



Growing Up
in Ireland
National Longitudinal
Study of Children

Growing Up in Ireland

National Longitudinal Study of Children

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Book of Abstracts

Paper presentations

Keynote Address

Mental health among young people: longitudinal evidence from the UK

Keynote speaker

Professor Emla Fitzsimons

(University College London (UCL))

Yellow Room

The Millennium Cohort Study (MCS), is a UCL-led longitudinal birth cohort study that is following the lives of over 19,000 young people born in the UK in 2000-02.

The study has been highly influential in recent policy around children and young people's mental health, through the evidence it has provided on trends in mental health for this generation. In this talk, Emla provides an overview of this research and discusses how it has impacted on policy at a national level. Given widespread concerns about the impact of COVID-19 on young people's mental health, she also presents new data describing the state of mental health across four generations spanning the late teens to early sixties, during the height of the national lockdown in May 2020.

Biographical note:

Emla is a Professor of Economics at University College London, and Director of the Millennium Cohort Study, a longitudinal study of children born at the turn of the millennium. Her research is focused on human capital accumulation from early childhood through adolescence, including understanding the role of early parenting in children's cognitive and socio-emotional development, and how events such as parental separation in childhood, and early investments such as breastfeeding, affect development during the formative years, including young people's mental health and wellbeing. Prior to joining the UCL Institute of Education, Emla worked at the Institute for Fiscal Studies, where she remains affiliated as a Research Fellow.

SESSION A: YELLOW ROOM

Changes in oral health related behaviours from early to middle childhood: Findings from the national longitudinal survey of children in Ireland

V. Sharma (Dublin Dental Hospital, TCD)

M. O'Sullivan (Dublin Dental Hospital, TCD)

O. Cassetti (Dublin Dental Hospital, TCD)

A. O'Sullivan (UCD)

M. Crowe (Dublin Dental Hospital, TCD)

Session A, Yellow Room

Background: The aim of this analysis was to explore the changes in oral health behaviours between early and middle childhood and identify differences between sexes.

Methods: Data from the second (n=9,793), third (n=9,001) and fifth (n=8,032) waves of the GUI infant cohort was analysed using R Markdown (V2.3). Primary caregiver reported oral health behaviours included toothbrushing, dental attendance, consumption of sweets and soft drinks.

Results: The prevalence of toothbrushing twice a day or more was 52% at 3 years and increased to 75% when the children were 9 years old. More girls brushed their teeth twice/day at 3 years (56%) and 9 years of age (77%) compared to boys at age 3 (49%) and 9 years of age (72%). The percentage who attended the dentist with a problem increased from 5% at 3 years to 16% at 5 years and 12% at 9 years of age. The prevalence of reported dental fillings and dental extractions was 15% and 8%, respectively, at 9 years of age. Approximately, one-half of the cohort consumed sweets at least once per day at 3 years while one-third consumed chocolate or sweets most days or more at 5 years of age.

Conclusions: The proportion of children adhering to toothbrushing recommendations increases as children get older, with a higher proportion of girls complying. However, the prevalence of dental problem visits also increases with age while consumption of cariogenic food remains high. A clear understanding of dietary and oral hygiene behaviours in childhood should be a priority for future dental healthcare strategies.

The effect of the great recession on socioeconomic inequalities in childhood obesity: Findings from *Growing Up in Ireland*

Eoin McNamara (ESRI, GUI)

Session A, Yellow Room

Socioeconomic inequalities in childhood obesity are well established; children from lower socioeconomic backgrounds are at increased risk of overweight or obesity. Economic crises (such as the Great Recession) can magnify socioeconomic disparities in health outcomes. This study aimed to investigate recessionary effects on obesity risk and changes in associated socioeconomic inequality amongst children and adolescents in Ireland.

Inter-cohort analyses were conducted by comparing levels of overweight/obesity across two cohorts of the *Growing Up in Ireland* longitudinal study at age 9 years; Cohort '98 (measured pre-recession in 2007/8) and Cohort '08 (measured post-recession in 2017). Overweight and obesity levels were established using BMI (body mass index) cut-offs. Significant socioeconomic inequalities were observed in both cohorts according to all indicators of socioeconomic status (parental education, class, income) with greater risk for those children in disadvantaged households. While overall overweight/obesity rates were moderately higher in the pre-recession cohort than in the post-recession cohort (25% versus 23%); interesting changes in comparative disparities over time were observed. Combined overweight/obesity levels in the lowest versus the highest income families in the pre-recession cohort were 27% versus 22%, but the gap increased to 31% versus 15% in the post-recession cohort. This apparent increased inequality is worrying given that additional longitudinal examinations of these cohorts note the trend for overweight/obesity to persist over time. Proposed mechanisms for the association between obesity risk and SES, and pre- versus post-recession differences, are discussed. This study highlights the on-going need for policies to address obesity-related socioeconomic inequalities for children and adolescents.

SESSION A: YELLOW ROOM

The role of ADHD symptomology and trait conscientiousness in weight gain during adolescence

Emmet Feerick (UCD)

Michael O. Connell (UCD)

Session A, Yellow Room

Context: Numerous studies have investigated the association between ADHD symptomology, conscientiousness, and overweight/obesity in children and adolescents; however, most of these are cross-sectional, and control for a limited number of confounders.

