Growing Up in Ireland
National Longitudinal Study of Children

5TH ANNUAL RESEARCH CONFERENCE

Book of Abstracts

Paper presentations

Keynote speaker

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Session A, Hogan Mezzanine 2

In recent decades, studies of child poverty have become more common. Partly, this is because UN demands of the countries that have ratified the Child Convention that they monitor the trends in the living conditions of children and adolescents. This talk addresses the issue of levels and trends in poverty in Sweden, with an international comparative part. We both broaden and deepen the study of child poverty. First, we study trends in poverty among families with children, from the late 1960s and up to 2010. Secondly, we widen the perspective and study poverty among children directly (where we have annual data between 2000 and 2010). The difference in approaches is not primarily in *how* we measure poverty but *whose* poverty we measure – the household's or the children's. The results attest to the fact that using both approaches is necessary to get the complete picture of child poverty. Thirdly, we link the parents' economic resources to their children's, reporting the association between them. We then broaden that perspective and bring in other child outcomes that we may envisage being determined by the household economy: overcrowding, safety, social participation, leisure time activities, health-related behaviour, and psychological and somatic health. Finally, we report several sets of international comparisons of child poverty both as reported by parents and by children themselves.

The results show that (i) Child poverty in Sweden is very low in an international perspective; (ii) There is no secular increase of child poverty - instead there is a decrease in the long term and from the 1990s, (iii) But there is an increasing income inequality since 2006 making poor children fall further behind the average, at the same time as there is no increase in real income for those with low income; (iv) The self-reported (absolute and relative) poverty among children has been stable between 2000 and 2010. The increase of relative poverty in families with children has thus not yet resulted in economic problems among children themselves; (v) Children of single parents and of immigrants have higher to much higher poverty rates than other children; (vi) Child poverty has become more concentrated to families where parents are not gainfully employed; (vii) Children of poor parents more often have economic problems themselves, but most children with poor parents have a high material living standard; (viii) Family poverty is also associated with children's social relations and activities, those from poorer backgrounds being less active and having somewhat weaker social relations.

Health, Eligibility and Utilisation of GP Services

Anne Nolan, (TCD)
Richard Layte (ESRI)

Session A, Hogan Mezzanine 2

Equity of access to health care is regarded as a key objective of national and international health policy. The current Irish system of eligibility for free public health care is unusual internationally, with the requirement for a large proportion of the population to pay the full out-of-pocket cost of GP care a particular concern. While most international studies find that need factors such as age and health status are most important in determining GP visiting rates, in Ireland, income and medical card eligibility have been found to be highly significant. However, previous research on use of GP services in Ireland has largely concentrated on the adult population.

The purpose of this paper is to examine the determinants of GP visiting behaviour among 3-year old children in Ireland (using data from the Infant Cohort of GUI). In addition to an examination of the impact of various factors (e.g., health, income, family composition, etc.) on use of GP services, we focus in particular on the impact of eligibility for free GP care. We also exploit the availability of data from two waves of the GUI survey, thereby allowing us to examine the possible impact of changes in health and other circumstances (e.g., medical card eligibility, falling household income, etc.). The period between the first and second waves of the GUI Infant Cohort survey was one in which the Irish economy entered a severe recession, and this is reflected in substantial changes in child and family circumstances among the Infant Cohort.

Is Excessive Crying an Early Marker of Childhood Behavioural Problems

Cathal McCrory, (TCD)
Elizabeth Nixon (TCD)

Session A, Hogan Mezzanine 2

Infant crying serves an important developmental function, enabling infants to communicate with their caregivers. While infant crying typically decreases around three to four months of age, persistent crying beyond this age can represent a risk factor for subsequent developmental problems (Stifter, 2005). Persistent crying and the caregiver's inability to console an excessively crying infant may precipitate a transactional series of negative parent-child interactions which, in turn, may be associated with poorer developmental outcomes. This study uses prospective data from two waves of the Growing Up in Ireland infant cohort to examine the socio-emotional development of children who were characterised as persistent criers during infancy. Univariate analysis revealed that children who experienced colic during infancy and whose crying was reported as problematic by the mother were 2.6 times [CI=1.65, 3.96; $p<0.001$] more likely to have behavioural problems at 3 years of age. We explore the potential pathways through which early manifesting regulatory problems increases risk for maladjustment in early childhood, with particular emphasis on the parent-child dynamic and the way in which infant crying influences maternal sensitivity and parenting stress.

Bold Boys and Good Girls? The Gender Gap in Special Educational Needs in Irish primary schools

Denise Frawley (ESRI)
Selina Mc Coy (ESRI)
Joanne Banks (ESRI)

Session B, Nally Suite

Despite ongoing and dramatic changes in special education policy in the last decade, there is little understanding of the factors influencing the apparent gender differential in special education. International research has shown that boys are more likely than girls to be in special education (Delgado and Scott, 2006; Coutinho and Oswald, 2005) while Irish research has also highlighted that boys outnumber girls by almost 2 to 1 in the number of children with Special Educational Needs (SEN) in primary schools (O'Connor, 2007). As a way of explaining the gender disparity in special education, three theories - referred to as the 'three B's' - have emerged which consider Biological differences, Behavioural differences and Bias in special education referral and assessment (Coutinho, Oswald and King, 2000). Building upon recent work that has shown the over-identification of boys with Emotional Behavioural Difficulties (Banks et al., 2012), this paper further questions what is going on in terms of SEN identification. The findings from the Growing Up in Ireland study provide valuable insights in to the processes shaping the high levels of SEN among working class boys and and how these identification processes may differ according to different school types. The findings also show important gender differences in terms of the psychological well-being of students. Girls are reporting significantly higher levels of anxiety than boys, all else being equal, which highlights the importance of identifying the more 'introverted' forms of need in addition to those more easily identified through behaviour.

