations	5325	5325	5325	5325	5325

Standard errors in parentheses
+ $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

TABLE A7.3 LIFE SATISFACTION AMONG 17-YEAR-OLDS – TEACHERS AND SCHOOL

	(1)	(2)	(3)	(4)	(5)
Female	-0.032***	-0.043***	-0.051***	0.016*	0.017*
	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)
Social class:					
Professional	0.020	0.021	0.010	0.013	0.012
	(0.022)	(0.022)	(0.022)	(0.019)	(0.019)
Managerial	0.007	0.007	-0.001	0.004	0.002
	(0.021)	(0.021)	(0.020)	(0.018)	(0.018)
Non-manual/skilled	0.007	0.010	0.006	0.006	0.004
	(0.021)	(0.020)	(0.020)	(0.018)	(0.018)
Semi-/unskilled	-0.010	-0.007	-0.018	-0.001	-0.003
	(0.023)	(0.022)	(0.022)	(0.019)	(0.019)
Never employed	ref	ref	ref	ref	ref
Mother's education:					
Lower secondary	ref	ref	ref	ref	ref
Leaving Certificate	0.017	0.015	0.008	0.013	0.013
	(0.011)	(0.011)	(0.011)	(0.009)	(0.009)
Post-secondary	0.018	0.017	0.010	0.009	0.009
	(0.012)	(0.012)	(0.011)	(0.010)	(0.010)
Degree	0.018	0.016	0.010	0.009	0.009
	(0.012)	(0.012)	(0.012)	(0.011)	(0.011)
Lone-parent family (9)	-0.035**	-0.028*	-0.019	-0.019+	-0.019+
	(0.013)	(0.013)	(0.013)	(0.011)	(0.011)
Lone-parent family (13)	-0.020	-0.013	-0.005	-0.000	-0.000
	(0.018)	(0.018)	(0.018)	(0.016)	(0.016)
Lone-parent family (17)	-0.042*	-0.037*	-0.027	-0.025	-0.024
	(0.018)	(0.018)	(0.017)	(0.016)	(0.016)
Financial strain (9)	-0.009	-0.007	-0.005	-0.013	-0.013
	(0.019)	(0.019)	(0.018)	(0.016)	(0.016)
Financial strain (13)	-0.020*	-0.020*	-0.017+	-0.013	-0.013
	(0.010)	(0.010)	(0.009)	(0.008)	(0.008)

Financial strain (17)	-0.032**	-0.031**	-0.028**	-0.020*	-0.020*
	(0.010)	(0.010)	(0.010)	(0.009)	(0.009)
Illness/condition	-0.021+	-0.021+	-0.017	-0.017+	-0.016
	(0.012)	(0.012)	(0.012)	(0.010)	(0.010)
Special educational need	-0.020*	-0.015	-0.009	0.001	0.001
	(0.010)	(0.010)	(0.009)	(0.008)	(0.008)
Mother immigrant	-0.019*	-0.021*	-0.013	-0.009	-0.010
	(0.010)	(0.009)	(0.009)	(0.008)	(0.008)
Rural area	0.013*	0.012+	0.012+	0.006	0.006
	(0.007)	(0.007)	(0.007)	(0.006)	(0.006)
Year group:					
5th year	ref	ref	ref	ref	ref
6th year	-0.005	0.001	0.010	0.008	0.009
	(0.007)	(0.007)	(0.007)	(0.006)	(0.006)
Left school	0.006	0.021+	0.048***	0.018+	0.018+
	(0.011)	(0.012)	(0.012)	(0.011)	(0.011)
Positive interaction with teachers (13)		0.022***	0.003	-0.003	-0.004
		(0.006)	(0.006)	(0.006)	(0.006)
Negative interaction with teachers (13)		-0.018**	-0.007	0.001	0.002
		(0.006)	(0.006)	(0.005)	(0.005)
Verbal reasoning test score		-0.000	-0.001**	-0.000	-0.000
		(0.000)	(0.000)	(0.000)	(0.000)
Like school quite a bit (13)		-0.032***	-0.025**	-0.011	-0.009
		(0.008)	(0.008)	(0.007)	(0.007)
Like school a bit (13)		-0.037***	-0.021*	-0.006	-0.004
		(0.009)	(0.009)	(0.008)	(0.008)
Don't like/hate school (13)		-0.054***	-0.024+	0.007	0.012
		(0.014)	(0.014)	(0.012)	(0.012)
No. higher-level subjects at LC			0.005**	0.003+	0.003
			(0.002)	(0.002)	(0.002)
Positive interaction with teachers (17)			0.063***	0.014*	0.015*