Methods: We analysed the data of 6039 children in the *Growing up in Ireland* study at ages 9, 13, and 17. We defined weight status based on cut-off points from the International Obesity Task Force. The hyperactivity/inattention subscale of the Strengths and Difficulties Questionnaire was used as a continuous measure of ADHD symptoms. The Conscientiousness subscale of the Ten Item Personality Inventory was used to measure Conscientiousness. We first examined whether the putative confounders of annual household income, birth weight, maternal smoking in pregnancy, maternal alcohol consumption in pregnancy, maternal depression, and child depression were associated with weight status. Significant predictors were entered into multiple regression models. The first model examined the association between SDQ-HI, conscientiousness, and BMI at age 9. The second model examined this association in the same children at age 13. The third model examined this association in the same children at age 17.

Results After controlling for confounders, the association between ADHD symptoms and BMI persisted only for females aged 13 and 17, and males aged 17. Conscientiousness plays a minor protective role against the development of overweight/obesity at age 17, but only in females.

Conclusions: We discuss possible mechanisms by which ADHD symptoms and conscientiousness exert these effects, and possible reasons that confounding variables play a significant role in these associations.

SESSION B: GREEN ROOM

Examining a cascade model of Inter-parental conflict effects on outcomes for children in two longitudinal general population samples

Ruth Sellers (University of Sussex)

Gordon T Harold (University of Cambridge)

Ashton Brown (University of Cambridge)

Wendy V Browne (University of Cambridge)

David DeGarmo (University of Oregon)

Elizabeth Nixon (Trinity College Dublin)

Leslie, D Leve (University of Oregon)

Session B, Green Room

Context: A number of risk factors have been implicated as risks for child well-being including parental depression, inter-parental relationships, and negative parent-child relations. Evidence suggests risk do not necessarily occur in isolation, rather they can accumulate, creating a 'cascade' of risks.

Aim: Examine a cascade model through which a range of risk indicators may impact on child emotional, behavioural, social, and academic outcomes, employing two large, nationally representative longitudinal cohorts.

Methods: Employing data from *Growing up in Ireland* (GUI) Infant Cohort (n>7,000 from 9 months to 5 years) and Millennium Cohort Study (MCS, n>9,000 from age 3-7 years), path analysis examined influences from inter-parental relationships to child outcomes (emotional, behavioural, social, and academic) via the parent-child relationship, and early child emotional dysregulation.

Results: Across both datasets, the couple relationship had an indirect effect on child outcomes. The couple relationship was associated with parent-child relationships, which in turn impacted on child early emotional dysregulation. Parent-child relationships and early child emotional dysregulation were associated with later emotional, behavioural, and social difficulties. There was also evidence of associations between couple relationship quality on child academic outcomes both directly and via parenting and child early emotional dysregulation although effects were generally weaker for academic outcomes.

Conclusions: Findings highlights the importance of identifying appropriate supports for families experiencing (frequent, intense, and poorly resolved) inter-parental conflict to interrupt the cascade of risks for negative outcomes for children.

SESSION B: GREEN ROOM

Understanding the links between family structure transitions, stress, and children's educational ability: The role of parent-child relationship quality

Rebecca Oldroyd (University of London)

Kristin Hadfield (Trinity College Dublin)

Session B, Green Room

Family structure transitions are changes in household composition caused by a change in the parent's romantic relationships. The instability hypothesis posits that the stress associated with transitions is what makes these transitions harmful to child outcomes. However, transitions often have no impact on children, suggesting that there are circumstances in which some transitions are not stressful. Qualitative research suggests that mothers and children employ strategies to mitigate potentially negative effects of family structure transitions on child outcomes. Such strategies predominantly concern maintaining and managing family relationship quality.

Our analysis will use three rounds of data (age 9, 13, and 17/18) from *Growing Up in Ireland* (N = 8,000) to examine whether family relationship quality moderates the mediation relationship between family structure transitions, stress, and children's educational ability. Family structure transitions will be identified using the household composition questionnaire. Financial stress will be measured using the equivalized household income variable. Relationship quality will focus on the child-parent (e.g. "I share an affectionate, warm relationship with my child"), child-stepparent (e.g. "How well do you get on with [stepparent]?"), and parent-stepparent (e.g. "How often would you and your spouse/partner argue?") relationships. Educational ability will be measured using Drumcondra reading and math tests at age 9 and 13, and cognitive tasks at age 17/18. A frequency analysis revealed that 12.1% of the sample experienced a transition by age 17/18. Multilevel moderated mediation will be used to assess whether the relationship between family structure transitions and children's educational ability is influenced by relationship quality.

The role of socio-economic disadvantage in access to supports for young people with disabilities in Ireland

Rebecca McClintock (*Growing Up in Ireland*)

Aisling Murray (*Growing Up in Ireland*)

Session B, Green Room

Context: Young People with disabilities face additional challenges both within and outside the school setting. These Young People often need access to additional resources and services to maximise their participation in society and enable their independence. Gaps in the provision of supports for Young People with disabilities have been recognised within Ireland, particularly based on geographical location. The current study examines access to these supports across the socio-economic spectrum.

Methods: The study uses data from Wave 3 of the *Growing Up in Ireland* Study to examine the socio-economic backgrounds of 17/18-year-olds with disabilities. The most commonly accessed types of services and resources, both within and outside school settings, are explored. As well as access to these supports based on the family backgrounds of the 17/18-year-olds.