A Progress Report on the NCSE Study Entitled "Educational Experiences and Outcomes for Children with Special Educational Needs": Classification and Analysis Issues, and Next Steps

Jude Cosgrove, (Educational Research Centre)
Caroline McKeown, (Educational Research Centre)
Joe Travers (Special Education Department)

Session B, Nally Suite

In February 2013, the National Council for Special Education (NCSE) commissioned a study to examine the educational experiences and outcomes for children with special educational needs (SEN), using the dataset from the 9-year-old cohort from Growing Up In Ireland (GUI). The analysis is being conducted by the Educational Research Centre and the Special Education Department at St Patrick's College, Drumcondra, and is due for completion in early 2014. This paper reports on progress made on the study to date, and describe the next steps in the analyses. First, the classification and prevalence of children with SEN in the GUI dataset for the purposes of the study is described and compared with existing classifications and prevalence rates. Some challenges in establishing the classification are described, for example classification of children with multiple SEN, and/or with emotional and behavioural difficulties or disorders (EBD). Second, the selection of outcome variables is described within a framework for outcomes of children with SEN developed by Douglas and colleagues (and documented in an NCSE report published in 2012). Third, background measures are discussed, with a particular focus on children's socioeconomic backgrounds. Fourth, the issue of GUI survey response rates is discussed, and it is shown how this may affect weighted and unweighted estimates of prevalence rates. The paper concludes by outlining the next steps in the study.

Ireland's New Family Inequalities and the Role of Public Policy

Tony Fahey, (UCD)

Session C, Davin Suite

Drawing on data from the Growing Up in Ireland survey and other sources, this paper examines differences by socio-economic group in key features of family life in Ireland, locates those differences in historical and comparative perspective and assesses the role of public policy both as contributor to differentiation and as response to it. It points to relationship instability as the major new axis of socio-economic differentiation of family patterns and assesses how this axis interacts with the 'old' patterns of differentiation along lines of couple formation and family size. It also notes some distinctive features of current Irish patterns compared to those in other developed countries. So many strands of public policy have contributed to newly emerging patterns and have worked alongside broad economic and cultural change that individual policy effects are difficult to isolate or quantify and the significance of family-related policy as an independent influence comes into question. It is nevertheless useful to try to identify which aspects of policy are likely to have been relevant and to highlight those which are most significant as responses to family change even if their causal role is unclear.

The Importance of Striking Balance: Underemployment, Overemployment, and Psychological and Marital Well-Being in Mothers of Infants, and their Partners

Eamonn Barron, (UCD)
Ela Polek, (UCD)

Session C, Davin Suite

This study examined the relationship between discrepancy in women's actual and preferred hours worked (work hours constraint) and its impact on women's and their partners' work-family conflict, difficulty arranging childcare, and psychological and marital well-being. Crossover (where strain experienced by one partner carries over and generates or aggravates another type of strain in the other partner) among the variables was also examined. Dual-earner couples were assigned to three groups based on women's work hours constraint: Underemployed (n=338), adequately employed (n=1128), and overemployed (n=2462). Adequately employed women were found to have higher psychological well-being than underemployed and overemployed women, but no group differences were found in women's marital well-being. However, we found lower levels of marital well-being in partners of underemployed and overemployed women than in partners of adequately employed women. As expected, overemployed and underemployed mothers demonstrated the highest levels of work-family conflict and difficulty arranging childcare, respectively. It was hypothesised that crossover between partners would be accentuated under situations of greater stress, in the underemployed and overemployed groups. Only limited support for this hypothesis was observed. As anticipated, a stronger negative crossover effect from partner's psychological well-being to women's marital well-being was observed in the overemployed group compared to the adequately employed group. Recognising the cross-sectional nature of the study, these findings suggest that greater attention be attached at organisational and governmental level to eliminating work hours constraints for mothers of infants.

Defining Crisis Pregnancy: Implications of operationalisation for understanding risk factors and for assessing the impact of crisis pregnancy on parent and child outcomes

Owen Corrigan, (TREOIR)

Session D, Hogan Mezzanine 2

Crisis pregnancy is an important issue in Ireland, with 1 in 7 pregnancies reported by women in recent research as constituting a 'crisis'. Crisis pregnancy is defined in Irish statute in terms of two factors: whether pregnancy was unintended and whether it constituted a personal crisis or emotional trauma for the woman involved. The GUI dataset provides an invaluable opportunity to explore risk factors and to relate experience of crisis pregnancy to outcomes for women and children in the context of large-N statistical control. A key methodological issue concerns how we operationalise crisis pregnancy as a measure. Drawing on data in GUI concerning pregnancy intentions and stress, this paper aims to highlight the multiplicity of potential operationalisations that can arise from this simple two-factor definition and further aims to show that the choice of measure is non-trivial with regard both to academic understandings of associated risk factors and to policy-relevant outcomes for parents and children. The results of the regression analysis show that how we understand crisis pregnancy in terms of its determinants is highly sensitive to the operationalisation chosen. Likewise, crisis pregnancy is seen to impact on a range of policy-relevant outcomes including health and parent-child engagement, though again this is sensitive to the measure utilised. Apart from having methodological relevance for researchers working with GUI and in the field of crisis pregnancy, these findings also have implications for our understanding of crisis pregnancy and should inform how policymakers evaluate the evidentiary basis on which they make their decisions.