			(0.007)	(0.006)	(0.006)
Negative interaction with teachers (17)			-0.008	-0.001	-0.001
			(0.006)	(0.005)	(0.005)
Dislike school (17)			-0.068***	-0.037***	-0.037***
			(0.009)	(0.008)	(0.008)
Regret taking subject(s) (17)			-0.038***	-0.020**	-0.020**
			(0.007)	(0.006)	(0.006)
Has adult to talk to (17)			0.105***	0.050***	0.049***
			(0.011)	(0.010)	(0.010)
Coping – problem-solving subscale YP (17)				0.002*	0.002*
				(0.001)	(0.001)
Coping – seeking social support subscale YP (17)				0.003***	0.003***
				(0.001)	(0.001)
Coping – avoidance subscale YP (17)				-0.004***	-0.004***
				(0.001)	(0.001)
Rosenberg self-esteem scale (17)				0.025***	0.025***
				(0.001)	(0.001)
Total self-efficacy score (17)				0.006***	0.005***
				(0.001)	(0.001)
Piers Harris happiness and satisfaction subscale (9)					0.001
					(0.002)
Piers Harris happiness score (13)					0.006**
					(0.002)
Constant	1.999***	1.997***	1.830***	1.476***	1.429***
	(0.023)	(0.038)	(0.041)	(0.043)	(0.047)
Observations	5325	5325	5302	5302	5302

Standard errors in parentheses
+ $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

TABLE A7.4 MULTINOMIAL LOGIT MODEL OF CHANGES IN LIFE SATISFACTION BETWEEN 13 AND 17 YEARS OF AGE (BASE CATEGORY: CONSISTENTLY NOT LOW)

	Improved levels	Declining levels	Consistently low
Female	0.519***	0.255*	0.817***
	(0.090)	(0.117)	(0.174)
Mother's education:			
Lower secondary	ref	ref	ref
Leaving Certificate	0.137	-0.230	0.079
	(0.136)	(0.154)	(0.223)
Post-secondary	0.148	-0.195	-0.058
	(0.140)	(0.161)	(0.239)
Degree	0.137	-0.260	-0.277
	(0.141)	(0.165)	(0.248)
Lone-parent family (Wave 3)	-0.053	0.123	0.516+
	(0.217)	(0.242)	(0.296)
Financial strain (Wave 3)	-0.147	0.073	0.031
	(0.120)	(0.138)	(0.193)
Illness/condition	0.143	-0.054	-0.061
	(0.137)	(0.180)	(0.262)
SEN	0.121	0.204	-0.084
	(0.114)	(0.135)	(0.211)
5th year/other year group	ref	ref	ref
6th year	0.197*	-0.320**	-0.052
	(0.090)	(0.114)	(0.166)
Left school	0.257+	-0.437*	0.047
	(0.149)	(0.182)	(0.259)
Was bullied at 13	1.103***	0.415*	1.431***
	(0.124)	(0.174)	(0.195)
Mother disclosure (17)	-0.019+	-0.045**	-0.074***
	(0.011)	(0.014)	(0.019)
Maternal depression (17)	0.162	0.127	0.391*
	(0.127)	(0.152)	(0.195)
Disliked school	0.079	0.719***	0.605***
	(0.105)	(0.113)	(0.160)
Regret taking subject(s) (17)	0.181*	0.248*	0.319*
	(0.084)	(0.107)	(0.152)
Has adult to talk to (17)	-0.367**	-0.722***	-1.380***
	(0.135)	(0.146)	(0.178)
No. higher-level subjects at LC	0.012	-0.144***	-0.062
	(0.024)	(0.027)	(0.040)
Positive interaction with teachers (17)	-0.175*	-0.341***	-0.412**
	(0.079)	(0.101)	(0.142)
Sports at 17	-0.246**	-0.320**	-0.881***
	(0.086)	(0.110)	(0.163)
No. friends at 17:			
None to two	ref	ref	ref
Between 3 and 5	-0.303*	-0.432**	-0.542**