Results: Young People from more disadvantaged backgrounds are more likely to be affected by a disability. Furthermore, they are more likely to have a number of co-morbid disabilities and complex needs. Results in relation to their access to supports within the school setting were mixed. Young People with disabilities from disadvantaged backgrounds were less likely to have additional supports and resources outside the home setting.

Conclusions: While government initiatives have sought to address gaps in services for Young People with disabilities, the current study highlights the on-going need for policy to specifically address socio-economic differences in access to supports. Impacts on family outcomes are discussed.

SESSION C: BLUE ROOM

Emerging Digital Generations? Impacts of Child Digital Use on Mental and Socioemotional Well-Being across Two Cohorts in Ireland, 2007–2018

Melissa Bohnert (Trinity College Dublin)

Pablo Gracia (Trinity College Dublin)

Session C, Blue Room

Context: Despite the growing body of literature on how digital technologies impact child well-being, previous research has provided little evidence on how changing digital contexts may affect recent cohorts of children differently.

Method: This paper examines the patterns and effects of digital use on child socioemotional well-being across two cohorts of children grown up ten years apart during the 'digital age': the 1998 cohort (interviewed in 2007/08) and the 2008 cohort (interviewed in 2017/18). Multivariate linear regression models were conducted for these two cohorts from the *Growing Up in Ireland* (GUI) study, a multi-cohort longitudinal study with rich comparable data on a large sample of 9-year olds (N = 13,203).

Results: Results show that (i) in 2017/18 children were more active in digital devices and social media, while in 2007/2008 children spent more time watching TV and adopted less diversified forms of media engagement; (ii) spending more than 3 daily hours on TV/digital activities was associated with significant declines in child socioemotional well-being, while such effects were stronger in 2017/18 than in 2007/08; (iii) media engagement (but not other forms of digital engagement) was associated with moderate declines in socioemotional well-being, both in 2007/08 and in 2017/18; (iv) while children's media and digital engagement differed by the child gender and socioeconomic background, none of these variables moderated the effects of digital use on children's socioemotional well-being, neither in 2007/08 nor in 2017/18.

Conclusion: Overall, the study reveals persistence, but also some important changes, in recent trends on children's digital use and its impact on socioemotional well-being in Ireland.

Parental mediation of the relationship between media consumption and indicators of child mental health from 3-9 years

Desmond O' Mahony (ESRI)

Session C, Blue Room

Context: Increased use of computers at home and school is current government policy in Ireland (Digital Strategy for Schools, 2017). Along with a continued growth of computer ownership and increasingly available broadband connections, Ireland has seen a greater number of children using computers and accessing the internet from a young age (Global Kids Online, 2019). This paper conducts a longitudinal exploration of the link between young children's home screen time activities and indicators of child mental health.

Methods: Linked data from the Child Cohort of the *Growing Up in Ireland* Survey from 3 to 9 years will be used for this study (ESRI, 2010). Latent Growth Curve (LGC) modelling will be used to explore parental mediation of the relationship between screen time habits and indicators of child mental health into mid childhood.

Results: Previous research using the 9 year old GUI child cohort (Casey, Layte, Lyons, & Silles, 2012) revealed that engagement with computers through internet surfing for fun had a positive and significant relationship with reading and mathematics performance at age 9: $\beta = 0.16$ $p < .05$, and $\beta = 0.05$ $p < .01$. Whereas use of instant messaging showed a negative relationship with reading $\beta = -0.16$, $p < .05$. The current study aims to extend these findings to the area of child mental health using LGC to account for inter wave attrition as well as non-linear changes in time in screen habits and in child mental health.

Conclusions: The findings of this research will add to the body of knowledge on how parental rule setting and sharing of media consumption are related to child mental health.

SESSION C: BLUE ROOM

Unequal from the start? Social inequality, gender, home learning activities and cognitive outcomes from early to middle childhood in Ireland

Frances McGinnity (ESRI)

Aisling Murray (ESRI)

Helen Russell (ESRI)

Emer Smyth (ESRI)

Patricia McMullin (University of Turku, ESRI)

Session C, Blue Room

Context: To the extent that inequality accumulates across the life course, for example in cognitive achievement, experiences in the early years may have a particularly important role in understanding inequality (Smeeding et al., 2011). Previous research has shown a strong effect of home learning on children's cognitive development (Anders et al., 2012) but there is also evidence that such learning activities vary by social origin (Bornstein and Bradley, 2014) and are gendered from a young age (Smyth, 2016). This paper examines how social origin and gender processes interact to influence cognitive development in middle childhood.

Methods: Using data from the GUI Cohort '08 survey we estimate models of cognitive outcomes at 9 years to investigate the mechanisms underlying inequality in relation to social class and gender; particularly how trends in inequality evolve over early childhood. Key research questions focus on (a) whether participation in different forms of nonparental care and early school start influence social origin differences in cognitive outcomes, and (b) do patterns and mediating factors differ by gender?

Results: Initial results indicate that by age 9, children from the highest social class group have the highest vocabulary scores but 'professional/managerial' boys do not differ from girls in the same class group. However, both boys and girls from less advantaged groups do worse - with the largest difference being between the most disadvantaged boys and the most advantaged girls. These trends persist with controls for a range of earlier family and home characteristics, later school start, and early non-parental care.

SESSION D: YELLOW ROOM

Risk and protective factors for mental health and wellbeing during childhood and adolescence

Anne Nolan (ESRI)

Emer Smyth (ESRI)

Session D, Yellow Room

Context: It is estimated that 75 per cent of life-time mental health problems have their onset before the age of 25. Mental health in childhood and adolescence is in turn a significant determinant of health, economic and social outcomes in adulthood.