An investigation into the effect of cigarette smoking during pregnancy on infant's respiratory health.

Dervla Kelly, (TCD)
Alan Kelly, (TCD)
Tom O'Dowd (TCD)

Session D, Hogan Mezzanine 2

Several epidemiological studies suggest that exposure to maternal smoking during fetal and early life increases the risk of childhood respiratory illnesses. However, previous studies focusing on prenatal exposure were not able to differentiate between the effects of smoking during pregnancy from postnatal exposure.

The study population consisted of 10,998 infants and their biological mothers from the infant cohort of the Growing up in Ireland born between December 2007 and June 2008. 16.7% of women smoked during the pregnancy, increasing to almost a quarter (24.3%) smoking after the baby was born. Regarding the prenatal stage, 231 mothers smoked during the pregnancy only, quitting before the baby was born. The risk of respiratory infections during the first year of life among these infants was slightly higher than those who were never exposed to maternal smoking (OR 1.09 for any respiratory infection, 1.24 wheeze, 1.21 lower respiratory infection). 1 in 20 infants were exposed to people smoking in the same room as them and these were identified as a high-risk group risk for experiencing respiratory illnesses during the first year of life, adjusting for time spent in care outside the home (adjusted OR 1.66 associated with experiencing any respiratory infection).

Smoking rates during and after pregnancy among mothers remain persistently high. While it is well known that maternal smoking is associated with increased respiratory illnesses among children, it is important to stress that providing a smoke free intrauterine environment would be of benefit to the respiratory health of young children.

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Childcare and Early Childhood Health: A First Look at Patterns from Wave 1 to Wave 2

Aisling Murray, (ESRI),
Frances McGinnity, (ESRI),
Tom O' Dowd (TCD)

Session D, Hogan Mezzanine 2

International research points to young children attending childcare centres as at greater risk of common childhood infections than those who do not attend such centres. McGinnity, Murray & McNally (2013) and O'Dowd et al. (2012) found similar evidence among the Growing Up in Ireland infant cohort at Wave 1 when the Study Children were 9-months-old: infants in crèches and similar centres were at greater risk of respiratory, ear and gastro-intestinal infections, and of being rated as less than 'very healthy' by their parents than those not attending centres.

In this paper, we investigate whether similar trends by childcare type are carried through into the infant cohort at age 3 years and whether prior childcare arrangement predicts child health just over two years later. The 3-year-old health indicators used are general health status, wheezing episodes and antibiotic prescriptions. In general we found that the contemporaneous use of centre-based care was associated with a greater risk of having a prescription for antibiotics or experiencing a wheezing episode in the year preceding the age 3 interview, as well as a less than 'very healthy' rating. The effect of earlier childcare type and the relationship with current care is complex, as anticipated, but comparing children who changed care type with those who were in centre-based care at both waves provides an avenue for a first look at such interactions. The analyses adjust for a number of possibly confounding variables including socio-economic characteristics, breastfeeding and health at birth.

Working Out? Child Well-being and the Influences of Family Childcare and Employment Strategies During Childhood

Delma Byrne, (NUI Maynooth)
Caitriona O'Toole, (NUI Maynooth)

Session D, Hogan Mezzanine 2

We report on the findings from a research study that was commissioned by the Irish Research Council in conjunction with the Family Support Agency. The research study sought to arrive at an informed understanding of the relationship between child well-being and family strategies with regard to employment and childcare arrangements. Uniquely, the proposed study draws on all available waves of the child and infant cohorts of the Growing up in Ireland study, to offer a dynamic understanding of the family dynamic with regard to employment and childcare arrangements from infancy to middle childhood. In doing so, we address child well-being in a context of changing economic conditions and the changing nature of employment in the family context, the division of market work and childcare between males and females, diversity in the childcare market, and the continuing importance of the extended family. We also report on the qualitative phase of the study which examines how families navigate the early childhood care and education market, and the extent to which this is informed by family and household employment structures and understandings of child well-being.

Parental involvement and children's academic outcomes – comparing immigrant and Irish children in Ireland

Frances McGinnity, (ESRI)
Merike Darmody, (ESRI)
Aisling Murray, (ESRI)

Session E, Nally Suite

Greater parental involvement in their child's education is found to translate into positive social and academic outcomes for the children (e.g. Fan and Chen, 2001). Recent research has contributed to our understanding of the experiences of migrant children and youth in Irish educational system (Darmody et al., 2011; Devine, 2011). Less is known about parental involvement in the education of migrant children and how this may impact on academic outcomes. Immigrant parents have very high expectations for their children in Ireland, yet immigrant children are underachieving, particularly in English reading (McGinnity et al., 2012). This paper investigates how parental involvement is associated with the academic achievement of migrant children in Irish primary schools. In doing so it draws on the first wave of Growing up in Ireland (GUI) 9 year cohort.

After exploring differences in parental involvement between immigrants from different ethnic/national backgrounds and native Irish, we use regression modelling to examine achievement differences in maths and English using Drumcondra test scores. Parental school engagement and home engagement, as well as their linguistic, cultural, social and economic capital is measured, as well as children's engagement with school and peer relationships. School characteristics variables include school size, location and sector. The paper seeks to contribute to existing literature on parental involvement and immigration by exploring patterns of parental

strategies in Ireland, a country with a heterogeneous, multilingual and highly educated immigrant population.

