

SLLS Society for Longitudinal
and Life Course Studies



Hosted By

UNIVERSITY of
STIRLING



50^{YEARS}

**ABSTRACT BOOK IN ORDER
OF CONFERENCE PROGRAMME**

Day 1 Wednesday 11 October 2017

Keynote Presentation

If You Build It, They Will Come

David Bell, University of Stirling, UK

This talk focuses on the processes of building and establishing longitudinal surveys. It will draw on the speaker's experiences in developing a longitudinal survey of ageing in Scotland (HAGIS) and his experience of using longitudinal surveys in the past. It develops its arguments from an economic perspective, looking at the risks and potential rewards of longitudinal studies. The risks relate to failure to deliver or delivery of an inferior product. Rewards are multifaceted and may not have been anticipated from the inception of the project. The talk discusses the need for project management if desired outcomes are to be achieved. Finally, it considers how findings from longitudinal surveys may (or may not) be translated into policy outcomes at a time of widespread scepticism around the role of evidence.

Parallel Session 1

A1 SYMPOSIUM

Remembering the Past: Collection and Use of Retrospective Life History Data

Convenor: Bram Vanhoutte, University of Manchester, UK

This session showcases the collection and use of retrospective life history data from three major studies of ageing, the English Longitudinal Study of Ageing (ELSA), the US Health and Retirement Study (HRS), and the Survey of Health, Ageing and Retirement in Europe (SHARE).

The first contribution, by Jivraj and colleagues, examines the comparability of retrospective and prospective data. The second contribution, by Smith and colleagues, examines the added value for understanding later-life health disparities provided by enhanced indicators of early-life education context, content, and experiences collected in a HRS mail survey. The third contribution, by Wahrendorf and colleagues, investigates the influence of working conditions during adulthood on depressive symptoms after labour market exit, testing the explanation of this relation through pension contributions, using SHARE. The fourth contribution, by Vanhoutte and colleagues, examines the importance of timing, duration and order of home ownership over the life course on later life wellbeing using ELSA.

Together, these contributions illustrate how life history data on education, working life and accommodation can help us to better understand later life outcomes, by emphasizing a life course perspective.

Comparing Reports from Retrospective Life History Data and a Prospective Cohort Study Data

Stephen Jivraj, Alissa Goodman, George Ploubidis, Cesar de Oliveira, University College London

This paper determines whether comparable prospective and retrospective data present the same association between childhood and life course exposures and mid-life wellbeing. We use prospective data taken from the 1958 UK National Child Development Study at age 50 in 2008 and earlier sweeps (n=8,033) and retrospective data taken from the English Longitudinal Study of Ageing at ages 50-55 from a life history interview in 2007 (n=921). There is a high degree of similarity in the direction of association between childhood exposures that have been prospectively collected in NCDS and retrospectively collected in ELSA and wellbeing outcomes in mid-life. However, the magnitude of these associations is attenuated substantially by the inclusion of measurements, which are difficult or impossible to capture retrospectively, and are only available in prospective data, such as childhood poverty, cognitive ability and indices of social and emotional adjustment. The findings on the one hand provide some reassurance to the growing literature using life history data to determine life course associations with later life wellbeing. On the other hand, the findings show an overestimation in the retrospective data, in part, arising from the absence in life history data of childhood measures that are not well suited for retrospective collection.

The Role of Early-Life Education in Later Life Health: Can Retrospective Data Enhance Understanding?

Jacqui Smith, Brian M. Wells, Amanda Sonnega, Mary Beth Ofstedal, David Weir, University of Michigan, USA; William Chopik, Michigan State University, USA

Early-life education contributes to the acquisition of human capital and is associated with healthy longevity. Typically, large panel studies only include generic indicators of education (e.g., years of schooling and highest degree). Advances in the collection of retrospective life histories have opened ways to supplement this with information about educational context, content, and experiences. The present study had two objectives. First, we evaluate the quality of retrospective education history data collected in 2015 in the Health and Retirement Study (HRS). Second, we examine whether this enhanced information about early-life education helped to explain later life health disparities. The HRS life history sample consisted of 6459 women and men over age 50 and born between 1916 and 1964. Participants were asked to list the name, location, and characteristics of all schools and colleges they attended and to describe the major field and title of attained college and professional degrees. Additional questions asked about educational experiences, such as extracurricular activities, learning difficulties, and behavioral problems. Comparisons with in-person reports obtained in previous HRS waves indicated high response reliability for number of school years, highest degree, and reports of childhood emotional or psychological problems. The enhanced information about educational context, content, and experiences explained additional variance in later life cognitive functioning and physical health, net of generic education indicators, early life socioeconomic position, and other covariates. Our initial findings with these 2015 HRS data illustrate their potential value in future research. For example, ongoing data coding and linkage to archival information will provide additional information about school/college quality.

Non-Standard Employment Histories and Mental Health After Labour Market Exit: Results from SHARE

Hanno Hoven, Morten Wahrendorf, University of Düsseldorf, Germany

Background: There is growing evidence that critical non-standard employment histories exert long-lasting influences on health after retirement. One explanation is that non-standard employment histories are accompanied by lower pension contributions and poorer material circumstances at older ages. This study investigates the interrelations between non-standard employment histories, the amount and types of pension contributions during working life, and mental health beyond working life.

Methods: We use retrospective life history data from the Survey of Health, Ageing and Retirement in Europe (SHARE), collected in 2008-2009 among older men and women who left the labour market. This includes detailed annual information on the employment situation and on pension contribution for the entire previous employment history. To identify non-standard employment histories, we derive specific critical career characteristics (e.g. low occupational position, years in work, periods of unemployment, and frequent job changes). To measure mental health, number of depressive symptoms is used.

Results: Non-standard employment histories, especially those marked by discontinuous employment, working in low-skilled occupations and lower pension contributions are related to a higher number of depressive symptoms after labour market exit, in particular for men.

Findings remain consistent after excluding respondents with short working careers, those who had mental and physical health problems prior and during working life, and additionally, after adjusting for country, age, education, partnership history and childhood adversity. Non-standard employment histories are clearly linked with lower pension contributions.

Discussion: Non-standard employment is related to mental health after labour market exit. The study illustrates how life history data enable a comprehensive assessment of previous employment histories, and elucidate complex life course influences on health beyond working life.

Timing, Duration and Order: The Influence of Residential Histories On Later Life Wellbeing

Bram Vanhoutte, James Nazroo, University of Manchester, UK; Morten Wahrendorf, University of Düsseldorf, Germany

The life course perspective holds a great promise for analytical research into the mechanisms that shape people's lives. The long arm of childhood, and the exposure to risk that accumulative (dis)advantage entails, have received most attention as two interrelated mechanisms that determine later life to a large extent, but are often tested using relatively crude empirical support. This contribution wants to go one step beyond, by highlighting the possibilities of life history data in grasping the importance of timing, duration and order of home ownership over the life course. Home ownership is an important proxy for life course socio-economic status, as it is the most basic form of wealth accumulation in the UK. This contribution makes use of the life history data collected in wave 3 of the English longitudinal study of ageing (ELSA), in a combination of sequence analysis, cluster analysis and regression techniques. Analysis of the residential histories from birth up until the age of 50 illustrate 9 distinct residential pathways, illustrating the importance of accommodating heterogeneity in the population. Preliminary analysis shows that later timing of home ownership and a longer duration of renting accommodation are related to worse later life wellbeing. The specific timing and order of transitions in residential histories trace how period and cohort affect later life.

B1 SYMPOSIUM

SLLS Policy Group: Research With Direct Links to Policy

Convenor: Aisling Murray, Economic and Social Research Institute, Ireland

The Research/Policy Interface: What Works and What Are the Challenges?

Dorothy Watson, Economic and Social Research Institute, Ireland

(To be supplied – contact dorothy.watson@esri.ie)

Research and Lower Secondary Reform: Unpacking the Relationship in the Irish Context

Emer Smyth, Economic and Social Research Institute, Ireland

The relationship between educational research and policy making has been the subject of much debate. This presentation seeks to unpack the relationship by using a case study of research on lower secondary education in Ireland and how it has fed into policy reform measures. It also suggests the need for research to seek to inform policy and practice at multiple levels – system and school.

In providing a case study of the research-policy relationship, the discussion draws on the Post-Primary Longitudinal Study, which followed a cohort of young people in twelve case-study Irish schools from first year of secondary education to the end of upper secondary level. The study placed a strong emphasis on student voice, exploring school organisation and process from the perspective of young people themselves.

The presentation focuses on three key issues which emerged from student accounts: what they see as good teaching; the nature of teacher-student relations; and whether they see their schooling as adequate preparation for the future. The presentation discusses the challenges in informing policy using mixed methods research and describes the way in which the findings fed into the lower secondary (junior cycle) reform agenda.

The discussion traces the nature of the debate on lower secondary reform in Ireland and the lessons which can be learned from trying to effect system change. From a more positive perspective, it argues that, even in a highly centralised system, schools have considerable autonomy over the kinds of practices which influence student outcomes and argues for the importance of disseminating research to school leaders and teachers to facilitate 'bottom-up' change.

C1 PAPER SESSION: EMPLOYMENT***Compressed, Postponed, or Disadvantaged? School-to-Work Transition Patterns and Early Occupational Attainment in West Germany***

Christian Brzinsky-Fay, WZB Berlin Social Science Center, Germany

We study school-to-work-transition patterns and early occupational attainment for five West German birth cohorts. Although these cohorts experienced very different macro conditions, their STWTs were facilitated by Germany's strong vocational education and training (VET) system. The main research question is whether linearity of STWTs differed across and within cohorts. Linearity concerns the normatively expected order of different activity statuses during this life phase. High linearity is ideal-typically defined as entering VET or tertiary education programs after leaving general education, followed by rather direct entry into employment. Non-linear patterns diverge from this ordering or may also include other status activities, like unemployment and inactivity. We use data of the German National Education Panel Study (NEPS) and employ sequence and regression analysis. Our analyses reveal that the proportion of young people experiencing the ideal-typical transition patterns increased over the cohorts. Yet, the degree of non-linearity of these ideal-typical STWT patterns also increased over the cohorts. Moreover, we find strong differences between men and women in early occupational attainment. Higher-educated women in particular had higher risks of long-term disadvantage, whereas men were able to compensate for disadvantages by achieving higher educational attainment and establishing themselves more quickly in the labour market.

Does the Association Between Psychosocial Work Stress and Depression Vary by Internal and External Resources? Longitudinal Evidence from The HRS Study

Thorsten Lunau, Institute for Medical Sociology, Germany

Background: There is now convincing evidence that psychosocial work stress is positively linked to depressive disorders. Few studies, however, have tested if individual resources can buffer the longitudinal effects of psychosocial work stress on depressive symptom. This study investigates how two types of resources (internal and external resources) affect the association between psychosocial work stress and depression.

Methods: Data come from the US Health and Retirement study, with baseline information on psychosocial work stress (in terms of low control and effort-reward imbalance) and on internal ('mastery' and 'constraints') and external resources ('private social support') among initially healthy workers. This information is linked to depressive disorders two-years later. The sample included 6386 observations and we report relative risks (RR) and additive and multiplicative interaction effects.

Results: Psychosocial stressors and low resources (internal and external) were both related to depressive disorders. The results show that employees with psychosocial stressors and low resources had the highest risk to develop depressive disorders. Yet, based on interaction analyses, neither internal nor external resources mitigated the effect of work stressors on depressive symptoms.

Discussion: Our findings underline that psychosocial stressors at work are related to mental health, and that this relationship holds true both for people with high and with low resources. Therefore, the results did not support the hypothesis that internal or external resources buffer the effect of psychosocial work stress on depressive symptoms.

Lifecourse Determinants of Resilience to Adverse Labour Market Transitions in Early Old Age

Sol Richardson, Amanda Sacker, Gopalakrishnan Netuveli, Ewan Carr, University College London, UK

Background: Resilience has been defined as positive outcomes despite high-risk status and its manifestations are only apparent in the presence of a risk variable or event. Two theories, allostasis and phenotypic match/mismatch, describe relationships between resilience and stress exposure over the lifecourse. Work exit is considered a risk factor in its own right depending on its features. Using two measures (cumulative socioeconomic disadvantage and cumulative adverse events), we investigated how and to what extent stress over the lifecourse influences resilience following work exit in early old age.

Methods: We identified 2,152 respondents aged 50+ years who had exited paid work over seven waves of the English Longitudinal Study of Ageing (2002–2015) and operationalised two measures of lifecourse stress based on retrospective life history data. These included number of adverse life events in childhood and adulthood (range 0–16) and an index of lifecourse socioeconomic disadvantage (range 0–7) comprising

measures of paternal socioeconomic position, level of education and wealth. We fitted multiple linear regressions in Stata 14 to test effects of lifecourse stress on resilience following work exit as measured using change in CASP-12 wellbeing and included interaction terms between route of exit and life course stress to test the latter's effect on resilience to involuntary work exit.

Results: Adverse events in adulthood and lifecourse socioeconomic disadvantage were associated with reductions in CASP-12 of -0.32 (95% CI: -0.51 to -0.13) per event and -0.20 (95% CI: -0.31 to -0.09) per unit increase in disadvantage. The effect of cumulative socioeconomic disadvantage was mediated by wealth post-exit. Neither measure significantly interacted with involuntary work exit.

Conclusions: Although lifecourse stress was negatively associated with wellbeing change following work exit, neither measure influenced resilience to involuntary work exit. Exposure to stressors earlier in the lifecourse was found to precipitate vulnerability in later life.

D1 SYMPOSIUM

Epigenetics and Social Science: How Do Social Exposures 'get under the skin'?

Convenor: Laura Howe, University of Bristol, UK

Social factors such as abuse, bullying, socioeconomic position and educational attainment shape our trajectories of health and development across the life course, but the causal pathways linking these social factors with later outcomes often remain uncertain. There is growing interest in the concept of 'embodiment', i.e. the biological pathways that link social exposures with later outcomes.

DNA methylation, one type of epigenetic change, is one potential mechanism linking social adversity with health and development. Animal models have shown links between early life stress and altered methylation patterns, and the availability of DNA methylation data within cohort studies means that this question can now be addressed within human populations. In this symposium, we will give a brief introduction to epigenetics, followed by three presentations showing results of recent research examining associations between social exposures and DNA methylation. We will conclude the symposium with a discussion session to explore issues within this field of research and future directions.

Introduction to Epigenetics

Matthew Suderman, University of Bristol, UK

Epigenetic modifications are heritable changes to the way genes are expressed that do not involve changes to the DNA sequence. We will provide a very brief overview of the field of epigenetics, aimed at a non-biologically trained audience. The presentation will include an overview of the main epigenetic modifications (DNA methylation, histone modifications, and non-coding RNAs), how they are influenced by environmental exposures, how they modulate expression of genes, and how associations with environmental exposures can be studied within cohort studies. This whistle-stop tour of epigenetics will enable the uninitiated researcher to get the most out of the rest of the symposium.

Prenatal Stress and Maternal Depression in Relation to Offspring DNA Methylation

Matthew Suderman, University of Bristol, UK

Stress and glucocorticoid hormones are known to influence hippocampal development but little is known about the mechanism. Complicating matters, maternal prenatal stress is associated with sex-specific outcomes in offspring.