Methods: Data from the '98 and '08 cohorts of *Growing up in Ireland* (GUI) are used. At age 9 ('08 Cohort), Piers Harris 'freedom from anxiety', and Strengths and Difficulties Questionnaire (SDQ) 'internalising problems' scores are examined. At age 17 ('98 Cohort), life satisfaction and SDQ 'internalising problems' scores are examined. Multivariate regression analyses focus on the role of demographic and socioeconomic characteristics, parental, peer and teacher relationships and the intergenerational transmission of mental health.

Results and Conclusions: Overall, young people report low levels of internalising difficulties at both ages 9 and 17. For the '98 Cohort, a significant increase in difficulties between 13 and 17 years of age is observed for young women but not for young men. For both cohorts, the size and quality of peer groups, the absence of being bullied, and involvement in sports 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. There is less variation across young people in terms of anxiety (age 9) and life satisfaction (age 17), but positive peer and teacher relationships emerge as important protective factors.

SESSION D: YELLOW ROOM

Young people's life-satisfaction in relation to sexual orientation and gender identity: A cross-sectional analysis of *Growing Up in Ireland*

Nerilee Ceatha (University College Dublin)

Session D, Yellow Room

Context: There has been sparse knowledge of the prevalence or experience of young sexual and gender minorities. For the first time in the Irish context, *Growing Up in Ireland* (n=6,154) asked the '98 Cohort at 17-18 years of age about their sexual orientation, gender identity and life experiences. This PhD project is aligned to the National LGBTI+ National Youth Strategy.

Methods: Cross-sectional univariate, bivariate and multivariate statistical analyses were conducted of aggregated data in relation to sexual orientation, gender identity, life satisfaction and everyday experience of discrimination to generate descriptive statistics. Life satisfaction was measured on an 11-point scale, with higher scores indicating greater life satisfaction.

Results: One-in-ten young people self-identified as a sexual or gender minority (classified as those who self-identified as lesbian, gay, bisexual, transgender, questioning, or identified their gender as other). There were statistically significant differences in mean life satisfaction for sexual and gender minority youth (6.3; SD 2.15; $p \leq 0.000$) in contrast to their heterosexual, cisgender peers (7.2). These findings may be explained by experiences of everyday discrimination; almost three-quarters of sexual and gender minority youth felt unfairly treated, receiving less courtesy and respect (74.3%; $p \leq 0.000$).

Conclusions: The demographic data on sexual orientation and gender identity is consistent with intergenerational patterns and global trends. Findings regarding life satisfaction will be discussed in the context of Minority Stress Theory, underscoring the consequence of discrimination. In light of recent media attention, this presentation concludes by highlighting the importance of promoting the wellbeing of these young people.

Mother-child relationship: A potential resource for young people disclosing harmful sexual experiences

Brigid Teevan (Queen's University Belfast)

Session D, Yellow Room

Context: Adolescents who have experienced sexual coercion, report increased externalising symptoms, more frequent sexual intercourse and a greater number of sexual partners. Maternal support following a disclosure is an important predictor of the young person's future psychological adjustment. Disclosure is about support seeking. The aim of this study is to look at the mother-child relationship as a potential resource for young people wishing to disclose harmful sexual experiences or abuse

Method: In total, data from 6,216 participants from Wave 3 of *Growing Up in Ireland* Child Cohort (17/18 yrs) has been included. The analysis began by exploring young people's answers to, "when I have problems, I can usually talk to", my "mother"; my "father" and "another person" and any gender differences. Mothers "intimacy" levels are examined against young people's choice of who they would talk to and their level of ease or difficulty young people have in talking "openly about sex with their mothers".

Results: Findings showed a moderate real-life effect that young people are more likely to talk about their problems with their "mothers" ahead of "fathers" or "another person". Statistical analysis finds "mother's intimacy" predicts young person's likelihood of talking openly about sex and their problems with their mother.

Conclusion: The study highlights mother-child relationship (and intimacy levels) as an important area that could be investigated further as a potential protective factor for adolescents' future sexual and reproductive health. More specifically, addressing the support of adolescents' in disclosure of harmful sexual experiences.

SESSION E: GREEN ROOM

The influence of caregiver's migration status on child's use of healthcare services

Gretta Mohan (ESRI)

Session E, Green Room

Context: Ireland is an increasingly diverse country, with a growing cohort of non-native parents raising children in Ireland. The influence of caregiver migration status on children's use of healthcare is of interest to policymakers and healthcare planners.

Methods: Data from three waves of the Child and Infant Cohorts of *Growing up in Ireland*, covering the period 2008/9 to 2016 were used to inform this investigation. The outcomes of interest were visits to a General Practitioner (GP), attendance at an Emergency Department (ED) and number of in-patient hospital nights in the previous 12 months. The exposure variable, migrant status of the primary caregiver, was defined according to country of birth, and grouped into categories to examine differential relationships across groups. Negative binomial panel regression models adjusted for a range of covariates, including socioeconomic and health indicators.

Results: The data demonstrated a substantial increase in immigration to Ireland between the Child and Infant cohorts. Differential patterns of healthcare utilisation across different migrant backgrounds were observed. For both cohorts, the regression models estimated lower utilisation of GP services for children of caregivers born in 'less-advanced, non-Anglosphere, non-European Union (EU)' nations relative to those of their native-born counterparts. Relatively lower attendances at ED and hospital nights were also observed for this group, as well as for children born to EU (non-UK) caregivers.