Fun, Learning or Both – Does it Matter to Academic Achievement what Children do on the Internet?

Dorothy Watson, (ESRI)

Session E, Nally Suite

Although early concerns with the 'digital divide' focused on social class differences in children's access to computer and internet resources (Jackson et al., 2006; Burnett & Wilkinson, 2005; Livingstone & Helpsper, 2007; Johnson, 2007; Notten, Kraykaamp and Valkenburg, 2009; Takahira, Ando, & Sakamoto, 2007; Sandvig, 2003), more recently the focus has shifted to the nature of computer and internet use rather than access per se (DiMaggio et al, 2004; Willis and Tranter, 2006; Greenfield and Yan, 2006).

But how much does it matter to learning what children actually use the internet for? This paper draws on the 9-year cohort of the Growing Up in Ireland Survey (N= 8570, research micro-data file) to examine social class differences in the way children combine use of the internet for learning and for fun and asks whether the different patterns of use are associated with academic achievement.

We find differences by social class in how children use the internet and also differences by social class in the relationship between internet use and academic achievement. We note that caution is needed in interpreting the association between internet use and academic achievement as causal, since we are relying here on cross-sectional analyses. However, the results point to some areas for further investigation with the longitudinal dataset.

Academic resilience among students from disadvantaged backgrounds

Rachel Perkins, (Educational Research Centre)

Session E, Nally Suite

Aim: To identify the factors associated with academic resilience among disadvantaged students.

Background: While many studies of student achievement in Ireland and internationally have noted that average achievement among students from disadvantaged backgrounds is well below that of nationally representative samples (Eivers, Sheil and Shortt, 2004; Weir, 2001; OECD, 2001; 2004; 2007; 2010), a growing number of studies demonstrate that a considerable number of students from disadvantaged backgrounds are able to overcome their personal challenges and become successful in school. The available educational research calls these students resilient, because they have overcome adversity to achieve academic success. Understanding how these students overcome their social background and succeed in school can allow us to identify the factors and conditions that could help more students succeed despite the challenges they face. This paper examines the socio-economic, family context, and child related factors associated with academic resilience using data from the first wave of the 9-year cohort of the Growing Up in Ireland study.

Method: Disadvantaged children are identified as being academically resilient or vulnerable based on their outcomes on the Drumcondra Maths and Reading tests. Binary logistic regression is used to identify the socio-economic, family and child related factors associated with academically resilient children.

Emotional and Behavioural Influences on Educational Achievement

Maeve Thornton, (ESRI), **Mark Morgan** (TCD) **James Williams** (ESRI)

Session E, Nally Suite

Aim: To explore the extent to which internalising and externalising behaviours impact children's educational outcomes, with a particular focus on those with poorer achievement.

One of the major developmental tasks confronting children in middle childhood is the development of intellectual and academic skills with academic achievement becoming an index of a child's future. Therefore, understanding the reasons for individual differences in levels of scholastic achievement has long been of concern to educational psychologists and other professionals. Knowledge of the factors that influence academic success has important implications for learning and education.

Recent research has focused on the impact of a range of non-cognitive influences on school achievement, and this association has been demonstrated throughout the early life course—in primary school, secondary school, and into the postsecondary years, holding for multiple indicators of mental health problems. While particular attention has been given to externalising problems (under-controlled behaviour) less attention has been given to internalising (over-controlled) behaviour, and its association with educational achievement.

Data from the first wave of the 9-year cohort of the Growing Up in Ireland will be used to explore the relationship between both externalising and internalising behaviours and school achievement using the Drumcondra tests. A series of Regression models will be presented in order to explore these relationships using controls for a series of socioeconomic and demographic factors.

A lark in the park: Child injury and neighbourhood characteristics in Ireland

Margaret Coen, (UCD)
Ela Polek, (UCD)

Session F, Davin Suite

This study investigates child injury, the leading cause of childhood mortality in Ireland. Household, neighbourhood and individual factors were examined in relation to frequency and severity of child injury using data from the 9 year-old cohort of the Growing Up in Ireland (GUI) survey. Risk factors for injury were calculated. A model identifying predictors of frequency of injury was outlined. In line with previous research individual characteristics, such as child's male gender and psychopathology (hyperactivity, conduct disorders) were found to predict injury. However, some socioeconomic factors were surprisingly not predictive of injury (education, household class, number of children) and poverty was seen to be a protective influence, although living in council housing whether purchased or rented was found to be a risk factor. Quality of the neighbourhood was found to predict child injury, as did urban living. Urban planners are recommended to ameliorate risk by designing safe, accessible play spaces in towns and cities. Local authorities with responsibility for maintenance of housing estates are recommended to carry out regular safety assessments. More supervised outdoors play or organised sports activities is suggested for children particularly at risk. Future research may investigate the relationship between poverty, health attitudes, and seeking medical attention in case of child injuries. The influence of green space on injury rates and children's health in general is deemed worthy of further study.

Explaining Social Class Variation in Child Weight Gain from Birth to Age Three

Richard Layte (ESRI)
Regien Biesma-Blanco (RCSI)

Session F, Davin Suite

Objective*:* To examine the extent to which antenatal and early childhood factors explain social class differentials in weight gain between birth and 3 years of age. **Design**: A longitudinal and prospective birth cohort study.