A few studies have investigated potential molecular mechanisms including one recent study that identified glucocorticoid receptor target gene serum and glucocorticoid-inducible kinase 1 (SGK1) (Anacker et al. PNAS, 2013). We have further investigated the effect of prenatal stress on SGK1 DNA methylation in a rat model and observed sex-specific associations at two different SGK1 gene promoters in the hippocampus. We then mapped these genomic regions in rat to the corresponding regions in the human genome. We then tested associations with maternal prenatal depression in cord blood DNA methylation measured in approximately 900 participants of the Avon Longitudinal Study of Parents and Children (ALSPAC). We observed weak but otherwise identical sex-specific associations with maternal prenatal depression. These findings support the hypothesis that maternal depression, and stress in general, exposes the developing fetus to glucocorticoids leading to stable sex-specific changes in SGK1 DNA methylation and gene expression in multiple tissues ultimately leading to altered development. Future work will be required to evaluate this hypothesis in more detail.

Epigenetic Signatures of Adolescent Victimization Using a Genetically Sensitive Longitudinal Cohort Study

Helen L. Fisher, Chloe Wong, Avshalom Caspi, Louise Arseneault, Terrie Moffitt, Sarah Marzi, Radhika Kandaswamy, Susanna Roberts, Jonathan Mill, King's College London, UK

Stress is a normal, adaptive response to stressors (e.g., events that make a person feel threatened or upset). However, healthy development can be derailed by excessive or prolonged exposure to stress especially during important developmental periods such as adolescence. Exposure to severe stress may have immediate as well as long-lasting damaging effects on learning, behaviour, and health. One way these may occur is via changes to epigenetic processes (e.g. alterations in DNA methylation). Initial studies have shown that individuals exposed to severe psychosocial stress have different patterns of DNA methylation (epigenetic 'signatures') compared to individuals exposed to no/minimal stressful life events, but these studies are methodologically limited.

This paper describes our examination of the potential link between exposure to severe victimisation during adolescence and DNA methylation differences utilising data from the Environmental Risk (E-Risk) Longitudinal Twin Study, an epidemiological study of 2,232 children (1,116 twin pairs) followed to 18 years of age (with 93% retention). To assess adolescent victimisation, we combined best practices in survey research with comprehensive interview-based approaches, and developed a reliable system for coding severity of multiple types of victimisation. Cheek swabs were collected from study members at ages 5, 10 and 18 and whole blood DNA at age 18, which were used to quantify genome-wide patterns of DNA methylation. We report findings from utilisation of twin difference models to control for effects due to unmeasured family-wide confounding and genetic variability, and comparisons across tissue types. It is hoped that early detection of the biological impact of victimisation exposure will aid prevention efforts.

An Epigenome-Wide Association Study of Educational Attainment (N = 10,767)

Riccardo Marioni, University of Edinburgh, UK (On behalf of the Social Science Genetic Association Consortium)

The epigenome has been shown to be influenced by biological factors, such as disease status, and environmental factors, such as smoking, alcohol consumption, and body mass index. Although there is a widespread perception that environmental influences on the epigenome are pervasive and profound, there has been little evidence to date in humans with respect to environmental factors that are biologically distal.

Here, we provide evidence on the associations between epigenetic modifications—in our case, CpG methylation—and educational attainment, a biologically distal environmental factor that is arguably among of the most important life-shaping experiences for individuals. We present meta-analysis associations (n=10,767) between educational attainment and DNA methylation at single CpG sites (Epigenome-Wide Association Study - EWAS).

We find:

- Nine CpGs associated with educational attainment at a Bonferroni significance threshold
- These probes were from an EWAS model that controlled for age, sex, BMI, and smoking
- However, all 9 probes have previously been linked to smoking status
- Two of the CpGs were significant when we restricted the analysis to non-smokers
- These two probes are associated with maternal smoking during pregnancy, and thus their association with educational attainment could be due to confounding
- A polygenic prediction analysis, using both genetic and epigenetic scores suggest similarly small, and potentially smoking-confounded, associations between educational attainment and methylation.

If our findings regarding educational attainment can be generalized to other biologically distal environmental factors, then they cast doubt on the hypothesis that such factors have large effects on the epigenome.

E1 PAPER SESSION: INEQUALITIES***Like Mum and Dad? The Intergenerational Transmission of Relationship Dissolution and Conflict***

Ben Edwards, Australian National University, Australia; Suzanne Vassallo, Australian Institute of Family Studies, Australia

Relationships in an individual's family of origin shape relationships as adults (Dennison, Koerner & Segrin, 2014). Several studies have shown that individuals exposed to high inter-parental conflict when growing up are more likely, as adults, to experience conflict and relationship dissolution in their own intimate relationships (Amato & Booth, 2001; Feng, Giarrusso, Bengston, & Frye, 1999; Gager, Yubiku & Linver, 2016; Kim, Pears, Capaldi, & Owen, 2009). Similarly, individuals who experience parental divorce or separation during childhood have been found to have a higher likelihood of separating or divorcing themselves (ABS, 2010; Diekmann & Schmidheiny, 2008; Feng et al., 1999). However most of these studies have been cross-sectional in nature and/or have not taken into account selection factors. The Australian Temperament Project (ATP) - one of Australia's longest-running studies of psychosocial development - provides an ideal opportunity to explore these issues, with data on intimate partner relationships independently collected from two generations of family members.

This paper examines the continuity of relationship conflict and separation across generations and the impact of exposure to conflict in the family of origin on adult offspring's relationship conflict and of forming committed partnerships in adulthood. We take account of factors associated with relationship formation using random effects regression that incorporates Heckman selection models.

Our results suggest that offspring who experienced parental separation or divorce in childhood were more likely to report high levels of relationship conflict in their own relationships, be in a de-facto relationship and not be married. However, relationship outcomes of offspring were not affected by high levels of inter-parental relationship conflict in childhood.

Forests, Health and Inequalities in Scotland: A Longitudinal Approach

Jennifer Thomson, Jamie Pearce, Niamh Shortt, Catharine Ward Thompson, University of Edinburgh, UK
Evidence suggests that forests provide opportunities for exercise, relaxation and enhanced quality of life. People who engage with forests by either visiting or having a view report better outcomes in general and mental health. Studies also suggest that the association between forests and health is stronger for those of lower socioeconomic position therefore forests may have a role in reducing health inequalities. The evidence supporting a positive relationship between forests and health has mainly been cross-sectional partly due to the lack of geocoded environmental data. This study addresses this research gap by investigating the influence of forests on health over a 20-year period for people living in Scotland.

The project investigates changes in the distribution of forests across deprived and affluent areas, whether people's health improves when they live closer to forests and whether there is a cumulative protective effect of forests on mental health. Measures for all forests in Scotland, which distinguish between accessible and non-accessible forests, were created. These were linked to the Scottish Longitudinal Study (SLS), which provided data on 113,171 people living in Scotland for three time points: 1991, 2001 and 2011. Administrative records for the SLS members including the Prescribing Information System and Mental Health Inpatient and Outpatient data sets were also linked. Outcome measures included having a long term limiting illness and being prescribed anti-depressant or anxiolytic medication. Preliminary findings showed that between 2001 and 2011, forest cover increased only in the 25% least deprived areas of Scotland. Results also showed that people living 250m-1km from a forest were significantly more likely to have a long term limiting illness compared to those living closest (0-250m) to a forest. The early findings of this study suggest that the health benefits of forests in Scotland are likely to be unevenly distributed across the population.

Suburban Settlement, Life Cycle and Inequalities in Access to the City. A Generational and Lifecourse Analysis of Residential Trajectories from 3 Surveys Conducted in Paris Urban Area

Guillaume Le Roux, Patrick Bach, Arnaud Bringe, Catherine Bonvalet, INED, France; Christophe Imbert, UMR Migrinter (Université de Poitiers-CNRS), France

In French literature, urban segregation is increasingly analysed according to inequalities in access to urban resources. During the 20th century, Paris experienced a broad process of urban sprawl. Young families contributed widely to suburbanization, producing a redistribution of the populations. Urban sprawl produced a fragmentation of ordinary life spaces. Our presentation, based on a lifecourse perspective, aims to study in which extent the development of transport infrastructures during the 20th century requalified inequalities in terms of access to the city. Our analysis rests on three main hypotheses: the successive generations of people - which faced a distinct city configuration - experienced a diversification of the accessibility of their successive places of residence along their lifecourse; the development of transport infrastructures deepened inequalities in access to the city between social groups; professional and familial events drove changes of places of residence more or less accessible throughout the lifecourse, differently according to social groups. Our theoretical and methodological approach is based on French social science developments on residential mobility. A shift in the way to study residential mobility, from a transversal to a lifecourse perspective, has been driven by numerous exchanges between disciplines and areas of empirical research, highlighting interactions between the residential, familial and professional trajectories. This gave birth to retrospective life-event history surveys in a large variety of cities (Paris, Delhi, Bogota, Ouagadougou, etc). From this legacy, three surveys have been carried out in Paris by INED (French Demography Institute) in 1981, 1986 and 2001 gathering more than 5,000 trajectories of generations born from 1911 to 1950. Combining these data to secondary historic data on transport, our multidisciplinary team (demography, geography, sociology, statistics) will perform spatial analysis and statistical sequence analysis to explore our hypotheses. A methodological point will also be developed on the comparability of the 3 surveys.

F1 PAPER SESSION: ADOLESCENCE TO ADULTHOOD

The Quarter-Life Crisis

Morag Henderson, UCL Institute of Education, UK

Despite an increase in living standards and material comforts, today's 'emerging adults', the period that Arnett (2007) identifies as from late-teens to mid-to late 20s in industrialised societies, many young adults face greater challenges than ever before, taking a toll on their mental health. This population of emerging adults have experienced extraordinary levels of change and we will identify the extent of the mental health crisis, exacerbating factors and what to do about it. The aim of this research paper is to describe whether the relationship between socioeconomic status and mental health problems, such as short-term psychiatric disorders, varies by gender. This study will be the first to draw on the results from the 2015 sweep of Next Steps data when the sample members are aged 25 (and the previous seven sweeps), bringing the debate up-to-date by providing first estimates of the life of contemporary emerging adults. An analysis of life course processes requires longitudinal data and methodological strategies that can assess change. This study will make use of the appropriate advanced statistical techniques to examine whether emerging adults are in crisis. After an initial descriptive analysis, I will make use of OLS and logistic regressions to estimate drivers and determinants of life satisfaction and mental health problems and its interactions.

Symbolic Structures of the Life Course: How Failed Hopes Are Fixed

Ekaterina Pavlenko, Institute of Education, National Research University Higher School of Economics, Russia

Current research of youth transitions struggles to find a consistent approach to investigate it, looking for "middle ground" between the prevalence of structure or agency. While discussing that, researchers locate culture as either supporting the reproduction of inequality (as in works of P. Bourdieu), or supporting individualization and agency of young people (as in contemporary approaches within the framework of risk society by U. Beck and reflexivity by A. Giddens). What both sides of the debate tend to ignore is the recent development of cultural sociology, which locates culture in its own realm, neither as a mere servant of socio-economic structural processes, nor as a purely subjective unordered substance. Meanings are elements of collectively shared symbolic structures, operating in their own logic. Where can we locate those symbolic structures that reflect meanings guiding young people on their way through transitions? We propose that we can find them in horizons of planning, which are symbolic structures that help map future opportunities between desirable and undesirable outcomes, and which reflect categories in which individuals make sense of their life course. We hold the idea that how an individual acts in order

to build his or her life course is a product of meaning making process, not purely rational and objective calculation, and therefore is subject to the work of interpretation. That meaning making is what we devote

our attention to. We will look into situations when aspirations were changed and adjusted during the time in the educational system and meaning structures played an important role in this adjustment. What is the structure of meanings in horizons of planning and what are the patterns of their modification in response to new circumstances? The data comes from longitudinal study trajectories in education and career (Russia, 2009-present), combining both statistics and narrative analysis.

The Development of Psychiatric Symptoms Through Childhood and Adolescence: A Network Approach

Eoin McElroy, Praveetha Patalay, University of Liverpool, UK

Widespread comorbidity between supposedly distinct psychiatric disorders has called into question the validity of traditional diagnostic systems, such as the Diagnostic and Statistical Manual of Mental Disorders (DSM). New attempts to understand diagnostic comorbidity and the relationships between psychiatric symptoms have included employing the use of networks. This approach is based on the conceptualisation of psychiatric disorders as reflecting complex networks of causally associated, often mutually reinforcing, symptoms. Network analysis is typically presented graphically; psychiatric symptoms are represented as nodes (i.e. points in space), and the associations between these symptoms as edges. Key symptoms (i.e. those with the most and strongest edges) are placed centrally within the networks – providing new insight into the structure and composition of disorders.

To date, studies that have employed network analysis have almost exclusively used cross-sectional data from adult populations. Given that adult psychopathology is often preceded by childhood psychopathology, studies using child and adolescent samples may offer key insights into the development and progression of psychiatric networks. Data for this study will come from the NICHD Study of Early Child Care and Youth Development (SECCYD), a cohort study of children born in the US in 1991 (n=1,073). Symptom-level data from the maternal completed Child Behaviour Checklist will be used to construct weighted, undirected networks across 10 time points (from age 2 until 15). We will present networks of symptoms across the ten timepoints with a focus on highlighting how the networks develop over time and the symptoms that play a central role in these networks at different developmental periods.

G1 PAPER SESSION: HEALTH INEQUALITIES

The Role of Socioeconomic Position in Childhood, Young Adulthood and in Late Midlife for Cognition in Old Age

Carin Lennartson, Neda Agahi, Harpa Sif Eyjólfssdóttir, Johan Fritzell, Aging Research Center (ARC), Karolinska Institutet and Stockholm University, Sweden; Roger Keller Celeste, Federal University of Rio Grande do Sul, Brazil

In an ageing society it is of significance to promote compression of poor health and cognitive disability. To do so we need to know more about the life-course trajectories leading unequal health and cognitive ability in late life. Previous studies have found that childhood disadvantages are associated with unfavourable socioeconomic trajectories which may in turn be related to late-life cognition. In this study we examine how late-life cognition and inequalities in cognition are influenced by socioeconomic position at different life-course stages: childhood, young adulthood and late midlife. We use a representative sample of the Swedish population born between 1925 and 1944 derived from the Swedish Level of Living Survey (LNU) and the Swedish Panel Study of Living Conditions of the Oldest Old (SWEOLD) (n~2000). Socioeconomic circumstances include; economic hardship during childhood, parents social class and education; own education, and social class at young adulthood and in late midlife. Late-life cognition (age 80) was measured with the MMSE. Structural equation modelling (SEM) will be used to explore 1) the direct effects of socioeconomic position in childhood, young adulthood and late midlife on late-life cognition, and 2) the indirect pathways of life-course socioeconomic position from childhood to late midlife on late-life cognition. Preliminary findings using the same data and SEM analysis show that poor socioeconomic conditions earlier in life had no direct effect on late-life physical disability, but the overall indirect effect through chains-of-risks were significant. Following these results, we also would expect childhood disadvantages to increase the likelihood of entering subsequent chains-o-risks that may be detrimental to late-life cognition and we do not expect childhood disadvantage to have an independent direct effect on late-life cognition. This study contributes to the field by decomposing effects of socioeconomic position at different life stages to disentangle their direct and indirect effects on late-life cognition.

Conclusions: Initial results suggest that income-related inequalities in BMI and physical activity have persisted across two generations, and are found according to household income in both adolescence and adulthood. Further work will consider the robustness of these findings and additional health-related outcomes.

Wellbeing Inequalities: Preliminary Findings and Cross-Country Comparison Using Healthy Ageing In Scotland (HAGIS)

Elaine Douglas, David Bell, University of Stirling, UK

Average life satisfaction varies by country (Northern Ireland has higher average life satisfaction ratings than Scotland, England or Wales) and by age (45-59 year olds are least satisfied with life while 60-79 years are amongst the most satisfied). Wellbeing research often explores associations with modifiable factors (e.g. healthy life expectancy, social support) as a means to increase average population life satisfaction overall. However, average scores obscure the overall variation in wellbeing within places or population groups. More nuanced results may be derived from analysing wellbeing inequalities, the distribution of life satisfaction, to further knowledge and support policy debate. Wellbeing inequalities are not surprisingly associated with measures of socioeconomic status, however, early findings suggest these are more consistently associated with unemployment rate, rather than with low education or income.