Conclusions: Despite policy-making efforts such as 'intercultural health policies', achieving equity in access to, and use of, healthcare for migrant populations remains a challenge in practice.

Lone parents and maternal access to education/training in Ireland and Scotland

Delma Byrne (Maynooth University)

Morag Treanor (Heriot Watt University, Edinburgh)

Session E, Green Room

Context: This paper draws on two large-scale longitudinal studies in Ireland and Scotland to examine changes in the education levels of parents of young children between two time-points – infancy, when children are aged 9/10 months, and early childhood when children are age 5. In both contexts, there is a concern with low education levels among lone parents coupled with high poverty risks. Furthermore, activation policy in both contexts has been criticised for adopting a work-first approach, favouring human capital development through short training courses, rather than through pathways to higher education degree acquisition. The central research questions include:

1. In Ireland and Scotland, are lone parent mothers less likely to increase their level of education when their children are very young (pre-school age) compared to married mothers?
2. Does one institutional context offer more possibility for 'educational development' than the other for lone parent mothers?

Method: We use waves 1-3 of the infant cohort of the *Growing Up in Ireland* study, which follows a cohort of children from 9 months, to age 3 and age 5. Sweeps 1-6 of the Growing Up in Scotland study follows a cohort of children from 10 months to age 5/6. Regression models are used to determine the factors associated with educational change

(Preliminary) Results: The findings for Ireland suggest that re-partnered lone parents and coupled mothers that have separated are more likely to experience an increase in education level compared to all other mothers. This is also true of younger mothers.

SESSION E: GREEN ROOM

Maternal labour supply and child development

Kevin Denny (UCD)

Vincent O'Sullivan (Lancaster University)

Session E, Green Room

Context: There has been little research on whether having a child with developmental problems or ill-health deters mothers from working. A child with health or developmental problems is likely to generate significant demands on a mother's time, although additional financial costs due to her child's condition might increase her labour supply. This paper examines the issue using both the Infant and Child GUI cohorts.

Methods: We use linear regression and double-hurdle models augmented by instrumental variable estimation to address possible selection/endogeneity problems.

Results: For the infant cohort, we consider only whether a mother works. Naïve estimates (with no controls for endogeneity) suggest child ill-health is positively associated with a mother working, while low levels of child development are negatively associated with maternal employment. Allowing for endogeneity, we find, more plausibly, that both child ill-health and low levels of development deters maternal employment. However, the effects are absent for single mothers. For the child cohort, we consider both hours of work and whether the mother is employed. We found that it is primarily the single mothers that are affected, with poor academic performance of the child acting as a barrier to employment. Furthermore, conditional on a mother working, children with intellectual disabilities have mothers who work fewer hours.

Conclusions: Our results indicate that lower levels of child development or health problems are potentially serious barriers to mothers participating in the labour force. It may be desirable on equity grounds to introduce policy interventions that specifically target mothers in this situation.

SESSION F: BLUE ROOM

Growing Up in Ireland (GUI), girls, and physics: Statistical quest for the kind of girl that chooses physics at leaving certificate

Agata Lynch (University of Limerick)

Session F, Blue Room

Context: Amongst students taking the Physics Leaving Certificate (LC) exam in Ireland there is a persistent gender gap. The *Growing up in Ireland* (GUI) data (ESRI 2018) offers an opportunity to verify, for the Irish context, selected findings recognised by the international literature. My analysis of this data facilitates the formation of a profile for the typical Irish girl taking physics, identifying factors which make an Irish girl more likely to choose physics as a LC subject.

Methods: In this study statistical analysis was performed on the responses of the "child cohort" in the GUI third-wave (child cohort born between 1st November 1997 and 31st October 1998). The data was analysed both for differences between the genders within the subset of students that choose physics (i.e. sit LC physics) and for differences between those that choose physics and those that do not within the subset of girls.

Results: Cross-tabulations between groups of subjects were performed. One-way analysis of variance (ANOVA) was used to verify differences between subjects' family income, body mass index (BMI) and primary caregiver's level of education. Logit regression models were used to determine the strongest predictors for a girl's choice of physics at LC, with special attention paid to pastimes.

Conclusions: The initial results show that physics choosing girls tend to come from privileged backgrounds, are very studious and responsible.

SESSION F: BLUE ROOM

Difficulties in the transition to second-level education: Comparing Social background and gender gaps in Scotland and Ireland

Ivan Privalko (ESRI)

Emer Smyth (ESRI)

Session F, Blue Room

This paper compares social background and gender differences in transitions to secondary school. It also considers these differences in two samples of students, those in Scotland and those in Ireland. Advantaged social groups routinely show more ease in transitioning to secondary school, whether these groups are defined using income, social class, or parental education. This advantage is often rationalised as a difference in effort, ability, or home learning environment. However, these gaps might stem from factors other than effort, like recognition or resources. Differences in early transition are important signs of cumulative advantage, but unexplained gaps in social background are especially important to researchers interested in social class. This paper used data from *Growing Up in Ireland* and Growing Up in Scotland to adopt a multidimensional approach to understanding the transition to secondary education, looking at the simultaneous influence of social class, parental education and household income. The transition to secondary education is measured using parental reports of the ease of transition. The main research questions are as follows:

- What aspects of family background have the greatest influence on the transition to secondary education? To what extent is inequality greater in Ireland than Scotland?
- To what extent are the effects of these different dimensions of family background mediated by home learning activities (e.g. reading to the child when younger)?
- To what extent are these different dimensions mediated by the child's engagement with primary school and lower secondary education?
- What are the gender gaps within social background categories, and are they significant?