Subjects: A nationally representative sample of 11,134 children and their parents followed from when the child was 9 months of age until 3 years. Child weight and maternal height and weight were measured at 9 months and 3 years and child birth weight was reported by parents at 9 months. A large number of predictors of child growth were collected by maternal report at 9 months and 3 years.

Methods: multi-level models with fixed and random effects are used to decompose the effect of different factors on child weight gain between birth and 3 years.

Results: Born significantly lighter on average, children of unskilled manual parents were 160 grams heavier than children of professional parents by 3 years. Together, four groups of risk factors accounted for 50% of the weight gain differential between the children of the professional class and other classes. Maternal weight gain in pregnancy and BMI at 9 months was associated with the largest reduction in the weight differential (35%).

Conclusion: Preventative interventions to reduce levels of childhood obesity should be multi-dimensional but interventions to ensure healthy weight gain in pregnancy, higher rates of breastfeeding and later weaning could as well as smoking cessation in pregnancy could significantly reduce socio-economic differentials in childhood obesity and possibly, future socio-economic inequalities in health.

Active commuting to school –
The effects of individual, family, and environmental factors on physical activity levels in children.

Sharon Cadogan, (UCC), **Eimear Keane,** (UCC)
Patricia Kearney, (UCC)

Session F, Davin Suite

Introduction
Physical activity (PA) plays a fundamental role in maintaining and improving physical and mental health, both during childhood and in later years. This study aims to identify individual, family and environmental factors that determine PA levels in a population sample of Irish children.

Methods
Cross-sectional analysis of the first wave (2008) of the nationally representative Growing Up in Ireland study (N=8,568). A two-stage clustered sampling method was used where schools served as the primary sampling unit (response rate: 82%) and age eligible children within schools as the secondary units (response rate: 57%). Parent reported child PA levels and potential covariates include favourite hobby, total screen time (TST), sports participation (parent and child reported) and child BMI (measured). Univariate and multivariate multinomial logistic regression (forward block entry) examined the association between individual, familial and environmental correlates and PA levels.

Results
The children were classified as achieving low (25%), moderate (20%) or high (55%) PA levels. In the fully adjusted model, boys (OR 1.64 [95%CI: 1.34-2.01]), an active favourite hobby (OR 1.65 [95%CI: 1.31-2.08]) and membership of sports/fitness team (OR 1.90 [95%CI: 1.48-2.45]) significantly increased odds of being in the high PA group. Exceeding two hours TST (OR 0.66 [95%CI: 0.52-0.85]), being overweight (OR 0.41 [95%CI: 0.27-0.61] and obesity (OR 0.68 [95%CI: 0.54-0.86]) significantly decreased odds of being in the high PA group.

Conclusion
Individual factors are the most important determinants of PA. Future PA policy initiatives should encompass a broad range of hobbies/activities which are currently popular among children.

Children's Activities and Outcomes

Amanda Quail, (ESRI), **James Williams,** (ESRI)
Emer Smyth, (ESRI), **Siobhan Scarlett,** (TCD)

Session F, Davin Suite

As children age they show increasing independence and control over how they spend their time outside of school, as well as greater diversity in the range of activities in which they participate. Previous research has shown that the way in which 'out-of-school time' is spent is associated with a range of outcomes measuring the child's physical, social, emotional and educational development (e.g. Hofferth S. and Sandberg J. F., 2001; Witkow M. R., 2009). Very little is known in Ireland about how children spend their time and whether or not (or in what ways) this affects their development.

Nine-year-olds in Growing Up in Ireland self-completed a one-day, 'light', Time Use Diary as part of their interview. This presentation begins by providing a description of how nine-year-olds spend their time on weekdays and at weekends. It then explores whether or not there is a relationship between the ways in which children spend their time and their socio-emotional and behavioural outcomes.

In particular, the presentation focuses on activities such as sleep, physical activity, IT use, TV viewing and reading and considers how time spent on such activities is related to behavioural outcomes, controlling for the usual range of the child's personal and family characteristics. Child behaviour is measured using the Strength and Difficulties questionnaire, which was recorded in Growing Up in Ireland from both parents and teachers of the nine-year old.

The Use of a Dietary Quality Score as a Predictor of Childhood Overweight and Obesity

Catherine Perry, (UCC)

Session G, Hogan Mezzanine 2

Objective: 1) To examine associations between an overall Dietary Quality Score (DQS) and childhood overweight and obesity. 2) To investigate associations between individual food components of the score, and childhood overweight and obesity.

Design: Cross-sectional analysis of Growing up in Ireland (GUI) study. **Setting:** Republic of Ireland (ROI), school year 2007-2008.

Subjects: A sample of 8,568 nine year old children and their families took part in the GUI study. Subjects were drawn from a probability proportionate to size sample of primary schools throughout the ROI. Height and weight were measured by trained researchers using standardised methods and BMI was classified using the International Obesity Taskforce (IOTF) cut-points. The DQS (un-weighted) was developed using a 20 item parent reported, food frequency questionnaire (FFQ) of foods consumed over the past 24 hours. DQS could range from a theoretical 0, poor, to 24 high diet qualities. Adjusted odds ratios for overweight and obesity were examined by DQS quintile, using the first quintile (highest diet quality) as the reference category.