HAGIS offers the means to compare wellbeing inequality in other countries with ageing studies, including England (ELSA), Northern Ireland (NICOLA) and Ireland (TILDA). Cross-country comparisons of wellbeing inequalities and their association with income, unemployment and social support will be presented as an example of the capacity of HAGIS, as a new data resource, for multidisciplinary and global ageing research.

The Impact of Parental Wealth on Childhood Outcomes

Bilal Nasim, University College London, UK

This paper presents the first UK estimates of the association between parental wealth during childhood and a range of childhood outcomes. Using the Millennium Cohort Study, we consider the impact of total household wealth on childhood cognitive, mental health and physical health outcomes. Parental wealth is positively associated with childhood mental health, but not cognitive outcomes or physical health. The estimated association with mental health is found to operate over and above parental socio-economic status, including income, as well as other childhood and household characteristics. Further analysis by type of wealth shows that it is housing wealth rather than financial wealth that drives the association with childhood mental health, indicating that parental freedom from credit constraints and insulation from income shocks are important in determining childhood mental health.

Parallel Session 2

A2 SYMPOSIUM

Co-Regulation During the Transition to Adulthood: The Role of Structure and Agency

Convenors: Ingrid Schoon, UCL Institute of Education, UK; Jutta Heckhausen, University of California, Irvine, USA

Life courses are shaped by society and individual agents. This symposium's papers present life-course and developmental approaches to human agency, with a particular focus on the transition to adulthood, which plays a decisive role in the social mobility individuals can achieve during their life course. Social institutions and the social structure of a society generate an age-graded and sequentially organized structure of opportunities and constraints that can be seen as paths through a landscape. Individuals navigate through this landscape by moving along preset paths, but also by making effortful choices for paths that are harder to access. Such individual agency in strivings to overcome hurdles and achieve upward mobility is more effective during transitions in the life course, and particularly during the transition to adulthood. However, social inequality in access to resources limits the potential gains achievable by individual agency. Societies vary in the nature and life-course timing of hurdles limiting upward social mobility, and accordingly different individual intellectual, motivational and self-regulatory capacities are needed to overcome these hurdles.

The papers in this symposium address the interface of social structure and individual agency from psychological and sociological perspectives of action-theory, motivational psychology, social ecology, and social inequality.

Societal Canalization and Individual Agency During the Transition to Adulthood

Jutta Heckhausen, University of California, Irvine, USA; Jacob Shane, City University of New York, USA

We will present a conceptual framework for individual agency in the epigenetic landscape of the transition to adulthood that is based on the motivational theory of lifespan development. The theory combined insights from life-course sociology, lifespan developmental and motivational psychology. Individuals operate within an age-graded and sequentially organized landscape of opportunities and constraints to progress within certain paths. Crossing over to other paths as an individual is striving for upward mobility is enabled during major transitions (e.g., school to college, school to work) and requires substantial investments of individual capacity, effort, and persistent goal pursuit. Individuals differ in the extent they command motivational and self-regulatory capacities critical for such moves within the epigenetic landscape.

The transition to adulthood involves major educational and career entry events and thus has far-reaching consequences for the individual's potential to achieve upward mobility. Educational systems, occupational training systems, and career tracks vary across societies and thus set up different landscapes of life-course and developmental canalizations. These different landscapes have important implications about what it takes for an individual to overcome hurdles of social structure and move upwards in society. Facilitative factors include social support as well as specific cognitive, motivational and self-regulatory capacities that can be used to overcome the specific challenges of upward mobility in a given society. I will present empirical examples from the U.S. and Europe. Specifically, ambitious goal setting can be more or less adaptive depending on the availability of sequential tracks of educational and/or occupational opportunities that either favor long-term ambitiousness or short-term calibration of goals. Moreover, under particularly challenging conditions of severe disadvantage or burdening life negative life events, meta-motivational strategies appear to be critical for successful goal pursuit in the school to college and school to work transition.

Young People's Self-Esteem in the Light of Co-Regulatory Processes Between Parental Educational Aspirations and Offspring's Academic Self-Concept

Marlis Buchmann, Annkatrin Steinhoff, University of Zurich, Switzerland

A well-developed self-esteem is a crucial prerequisite for successfully coping with the demanding transition processes to adulthood. Suspecting that young people's self-evaluation may vary with self-perceived abilities to meet the expectations of significant others, this paper examines whether late-adolescent self-esteem reflects prior co-regulation between parental educational aspirations for their child and offspring's academic self-concept. While parental educational aspirations are part of young people's opportunities and restrictions encountered in the family context, self-assessed academic abilities are a fundamental agency component, particularly in societies placing great emphasis on educational success. Our analyses are based on data for the child cohort of the longitudinal, nationally representative Swiss COCON study (N = 1,273). Data were collected in five waves over ten years (2006 and 2016; ages 6 to 16), including parents' reports of their educational aspirations for the child, offspring's self-assessments of academic abilities, and self-esteem.

Growth mixture modeling is used to identify different patterns of co-trajectories of parental educational aspirations and offspring's academic self-concept between the ages of 9 and 15. Aspirations and self-concepts at the onset of schooling (age 6) are specified as potential predictors of differential co-trajectories. We then analyze whether variations in the fit/misfit between parental aspirations and offspring's self-concept in the process of growing up affect late-adolescent self-esteem (age 16).

Findings provide insights into the ways in which the dynamic interplay of parental aspirations and offspring's self-concept from childhood to adolescence forecasts late adolescent self-evaluation. We discuss implications in regards to the role of co-regulation between individual agency and social opportunities for young people's potential to cope with the challenges posed by the pending transition to adulthood.

The Dynamic Interplay of Structure and Agency During the Transition to Adulthood

Ingrid Schoon, Terry Ng-Knight, UCL Institute of Education, UK

A comprehensive theory of human development needs to address the interplay of societal structure and individual agency. Yet, while the function of social structures and institutions in shaping a life path is traditionally the focus of sociological research (often without accounting for the role of agency), psychology emphasises the importance of individual planning and choice, often without taking into account structural forces. The aim of this paper is to conceptualise the notion of agency within a life course perspective, acknowledging that individual action is circumscribed by structural constraints, and specifying the reciprocal processes linking structural forces and the development of agency over time. The approach draws on constructs and models of life course sociology, motivational psychology, action theory and social ecological theories of human agency, conceptualising agency as a multi-dimensional construct, shaped by perceptions of current conditions, past experiences and outlook to the future which is operating in an action field defined by social background, structural opportunities and available future paths along with the facilitative and impeding conditions to access to these paths.

Using data collected for the Longitudinal Study of Young People in England (LSYPE) we ask if agency can compensate for socio-economic disadvantage in the school-to-work transition. Agency is identified through indicators of self-concept, intention, foresight and self-regulation as well as locus of control. Indicators of parental SES include parental education and occupational class, as well as income and home ownership. We find that agency can compensate for socio-economic adversity in the transition from school to work, and given that socio-economic constraints are not over-powering can steer the direction of a pathway that corresponds to individual preferences, intentions and self-concepts.

Opportunities and Constraints of Substitution Between Different Kinds of Resources: The Case of Expected and Unexpected Educational Careers

Martin Diewald, Bastian Mönkediek, Wiebke Schulz, Bielefeld University, Germany; Jutta Heckhausen, University of California, Irvine, USA

Social background characteristics are important predictors of educational and occupational careers. However, there are not only expected but also unexpected attainments. A reason for that may be that parental resources (money, status, education) and offspring's own ability and motivation may substitute each other in their influence on career outcomes. Social resources may compensate for low ability and motivation, thus avoiding downward social mobility, and vice versa own ability and effort may compensate for impoverished parental background, thus nevertheless enabling upward social mobility. However, up to now we have only scarce empirical evidence about such compensatory effects, and none for Germany with its specific educational system.

Our presentation addresses expected as well as unexpected educational attainment and investigates the respective role of resource substitution between social, skill, and motivational resources. We assume that there are structural limits to which such substitutions can really compensate for disadvantage. Specifically, we see opportunities for compensatory effects in the range of modest upward and downward mobility for individuals starting out in the middle of the inequality structure. In contrast, individuals in the very highest or the very lowest section of the socioeconomic ladder will likely be unaffected by a single factor of influence dragging them down or up (stickiness at the extremes).

We put these hypotheses to the empirical test using the new genetically informed TwinLife study consisting of 4,000 twin families of four twin birth cohorts in the age range from 5 to 23 years. The advantage of this study is rich information about all the resources mentioned above, and that we are able to consider genetic origin in addition to social origin as potentially influential factors.

Complementary Sociological and Psychological Approaches and Empirical Findings

Jeylan Mortimer, University of Minnesota, USA; Jutta Heckhausen, University of California, Irvine, USA

Sociologists' and psychologists' approaches to the nexus of structure and agency are distinct yet highly complementary. The principle of agency, common to both perspectives, posits that individuals are architects of their pathways through life, operating within and sometimes in resistance to society's structural forces. Because life-long work and family trajectories are initiated during the transition to adulthood, life-course researchers from both disciplines have asked how societal institutions have canalized development and why and how some actors exercise agency more effectively than others. The "why" question leads to a search for experiences linked to social origins that cultivate agency (e.g., class stratified "concerted cultivation"); the "how" question interrogates attributes that promote its effective exercise (e.g., efficacy, optimism, and "planful competence"). Sociologists view historically variable social

structures as affecting the development of agency and as facilitating or obstructing its exercise. Some have questioned the viability of agency given the rapidity of social, technological, and organizational change, heightening risk and lessening the capacity to envision possible futures. Life-span developmental psychologists focus on individual differences in motivation and the dynamics of self-regulation as predictors of how effective the exercise of agency actually is. Findings from the U.S. Youth Development Study indicate that agentic attributes promote the attainment of desired outcomes even in this highly tumultuous period. For example, indicators of educational aspirations and engagement, expressed at the beginning of high school, predict patterns of investment in teenage work that mediate higher educational attainment versus early career establishment. We also find that parental values about occupations transmitted during adolescence become increasingly influential as youth move further into the world of work and career. Intrinsic occupational reward values are found to be especially promotive of fulfilling work.

B2 SYMPOSIUM

Advances in Sequence Analysis and Related Methods for the Holistic Analysis of Trajectories

Convenor: Matthias Studer, University of Geneva, Switzerland

The life course paradigm emphasizes the need to study trajectories holistically. Broadly speaking, two approaches have been used to adopt such a perspective when the trajectories are described as a sequence of categorical states. On the first hand, sequence analysis (SA) uses an exploratory perspective to reveal the main types of trajectories. This is achieved without making any assumptions on the underlying dynamics generating the sequences. On the other hand, latent class analysis (LCA) and Hidden Markov models (HMM) provides model-based holistic analysis of categorical sequences by revealing latent subgroups and/or states. The aim of this symposium is to present recent development in each of these approaches and to discuss their relative strengths and weaknesses by contrasting innovative applications of them. More precisely, it includes:

- A methodological discussion on how to choose a method among the above mentioned ones based on sequence prediction.
- A discussion on convergences between LCA and SA.
- An innovative method to validate a SA typology, one of the weaknesses of SA when compared to model-based methods.
- An original application of HMM to study family formation in Western European Countries.
- An original application of SA to study inequality dynamics.

Comparison of Holistic Models

Raffaella Piccarreta, Bocconi University, Italy

A holistic perspective in the analysis of life courses subtends an interest to study the ordered collection of states experienced in a specific period of time (sequences), rather than focusing on particular events and/or transitions.

Sequence analysis has been extensively used to describe sequences or to deduce significant differences in sequences conditionally to discrete covariates. Even so, the definition of holistic inferential methods, attempting at explaining and/or predicting sequences remains an open issue, because of the low frequency characterizing each sequence and of the difficulty of individuating/defining numerical variable/s efficiently summarizing each sequence's features.

Recently increasing attention has been devoted to the application of model-based approaches to study life courses' evolution. Examples go from event history models, to latent class analysis, to hidden Markov Models. The idea is that the complex problem of studying the whole sequences can be efficiently simplified focusing on the transitions across states. Some methods can look more appealing or promising. Even so, whilst there might be expectations about the relative performance of each approach, no one has been proven to be superior to the others.

This poses the problem of properly comparing competing models. Since different models rely upon different assumptions, they are very difficult to compare. We propose to define a 'common ground' for models' comparison, by referring to their ability to recover/predict the whole set of activities experienced by individuals and/or the whole set of the experienced transitions in the order they were experienced. Specifically, we propose a number of criteria which might be referred to when evaluating a model with respect to the original goal – namely predicting sequences.

Latent Class and Sequence Analysis: A Heuristic Bridge

Cees H. Elzinga, Sapphire Y. Han, Aart C. Liefbroer, NIDI, The Hague & VU University Amsterdam, Netherlands

The Latent Class (LC) model and the Sequence Analysis (SA) approach are quite different. First, in the LC-model, classes are derived from the properties of individual sequences while with SA, classes are constructed from pairs of sequences, i.e. from distances between sequences. Second, the LC-model derives from hypothetical probability distributions and local independence that have no role in SA while, on the other hand, distances have no role in the LC-model. Yet, the results obtained with either method often coincide, in the sense that the resulting classifications of the pertaining life course sequences are roughly the same: most sequences that are assigned to the same class with one of these techniques are assigned to the same class again, using the other method. How come? We will present a very simple heuristic that accounts for this similarity of the resulting classifications. More specifically, we will show that one, very mild, assumption suffices to derive that the probability that two sequences are assigned to the same class is monotonous to the OM-distance between those sequences. As OM-distances are monotonous with many other distance metrics, this relation must hold for most distance metrics that have been used in applications of SA. The heuristic comes down to the notion of hypothetical “editors” that stochastically generate sequences from distinct templates or “model”-sequences that define distinct classes. The key-assumption is that the probability distributions that characterize the editors are sharply peaked. We will make some remarks on the plausibility of this assumption, given the nature of OM.

Validating Sequence Analysis Typologies Using Null Models

Matthias Studer, University of Geneva, Switzerland

Sequence Analysis aims to analyze sequence of categorical states. Based cluster analysis, it is often used to create a typology of trajectories in order to identify recurrent patterns in the sequences or, in other words, typical successions of states through which the trajectories run. Cluster analyses always produce a result, even when the variation of the sequences within each type is very (too) large. We therefore need proper tools to evaluate and assess the statistical relevance of the obtained typology. However, despite the early critics of Levine (2000) or more recently Warren et al. (2015), we still lack a proper methodology to validate a typology.

In this presentation, we propose a new method to validate a typology of sequences. The method works as follows. It starts by computing the cluster quality of the typology. It then compares it to cluster quality obtained on randomly generated sequences. If similar cluster qualities are observed, the typology should not be trusted. In the other case, the typology is validated.

In this procedure, the random generation of sequences is a key step that should reflect the kind of structure that we are looking for. Based on sociological consideration, we identify different kinds of structures that should be identified by a cluster analysis. We then propose different models to assess the kind of structure found in the data. The usefulness of the method is demonstrated using an illustrative application of family formation trajectories in Switzerland.

We believe that this procedure has a strong potential to strengthen our confidence in sequences analysis typologies and in the interpretations made from them.