	(0.146)	(0.164)	(0.210)
Between 6 and 10	-0.328*	-0.647***	-0.836***
	(0.150)	(0.174)	(0.231)
More than 10	-0.162	-0.738**	-1.196**
	(0.190)	(0.257)	(0.417)
Alienation from friends subscale – YP (17) (7 items)	0.074***	0.125***	0.197***
	(0.009)	(0.012)	(0.016)
Has boy or girlfriend	-0.020	0.023	-0.324+
	(0.088)	(0.111)	(0.165)
Had broken up with boy/girlfriend	0.193*	0.258*	-0.147
	(0.092)	(0.115)	(0.164)
Constant	-2.015***	-0.557	-2.050**
	(0.421)	(0.495)	(0.685)
Observations		5383	

Standard errors in parentheses
+ $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

CHAPTER 8: SUMMARY, DISCUSSION AND POLICY IMPLICATIONS

8.1 SUMMARY

Childhood and adolescence are critical periods for the development and maintenance of the social and emotional capabilities important for mental health and wellbeing throughout life. Approximately half of all mental health disorders first emerge before the age of 14, and poor mental health in childhood and adolescence has been shown to affect a wide variety of adult health and economic outcomes. However, the mental health and wellbeing of children and adolescents in the here and now is also of critical importance. Mental health is not simply the absence of disease. It is defined by the WHO as 'a state of well-being in which an individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and is able to make a contribution to his or her community'.

In this context, approaches to addressing problems in child and adolescent health have moved beyond traditional risk-factor reduction focused on the individual to emphasise the importance of enhancing protective factors in young people's lives. These approaches have focused on family and peer factors as important in protecting young people from harm, and also emphasise that a successful and healthy transition to adulthood needs promotion of positive social and emotional development as much as the avoidance of risky environments and behaviours.

Using data from the two cohorts of *Growing up in Ireland*, the analyses in this report focused on the risk and protective factors for two important dimensions of mental health and wellbeing among children and young people: internalising problems (reported by the mother) and happiness/life satisfaction (reported by the young person). The measures used in analysing the two cohorts are age-appropriate and the trends over time differ between early childhood and adolescence. Furthermore, family, peer and school influences are examined separately to tell a clearer story. We therefore do not quantify the 'largest' effects but instead seek to outline similarities and differences in the risk and protective factors influencing internalising difficulties and happiness/life satisfaction.

Focusing first on the younger cohort – i.e. those born in 2008 and surveyed at the age of 9 in 2017/2018 – the analysis showed that, overall, young people had low levels of internalising difficulties, and the vast majority reported high levels of happiness and life satisfaction. While there was no significant difference between boys and girls in the prevalence of internalising difficulties at age 9, nor in the trajectories of internalising difficulties between the ages of 5 and 9, girls reported

higher levels of happiness and life satisfaction than boys at age 9. Both measures of mental health and wellbeing were strongly socially patterned, and the children of lone parents emerged as a particularly vulnerable group. The quality of relationships – with parents, peers and teachers – was found to be a significant influence on outcomes. The number of friends and the absence of bullying in particular were found to exert strong protective effects on both outcomes. Overall, there was more variation in internalising problem scores at this age than in happiness/life satisfaction; this was reflected in the fact that important influences on SDQ internalising scores, such as the presence of a chronic illness, the effects of financial strain, screen time and family activities, were not significantly associated with happiness/life satisfaction at this age. However, participation in sport was a protective factor for both outcomes. In any case, differences in the predictors of internalising problem scores and happiness/life satisfaction are to be expected given that the two measures reflect different dimensions of wellbeing (see also Section 8.3), and reflect the perspectives of different informants (the parent for SDQ internalising problems, and the child/young person for happiness/life satisfaction).