Results: The prevalence of normal weight, overweight and obese was 75%, 19% and 6% respectively. In analyses adjusted for gender, physical activity and primary care givers education, obesity but not overweight was significantly associated with poor diet quality: OR of 1.60 (95 % CI 1.06 2.41) in the 1st relative to the 5th DQS quintile. Findings from individual food items were inconsistent.

Conclusions: Findings suggest that diet quality may be an important factor in childhood overweight and obesity. A simple DQS developed from a short 20 item FFQ is significantly associated with childhood obesity.

Maternal Employment, Childcare and Childhood Obesity in Ireland

Therese McDonnell, (UCD)

Session G, Hogan Mezzanine 2

Overweight and obesity among children is a growing problem, with repercussions that can adversely impact a child's development and continue to influence their health and success in adulthood. While the emotional, psychological and health costs to the child can be significant (Layte & McCrory, 2011), obesity also places a substantial burden on society. Understanding the factors that have lead to the significant increase in the number of overweight and obese children is crucial if the problem is to be addressed effectively. Much of the established literature concludes that there is a relationship between the work intensity of the mother and the occurrence of childhood obesity (Anderson et al., 2003; Gennetian et al., 2010; Ruhm, 2008), and the aim of this first study is to identify the nature of this relationship using Irish data.

Using data from the Infant Cohort of the Growing-Up in Ireland Survey, this paper examines the impact of both maternal employment and childcare on the obesity status of pre-school children. Recent Danish research (Greve, J; 2011) has found no relationship between childhood weight problems and maternal employment, which may be due to the universality of childcare services in Denmark. The results from the GUI data are compared to Danish (DALSC) data in order to ascertain if policy lessons can be learned.

A study of early complimentary feeding determinants in the Republic of Ireland based on a cross-sectional analysis of the Growing Up in Ireland infant cohort

Patricia Dominguez Castro (TCD)
John Kearney, (DIT), Richard Layte, (ESRI)

Session G, Hogan Mezzanine 2

Background/Aim: Early complimentary feeding has been shown to increase the risk of overweight, obesity and chronic diseases in later life. Studies in the Republic of Ireland (ROI) have reported poor compliance with guidelines which recommend the introduction of solids near 6 months of age. The identification of predictors of early complimentary feeding will enable us to identify those population groups in greater need of dietary intervention.

Methods: Cross-sectional analysis of the national longitudinal study Growing Up in Ireland (GUI). Data was derived from the first wave (2007-2008) of the GUI infant cohort. Binary logistic regression was used to explore the relationship of independent variables with early complimentary feeding.

Subjects: A cohort of mothers (n=11,134) living in the ROI was interviewed when their infant was nine months of age.

Results: 47% of infants had been taking complimentary foods regularly in the period between 16-20 weeks. Amongst other factors, timing of formula feeding introduction and high maternal BMI were strongly associated with early introduction of complimentary foods both in bivariate and multivariate analysis. Those infants introduced to formula feeding >4 months were 88.4% less likely to be introduced to complimentary feeding early compared to those who commenced <2 months, (OR 0.116; 95% CI 0.072, 0.186; $p<0.001$). Obese women were 37.9% more likely to introduce complimentary feeding early compared to normal weight ones (OR 1.379; 95% CI 1.18, 1.613; $p<0.001$).

Conclusions: The results demonstrate that biological, social, demographic and behavioural aspects exert an important role in infant feeding practices. These findings are relevant to the design of policies and intervention programmes aimed at educating parents.

Early Introduction of Cow's Milk in Infants in Ireland

Elaine Murray (DIT); John Kearney, (DIT), Richard Layte, (ESRI)

Session G, Hogan Mezzanine 2

Background: Irish guidelines advise against the consumption of cow's milk before 12 months. Consumption of cow's milk in infancy is strongly associated with iron deficiency. Its composition differs greatly from breast milk, providing excessive protein which may contribute to obesity.

Objectives: To estimate the prevalence of cow's milk introduction in infants in Ireland, and to identify determinants of early introduction and thereby, at risk groups.

Methods: Cross-sectional analysis of the first wave of the GUI infant cohort was carried out. Univariate and multivariate analyses were performed using IBM SPSS.

Results: The study found that 5.1% and 40.4% of infants had been introduced to cow's milk before 6 and by 9 months, respectively. Young maternal age, low education level, majority of income obtained from social welfare payments and being a single parent with ≥2 children were significantly associated with the introduction of cow's milk before 6 months in the multivariate model. Significant results regarding the timing of introduction of cow's milk and ethnicity, as well as acculturation suggest that recent immigrants of African or Asian descent may be at an increased risk of inappropriate introduction of cow's milk.

Conclusion: A significant number of infants were introduced to cow's milk inappropriately, with certain groups at greater risk. Public health interventions need to be targeted appropriately and nutritional education provided for at risk groups. Further investigation is needed into the nature of cow's milk consumption in the latter half of infancy.

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Bullying, cyber-bullying, and ICT use among primary-school children in Ireland

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Jude Cosgrove, (Educational Research Centre)
Caroline McKeown (Educational Research Centre)

Session H, Nally Suite

Several studies indicate that bullying is associated with poorer well-being and educational outcomes. Recently, attention has focused on the emergence of electronic or cyber-bullying alongside "face-to-face" or "traditional" bullying. By definition, access to ICTs is necessary for cyber-bullying to occur. Despite a rise in ICT use generally and among children, the role of specific forms of ICTs in bullying is unclear.