Mechanisms of the Transition to Adulthood in Cross-National Comparison: An Application of Hidden Markov Models

Sapphire Y. Han, Aart C. Liefbroer, Cees H. Elzinga, NIDI, The Hague & VU University Amsterdam, Netherlands

Recent theories about social and demographic change, such as individualization and the Second Demographic Transition (SDT), suggest a type of late, protracted and complex pathway to adulthood. Our previous work demonstrates the application of a first-order Hidden Markov model (HMM) to uncover the mechanisms of the transition to adulthood and the roles played by gender and education level on a dataset of men and women born between 1956 and 1965 in France. Methodologically, the HMM strongly reduces the complexity of sequence data, by specifying the process as a series of transitions between a small number of life states (hidden states). Substantively, our result suggests a fertility and partnership driven pathway of transition to adulthood, while covariates play different roles in each of the life states. To further test the applicability of HMMs and to deepen our understanding of the transition differences between Western countries, we expand the HMM to a cross-national comparison context. Theoretically, we argue that different Western countries are at different stages of the SDT and that HMMs can detect these differences. This study adopts a life course approach using HMMs to quantify the transition to

adulthood in a range of European countries representing different welfare regimes. We test hypotheses on social class and gender related background variables in state transitions using respondents born between year 1961 and 1970 from the Generations and Gender Survey (GGS), which consists of full annual life course sequence data on leaving the parental home, partnership history and fertility history between ages 15 and 35.

A Sequence Analysis Approach to Evaluating Distributional Inequality Over the Life Course

Tim F. Liao, University of Illinois, USA

My recent research on position or quantile based inequality serves as the launch pad for my presentation. Using my recently developed method, we can obtain a person's location in distributional inequality and record the person's individual contribution to the overall distributional inequality at a particular time point in the person's life course. Using sequence data, we can further construct the person's contribution to distributional inequality over the life course. For example, when the reward is income and when the social group of concern is gender, we can build a profile of a person's standing or contribution to distributional income inequality between the sexes over the person's life course. Such a life course trajectory may suggest the person's trends in social mobility and in how the person's (quantile) standing may have contributed to gender inequality in income. Building such life course sequences can provide an intra-generational profile of distributional inequality dynamics. Instead of the typical family formation or employment information in sequence data, now we have sequences of individual quantile standings in distributional inequality over their life courses. With typical family formation sequences, the duration of one's marriage is of a researcher's interest; in contrast, with the new quantile inequality trajectory sequence formation, the duration of one's relative standing in distributional inequality may generate much research interest. This presentation will lay down the principles and the framework for the proposed methodology.

C2 SYMPOSIUM

Importance of Psychosocial Processes from Childhood to Retirement: Evidence from Cross-Sectional, Experimental, and Longitudinal Studies

Convenor: Lindsay Ryan, University of Michigan, USA

This symposium brings together a series of papers which highlight the importance of psychosocial processes across a range of outcomes from childhood to retirement. Psychosocial indicators of interest include early life social relations, age and work-related perceptions, personality, and identity development. First, Manalel and Antonucci use 3-wave longitudinal data to determine the impact of childhood social network characteristics on later likelihoods of marriage and parental status in early adulthood. Pates and Reid follow this by presenting findings from an experimental vignette study on the impact of young adults' age related beliefs on perceptions of depression treatment in young and older adults. Next, Ryan and colleagues present a longitudinal analysis on the ways in which personality, health, and job lock pre-retirement are associated with global and day ratings of positive and negative affect post retirement. Newton then presents findings on the associations of adaptive identity processes with life satisfaction in Canadian retirees. Finally, Spirling and Newton report on the extent to which retirees feel regret after a life review and the ways in which generativity is related to acceptance of the life one has lived. Substantive and methodological considerations for psychosocial research across the life course are discussed.

Successful "Adulthood": The Influence of Early Life Social Relations

Jasmine Manalel, Toni C. Antonucci, University of Michigan, USA

Young adults today are postponing marriage and parenthood, which are considered two critical developmental tasks of young adulthood. Delayed attainment of these adult roles has garnered interest due to concerns that younger generations will not be able to achieve full functioning adulthood, contribute to society, and maintain generational equilibrium as they age. Guided by the convoy model of social relations, which considers relationships as multidimensional and changing over time, we examined the associations between childhood social networks and marital and parental status in young adulthood. Data came from three waves of the Social Relations and Health Study (PI: Antonucci), which included a metro-Detroit area longitudinal sample of N=205 children aged 8–12 in 1992 (wave 1), N=150 in 2005 (wave 2), and N=117 in 2015 (wave 3). At each wave, in-depth, self-reported information was collected on respondents' social network structure (e.g., size and composition) and function (e.g., support from mother, father, siblings, and friends). Using multinomial logistic regression, we determined the influence of childhood social network characteristics on marital and parental status (i.e., married/partnered with children, married/partnered without children, single with children, single without children) at waves 2 and 3. When respondents were in their 20s (wave 2), the majority were single without children, whereas

when they were in their 30s (wave 3), the majority were married/partnered with children. Preliminary results suggest that some aspects of childhood network structure and function, including size (e.g., number of very close network members), composition (e.g., percentage of friends in networks), and support from mother and father, influence marital/parental status in young adulthood. Overall, more diverse and supportive childhood networks were associated with more favorable outcomes. Implications for successful adjustment to adulthood will be discussed.

Ageism in the Modern World: College Students' Negative Perceptions of the Elderly

Jessica L. Pates, Wilfrid Laurier University, Canada; Howard M. Reid, Buffalo State College, USA

Researchers estimate that by 2012, 75 million baby boomers will reach the age of 65 and by 2030, 20% of Americans will be over the age of 65 (Hinrichsen, 2008). Many researchers agree that medical care professionals are in desperate need of proper training in order to effectively care for older adult patients with depressive symptoms (Uncaphor & Arian, 2000; Davison, McCabe, & Mellor, 2009; Conwell & Duberstein, 2001). One considerable concern is that depression is the most common psychopathology linked to older adult suicide: 76% of older adults that committed suicide had seen their Primary Care Physician (PCP) within 30 days of their death (Conwell & Duberstein, 2001). However, it isn't only PCPs, younger adults characterize older adults as unhappy and that this unhappiness is a function of age and not depression (Ruppel, Jenkins, Griffin, & Kizer, 2010). With many different populations of people perpetuating this negative stereotype of older adults it is important to understand the root causes. The current study sought to identify how younger adults perceive someone with depressive symptoms. College students in the United States (N=232, M age =26) rated one of eight different vignettes that described a younger or older adult with depressive symptoms. Half of the respondents received a statement (prior to reading the short story) that indicated that psychotherapy and antidepressants are effective for treating depression in both younger and older adults. Results of the study indicate that when college students were not given the statement they responded with little optimism in terms of the older adult recovering from depression. However, when college students were given the statement it elicited optimistic recovery responses and that counselling was an acceptable course of treatment for older adults suffering from depression. Our findings suggest that even a limited amount of education can have large implications.

Impact of Personality, Health, and Perceived Job Lock on Affective Well-being Post-Retirement

Lindsay H. Ryan, University of Michigan, USA; Nicky J. Newton, Preet K. Chauhan, Wilfrid Laurier University, Canada; William J. Chopik, Michigan State University, USA

The Baby Boomer cohort is retiring in record numbers in the United States, with an estimated 10,000 adults turning 65 every day (PEW Research Report, 2010). Retirement can be an impactful transition for many adults, with adjustment likely associated with a variety of pre-retirement factors. Evidence suggests that having control/choice in the timing of retirement is linked to better psychosocial adjustment, whereas being forced to retire can have negative impacts.

The current study adds to a growing body of research investigating the effects of individual characteristics on adjustment post-retirement. Specifically, we use four-year longitudinal data from the Health and Retirement Study (N = 716) to investigate the effects of Big Five personality traits, self-rated health, and perceived job lock (preretirement) on global (over the last thirty days) and experienced (in-a-day) positive and negative affect post-retirement. Results indicate that pre-retirement personality was associated with global and experienced positive affect and global negative affect postretirement in expected directions. Self-rated health prior to retirement was significantly positively associated with both global and experienced positive affect, but not associated with negative affect. Job lock was only significantly associated with experienced positive affect, and only among those with low Conscientiousness. Significant results are over and above controls for demographics, baseline perceived control over finances, and baseline global positive and negative affect. Implications for promoting well-being during the retirement transition are discussed.

The Psychosocial Implications of Retirement: Identity, Generativity, and Well-being

Nicky J. Newton, Wilfrid Laurier University, Canada

As a life transition, retirement is not universally experienced in the same way. Some older adults note very little change to their lives; others experience a time of meaningful psychological upheaval, such as disruption to identity (Osborne, 2012). For individuals defined primarily by their work, its cessation may trigger an identity crisis or re-evaluation. Additionally, a person's identity may aid the retirement adjustment. The Identity Processing Theory (Whitbourne, 2002) provides a framework to examine how adults cope with the retirement transition. For example, adults higher in identity assimilation may tend to

rigidly maintain their perceptions of themselves in retirement; those higher in identity accommodation may tend to readily change self-perceptions during retirement. Retirees higher in identity balance, conceptualized as an optimal approach to aging, may tend to flexibly integrate work, individuals may also need to find other ways of contributing to society (Osborne, 2009), evoking Erikson's notion of generativity, or "the establishment, the guidance, and the enrichment of the living generation and the world it inherits" (1974, p.123); thus, retirement may provide opportunities for other ways to be generative, such as volunteering. The challenge of the retirement process itself, as well as associated psychosocial factors, can ultimately affect retirees' well-being (Wang & Hesketh, 2012). The current study examines the relationship between life satisfaction and levels of identity and generativity in a sample of retired Canadian men and women aged 54-86 (N = 100). Preliminary results suggest that, while generativity was important for well-being, it was less so in the presence of identity, at least within the context of retirement. Additionally, identity accommodation and identity balance (not identity assimilation) were significantly associated with life satisfaction. Findings are discussed regarding how individual psychosocial experiences of retirement contribute to optimal aging.

Retirement Transitions: The Relationship between Generativity, Ego Integrity, and Regret

Shauna Spirling, Nicky J. Newton, Wilfrid Laurier University, Canada

Transitioning into retirement may prompt what Butler (2002) refers to as a life review. Researchers believe that healthy aging includes integrating difficult life experiences into one's sense of self (Torges, Stewart, & Duncan, 2008). The inability to do so can prompt rumination and regrets concerning paths not taken (Connolly & Zeelenberg, 2002). Considering regret can have adverse effects on subjective well-being, resolving regrets and finding a sense of coherence from a lifetime of actions is vital (Torges et al. 2008). Consistent with the life review, acceptance and coming to terms with the life one has lived can also be associated with Erikson and his final stage of development, ego integrity (1950). However, part of this process may also be attributed to increased focus on meaningful interactions with, for example, family, and active goal engagement (King & Hicks, 2007), thus also creating a link with the stage preceding ego integrity in Erikson's model: generativity. Previous research has found that overcoming hardships and finding redemption is associated with high levels of generativity in midlife, which - in turn - is a strong predictor of ego integrity in old age (Torges, Stewart, & Duncan, 2008). A traditional Eriksonian model views each stage in succession; however, recent research has focused on an integrative approach toward psychosocial development (Kivnick & Wells, 2013). In the present study, we anticipate retirement to shed light on life review outcomes within the context of ego integrity, generativity, and regret. Canadian retirees (N = 100; age 54-86) were recruited for the study. Preliminary analyses indicate that although few participants report regret, those that do score lower on both ego integrity and generativity, suggesting that generativity may have a role in coming to terms with the life one has lived.

D2 PAPER SESSION: CHILD DEVELOPMENT

Interactions in Early Childhood: Emotional Support and Scaffolding and their Relation to Context Characteristics and Child's Play Behavior

Anja Linberg, University of Bamberg, Germany

From birth onwards interactions between a mother and her child impact child development. In interactions with children in the very early years of a child's life, most studies focus on interaction behavior that provides an emotional support of children (like sensitivity). But also early roots of scaffolding behavior, defined as a support given during a learning process, might be present when interacting with a young child. In later ages these different interaction behaviors were found to be related to different aspects of context characteristic (i.e. household income, maternal education) and child outcomes. But study results with children at very young age are still sparse. Therefore, our research expands the questions of (1) how scaffolding as well as emotional support is performed, (2) explores their differential associations to context characteristics (3) and their relation to child's play behavior.

Using data of the German National Educational Panel Study our analyses are based on samples of 7 month old children (n=1923). Information about context characteristics is assessed via parent interview. Maternal emotional support and scaffolding behavior was gained by coding a five minute play situation between mother and child. Child's play behavior is indicated by child's positive mood and its toy exploration during this play situation.

Results indicate mothers using emotional support to a higher amount than scaffolding when interacting with their child. While hierarchical OLS regressions reveal nearly no differences of associations between these interactions behavior and contextual characteristics, our analysis indicate that scaffolding but not emotional support is related to a higher level of child's play behavior, while emotional support and not

scaffolding behavior is related to positive mood of the child. These findings are discussed behind the background of distinguishing different aspects of interaction behavior in the very early years.

The Recent Dynamics of Child Well-Being in Uruguay: A Longitudinal Study

Andrea Vigorito, Elisa Failache, Gonzalo Salas, Instituto de Economía, Universidad de la República, Uruguay

This paper analyzes the evolution of multidimensional poverty and inequality between 2004 and 2011 in Uruguay, based on data from Estudio Longitudinal del Bienestar en Uruguay (ELBU). ELBU is a longitudinal study that follows children that were attending the first grade at public primary schools in 2004. The cohort lived its first years under a severe economic crisis that was followed by a rapid economic expansion. Children trajectories are assessed computing multidimensional poverty and inequality indexes in four basic domains: access to resources (durable goods and income) nutrition, education and housing conditions. Improvements can be noticed in both groups of indicators, although they are considerably lower than in the case of income. Specifically, increased access to resources coexisted with a reduction in school attendance. At the same time, disaggregations by sex and ethnicity of the household head uncover strong disparities. Strong persistence in income and multidimensional strata are found, particularly at the top and bottom of both distributions. The study also reveals that approximately 28% of children remained in multidimensional poverty in both periods (with $k = 1$), while 50% did so in terms of income. Households with heads of non-Afro-descent, higher educational levels and fewer members were the more able to overcome the poverty condition. In general, exits from income and multidimensional poverty were associated to increased employment among adults and income variations and to a lower extent to changes in household structure and access to public transfers. However, faced against the same triggering events, multidimensional poverty reacted to a lower extent.

The Influences of Neighbourhood Crime On Children's Cognitive Development

Zhiqiang Feng, Chris Dibben, University of Edinburgh, UK

This paper explores the association between neighbourhood level of crime and children's cognitive test scores using the data from the UK Millennium Cohort Study (MCS). The MCS follows around 19000 babies born in 2000-01 over years. Information is collected in face-to-face interviews on a large amount of information about the child, their family, parenting activities and cognitive assessment. We select cohort members in England and link the crime rate data derived from the Index of Multiple Deprivation (IMD) at the super output area level to individual residential location of MCS cohort members. The cognitive ability is measured using the British Ability Scales Pattern Construction test, in which children constructed a design by putting together flat squares or solid cubes with black and yellow patterns on each side. We fit models separately for the pattern construction scores at age 5 and age 7, and also fit a seemingly unrelated regression model for both outcomes as well. We control a number of variables including birth weight, family income, parenting styles, parents' education, and parental investment. We find that neighbourhood crime is associated with decreased pattern construction test scores at age 7 but not at age 5.