The effect of parental educational expectations on socio-emotional and academic outcomes among 17/18-year-olds with disabilities in Ireland

Georgiana Mihut (ESRI)

Selina McCoy (ESRI)

Bertrand Maitre (ESRI)

Session F, Blue Room

Context: Using data from *Growing Up in Ireland*, past research has shown that lower parental expectations about the academic achievements at age 9 are linked to lower self-concept and lower academic outcomes of children with disabilities at age 13 (McCoy et al., 2016). This paper looks at the longitudinal effect that parental expectations about their child's academic achievements at age 9 have on the socio-emotional and academic outcomes of students with different disability types at ages 17/18.

Methods: The paper uses OLS and logistic regression models to examine the effect of parental expectations on the socio-emotional outcome (life satisfaction, coping styles, and strengths and difficulties) and the academic outcomes (Junior Certificate GPA) of 17/18 year-olds by disability type (general learning/ intellectual, specific learning disabilities, emotional/behavioral, physical disability, other, and none). The analysis controls for the effect of student characteristics (sex, mother's education, economic vulnerability) as well as the effect of numerical and reading ability at age 9.

Results: The analysis suggests that lower parental academic expectations at age 9 are linked to lower life satisfaction, higher total difficulties scores, and lower Junior Cycle GPA of 17/18 year-olds with disabilities, after controlling for academic achievements at age 9.

Conclusions: Parental expectations at age 9 have long-term effect on the socio-emotional and academic outcomes of young people.

SESSION G: YELLOW ROOM

Understanding the dynamics of factors influencing 17-year-olds in Ireland coming into conflict with the law – a network analysis of the *Growing Up in Ireland* data.

**Emma Hurley (UCC), Ursula Kilkelly (UCC)
Louise Forde (UCC), Sharon Lambert (UCC)
Katharina Swirak (UCC)
Deirdre Kelleher (UCC)**

Session G, Yellow Room

This paper presents results from a study that aims to analyse available Irish data to measure the experience of young people in Ireland against the available international research, and to improve our understanding of effective and evidence-based policy. Ireland has a progressive youth justice system, underpinned by the Children Act 2001, that diverts most young people who come into conflict with the law and prioritises welfare-based approaches. In light of recent reviews of the Irish youth justice system, it is now timely to consider how well the current law and policy framework stands up in light of international research on interventions and approaches and current trends in offending among young people in Ireland. While internationally, a significant body of literature has documented factors contributing to offending by young people, no such study has yet been carried out in Ireland.

An extensive literature review suggests that a myriad of factors contribute to young people coming into conflict with the law. Descriptive analyses of the GUI data confirm many of the findings in the international literature for an Irish population. Factors at institutional, familial, and personal levels were all identified to have small to moderate but significant relationships to young people coming into conflict with the law, suggesting a complex dynamic between factors. A lasso regression was conducted on 115 factors pertaining to young people coming into conflict with the law. 40 factors were retained for network analysis. The cohort was then divided into two groups – young people who have come into conflict with the law and those who had not at age 17. Network analysis produces a graphical representation of factors and the strength and direction of relationship between factors. The CWLN group was characterised by weak relationships between factors. The CWLY group was distinctly different from the CWLN group along a number of factors of interest, suggesting a dynamic interplay between factors feeds into the likelihood of young people coming into conflict with the law. Pathways into conflict with the law and protective factors are discussed, and the paper will reflect on the implications of key learning from this research into the future development of law, policy and practice in Irish youth justice.

The Dynamics of Child Poverty in Ireland

**Helen Russell (ESRI)
Bertrand Maitre (ESRI)**

Session G, Yellow Room

Context: Children and young people experience a higher rate of poverty and deprivation than other age groups in Ireland. Living in poverty for children has not only dramatic consequences (poor health, lower education outcomes etc.) in the immediate but it has also long-run negative effects which persist into adulthood. Theory and previous research has highlighted the persistence and timing of poverty is crucial in understanding the impacts of child poverty.

Methods: We use four waves of the 2008 cohort and a latent class analysis to establish a multi-dimensional measure of economic vulnerability. We then model the factors associated with persistent economic vulnerability including family, child and environmental factors. We use longitudinal analyses to examine the triggers associated with transitions into or out of economic vulnerability.

Results and Conclusions: We find that among the 2008 cohort economic vulnerability (EV) peaked at 30% when the children were aged 5 years and unemployment in Ireland stood at 14 per cent. We find that 5% of the families were economically vulnerable in all 4 waves and a further 17% of families were persistently EV, for at least two consecutive waves. Lone parenthood, disability, ethnicity and household work intensity are strongly associated with persistent EV. Initial analyses suggests that changes to employment status are the most important triggers for entry and exit from EV and employment is an important protective factor against child poverty. Finally, we will examine the link between EV persistence and timing and key child outcomes such as well-being, health, and educational attainment.