We use two large nationally-representative data-sets to examine prevalence and impact of bullying, and use of ICTs among primary-school children in Ireland. First, we present data from Wave 1 of the Growing Up in Ireland 9-year-old cohort. Logistic regression is used to identify aspects of ICTs and ICT-related leisure activities associated with bullying generally and cyber-bullying in particular. The impact of bullying across different subgroups is examined. We also contrast prevalence of bullying and ICT use with recent data from PIRLS and TIMSS 2011, a study of over 4,000 Irish pupils in Fourth class. Although prevalence of bullying is similar between cohorts, we find differences in some aspects of ICTs between the cohorts. The findings have implications for understanding the role of technology in enabling bullying at primary-school level and are discussed in light of school policies on and home supervision of ICT use.

Communication and Closeness: Parent-child Relationships

Ashling Bourke, (St Patrick's College),
Catherine Maunsell, (St Patrick's College)

Session H, Nally Suite

Positive parent-child relationships act as a protective factor against negative psychological and behavioural outcomes in childhood and adolescence (e.g., Mark et al., 2012). The aim of the current study is to investigate parental and child related factors that are associated with parental-child communication and closeness using the GUI 9 year old cohort.

We first investigated children's responses when asked who they would talk to about problems they were experiencing. A considerable proportion of the nine year old children (87.3%) reported that they would talk their mother about difficulties. Results also indicated an association between the likelihood that they would talk to their mother about problems and the primary caregiver's reported closeness with the child.

Research has consistently shown parent child relations are bidirectional, such that children play a significant part in shaping parent-child relations (Bell & Chapman, 1986; Wymbs, 2011). This study specifically sought to explore the influence of parental factors and child factors among nine year olds in Ireland. Using a linear regression we investigated a range of factors associated with this closeness of the parent-child relationship including parenting style; the dyadic relationship between the primary caregiver and partner; and child temperament.

The quality of parent-child relationships in childhood can be assumed to be important for later social and emotional development, particularly in the areas of emerging sexuality and relationship formation. Theoretical and policy implications will be discussed through the lens of this developmental framework.

Family structure and risk factors: An investigation into emotional and behavioural outcomes for nine-year-olds.

Zara Lafferty, (DIT),
Dorit Wieczorek-Deering, (DIT)

Session H, Nally Suite

The main aim of the present study was to investigate the impact of family structure and risk factors on children's developmental status at 9 years of age using the Growing Up in Ireland child cohort dataset. Specifically the following three main research questions were addressed: First, is there a relationship between family structure and child developmental outcomes? Second, if yes, to what extent do risk factors moderate the relationship between family structure and child developmental outcomes? Third, do risk factors act in a cumulative manner on child developmental outcomes?

In the present investigation family structure was defined as married, separated, divorced, widowed, or never married, whilst the risk factors considered were economic deprivation (Murray et al, 2011), maternal depression (Melchior et al, 1993), and stressful life events (Murray et al, 2011). The Strengths and Difficulties Questionnaire (SDQ) (Goodman, 1997) measured developmental status in terms of emotional and behavioural outcomes at 9 years of age.

Univariate analyses indicated that family structure and most of the present risk factors were significantly associated with developmental outcome at 9 years of age. Further analyses suggested that risk factors tended to moderate the relationship between family structure and developmental outcomes. Finally, the configurational analysis (Belsky, 1988; Wieczorek-Deering, 1993) provided some support for the cumulative effect of risk factors on developmental outcomes indicating that as the number of risk factors increased, optimal developmental outcome tended to decrease. Implications of the present findings will be discussed.

What do we know about parenting? A review of the findings from Growing Up in Ireland and the Prevention and Early Intervention Initiative (PEII)

Stella Owens, (Centre for Effective Services)

Session H, Nally Suite

This paper will discuss the evidence and data emerging from Growing up In Ireland and the Prevention and Early Intervention Initiative. Currently in Ireland and Northern Ireland practitioners, and their organisations are working hard to support positive outcomes for children, families and communities through programmes and services focusing on prevention and early intervention. These organisations have incorporated the best available evidence about what works into their local practice. As part of this Initiative, many of the services have taken part in independent evaluation studies. The Centre for Effective Services (CES) has synthesised the learning from some of these organisations about Parenting and Children's Learning. There is a wealth of evidence from GUI on what is known about children and parents in Ireland today.

The presentation will cover what we know about parenting and parenting styles in Ireland from the GUI data, linking it to the variance and diversity in approaches of parenting programmes from the Prevention and Early Intervention Initiative. The data on children's learning from both GUI and PEII will focus on the connectivity of learning environments – parents and schools, and on transitions from home to school at 5 years. Information on how best to engage with children will also be presented. Our input to the annual GUI conference will have an emphasis on applying the learning and how it can be made useable for policy makers, service commissioners and service providers. We will also showcase CES's learning in using research and evidence to influence change.

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Inequalities in Children Educational Outcomes: What are the Mechanisms in Ireland and Denmark?