The Origins of the Racial Gap in School Suspension and Expulsion

Jayanti Owens, Brown University, USA; Sara McLanahan, Princeton University, USA

In spite of widespread recognition that racial disparities in suspension and expulsion perpetuate racial inequality in education, why racial disparities exist remains an open empirical question. Although four of the most prominent hypotheses have been tested separately and in subsets, there is no clear consensus within the sociological literature as to the most salient factors. Using a dataset consisting of nearly 5,000 children in 2,560 schools across 20 cities, we provide the first analysis to jointly parse the relative contributions of these four prominent explanations. Highlighting the contextually-dependent nature of racial disparities in suspension, we find that the concentration of Black youth in majority-minority schools, which rely disproportionately on punitive approaches to discipline, and the harsher sanctioning of Black compared to White boys from father-absent families account for the majority of the race gap. Contrary to popular belief, racial differences school-entry behavioral development, family social class, and harsher punishment for the same misbehaviors are, at best, secondary contributors. Consequently, we argue that the punitive orientation of many minority-serving schools serves as a holdout for educational inequality. Although open displays of racism have become less common, the harsher sanctioning of Black boys from father-absent families suggest that negative stereotyping has morphed focus but remain equally pernicious.

The Experience of Poverty: Subjective Financial Stress and Harsh Parenting

Anika Schenck-Fontaine, Duke University, USA; Lidia Panico, INED, France

A large body of literature has shown that subjective financial stress is a key mediator of the effects of objective hardship (i.e. income poverty and employment instability) on family functioning, including parenting. However, recent evidence suggests that families do not necessarily need to experience objective hardship to perceive financial stress. Subjective financial stress is in fact a more pervasive experience than objective poverty. Yet, little is known about the effects of financial stress on families over and above the influence of objective hardship. Using the first four waves of the Millennium Cohort Study (MCS), we test whether subjective financial stress has a unique association with parenting behavior.

Multilevel regression models with family-level fixed effects are included to control for stable differences between families that can influence both financial stress levels and parenting behaviors. The models also control for observed factors that may be associated with both financial stress and harsh parenting behavior at any given time, such as parental depression, anxiety or efficacy, as well as children's problem behavior.

An increase in perceived financial stress is associated with an increase in psychological aggression toward children (which includes behaviours such as shouting or ignoring the child) but not with a change in physical aggression toward children (smacking). However, these associations (controlling for objective hardship as well as a host of sociodemographic controls) are only significant among more advantaged families. The results are robust to a number of sensitivity tests and different coding of the key exposure and outcome variables.

The results of this study will speak to the unique importance of both objective and subjective economic well-being in the lives of children. Since subjective financial stress is a more pervasive experience than objective hardship, it is critical to understand its unique association with parenting behavior.

E2**PAPER SESSION: EDUCATION*****Understanding Socioeconomic Status Gaps in Achievement: A Comparison of Early Gaps in Germany and the United States***

Jane Waldfogel, Yi Wang, Columbia University School of Social Work, USA; Tobias Linberg, Leibniz Institute for Educational Trajectories, Germany; Thorsten Schneider, University of Leipzig, Germany

Gaps in achievement between children of low and high socioeconomic status families are a concern in many countries. Children whose parents are less educated (e.g. with just secondary education or less) do less well on tests of reading, math, and other subjects than their peers whose parents are highly educated (e.g. with a university degree or more). Comparative research suggests that such gaps are not uniform across countries, but instead vary considerably by country context, with the United States having significantly larger gaps than peer countries such as the United Kingdom, Canada, or Australia (Bradbury, Corak, Waldfogel, and Washbrook, 2015, *Too Many Children Left Behind: The US Achievement Gap in Comparative Perspective*). This research also indicates that the majority of the gaps observed during the school years are already present in early childhood (Bradbury et al., 2015), pointing to a potentially important role for early childhood policies in addressing such gaps. However, this research to date has been limited to Anglo-American countries that have relatively similar policy contexts.

The present paper broadens the lens by comparing early achievement gaps in two countries that offer more disparate policy contexts - Germany and the United States. We ask whether young children of low educated parents in Germany fare better or worse relative to children of highly educated parents than do their peers in the US.

There are some reasons to believe gaps might be smaller in Germany. Germany, unlike the US, now offers universal preschool, with 90% or more of children enrolled starting at age three. Germany also offers a more differentiated education system with multiple opportunities for technical or other qualifications in contrast to the US system, which is less well-defined for those not completing a four-year college degree. Both these factors would lead to an expectation that early gaps between children of low and high socioeconomic status parents might be smaller in Germany than in the US, to the extent that children of low SES parents are able to attend preschool and are able to benefit from their parents' qualifications. However, in both countries, a substantial proportion of low educated parents was born outside the country and these parents may lack key elements of human capital or social capital needed to prepare their children for school. For this reason, early gaps in the two countries might be similar, or possibly even larger in

Germany depending on the specific countries from which the immigrants are drawn and the extent to which they are or are not integrated into the country.

We provide new evidence on this question by leveraging data from two large and nationally representative cohort studies. For Germany, we use data from starting cohort two of the National Educational Panel Study (NEPS), which follows children from age 4 onwards, with the first wave of data gathered in 2012. For the US, we use data from the Early Childhood Longitudinal Study, Kindergarten Class of 2010-11, which follows children from around age 5 onwards, with the first wave of data gathered in fall 2010. Both datasets offer direct assessments of children in reading/vocabulary and math, as well as a rich array of information on the child, family, and school setting. As in the recent work by Bradbury et al (2015), we categorize children's families as low, medium, or high socioeconomic status based on whether the most educated parent has low education (just basic secondary education or less), medium education (some education beyond basic secondary but no university degree) or high education (at least a university degree). We examine gaps between these three groups of children at age 6-7 in family resources, parenting, and other inputs to development, as well as in a host of child outcomes including reading/vocabulary and math.

Acknowledgements: This paper will use data from the National Educational Panel Study (NEPS): Starting Cohort Kindergarten, doi:10.5157/NEPS:SC2:4.0.0. From 2008 to 2013, NEPS data was collected as part of the Framework Program for the Promotion of Empirical Educational Research funded by the German Federal Ministry of Education and Research (BMBF). As of 2014, NEPS is carried out by the Leibniz Institute for Educational Trajectories (LifBi) at the University of Bamberg in cooperation with a nationwide network.

This paper will also use data from the Early Childhood Longitudinal Study-Kindergarten Class of 2010-11. The Early Childhood Longitudinal Study, Kindergarten Class of 2010-11 (ECLS-K:2011) is sponsored by the National Center for Education Statistics (NCES) within the Institute of Education Sciences (IES) of the U.S. Department of Education. In addition, the study benefits from its partnership with and sponsorship by several additional federal agencies.

The Impact of Grandfathers on Children's Educational Attainment Under Abrupt Social Change: Compensation and/or Cumulation

Ellu Saar, Triin Lauri, Jelena Helemäe, Tallinn University, Estonia

An emerging literature examines the transmission of educational attainment, social position and income across three or more generations. The empirical evidence of a direct grandparent's effect, net of that of parents' one, so far is mixed. However, there are good reasons to expect multigenerational mobility processes to differ across countries and different time-periods. Different institutional arrangements may have impact on multigenerational transmission of advantages and disadvantages. Previous analyses of grandparent effects have been done in a range of Western countries, including US, Great Britain, France, Sweden, Finland, Germany, the Netherlands, also Taiwan and China. The ambiguity of previous results suggest that it is important to extend the research on this issue beyond Western societies. In this analysis, we examine the impact of grandfathers on children's educational attainment in Estonia. The Estonian case provides an opportunity to assess multigenerational effect in particularly interesting context given the country's turbulent political and social context over the twentieth century. Based on Estonian case with its strong period effect, our analysis brings fresh empirical evidence to the debate on the grandparents' effect on children's educational attainment. We suppose that societal changes in Estonia increased direct multigenerational effects between grandparents and children. We also expect resource compensation as well as cumulative advantage to play an important role in multigenerational transmission of educational attainment. We draw on data from two different retrospective studies: the 2004 and 2005 panel waves of the Estonian Social Survey and the Estonian Family and Fertility Survey 2004. Most of the earlier relevant work has used regression-based or log-linear methods, but we combine regression analyses and an alternative configurational method, Ragins' Qualitative Comparative Analysis to be able to better interpret the interaction with more than two variables.

Does Sibling Structure Influence Educational Achievement? An Analysis on the Number of Siblings, Birth Order and Birth Spacing on Vocabulary Competences During Elementary and Secondary School

Claudia Karwath, Leibniz Institute for Educational Trajectories, Germany

Particular U.S. studies (e.g., Hauser/Sewel 1985, Nguyen 2013) provide evidence that sibling effects can influence various educational outcomes (e.g., intelligence, school attainment or competence achievement). While the negative effect of the number of siblings is quite consistent, there are mixed findings for birth order and birth spacing. Moreover, –with only a few exceptions (e.g., Hanushek 1992, Iacovou 2001) – longitudinal analyses are missing in this field of research: Most of the studies on sibling effects are cross-sectional, which not allow examining the changing character of sibling effects over time.

To analyze the effects of sibling structure on educational achievement over time, data from the German interdisciplinary longitudinal study BiKS-8-14 (“Educational processes, competence development and selection decisions in preschool- and school age”) are used. In BiKS-8-14 information of about 2.400 children from age 8 up to age 14 were collected surveying the children themselves, their parents and their teachers (von Maurice et al. 2007).

First analyzes over the first three waves concentrate on vocabulary competences of the target children at the end of the elementary school. The results indicate that the number of siblings and the birth order show a negative effect on vocabulary competences, especially when the children are born in families with a lower educational background. For birth spacing the results show different effects: No effects are found for the birth spacing to younger siblings, whereas longer spacing to older siblings showed a positive effect. With respect to possible changes over time, sibling effects appear to be rather stable at the end of the primary education.

Additionally, results for the secondary school will be presented to answer the question, if sibling effects are still present for the secondary education. To be comparable with the results from the elementary school, again vocabulary competencies of the target children will be considered.

Gender and Social Inequalities in Cultural Participation Among Children and Young People

Emer Smyth, Economic and Social Research Institute, Ireland

Studies of cultural participation among adults have tended to focus on participation in a specific set of high-culture activities, largely centred on attendance at arts exhibitions and performances such as the theatre, ballet and opera, as well as on reading for pleasure. In contrast, this paper draws on two waves (at ages 9 and 13) of Growing Up in Ireland data to take a broader view of arts and cultural participation among children and young people, taking account of their engagement in popular culture, including television viewing and digital engagement, as well as involvement in music, dance and drama lessons and in reading for pleasure.

The paper analyses the extent to which different kinds of cultural participation are shaped by social background, taking account of social class, parental education and household income. A strong social gradient is found in the frequency of reading for pleasure and in taking part in structured activities such as music and dance classes. However, gender cross-cuts social background in complex ways, with working-class girls spending as much or even more time reading than middle-class boys.

The analyses assess two sets of outcomes from a longitudinal perspective: cognitive development (as measured by performance in standardised tests) and wellbeing (as measured by the prevalence of socio-emotional difficulties). Self-directed reading and taking part in structural cultural activities outside school time is found to contribute to cognitive development (in terms of both verbal and numeric skills) as well as to academic self-confidence. Watching a lot of television promotes verbal skills but at the expense of greater socio-emotional difficulties. Patterns of cultural participation outside school therefore serve to produce and reproduce social and gender differences in within-school achievement and engagement.

Life Course Characteristics During Policy Reform

Helle Bendix Kleif, Aalborg University, Denmark

This article contributes to the understanding of vulnerability among young adult cash benefit receivers in Denmark. Within Western welfare states, young adult benefit recipients without further education are considered to be one of the new groups “at risk”. Because of their vulnerable position such young adults are considered at risk of becoming long-term unemployed and thus further socially and economically marginalized. The Great Recession of 2008 has accentuated the relevance of the attention towards this group, since it has been shown to place young adults, and especially those without further

education, at a higher risk of unemployment, when compared to other groups. Furthermore, a recent paper, considering the effects of ALMP's targeted unemployed young adults, concludes that, compared to adult-oriented ALMP's, youth programs are significantly less likely to deliver positive results. Despite the concerns and a general recognition of the vulnerable position such young adults hold, not much consideration is given to understanding the way in which their life course actually unfolds during periods of policy reform. This article explores the developments over a delimited part of the life course of a group of unemployed young adults recently affected by a Danish labour market reform. The characteristics, and the potential unfolding of challenges faced by this group, are thus placed at the center of analysis. Using Multi-Channel Sequence Analysis (MCSA) and different administrative register data, the article focus on how the individual trajectory develops during a reform-period covering time before and after implementation of the recent Danish Cash Benefit Reform. Furthermore, the methodology allows us to inspect the life course trajectory from a multidimensional perspective. MCSA enables an exploration into the potential interdependence of different aspects of the life course such as education, work and health and thus holds potential of bringing about new knowledge and understanding of young adults on the margins.

F2 SYMPOSIUM

Is Age Kinder to the Initially More Privileged? Effects of Childhood Socio-Economic Circumstances on Health Trajectories at Older Age: Longitudinal Analyses with SHARE

Convenor: Stéphane Cullati, University of Geneva, Switzerland

This symposium brings together the results of studies of the research project 'Life course influences on health trajectories at older age' (LIFETRAIL). Evidence suggests that poor childhood socio-economic circumstances (CSC) is associated with reduced quality of life and negative health outcomes at older age, but research so far is limited. The focus in this symposium is on five health outcomes commonly found to decline at older age, including cognitive functioning, frailty, body mass index, self-rated health, and a score of overall health (combining cognitive functioning and frailty), and how that relates to CSC.

Longitudinal data are from SHARE. CSC is assessed with an index score combining various indicators of adverse socio-economic conditions during childhood (occupational position of the main breadwinner, number of books, overcrowding, housing quality). The same analytical strategy is applied in the five studies, i.e. stepwise multivariate multilevel regression analyses. In the first model, the later life health trajectory is regressed on CSC, controlling for confounding factors between CSC and later-life health. Adulthood education and occupational position are added in the second model, to evaluate the potential mediating role of adulthood socio-economic position in the CSC-health relation. The third model additionally includes individual characteristics such as marital status, health and health behaviour. Communalities and differences in the study outcomes are discussed at the end of the symposium.

Do Childhood Conditions Predict Level of Cognitive Functioning and Rate of Decline at Older Age?

Marja Aartsen et al, Oslo and Akershus University College, Norway

Cognitive ageing is characterized by large heterogeneity. As cognitive functioning is crucial in people's autonomy and well-being, insight into factors contributing to lower levels of functioning and accelerated decline is important. The life course perspective on human ageing argues that childhood is a critical period for later life functioning. Research among children found that the architecture of the brain that underpins future development is shaped during the first five years of a child's life. This study investigates to what extent childhood conditions, in particular the social economic circumstances of the family in which people are born (CSC), leads to different levels of cognitive functioning at older age. Data are taken from all the available waves (1-5). To be included in the analyses individuals needed to participate in wave 3 and another wave at a minimum (N of respondents = 16,355, N of observations = 34,860). With multivariate multilevel modelling we assessed the effect of CSC on trajectories of episodic memory and word fluency, while controlling for a series of factors known for its confounding effect on the relation between CSC and later life health. The results show that higher CSC consistently leads to higher levels of cognitive functioning at older age, but not to less decline over time. Adding adulthood socio-economic position to the equations resulted in a substantial and significant decline in the effect of CSC, leading to the conclusion that CSC is related to later life cognitive functioning and rate of decline through the socio-economic position at adulthood.