SESSION G: YELLOW ROOM

Disadvantage, poverty, and children's measured cognitive trajectories: evidence from the infant cohort of the *Growing Up in Ireland* study

Delma Byrne (Maynooth University)

Session G, Yellow Room

Context: In the Irish literature, the cognitive and educational outcomes of disadvantaged students, relative to their peers from more advantaged socio-economic backgrounds, has been extensively researched. Typically, these studies find that disadvantaged students are less likely to fare well on a range of cognitive and educational outcomes. However, less well examined has been how the distribution of cognitive ability scores change over time. Thus, this paper is structured around three central research questions:

- How does the cognitive ability distribution change between infancy and early childhood?
- What are the factors that have the greatest bearing on the probability of being at the lower end of the cognitive ability distribution at age 3 and at age 5?
- What are the characteristics associated with 'cognitive mobility' between age 3 and age 5?

Methods: The paper draws on three waves of the *Growing up in Ireland* Infant Cohort at the ages of 9 months, 3 years, and 5 years to explore the trajectory of children's cognitive test scores over time. A range of factors that contribute to low cognitive test scores and limited cognitive mobility are also explored. Using both logistic regression and fixed effects, the paper considers the factors that determine moving in and moving out of low cognitive scores.

Results: The results are not yet finalised. However, preliminary findings indicate that income poverty has an impact on children getting 'trapped' at the bottom of the cognitive ability distribution. This research contributes to the body of literature on the educational experiences of disadvantaged children and, draws focus to the often invisible successful outcomes as well as unsuccessful outcomes of children growing up in disadvantage.

SESSION H: GREEN ROOM

Socio-emotional wellbeing and school social mix

Emer Smyth (ESRI)

Session H, Green Room

Context: Research on school effects has typically focused on academic outcomes, with less attention to the influence of the school attended on socio-emotional wellbeing. Existing studies tend to show modest between-school differences in non-cognitive outcomes but have generally failed to assess whether the social composition of the school might result in poorer socio-emotional wellbeing in some contexts.

Methods: This paper uses cross-classified multilevel modelling to unpack the effects of school social mix at primary and second-level on socio-emotional wellbeing at 17 years of age using data from Cohort '98 waves 1 to 3. Wellbeing is measured using the Strengths and Difficulties Questionnaire (SDQ) total difficulties score. At school level, the analyses distinguish between DEIS schools, fee-paying schools and other non-DEIS schools to examine the cumulative effect of school social mix. Ireland represents an interesting case study because of the active choice of second-level school, meaning that there is a good deal of movement between individual schools over the transition.

Results: Significantly greater socio-emotional difficulties are found among those who attend a disadvantaged urban primary and second-level school, even taking account of a range of family background characteristics. Being in a rural school appears to compensate for the concentration of disadvantage at school level with no greater difficulties found among these students.

Conclusions: The paper provides new insights into the dynamics of school social segregation and the associated psychic costs for young people.

SESSION H: GREEN ROOM

The association between adolescent and maternal depressive symptoms: Evidence from a population-based cohort study

Nicola Dalrymple (UCL)

Prof Glyn Lewis (UCL), Gemma Lewis (UCL)

Session H, Green Room

Context: Longitudinal studies investigating whether adolescent depressive symptoms are a potential risk factor for maternal depressive symptoms have inconsistent findings and methodological limitations including small unrepresentative samples. In this study, I investigated the association between adolescent and subsequent maternal depressive symptoms in a large nationally representative cohort study.

Methods: I used data from the *Growing Up in Ireland*-National Longitudinal Study of Children (GUI). The exposure was adolescent depressive symptoms measured using the Short Mood and Feelings Questionnaire (SMFQ) at age 13 years. The primary outcome was maternal depressive symptoms measured using the Centre for Epidemiological Studies Depression Scale (CES-D) when the study child was 17 years of age. Primary analyses were linear regression models, before and after adjusting for confounders.

Results: There were 3993 families with complete data for analyses. In the univariable analysis, there was strong evidence of a positive association between adolescent and maternal depressive symptoms (coefficient 0.25, 95% CI 0.15 to 0.35; $p < 0.0001$). Weaker evidence remained after adjusting for maternal depression at baseline and sociodemographic and health confounders (coefficient 0.11, 95% CI 0.02 to 0.21; $p = 0.018$). However, when parent-child conflict was added in the final model, there was no longer evidence of an association (coefficient 0.07, 95% CI -0.03 to 0.16; $p = 0.16$).

Conclusions: Adolescent depressive symptoms did not appear to be a risk factor for maternal depression. While effective intervention for adolescents with depression is an important priority regardless, my findings suggest that this is unlikely to have the added benefit of reducing maternal depression.

The role of secondary caregiver depression and attachment in developmental trajectories of externalising problems.

Hannah Ross (University of Edinburgh)

Lisa-Christine Girard (University of Edinburgh)

Session H, Green Room

Context: Externalizing behaviours are common presentations in child and adolescent mental health services and are associated with adverse outcomes over the life-course, including later mental health problems, lower educational attainment and criminality. Previous research has focused on primary caregivers (typically mothers), revealing links between externalizing behaviours and maternal depression and mother-child attachment. However, fewer studies have examined the effects of depression and attachment quality in secondary caregivers (typically fathers) on developmental trajectories of externalizing behaviours.

Methods: Using data from the GUI Infant Cohort, this study examined developmental trajectories of externalizing behaviour (conduct problems and hyperactivity) in 7,507 children between the ages of 3-9 years using Multi Group-Based Trajectory Modelling. Secondary caregiver depressive symptoms and attachment during infancy (9 months) were examined as predictors of trajectory membership using multinomial regression.