Moving on to the older cohort – i.e. the young people born in 1998 who were surveyed at age 17 in 2015/2016 – the analysis again revealed overall positive levels of mental health and wellbeing. However, a striking gender pattern in internalising problems was identified; there was a significant increase in such difficulties between 13 and 17 years of age for young women but not for young men. The result was that, by the age 17, young women's scores on the SDQ internalising problems scale were approximately one point higher (one third of a standard deviation) than young men's scores. Despite the differing gender patterns over time in internalising difficulties for this cohort, many of the factors influencing internalising difficulties for males and females were similar. The size and quality of peer groups, the absence of being bullied, involvement in sports and having an adult to talk to about problems emerged as important protective factors. Life satisfaction was also influenced by the central relationships in young people's lives and was enhanced by large and close friendship networks, good relationships with parents, positive interaction with teachers and having an adult to talk to in times of difficulty. Sports participation also played a role in boosting life satisfaction.

8.2 STRENGTHS AND LIMITATIONS

It is worth highlighting the strengths and limitations of this analysis before discussing the implications of these results for policy and practice. In this report, for both the '08 and '98 Cohorts, the emotional and peer problems subscales of the SDQ, reported by the young person's mother, were used to identify

internalising problems. However, many of the risk and protective factors examined in these analyses, such as the nature and quality of the parent-child relationship, were also reported by the mother. It has been noted that when associations are observed between two constructs which have been measured via the same source (such as the mother), the relation may be a function of bias in the mind of the informant, rather than the actual behaviour of the child (Nixon, 2012). To overcome this limitation, we carried out robustness checks using SDQ internalising problems, reported by the child's teacher. While there are valid reasons why parent and teacher responses on the SDQ may differ, the consistency of the results using the parent and teacher-reported SDQ allows us to be more certain about the key risk and protective factors for SDQ internalising problem scores among these children and young people. Caution also needs to be exercised in inferring causality from the results in this report. For many risk and protective factors, the direction of the relationship is unclear; for example, while a more conflictual relationship with the mother was associated with greater internalising difficulties, it is also possible that children and young people with internalising problems developed more conflictual relationships with their parents.

The study does not cover all aspects of young people's socio-emotional wellbeing. Rather than internalise difficulties, some young people may 'act out', engaging in externalising, and sometimes aggressive or anti-social, behaviour.[60] This report focuses on internalising difficulties and happiness/life satisfaction as these outcomes are strongly linked to depression/anxiety (Headley et al., 1993; Reiss, 2013). While positive mental health in young people is crucial for their current wellbeing and participation in family, school and social life, disruptions to mood and emotions (as captured by internalising difficulties and lower happiness/life satisfaction) are also strongly predictive of later outcomes across numerous domains (health, education, employment, social relationships, etc) (Attanasio et al., 2020; Currie et al., 2010; Goodman et al., 2011).

In terms of strengths, the use of indicators of both positive and negative aspects of mental health, and indicators that give a voice to the young people themselves in expressing their satisfaction with their lives, offers a comprehensive perspective on mental health and wellbeing of young people in Ireland today. The availability of detailed longitudinal data on different dimensions of young people's lives (demographic characteristics, family background, family, peer and teacher relationships) facilitates an analysis of the relative importance of these factors for the variety of outcomes considered in this study. Many of the studies in Ireland and internationally focus on a single domain of risk or protective factors – such as family – rather than looking at the full set of relationships within which young

[60] Other studies focus on externalising difficulties in the '98 Cohort (Nixon, 2020; Smyth and Darmody, forthcoming 2021).

people are embedded. Longitudinal data also allow for an analysis of the extent to which these outcomes are characterised by stability or change over time, and the risk and protective factors for trajectories of mental health and wellbeing throughout childhood and adolescence. This study therefore builds upon existing research by looking at family and peer relationships as well as school experiences and access to facilities and activities in shaping socio-emotional outcomes from infancy to early adulthood.