Childhood Socio-Economic Circumstances and Frailty at Older Age: Education Matters

Bernadette van der Linden et al, University of Geneva, Switzerland

Poor socio-economic circumstances during childhood have been shown to be associated with negative health outcomes at older age. Frailty is an important outcome associated with ageing, but research on long-term risk factors of frailty is lacking. We aimed to assess associations of childhood socio-economic circumstances (CSC) with frailty trajectories at older age. Data from 17,916 individuals aged 50 years and over that were included in the Survey of Health, Ageing, and Retirement in Europe (SHARE) study was used. Individuals were followed longitudinally over at least two measurement occasions assessing well-being, health, and socio-economic situation. In addition, information on retrospective life course was collected. Frailty, was operationalized as presenting either weakness, shrinking, exhaustion, slowness, or low activity, creating a 5-point scale (frailty dichotomized as 0 points non-frail versus 1-5 points (pre)frail). Confounder-adjusted multilevel logistics regression models were used to analyse associations of CSC with frailty trajectories. Results showed that disadvantaged CSC was associated with higher risk of (pre)frailty and that this association was mediated by education for both men and women (OR=1.45, $p<0.01$; OR=1.43, $p<0.01$, respectively). A lower level of education was associated with a higher risk of (pre)frailty (OR=0.97, $p<0.001$, both men and women). Also lower skill main occupation class was associated with an increased risk of (pre)frailty in both men and women (OR=1.20, $p<0.01$; OR=1.28, $p<0.001$, respectively). Moreover, health behaviours and demographics seemed to increase the risk of being (pre)frail. The findings suggest that CSC is associated with frailty trajectories at older age, which can be explained by adult socio-economic position, in particular by education. The results can help in improving frailty trajectories by stimulating educational achievement and associated consequences across the life course.

Long-Lasting Association of Childhood Socioeconomic Circumstances On Body Mass Index. Trajectories at Older Age: A European Longitudinal Survey

Stéphane Cullati et al, University of Geneva, Switzerland

The prevalence of obesity people in the second half of life is increasing in Europe. Childhood socioeconomic circumstances (CSC) influence body mass index (BMI) in young adulthood, but it remains unclear whether this influence persists with ageing and whether adulthood socioeconomic position mediates this association. The objective of this study is to examine if (1) CSC are associated with trajectories of BMI from middle age onwards, and if (2) this association is mediated by adulthood socioeconomic position or by other explanatory factors (health status, health behaviours, socio-demographics). Using a sample of 10,277 women and 8,190 men aged 50 years and older from the SHARE survey, we examined self-reported BMI trajectories using multilevel linear mixed models, adjusting for confounding variables.

Preliminary findings suggested that BMI trajectories were quadratic concave shaped, with BMI increasing until around 70 years of age and then decreasing afterwards. Across CSC strata, BMI trajectories were parallel with a consistent gradient between the less disadvantaged (lower BMI) and the disadvantaged (higher BMI), among men and women; with the exception of the most disadvantaged men whose trajectories were steep concave (higher rates of increase and decrease). Adulthood socioeconomic position was associated with BMI trajectories but did not mediate the CSC – BMI association. These preliminary findings suggest that socioeconomic circumstances during childhood may have long-lasting influence on their trajectories of weight change.

Welfare Regime Differences in the Association of Childhood Socioeconomic Circumstances with Self-Rated Health Trajectories at Older Age

Stefan Sieber et al, University of Geneva, Switzerland

Background: Self-rated health (SRH) varies considerably across time and welfare regimes due to policies that shape life chances in various ways. Understanding how childhood socioeconomic circumstances (CSC) influence SRH trajectories in older age in different types of countries is of crucial interest. We aimed to assess associations of CSC with SRH trajectories at older age in distinct welfare regimes.

Methods: The analysis uses data from 21,969 respondents (84,709 observations) aged 50 years and older who participated in the SHARE survey. The associations of CSC (5 categories ranging from 'Most advantaged' to 'Most disadvantaged') with poor SRH trajectories were assessed using multilevel logistic regression models stratified by four welfare regimes (Scandinavian, Bismarckian, Southern, Eastern). The models were adjusted for potential confounders, mediating effects of adulthood socioeconomic position (ASP; determined by education and occupation), and corrected for attrition.

Findings: Most disadvantaged individuals according to their CSC were significantly more likely to experience poor SRH in old age in all four regimes (OR Scandinavian: 7.28, OR Bismarckian: 5.51, OR Southern: 4.27, OR Eastern: 8.85). These associations were partially mediated by ASP in the Scandinavian, Bismarckian, and Eastern regimes (OR Scandinavian: 3.16, OR Bismarckian: 3.02, OR Eastern: 4.79). In the Southern welfare regime the associations were fully mediated by ASP (OR: 1.34).

Discussion: The results show that differences in welfare regimes in the pathway from CSC to SRH at older age exist. The mediating role of ASP differs by welfare regimes. In conclusion, the results suggest that policies tackling health inequalities in CSC may need to be implemented differently according to the characteristics of welfare regimes.

A Sequence Analysis Approach to Health Trajectories in Old Age: A Typology of Trajectories and the Association with Childhood Socioeconomic Circumstances

Rainer Gabriel et al, University of Geneva, Switzerland

Background: In longitudinal public health studies a typical research question consists of analyzing the impact of covariates on health trajectories later in life: the association between childhood socioeconomic circumstances (CSC) and frailty trajectories in old age, for example. Studies with such a design often use regression models such as latent growth or multilevel models to characterize health trajectories, the actual target measure on which covariates are then regressed. While this is a straightforward approach it might have some shortcomings. Above all, these models are not able to capture more complex patterns for individual trajectories. Against this background, sequence analysis - or more generally, a data-mining approach - offers an interesting alternative.

Objective: The aim of this contribution is to illustrate such a sequence analysis approach to health trajectories. This entails 1.) clustering of state sequence dissimilarity matrices to build typologies of health trajectories and 2.) using the resulting typology as a target variable in binomial logit regression models.

Method: We used SHARE data and focused on a binary indicator of frailty, defined as experiencing weakness, shrinking, exhaustion, slowness, or low activity. We then used the TraMineR Rpackage to perform clustering analyses. In a final step, cluster membership was used as a target variable in multiple binomial logistic regression models with CSC as a key covariate.

G2 PAPER SESSION: METHODS

Mutual Adjustment for Multiple Indicators of Socioeconomic Position and the Table 2 Fallacy

Michael Green, Frank Popham, University of Glasgow, UK

Socioeconomic position (SEP) is a broad and heterogeneous concept. It can be measured by a range of indicators such as education, occupation or income and at a range of different stages of the lifecourse. Researchers sometimes ask which indicators or life-stages are most important in relation to outcomes of interest. A common technique for answering such questions is mutual adjustment for all SEP indicators in regression analyses. However, researchers need to be careful not to present mutually adjusted regression coefficients as if they all have the same interpretation: the so-called table 2 fallacy. Directed Acyclic Graphs (DAGs) will be used to show how interpretation of mutually adjusted coefficients depends on underlying assumptions about the relationships between variables. We use an example DAG whereby education leads to occupation and both determine income. Implications for the interpretation of mutually adjusted coefficients for these three indicators of SEP are then explained. Under this DAG, the mutually adjusted coefficient for education will represent the direct effect of education, not mediated via occupation or income. The coefficient for occupation represents the direct effect of occupation, not mediated via income, or confounded by education. The coefficient for income represents the effect of income, after adjusting for confounding by education and occupation. Thus, direct comparisons of mutually adjusted coefficients are not comparing like with like. A like-for-like comparison of the effect of education with that of income, for example, could be achieved under this DAG by comparing the unadjusted effect of education with the education and occupation adjusted effect of income. We further explain how antecedent (but not descendent) unmeasured socioeconomic information could bias effect estimates. Researchers reporting such analyses should be clear about their underlying assumptions, and how these inform their interpretations of results. Understanding relationships between socioeconomic variables is a crucial foundation for causal interpretation.

Testing for Critical Periods and Accumulation of Neighbourhood Effects Across the Life Course

Emily Murray, Stephen Jivraj, Owen Nicholas, University College London, UK; Paul Norman, University of Leeds, UK

This paper uses linked neighbourhood data from the 1970-2011 Censuses attached to two British birth cohort studies (1958 NCDS and BCS 1970). We aim to determine whether neighbourhood disadvantage matters more at certain points in the life course using cross-classified multilevel models where individuals (level 1) are nested within neighbourhoods at each adult NCDS and BCS70 sweep (level 2). Cross-classification is limited to a small number of study sweeps to ensure model convergence using different combinations of sweeps to ensure the associations are consistent across the life course. This approach also enables us to determine whether neighbourhood effects are cumulative from adolescence to later life. Our outcomes include individual measures of physical health (self-rated, limiting illness, body mass index), psychological wellbeing (well-being, life satisfaction, CASP-12) and health behaviours (smoking, alcohol, exercise). The main exposure is Townsend deprivation scores measured at consistent neighbourhood boundaries in 1971, 1981, 1991, 2001 and 2011.

Evidence of Causation: The Contribution of Life Course Research

Hans-Peter Blossfeld, European University Institute, Italy

The primary objective of this paper is to discuss several models of causal inference, in particular the uses and limitations of randomized controlled trials (RCT) and quasi-experimental designs for answering life course research questions. Then the idea of "causation as generative process," which offers a quite promising model for inferences in life course research, is developed. The issues are illustrated by application examples.

Assessing Differences between Nested and Cross-Classified Hierarchical Models

David Melamed, Michael Vuolo, The Ohio State University, USA

With longitudinal data, researchers are increasingly confronted with hierarchical structures that are not fully nested. In the classic example, students from one primary school do not all attend a single secondary school, such that students are not neatly nested within primary and secondary schools but rather cross-classified by them. As longitudinal datasets increasingly include geocoded data, the issue of cross-classification also emerges. As we track individuals over time, they can move, creating a data structure where individuals are not strictly nested in one location. Therefore, each repeated observation is cross-classified by the individual and their location. Cross-classified models, however, are very computationally and time intensive. With larger datasets and as more data is collected over time with individuals continuing to move, such models become unlikely to converge at all. In this paper, we examine under what circumstances and to what extent the fixed and random components are affected when ignoring the cross-classification in favor of a fully nested model with individuals who moved treated as new observations. To do so, we use a Monte Carlo experiment where we simulate data with a known structure, simulate the movement of cases, and then model those data as both cross-classified and fully nested. We vary the sample size at each level of the model, the intraclass correlation, the percentage of the sample that moves, the size of the fixed effects, and whether units move randomly or systematically. We find that the differences in the estimated slopes are very small and unpredictable. Differences in the standard errors, the error variance, and the variance of the random effects, however, are both meaningful and systematic. These differences vary by sample size (both levels), the intraclass correlation, and the percentage that moves. We conclude with a cautionary note about treating cross-classified data as fully nested.

Age, Period and Cohort Effects of Mortality in the 20th Century: The Power and Dangers of Exploratory Visual Methods in Uncovering Non-Linear APC Effects

Andrew Bell, Phil Mike Jones, University of Sheffield, UK; Jon Minton, University of Glasgow, UK

This paper considers age, period and cohort (APC) effects on mortality, primarily in the UK. APC effects suffer from the identification problem, whereby it is impossible to tell which of APC are responsible for linear changes in a dependent variable such as mortality. Despite claims to the contrary, recent innovative methods to 'solve' the APC identification problem are problematic, with simulations showing they cannot recover true APC linear trends. This paper moves beyond this, ignoring linear trends entirely and considering only deviations from those trends as the substantive point of interest. We use Lexus diagrams, and a modified version of the Hierarchical Age Period Cohort model, to reveal non-linear, discrete APC patterns. The results show some interesting and clear trends: there appear to be a strong cohort effect for those born under the National Health Service (NHS, post-1948), but no period effect, suggesting early life and pre-natal care is the most important service offered by the NHS and improves health throughout

individuals lives. We also see better known effects such as a cohort effect of the 1918 Flu Pandemic, and period effects of World War I and II (among young men at least). As well as the substantive point, the paper shows the power of visual, exploratory methods in uncovering APC non-linear effects, whilst making clear limitations of this that are a result of the APC identification problem.

Parallel Session 3

A3 SYMPOSIUM

CLOSER: Longitudinal Data Harmonisation and Linkage in the UK

Convenor: Alison Park, CLOSER, UCL Institute of Education, UK

The CLOSER (Cohort and Longitudinal Studies Enhancement Resources) network is a multidisciplinary collaboration pooling expertise and skills across eight of the UK's longitudinal studies, along with the British Library and the UK Data Archive. This symposium focuses on two key areas of CLOSER's work: data harmonisation (to facilitate cross-study comparisons), and the value and use of linked survey and administrative data.

The first half of the symposium focuses on findings from two CLOSER-funded data harmonisation projects. Paper 1 considers trends in visual function and the relationship between visual health and social position; Paper 2 examines whether there is a common factor structure of allostatic load across different UK longitudinal studies.

The second half of the symposium focus on data linkage. Paper 3 describes the results of a qualitative study on cohort participants' views of data linkage; Paper 4 illustrates the advantages of linking study and administrative data, focusing on the relationship between student self-belief and GCSE exam performance at age 16.

The symposium will conclude with a final paper (5) describing relevant resources available via CLOSER.

Trends in Visual Function in Childhood Over a Quarter Century of Social Change in the UK

Vasiliki Bountziouka, Phillippa Cumberland, Jugnoo Rahi, University College London, UK

Background: Although reduced vision in adults is associated with disadvantaged social position, little is known about visual function in childhood and its association with social position, or whether visual health inequalities in adulthood originate in childhood.

Aim: To investigate trends in the distribution of visual function in UK children and associations with early life social position over 25 years.

Methods: Using habitual distance visual acuity (with correction if prescribed) at 15/16 years utilising the UK 1946, 1958 and 1970 cohorts, members were assigned to one of five categories ranging from bilateral normal visual acuity to visual impairment/severe visual impairment/blindness (VI/SVI/BL per modified WHO ICD). Associations with prenatal (mother's age when leaving full time education) and childhood (father's occupational class when member was 10/11 years old) social position were investigated. Risk ratios were calculated.

Results: The proportion of children with normal vision in both eyes decreased by 1.3% in 1961 and 1.7% in 1986. The risk of overall impaired vision was increased by 20% and the risk of VI/SVI/BL by 75% over this period. Social position at birth and in childhood was associated in opposing directions with this cohort effect, with girls being consistently at increased risk. Patterns of associations with social position varied by vision category.

Conclusions: An important decline in visual function in UK children, reflecting a complex pattern with social position, was revealed. Further visual health inequalities are likely to have emerged more recently and can be expected to continue. Given extant trends in child health inequalities, we urge that children's visual health needs are not overlooked in ophthalmic public health policies and services.

Allostatic Load: Components and Construction Across the CLOSER Studies

Milagros Ruiz, Paul Clarke, Michaela Benzeval, Meena Kumari, University of Essex, UK

Background: Many physiological systems are proposed as the mediators that allow social processes to “get under the skin”. Allostatic load is conceptualised as the ‘wear and tear’ associated with the response to chronic or repeated stress. The concept has been adopted in many analyses of the association of the social environment with health as it represents the impact on a multiple physiological systems including ‘primary’ stress pathways and secondary ‘intermediate’ pathways. Allostatic load is generally measured through a composite index of indicators that reflect this multi-system approach and include neuroendocrine, metabolic, immune and cardiovascular markers. However, operationalisation of allostatic load varies across surveys as it is limited to the availability of biomarkers within studies.

Objectives: To explore the underlying common factor structure of allostatic load in a number of studies in CLOSER studies, the English Longitudinal Study of Ageing and Whitehall II.

Methods: We use exploratory factor analysis across a number of studies to discover the common and unique factors underlying the variation of physiological biomarkers associated with allostatic load.

Results: We find that biomarkers do generally fall into factors that reflect neuroendocrine, metabolic, immune and cardiovascular systems. However, the individual factor components and loadings are not stable across studies. Furthermore, initial analyses suggest that factor structure varies according to socio-demographic characteristics.