Patricia Kielthy, (UCD)

Session I, Davin Suite

Rising social inequalities and their consequences for children's life chances are of increasing interest for academics and policy makers alike. Understanding the processes that give rise to inequalities in childhood and the role of public policy in offsetting these inequalities is central to these discussions. In Nordic countries the effect of parental education on children's cognitive abilities is weaker than in other countries; this limited inheritance effect has been attributed to the welfare state commitment to investing in children and families (Esping Andersen 2002; Ermisch et.al. 2012). Inequalities in parenting are said to be lower in countries such as Denmark, where policies aimed at work-life balance lower a trade-off between child investment and work (Bonke and Esping-Andersen 2011). This study uses data from the Growing up in Ireland Study (n=7971) and the Danish Longitudinal Survey of Children (n=4802) to examining the mechanisms between maternal education and children's educational outcomes. Specifically, it seeks to explore the role of parental labour market attachment and parenting practices in exacerbating or protecting against inequalities in childhood and whether this varies between Ireland and Denmark. It will also examine inequalities in child educational outcomes across different family types. This will add to discussions on the factors that give rise to inequalities in children's outcomes, as well as the role of policy in equalising children's life chances.

Breastfeeding Rates in Ireland, New Zealand, Australia and Britain – International Comparative Research Using Child Cohort Studies

Susan Morton, (Growing Up in New Zealand), **James Williams** (ESRI), **Lucinda Platt** (Millennium Cohort Study), **Jan Nicholson** (Longitudinal Study of Australian Children)

Session I, Davin Suite

A substantial body of literature now exits on the beneficial effects of breastfeeding for the physical health and development of children. Breastfeeding is recommended for the first six months of the child's life, until the baby is ready for and needs extra food. The benefits of breastfeeding include developing the child's immune system as well as motor skills and cognitive abilities. (e.g. Fewtrell, 2004; Jackson & Nazar, 2006 and Dee et al, 2007). In addition, some studies suggest that breastfeeding is associated with higher levels of maternal attachment and infant self-regulation (Woodward & Liberty, 2005; Gribble, 2006).

Notwithstanding the promotion of breastfeeding as a key government policy in Ireland for almost two decades, initiation rates are still extremely low by international standards. Rates on discharge from hospital in Ireland currently run at just under 50 per cent. These compare with one month rates of almost 86 per cent in New Zealand, 78 per cent in Australia and 49 per cent in the UK

Using data from the four national longitudinal child cohort studies this presentation considers variations in breastfeeding rates within and between the four countries in question. It also considers the feasibility of harmonising the data available from the four cohort studies and the potential this presents for internationally comparable research work on breastfeeding and other important policy aspects of childhood and child development.

Child Neglect Neglected: Could we Make Better use of Teachers' Reports about Child Neglect in Ireland and the USA?

Ela Polek, (UCD)
Diane Wach, (Cornell University)

Session I, Davin Suite

This study uses data from the 2006 National Incidence Study (NIS-4) in The United States and the 2007 study of Growing up in Ireland (GUI) to compare rates of child physical neglect (lack of personal cleanliness, clothing inadequate for the weather conditions, being hungry/without a snack at school), reported by teachers. The NIS-4 study uses standard definitions of abuse and neglect to estimate the number of affected children in the American population beyond (and including) cases investigated by child protective services, which converge with 4 items used in the GUI questionnaire. The results suggest that in the case of 7-12 year old children in the States, 24% have been affected by one or more of the three signs (inadequate hygiene, clothing, or nutrition) of physical neglect, while nearly 21% of Irish 9-year old children have been affected by one or more of the three main signs of physical neglect. In the GUI sample 2.5% of affected children were in foster care (information as to whether or not child neglect was the reason for placement is not available). Socio-economic profiles of families of affected children in both countries were compared. It has been concluded that in both countries signs of child physical neglect reported by teachers seems to be somewhat underappreciated by social and child protection services. Taking into account that child physical neglect frequently co-occurs with other forms of neglect and abuse, polices could recognise the role of teachers as gatekeepers for state services that should support parents in providing optimal conditions for child development.

Child Well-Being in the UK and Ireland; an Exploratory Comparative Analysis of the Growing Up in Ireland and Millennium Cohort Studies

Jennifer Shore, (Bessborough Child & Family Centre,)
Raegen Murphy, (UCC)

Session I, Davin Suite

Background: Child well-being has become an increasingly popular area of research in the past few decades. Indexes of child well-being are being created in order to facilitate policy makers and service provision. Research in this area is therefore investigating what constitutes child well-being and what predicts it.

Aims: This research seeks to build on existing literature in the area by comparing data from two nations on the psychological domain of child well-being. Other variables that fall under the remaining four domains (social, physical, economic, cognitive) of child well-being are also assessed for their predictive power in relation to the psychological domain.

Methods: Data from both the Growing Up in Ireland and Millennium Cohort studies are being used to compare over 20,000 children between the ages of 7 and 9 years old. The Strengths & Difficulties questionnaire was utilised as the outcome measure, both its prosocial and total difficulties scales. A variety of statistical analyses are employed; both correlation and comparative methods are utilised.

Results: Findings revealed a statistically significant difference between the UK and Ireland

in relation to children's prosocial behaviours, however no such difference was found with their reported emotional and behavioural difficulties. When the UK was broken down into its constituent countries, results highlighted statistically significant differences between all countries in relation to the mean scores for both scales on the SDQ. Finally regression analyses highlighted a number of significant predictors for children's emotional and behavioural problems, though nearly all the variance is still unaccounted for.

Conclusions: Until such time as a unified and consistent definition and measurement of child well-being exists, future research should continue to build upon current literature. By creating indexes of child well-being, based on the data for more than one country, it is hoped that this will provide the platform from which valuable research can flourish with the end goal being a reliable, universal and comprehensive index of child well-being.

If you would like further information about
Growing Up in Ireland

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