8.3 IMPLICATIONS FOR POLICY AND PRACTICE

One of the most striking findings from the analyses in this report relates to gender. The analysis of SDQ internalising problems shows that, while there are no gender differences in internalising problems in middle childhood, a gender gap opens up in early adolescence and widens through adolescence. This finding is not unique to Ireland. For example, using data from the UK MCS between the ages of 3 and 14, Gutman and Codiroli McMaster (2020) showed an increasing risk of internalising problems for girls in adolescence, in contrast to the risk for boys which remained relatively stable through adolescence. For happiness/life satisfaction, while girls had higher levels of happiness and life satisfaction at age 9 (’08 Cohort), at age 17 (’98 Cohort), young men reported higher levels of life satisfaction than young women. Possible reasons that have been put forward to explain the lower mental wellbeing of young women in adolescence include the fact that girls are expected to be more emotionally sensitive and expressive, experience more restricted gender roles and body dissatisfaction, are more likely to experience and communicate health symptoms, and experience more school performance pressure (Cosma et al., 2020; Gutman and Codiroli McMaster, 2020). Further research could usefully explore the extent to which these factors operate in the same way in the Irish context. Gender issues are a priority in *Sharing the Vision*, the national policy for mental health in Ireland, with a focus on ensuring that mental health priorities and services are gender-sensitive and that women’s mental health is specifically and sufficiently addressed in implementing the policy (Government of Ireland, 2020a; National Women’s Council of Ireland and Department of Health, 2020).

A consistent finding across all dimensions of mental health and wellbeing for both cohorts was the vulnerability to poorer outcomes of young people living in lone-parent households. While lone parenthood is highly correlated with SES, the risk of poor outcomes for children and young people living in lone-parent families persisted even taking SES into account, a finding also identified in previous Irish and international research (Bjarnason et al., 2012; Nixon, 2012; Papachristou et al., 2020). A study of nine-year-olds in the ’98 Cohort of GUI (Nixon, 2012) found that much (though not all) of the effect of lone parenthood on child socio-emotional

outcomes operated via poorer parent-child relationships. This was also the case here. For the ’08 Cohort at nine years of age, parent-child relationship quality was significantly higher in two-parent families,[61] and controlling for parent-child relationship quality led to a decrease in the marginal effect of lone parenthood on SDQ internalising problems, but did not attenuate it fully. This suggests that there are further differences between two-parent and lone-parent families that act as risk factors for poorer mental health outcomes for children and young people in lone-parent families. Apart from economic resources, factors that have been put forward as possible mechanisms explaining poorer developmental outcomes among children in lone-parent families include interpersonal resources, in the form of parental time and attention, and family conflict and stress (particularly where lone parenthood results from parental separation or divorce) (Bzostek and Berger, 2017; Nixon and Swords, 2017). It is also important to recognise that lone-parent families are a heterogenous group, characterised by diverse dynamic patterns of family formation and dissolution (Mariani et al., 2017; McLanahan et al., 2013).

The emergence of strong peer relationships is one of the key developmental changes of early adolescence, and peers can have a positive or a negative influence on young people’s development. However, even among the nine-year-olds in the ’08 Cohort, the size of the child’s friendship network and the absence of bullying were strongly associated with more positive outcomes, and these effects persisted throughout adolescence. For the older ’98 Cohort, for whom we could assess the quality as well as the quantity of their peer relationships, alienation from peers emerged as a significant risk factor for higher SDQ internalising problem scores, and lower life satisfaction, at age 17. The strength of the association with SDQ internalising problems was not surprising, as the SDQ internalising problems scale includes the ‘peer relationships’ subscale of the SDQ. However, the fact that peer relationships were also significantly associated with happiness and life satisfaction for both cohorts strengthens the policy relevance of this finding. Being bullied emerges as a particular risk factor for poor outcomes, reiterating the value of anti-bullying initiatives at school level. The importance of teacher-student relationships in influencing mental health points to the need to underpin school initiatives to promote wellbeing, with an emphasis on developing a positive school climate, one characterised by praise rather than reprimand. The greater difficulties and lower life satisfaction found among children and young people further support the need for schools to become fully inclusive communities (see McCoy et al., 2014). In keeping with research by Dooley et al. (2019), having ‘one good adult’ to talk to emerges as an important protective factor for young people. Continuous professional development is therefore important in providing teachers and other