Conclusions: Our findings support the idea of an underlying factor structure to the allostatic load concept. The variation in factor structure across CLOSER studies will be explored and presented in greater detail.

Understanding Young People’s Views About Consenting to Data Linkage

Andy Boyd, Suzanne Audrey, Lindsey Brown, Rona Campbell, John Macleod, University of Bristol, UK

Background: The governance framework for using linked administrative data in research is complex and dynamic. The Caldicott review of ‘Data security, consent and opt-outs’ and the ‘EU General Data Protection Regulations’ illustrate major recent change. Change impacts on longitudinal studies ability to maintain resilient governance solutions. The Avon Longitudinal Study of Parents and Children (ALSPAC) birth cohort study sought participant consent for linkage between ALSPAC participants and routine sources of health and social data. Qualitative research examined participants’ views about consent for data linkage.

Methods: Interviews were conducted with 55 young people (aged 17-19; 56% female; mixed study participation history). Key terms and processes relating to consent, data linkage and anonymisation were explained. Four scenarios prompted consideration of linking different data, and whether consent should be requested. Thematic analysis was undertaken using the ‘Framework approach’.

Results. Scenarios relating to teenage pregnancy and mental health elicited unease about individuals being stigmatised or blamed, scenarios relating to heart disease and asthma tended to be seen as having a clearer purpose and health outcome, suggesting a preference for research with tangible health benefits. Anonymising data was not regarded as sufficient for researchers to do whatever they want with the data. This was linked to notions of ‘ownership’ of personal data and lack of clarity about de-identification processes. Young people raising the same issues came to differing conclusions about whether consent was needed.

Conclusions. Accommodating these views within a governance framework that is acceptable to a majority of the public is challenging. Maintaining the validity of participant agreement within a changeable governance framework is equally challenging. Participant informed and flexible approaches are needed for data linkage to successfully realise its potential without undermining public trust.

Is Student Self-Belief Associated with GCSE Outcomes?

Kirstine Hansen, Morag Henderson, University College London, UK

Background: Gaps in GCSE attainment have long been the concern of policy makers, academics and social commentators largely due to the importance of these exams for setting children on their future academic and career pathways. In the past a wide range of factors relating to the pupils, their families and their schools have been found to account for differences in GCSE attainment.

Aim: In this paper we make use of Next Steps data linked with the National Pupil Database (NPD) to examine the role of pupils' belief in their own academic ability.

Methods: Using Next Steps data, we examine whether pupils with more self-belief do better or worse in their GCSEs than pupils with less self-belief.

Results: Results show that on average, controlling for other characteristics, self-belief increases GCSE scores by 4 grades. When we compare self-belief to measured achievement we find that both high and low attainers have higher probabilities of achieving five A*- C GCSEs and higher GCSE point scores on average if they have high self-belief than similarly able students who have lower self-belief. In addition, the results show the penalty for lack of self-belief at the top end is greater than the advantage of high self-belief at the bottom end of the ability distribution.

Data Discovery, Linkage and Harmonisation: How CLOSER Can Help

Alison Park, UCL Institute of Education, UK

This paper will outline a range of resources available to longitudinal data users, including harmonised datasets and CLOSER Discovery (www.closer.ac.uk/data-resources/closer-search-platform), an online resource that enables researcher to view and appraise content from the eight CLOSER studies.

B3 SYMPOSIUM***Social-Biological Transitions: Recent Findings from Europe***

Convenor: David Blane, Imperial College London, UK

SLLS Interdisciplinary Health Research group organised this symposium via an open call to SLLS members, in order to provide a mid-2017 snapshot of current social-biological research and as an aid to integration and dialogue between such efforts. We received nine abstracts or expressions of interest, from which we selected five on the basis of scientific quality, use of objective measures of health, variety of longitudinal datasets and national spread.

Predictive Value of Childhood Socioeconomic Position On Weak Muscle Strength: The Mediating Role of Education and Main Occupation Class

Boris Cheval, et al., University of Geneva, Switzerland

Background: Weak muscle strength has been shown to predict future disability, morbidity, and mortality. Understanding life course socioeconomic factors influencing muscle strength as adults grow older may be particularly useful for public health. We assessed the predictive value of childhood socioeconomic position (CSP) on grip strength and examined whether adulthood socioeconomic position explained this association.

Methods: Data were retrieved from 22,228 adults (78,178 observations; 55.5% women) aged 50 years and older across 14 European countries (SHARE project). The associations between CSP (assessed using retrospective information on living condition at age 10) and weak muscle strength (measured using dynamometer) were estimated using mixed effects logistic regressions. Models were adjusted for potential confounders, mediating effects of education and main occupation class, and corrected for attrition.

Findings: Participants born in the disadvantaged CSP had greater odds of weakness, compared with participants born in the advantaged socioeconomic position (OR=3.11 for women; OR=1.99 for men). These associations were fully mediated by education and main occupation class.

Discussion: Education and main occupation class critically impact muscle strength at older age as they largely explained the deleterious effect of disadvantaged CSP. Potential implications for public health policy will be outlined.

What is the Role of the Early Social Environment On Epstein-Barr Virus Infection? A Prospective Observational Design Using the Millennium Cohort Study

Valérie Garès, et al., INSERM, France

Background: Epstein-Barr Virus (EBV) is a highly prevalent herpesvirus linked to infectious mononucleosis and several malignancies. This paper aims to study the association between children's early life social environment at 9 months and EBV infection at 3 years of age.

Methods: We used data on children included in the UK Millennium Cohort Study. We described the social environment using area-level and material factors as well as socioeconomic position at 9 months. EBV was measured at 3 years of age (n=12 457).

Results: Lower rates of EBV infection were observed in children living in towns and rural areas compared to those living in cities. Overcrowding in the household increased the odds of being infected and children whose parents rented from the local authority were more likely to be infected than homeowners. When socioeconomic position variables were added to the model, the strength of the association between material factors and EBV infection weakened.

Conclusions: We showed that early life material deprivation was associated with a higher risk of EBV infection among 3 year olds. Children living in more deprived social conditions may be more likely to become EBV carriers at an earlier age.

Who Does What? Divisions of Labour and Biomarkers in Understanding Society

Anne McMunn, et al., University College London, UK

While the gender division in paid labour has progressively diminished, this is less true of unpaid labour forms. The concept of 'total labour' recognizes the need to define labour broadly. We offer a current picture of the division of 'total labour' amongst contemporary UK co-resident opposite sex couples aged 16-65 in Wave 2 of Understanding Society by investigating the division of weekly hours spent in paid work, housework, caring and responsibility for children. We then investigate associations between gender divisions of labour and biomarkers (also collected at wave 2 of Understanding Society) thought to potentially link chronic stress exposure with chronic disease outcomes: markers of inflammation (CRP and fibrinogen) and metabolic markers (waist circumference, blood pressure, cholesterol, triglycerides and HbA1c), adjusting for financial resources, educational attainment of both members of the couple and demographic characteristics. Analysis will be stratified by gender to investigate whether associations are differential within couples. We hypothesise that participation in paid employment will be linked with beneficial profiles for both men and women and that 'Dual-earner' couples where both partners are in paid employment will have the healthiest biomarker profiles, and that the inverse will be true for provision of care and domestic labour.

Foetal Risks for Low Stress Resilience Are Exacerbated by Social Exposures in Childhood

Scott Montgomery, et al., Örebro University, Sweden

Background: There is evidence of in utero influences on development of low stress resilience, and stress resilience has been linked with raised risks of subsequent psychiatric and somatic disease. Do exposures in childhood influence stress resilience and modify the risk imparted by foetal growth retardation?

Methods: Swedish registers identified 259,073 males (born 1973 and 1979), with information on delivery characteristics and stress resilience in adolescence. Multinomial regression with stress resilience as the dependent variable included number of live-born older siblings, non-surviving siblings, small for gestational age (SGA) and potential confounding factors.

Results: A larger number of (only live-born) older siblings, is associated with a raised risk of low stress resilience, with odds ratios (95% CI) of 1.27 (1.24-1.31), 1.85 (1.78-1.92), and 3.23 (3.03-3.44) for one, two and three or more, respectively, compared with none. Low stress resilience associated with SGA increases with number of siblings, from 1.53 (1.41-1.66) for no older siblings to 1.73 (1.53-1.94), 1.82 (1.49-2.22) and 2.62 (1.80-3.81), for one, two and three or more, respectively (P for multiplicative interaction > 0.001).

Conclusions: Associations with live-born, but not deceased, older siblings indicate childhood social exposures in childhood influence stress resilience. In utero biological risks (SGA) for low stress resilience are modifiable by social exposures in subsequent childhood signalled by number of older siblings.

Comparing the Educational Gradient in Biomarkers for Cardiovascular Diseases, Self-Reported Doctor Diagnoses and CVD Mortality in The English Longitudinal Study of Ageing and the US Health Retirement Study

Rasmus Hoffmann, et al., European University Institute, Italy

Higher educated persons have lower cardiovascular morbidity and mortality. We compare the magnitude of the educational gradient between three disease-specific health measures: biomarkers, self-reported doctor diagnoses and cause-specific mortality. Biomarkers are assumed to be early and more objective health indicators compared to self-reported diagnoses which may be class biased. We compare these two measures to mortality in order to assess their validity in different stages of the disease process, and we determine how much of the mortality gradient can be explained by biomarkers and diagnoses. We study people aged 50+ (8,479 from ELSA, 2004-2012; and 14,587 from HRS, 2006-2014). We use six CVD-biomarkers, two self-reported doctor diagnoses, and cover 1,034 deaths from CVD. For biomarkers we use log-binomial regression, for diagnoses logistic regression, and for mortality a survival model. The mortality gradient is higher than the gradients in biomarkers and diagnoses. The relative size of the latter two gradients depends on the choice of diagnoses: the more serious the disease, the higher the gradient, presumably because e.g. "abnormal heart rhythm" is more socially biased than stroke or heart attack. Gender differences in our results suggest that education matters in different stages of the disease process, differently for men and women.

C3 SYMPOSIUM

Transitioning to Adolescence: New Evidence from the Age 14 Sweep of the Millennium Cohort Study

Convenor: Emla Fitzsimons, University College London, UK

The six surveys of Millennium Cohort Study (MCS) cohort members carried out so far have built up a uniquely detailed portrait of the children of the new century. The sixth, age 14 survey, which is the focus of this symposium, was a major initiative, with a much extended cohort member questionnaire, and continuing parent questionnaires, alongside other additions to the survey (such as time use diaries and accelerometers). Data have only recently become available, with huge potential to understand how today's generation is faring as they move through adolescence. In this symposium, we bring together a range of new evidence from this most recent sweep. This period of early adolescence marks the first time we observe cohort members after the all-important transition to secondary school, with potentially important implications for a variety of outcomes including cognition, mental health, aspirations, and risky behaviours, all of which we consider in the papers contributing to this symposium. All papers use the rich longitudinal nature of the data to understand changes over time in these dimensions, and the factors affecting these.

The Intergenerational Transmission of Vocabulary

Vanessa Moulton, Alice Sullivan, Emla Fitzsimons, University College London, UK

Class differences in language use have been central to some of the major sociological theories regarding the intergenerational transmission of educational advantage. Nevertheless, vocabulary and language have latterly been relatively neglected by sociologists, and most of the evidence in this field has come from small-scale studies by psychologists. The role of differences in parenting practices in explaining the emergence and growth of cognitive gaps has been extensively explored, but the role of parental cognitive resources, including language ability, is relatively neglected. In this paper, we exploit unique new data on the vocabulary scores of both parents and children in the Millennium Cohort Study (MCS). Mothers, partners and children took a vocabulary test at the sixth sweep of the study. The paper first aims to establish the vocabulary gaps that exist for both parents and children according to social class. Second, it addresses the extent to which socio-economic and ethnic gaps in children's scores at age 14 relate to differences in the parents' scores. Third, it assesses whether parental vocabulary influences the evolution of language over childhood, using objective measures of linguistic ability at earlier sweeps. The sample is 10,781 children from the MCS who completed the vocabulary test. We adjust for a number of child and parental demographics, including the child's ethnicity and parental social class, and model the relationship between the child's vocabulary skills and home learning resources, parental vocabulary scores and the child's verbal ability at an earlier age. We find social class differences in vocabulary scores for the mother, partner and child. The mothers' and partners' vocabulary explain most of the social class and ethnic differences in the child's vocabulary skills. In addition, parents' vocabulary is just as important in explaining the level of child vocabulary as is the child's verbal ability at age 3.

Examining Temporal Effects of Parental Divorce or Separation on Child Conduct and Emotional Problems

Aase Villadsen, Emla Fitzsimons, University College London, UK

Most studies examining the association between parental divorce and separation on child outcomes have taken the approach of comparing children from intact families with those who have experienced dissolution. In these studies, confounding variables are dealt with by the inclusion of a number of demographic, cultural, and socioeconomic control variables. However, the limitation of this approach is that there may be important unobserved factors not accounted for that influence both the parental relationship break down and child outcomes. The omission of unobserved factors can significantly bias results. Furthermore, few studies consider temporal effects of divorce or separation, such as the specific developmental period in which the break up occurs, or questions relating to whether effects on child outcomes are temporary or enduring. Using new data from the Millennium Cohort Study, this study uses individual fixed effects models to address some of the limitations of previous investigations for analyzing the effect of family disruption on children's socioemotional development. By also considering the timing of family dissolution, this study assesses whether there are developmental periods that are especially sensitive to family disruption, and will furthermore provide an examination on longevity of effects on child functioning.

The Development of Mental Health Difficulties from Ages 3 to 14 Years in The Millennium Cohort Study

Praveetha Patalay, University of Liverpool, UK; Emla Fitzsimons, University College London, UK

The Strengths and Difficulties Questionnaire has been included in the Millennium Cohort Study at every sweep from age 3 years (ages 3, 5, 7, 11 and 14 years). It is a brief parent reported measure that measures difficulties across four problem domains related to mental health: emotional symptoms, conduct problems, peer difficulties and hyperactivity (and one positive domain: pro-social behaviour). The four difficulty subscales can be summed to create a total difficulty outcome measure. The subscales and total difficulty scores have thresholds that are used to identify children with high levels of symptoms in each domain. In this paper, we present prevalences and variances in these difficulty domains through the sweeps of the MCS. We subsequently identify groups of individuals, focussing on their stability or change in difficulties scores from ages 11 to 14 years, for instance, identifying four groups based on total levels of difficulty (with low symptoms at both ages, clinical symptoms at both ages and two groups who've come into or out of having high symptoms). We investigate socio-demographic and regional variations in these outcomes and transitions.

Gender Segregation in Early Career Aspirations: To What Extent Do Girls Aspire to Female-Dominated Occupations and Boys to Male-Dominated Occupations?

Sam Parsons, University College London, UK; Lucinda Platt, London School of Economics, UK

Gender segregation is regarded as the main source of women's labour market disadvantage and choices of both boys and girls are consequential for the continuation of gendered labour markets. In this paper we look at the occupational aspirations of MCS study members at ages 7, 11 and 14. Linking these aspirations to SOC codes and hence to measures of labour market segregation derived from the Labour Force Survey, we ascertain the extent to which girls and boys aspire to female/male-dominated occupations. Since aspirations are gendered from an early age and heavily embedded in socialisation processes that start in the family, we will develop our understanding of children's aspiration formation. Using OLS in the first instance, we examine the contribution parental occupational segregation, household division of labour, gender role attitudes, linked test scores and 'agency' as captured in self-esteem, has on age 14 occupational aspirations.