Results: A six-group model of distinct developmental patterns of conduct problems and hyperactivity was found: (1) Low-stable conduct problems/low decreasing hyperactivity, (2) low-stable, (3) low-decreasing conduct problems/low-stable hyperactivity, (4) moderate-decreasing, (5) low-decreasing conduct problems/moderate-increasing hyperactivity and (6) moderate-stable conduct/high-increasing hyperactivity. Controlling for other factors, secondary caregiver depression did not significantly predict membership to groups with elevated levels of externalising behaviours. Higher secondary caregiver-child attachment reduced the risk of membership to the moderate-stable conduct/high-increasing hyperactivity group.

Conclusion: In line with previous research, the majority of children rarely engage in or display low levels of externalizing behaviours between ages 3-9 years. For groups with elevated levels of externalizing behaviours, these problems appear to manifest in early years, indicating the need for early intervention. Contrary to our hypothesis, secondary caregiver depression did not predict membership to trajectory groups with elevated levels of externalizing behaviours. Conversely, secondary caregiver-child attachment did predict membership to the moderate-stable conduct/high-increasing hyperactivity group.

SESSION I: BLUE ROOM

Prevalence of parent-reported conduct problems in 5-year-old children in Ireland

Lorna Barry (University of Limerick)

Rose Galvin (University of Limerick)

Jennifer McMahon (University of Limerick)

Stephen Gallagher (University of Limerick)

Session I, Blue Room

Context: Prevalence data are crucial to plan adequate prevention and early intervention strategies. The aim of this study was to identify the prevalence and correlates of parent-reported conduct problems (CP) in 5-year-old children in Ireland.

Methods: Participants included parents of 9,001 five year-old children from the *Growing Up in Ireland* Wave 3 Infant cohort. Variables included in this study were socio-demographic, child, parent, household and parent psychological variables. Samples were weighted, and frequencies were used to estimate the prevalence of CP. Logistic regression was used to examine the association between CP status and child, parent, household and parent psychological characteristics. Post-hoc sensitivity analyses were conducted to further examine the interaction of significant variables with parent psychological characteristics.

Results: In the sample 10.6% scored in the clinically relevant range. Parenting style and parent relationship remained predictive of CP after controlling for other child, parent and household factors. Having a younger parent was also associated with higher problem scores.

Conclusions: A significant portion of Irish children are at risk of CP emphasising an urgent need for targeted prevention and early intervention. Findings suggest that younger parents may benefit from intervention that targets parenting style and relationship quality with their child.

An investigation of the correlations between unstructured play and the cognitive, physical, social and mental health of children. A cross-sectional analysis of 5-year-olds in Ireland

Inés Lawlor (UCD, Lucena Clinic St John of God)

Session I, Blue Room

Context: Safeguarding children's right to play is key for children's wellbeing and core to operational policies and frameworks in Ireland.

Method: This study examined relationships between play and the physical and mental health of children in Ireland. Variables from *Growing Up in Ireland* 5-year-old infant cohort were used. Two continuous variables were created; 'Outdoor' unstructured play (OUPP) and 'other' unstructured play (OUP). These variables were stratified by gender and socioeconomic class and analysed for correlations with the outcome variables (cognition, BMI, social skills and mental health).

Results: Males engaged in significantly more OUP and OUPP than females. Lower class groups engaged in more OUPP than higher class groups in both genders. There was no correlation between unstructured play and cognitive measures or BMI in males across all class groups. A negative correlation was found between BMI and unstructured play in females in lower social class groups. A correlation was found between temperament and OUP in both sexes but not OUPP when considering all subcategories of the rating scales and all class groups. Negative correlations were found between OUP and OUPP on all subscales of the Strengths and Difficulties Questionnaire (except prosocial category) for both genders but not across all class groups.

Conclusion: A positive relationship between play and a number of outcome variables is evident among Irish children. Differences exist among male and female children and among the social classes. Further studies are indicated using observational or qualitative data on the social and environmental aspects of children's play.

SESSION I: BLUE ROOM

An investigation of preschool language delay and reading skill at age 9 years in an Irish childhood cohort

F. Craven (UCD)

M. Heinen (UCD)

Session I, Blue Room

Context: Language delay is associated with increased risk of reading difficulties. However the relationship between the type of language delay and reading difficulties remains unclear and has not been studied in an Irish population to date. The aim of this study was to investigate the relationship between language delay and reading competency in a cohort of children aged 3 – 9 years living in Ireland.

Methods: This study included 6,933 participants from the longitudinal *Growing Up in Ireland* infant cohort. Language ability was measured at ages 3 and 5 years. Participants were categorised according to a profile of language development. Reading ability for each group was examined at age 9 years. Multivariable logistic regression explored the relationship between preschool language delay and reading competency at age 9 years, controlling for confounders.

Results: Four patterns of language development were identified: 93.2% had typical language development, 1.6% had a persisting language delay, 0.9% had a late onset delay, and 4.3% had a resolving delay. Language delay in the preschool years was significantly associated with increased risk of reading delay at age 9 years. Those with a persisting delay were most at risk of reading delay compared to those with typical language development (AOR: 8.73; 94% CI: 4.35 – 17.50; $p < 0.001$).

Conclusion: Language delay in the preschool years was associated with increased risk of reading difficulties at age 9 years. Early identification and appropriate management of children with preschool language delay has important implications for longer term literacy and learning outcomes.



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