[61] The Pianta child-parent scores for the ‘positive’ and ‘conflict’ subscales were significantly higher and lower respectively in two-parent families than in one-parent families.

professionals working with young people (such as youth workers) with the knowledge and skills to support their mental health.

Mental wellbeing is a multidimensional construct. Different components of mental wellbeing can show different trajectories and may have differential susceptibilities (Cosma et al., 2020). While overall levels of mental health and wellbeing in young people, as indicated by internalising problems and life satisfaction, were found to be positive, there was more variation in internalising problems, and thus more variation in the factors that were associated with higher scores.[62] For example, for the '08 Cohort at age nine, important influences on SDQ internalising scores such as the presence of a chronic illness, the effects of financial strain, screen time and family activities were not significantly associated with happiness/life satisfaction at this age. It has been argued that life satisfaction, which refers to global cognitive evaluations about one's life, can be considered a global construct of subjective wellbeing and may therefore be influenced by broader life experiences and relationships. In contrast, internalising problems may represent symptoms of more immediate stress, which, at the more severe end, may impair everyday functioning (Cosma et al., 2020). Policy and practice interventions to support positive mental health and wellbeing should therefore be cognisant of the multidimensional nature of mental health and wellbeing.

The findings in this report highlight the importance of SES in shaping mental health and wellbeing for young people. The poorer wellbeing found among children and young people in families experiencing financial strain highlights the important role of anti-poverty policy. More targeted supports may also be required for particular children and young people, such as those with chronic illnesses, with a SEN and in lone-parent families. Initiatives to support positive parent, peer and school relationships will require co-ordination across multiple government departments and agencies. In the area of parenting for example, the Parenting Support Policy Unit within the DCYA manages cross-government co-ordination of policy direction and activity relating to parenting support initiatives (Department of Children and Youth Affairs, 2015).[63] Guidelines on promoting wellbeing in schools have also

62 For an analysis of externalising as well as internalising difficulties among 13-year-olds in the GUI '98 Cohort, see Nixon (2020); see Smyth and Darmody (forthcoming, 2021) for an analysis of externalising difficulties among 17-year-olds in the '98 Cohort.

63 The Centre for Effective Services (CES) has provided useful summaries of the evidence base on parenting support interventions delivered under the Prevention and Early Intervention Initiative (Centre for Effective Services, 2016). From 2004 to 2016, the Atlantic Philanthropies together with government and other organisations invested in 52 programmes and services aimed at improving outcomes for children across the island of Ireland. These programmes used prevention and early-intervention approaches in various areas of children's lives, including learning, behaviour, health and development, parenting and inclusion. This investment was known as the Prevention and Early Intervention Initiative. Of the 15 programmes evaluated, eight evaluations demonstrated a significant improvement and five demonstrated positive trends (one reported mixed findings and one was discontinued following negative findings).

involved cross-departmental coordination, having been developed by the Department of Education and Skills, the HSE and the Department of Health.

The COVID-19 pandemic adds another challenge to the maintenance of positive mental wellbeing among children and adolescents. While there has been a lack of systematic research on the experiences of these age groups in Ireland during the pandemic, it is likely that young people's wellbeing has suffered as a result of the direct effects of interruption to their education and social interaction and the indirect effects of the strain of income and job loss among their parents (Darmody et al., 2020). For some young people, these effects may be temporary; for others, they may be more severe and long-lasting. The psychological effects of the pandemic make it all the more important to be able to identify protective factors which will help enhance young people's wellbeing in the years ahead.

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