The Prevalence and Variances in Engaging in Risky Behaviours and Sexual Activity: Evidence from The Age 14 Survey of The Millennium Cohort Study

Jenny Jackman, Emla Fitzsimons, University College London, UK

There is evidence that engaging in risky behaviours, such as drinking and smoking, increases sharply during adolescence. At age 14, the Millennium Cohort Study obtained information from cohort members on whether they had experienced or taken part in a variety of 'risky behaviours'.

This paper focuses on the prevalence of engagement these behaviours, including among other areas, committing crime (including cyber-related activity) and involvement with the police. It also looks at whether they have been victims of crime or bullying, and sexual activity. This paper presents an overview of the prevalences of these behaviours, and key background dimensions along which they vary (such as gender, socio-economic background, etc.), and uses multivariate regression models to understand drivers

of risky behaviours. This data, collected when cohort members were mid-way through secondary school, is compared to the information collected when they were finishing primary school, to understand pathways into engaging in risky behaviours. This paper also investigates correlations between cohort members' risky behaviours and that of their parents.

D3 PAPER SESSION: CHILD DEVELOPMENT

Family Instability, Maternal Health, and Child Health in Early Childhood

Shannon Cavanagh, Julie Olsen, University of Texas at Austin, USA

Children's health is grounded in resources that parents draw upon to support children's development. Family instability can affect children's health through these resources by increasing strains on parents that disrupt their health-related parenting and reduce the number of social and institutional resources that they can leverage to support healthy development (Augustine & Kimbro, 2015). Ample scholarship approaches family instability by focusing on parents' partnership structures or income/poverty status, net of each other, or by exploring how one mediates or moderates the observed effects of the other (e.g., Lee, 2014). Yet, these sources of compositional and economic disadvantages often cluster within the same family (Desmond, 2012) to undermine child wellbeing (McLanahan, 2004). Explicitly studying how diverse parents' partnership changes go along with economic volatility over a child's life can shed light on which children are most at risk and what needs to be done to reduce that risk. Another crucial gap concerns the need to connect family instability more concretely to the intergenerational transmission of health. Rising morbidity and mortality of U.S. women, across race/ethnicity, relative to peer nations, is increasingly well-documented (Case & Deaton, 2015). Importantly, this change is happening in the context of rising relationship instability and economic inequality, and the continued overwhelming responsibility of women for rearing children. Simply put, mothers do most of the childrearing in early childhood, and those who feel bad, emotionally or physically, may be less able to effectively scaffold their children's health. This linked lives phenomenon may be a channel through which constellations of family instability influence children's health. Using sequence analyses of the multi-year household roster and income data in the Early Childhood Longitudinal Study-Birth Cohort (ECLS-B), we identify dynamic multi-dimensional profiles of family instability across children's first five years, examine how these profiles are associated with children's health (e.g., global health, anxiety) through parenting stress, resource, and social support mechanisms, and then investigate the role of maternal health (e.g., depression, smoking).

Parental Separation and Child Outcomes: The Importance of Multi-Domain Deprivation

Lidia Panico, Marion Leturcq, INED, France

Parental separation often entails drops in income for children. This "monetary pathway" has been studied as a key channel to explain the negative consequences of parental separation on children. However, studies have considered less often other measures of childhood deprivation which better capture children's experiences of poverty.

In this paper, we use the Millennium Cohort Study to explore the importance of changes in childhood deprivation to explain the consequences of parental separation on child outcomes, from birth to age 11. We explore several aspects of childhood deprivation, including material and housing deprivation, deprivation from leisure activities such as holidays, and parenting routines and behaviours. We consider three spheres of child outcomes, notably cognitive development (including decision making skills and memory), health (overweight, respiratory health, and general health), and child behaviour. Our analytical sample includes children whose parents are in a co-resident relationship at birth (12,658 households); about 23% of these couples will have separated or divorced by age 11.

Early results highlight that monetary poverty and childhood deprivation do not always overlap. While the negative effects of separation on income are clear, the effects on childhood deprivation were more mixed. We note negative long-lasting effects on leisure activities, while effects on material deprivation were short-lived. There were no effects on parenting. Faced with financial constraints, parents therefore appear to reduce activities such as holidays but attempt maintaining children's material circumstances and day-to-day routines. The post-separation trajectories of children living with more and less educated mothers differ, suggesting that pre-separation parental socio-economic capital play an important role.

Next steps including linking these analyses to the child outcomes outlined above. Analyses will be carried out separately for boys and girls, and we will explore the importance of the timing of separation and the experience of various spheres of deprivation for child outcomes.

Why Do Some At-Risk Children Go On to Experience Internalising Problems in Adolescence and Others Not?

Meredith O'Connor, Helena Romaniuk, Sarah Gray, Galina Daraganova, Australian Institute of Family Studies, Australia

Objective: In this study, we focus on those children at risk for internalising problems in adolescence due to their experiences of internalising difficulties in childhood. We seek to identify which risk factors are associated with internalising problems in adolescence for these children, in order to identify potential opportunities to deflect risk pathways.

Method: Growing Up in Australia: The Longitudinal Study of Australian Children (LSAC) is a nationally representative longitudinal study of two cohorts of Australian children that commenced in 2004. The analysed K ("kindergarten") cohort of 4,983 children were aged 4-5 at study commencement, with data collected every 2 years about children's development. The focus of this study was on internalising symptoms in the borderline or abnormal range, measured via parent report on the Strengths and Difficulties Questionnaire (SDQ) from 4-5 to 14-15 years of age.

Results: Of those participants who had two or more waves of elevated internalising symptoms in childhood, 84.1% of females (95% CI 78.9% - 89.3%) and 77.0% of males (95%CI 71.2% - 82.9%) went on to experience internalising problems in adolescence. For those who experienced internalising problems in childhood, female gender (OR 1.84, 95% CI 1.45 - 2.32), poor physical functioning (OR 1.02, 95% CI 1.02 - 1.03), temperamental reactivity (OR 1.53, 95% CI 1.31 - 1.78), low persistence (OR 1.24, 95% CI 1.07 - 1.43) and introversion (OR 1.52, 95% CI 1.32 - 1.75), as well as parents own psychological distress (OR 1.57, 95% CI 1.22 - 2.02), were associated with continued internalising problems in adolescence in the fully adjusted model.

Conclusion: Prevention and early intervention efforts are crucial to addressing the high prevalence of internalising problems. These findings have relevance for considering what and when, with who, should be targeted for maximum impact.

The Consequences of Childhood Adversity for the Timing and Context of Family Formation

Kristi Williams, The Ohio State University, USA; Brian Karl Finch, University of Southern California, USA

A growing body of research points to adverse childhood experiences as fundamental determinants of health and well-being throughout life. These effects appear to operate through a complex web of psychosocial, behavioral, and physiological pathways, the nature of which remains poorly understood. The consequences of childhood adversity for the stability and quality of relationships in adulthood may be particularly important. A central tenet of attachment theory is that childhood experiences which disrupt the development of trust and security hinder the formation and development of intimate ties throughout life.

In the present study, we develop and test hypotheses about the influence of childhood adversity on two key dimensions of family formation: age and marital status at first birth. Fertility timing and context, like childhood adversity, are strongly patterned by race and social class. Thus, we posit that exposure and adaptation to childhood adversity—social processes linked to structural disadvantage—may help to explain U.S. race and class disparities in fertility timing and nonmarital childbearing.

We analyze 25 years of nationally representative panel data from the National Longitudinal Study of Youth (NLSY79). Respondents (n = 6,105) were age 14-21 in 1979 and followed through 2014. Retrospective reports of 6 adverse childhood experiences (prior to age 18) include: parental death, parental divorce, lived with a depressed, mentally ill or suicidal person, lived with problem drinker or alcoholic, physical abuse by parent/adult, and received no or only a little parental love and affection. Preliminary results indicate that, controlling for a range of childhood sociodemographic and household characteristics, exposure to adverse childhood experiences (both individually and in combination) is significantly associated with earlier age at first birth and with greater odds of having a nonmarital first birth. Additional models will predict age at first marriage and unintended pregnancy, and explore race, class, and gender variations in these patterns.

E3 PAPER SESSION: EMPLOYMENT***Temporary Work, Employer-Provided Training and Subsequent Employment Career***

Jouko Nätti, Satu Ojala, University of Tampere, Finland; Merja Kauhanen, Labour Institute for Economic Research, Finland

A considerable proportion of employees work on the basis of temporary contracts in EU countries (EWCS 2015), in Finland every seventh employee. Earlier studies indicate that temporary workers participate less in employer-provided training compared to permanent workers. For employees' work career temporary work may be harmful. In this paper we are interested on the main and combined effects of temporary work and employer-provided training on subsequent work career. Combined effects are studied with both the strain hypothesis (accumulation of risks) and buffer hypothesis (training buffers the adverse effect of temporary work). The analysis is based on the Finnish working conditions surveys (1990, 1997, and 2003) merged with register-based follow-up data (1991–2011). The present study was restricted to 18 to 56-year-old employees (n=9792). The number of subsequent employment months (8 years) are analysed with Negative binomial regression due to the skew distributions of outcome variables. The results are represented as incidence rate ratios (IRR) and their 95% confidence intervals (95% CI) and estimated marginal means. The results are adjusted to background, work and health related factors. According to the results temporary work decreased and employer-provided training increased subsequent employment months (independent main effects). We found support both to the strain hypothesis (temporary workers without training had least subsequent employment months) and buffer hypothesis (employer-provided training buffered the adverse effect of temporary work). The result suggests that the personnel training may play an important role in the lengthening of work careers. Consequently, establishments which use personnel training as a human resource instrument may benefit from longer work careers.

Long Term Effects of Insecure Work: How Prolonged Job Insecurity Affects Young Australians

Hernan Cuervo, Jenny Chesters, Youth Research Centre, University of Melbourne, Australia

Job insecurity has become a central concept in contemporary social life. Efforts to define and measure job insecurity have resulted in a plethora of research in the fields of youth employment and youth policy. Although the role of job insecurity in the challenges faced by young people within the employment sphere has been well-documented, examinations of the impact of job insecurity in other social spheres has received less attention. This paper expands the boundaries of current youth employment research and policy studies by examining what job insecurity does to young people's lives. Thus, our concerns are not just with definitions of the concept but with the effects that job insecurity has on the myriad of issues faced by young people today (e.g. health, housing, personal relationships). We do this by drawing on a longitudinal mixed-methods study that collected data between 2006 and 2016 from young people making their post-school transitions in Australia. After establishing the characteristics of those who were in insecure work between the ages of 23 and 28, we analyse how insecure work affects various aspects of their lives. Our results show that prolonged insecure work is related to differences in living arrangements; availability of family time; and levels of autonomy. Further, our longitudinal qualitative data reveals that as insecure work permeates different spheres of young people's lives – family and personal relationships, wellbeing, housing –it impacts on the (im)possibility of planning into the future.

Using Longitudinal Administrative Data On Employment History to Identify Poverty Risks and Social Need

Serena Pattaro, Nick Bailey, University of Glasgow, UK; Chris Dibben, University of Edinburgh, UK

Administrative data, collected by government departments, can offer major opportunities for longitudinal research. This type of data provides the possibility to identify and follow cohorts of individuals over time by pulling together information on a number of characteristics, such as welfare benefits, employment and income. By addressing issues of data quality, this paper aims to understand whether longitudinal administrative data can be used as a valuable alternative or a complement to survey data in poverty research.

We focus on administrative data derived from the benefits and tax systems, which have been widely used in UK to construct measures of social need (e.g. Free School Meals eligibility or Indices of Multiple Deprivation). These use cross-sectional indicators of current welfare benefits status but longitudinal measures, capturing employment or benefit histories, may provide more accurate measures of current needs.

We reconstruct measures of individual employment histories using linked administrative data from welfare benefit records (DWP's National Benefits Database) and tax records on annual earnings and employment episodes (HMRC's P14 and P45 data). These employment histories are further linked to survey data for a

subsample of adults who participated in both the 2010/2011 Family Resources Survey and the follow-up 2012 Poverty and Social Exclusion UK (PSE-UK) Survey, providing a number of measures of poverty and deprivation. Measures of employment history capture time on unemployment benefits, time employed, earnings and number of spells unemployed. These measures are validated against survey recall questions.

We examine how well the different measures predict poverty outcomes, exploring variations by individual characteristics. Overall, the study demonstrates that linked administrative data from tax and benefits systems may have potentially wide-ranging applications both in policy and research on the consequences of material deprivation.

Being (Un-)Employed During the 2008 European Financial Crisis: How Much Does the Country and Region of Residence Matter?

Dafni Dima, University of Edinburgh, UK

This paper studies the impact of the recent financial and economic recession on European labour market trajectories across 11 European countries and 42 European regions. The study has a double comparative nature: a geographical comparative perspective, comparing countries and regions; and a temporal comparative perspective, comparing the period before the European financial crisis (2005-2008) to the period immediately after the beginning of the crisis (2009-2012). The longitudinal component of the EU-SILC dataset is used and the monthly labour market statuses of more than 25,000 Europeans between 25 and 64 years old are analysed. The methods applied are Sequence Analysis, Optimal Matching Analysis and Cluster Analysis to study the labour market trajectories at national level and a Multilevel Multinomial Logistic Regression model to study the regional variation in labour market trajectories before and during the economic shock.

The intensity of the 2008 financial crisis has affected in different ways the labour markets across Europe, both between and within-countries. In fact, the variation of regional labour markets can be as large as the variation between European countries. Studying the impact of the crisis at regional level, I explore whether the financial crisis has increased or reduced the gap between regions, for example between Mezzogiorno and the rest of Italy. The causes and consequences of the crisis, as well as labour market adjustment strategies varied significantly across countries. Countries with rigid labour markets, like Greece and Italy, used labour market segmentation as a shock absorber and non-standard workers were the first to lose their jobs, while unemployment rates increased sharply. Other countries, like the Netherlands, used short-time working and partial unemployment to heal their economies. Finally, the UK responded to the crisis with a reduction of full-time jobs, a rise in the rates of unemployment and underemployment and a decrease of wages.

Innovation in Qualitative Interviewing: Authenticity Via "Clean Language" Questions

Karen Hanley, University of Brighton Business School, UK

An innovative interview method has been used to investigate the working lifecourse of 60+ employees in Denmark. The purpose of the qualitative PhD has been to find out which enablers and hindrances exist to remaining at work past the age of 60, for the older worker. To gain the best quality objective data, the "clean language" (Tosey et.al. 2014) method was used to interview women and men about their working lifecourse. Tosey, Lawley and Meese view the "clean language" method as an innovation in qualitative research, and there are few researchers currently aware of the benefits of this method, and how it helps the authenticity and rigour of interview data. Their analysis of one paper, only produced approximately 300 words of verbatim interviewee data (of 3600), the remainder having been influenced by the metaphors in the questions. Clean language questions can be both open and closed; the principle behind this method is to remove the researcher's unconscious metaphors and biases. An example of a clean question is: What kind of work is that work? Whereas, a non-clean question might be: What HR policies get in your way about continuing at work? The first leaves the field of potential answers completely open to the interviewee, with no interviewer bias or metaphor within that question. When asking a leading question like the second, the interviewee might focus on what they think they understand about HR policies, which may or may not be accurate, and might screen out any other answers that they may have given.

The results were rich and engaging working lifecourse stories. Examples will be given from the interview data, of the range of responses about remaining at work, including some of their metaphors. At no point were interviewees asked directly about enablers and hindrances.

F3 SYMPOSIUM***Understanding Childhood and Family Life in Scotland: A Showcase of the Growing Up in Scotland Study***

Convenor: Paul Bradshaw, ScotCen Social Research, UK

Growing Up in Scotland (GUS) is a large-scale, multidisciplinary longitudinal research study which tracks the lives of children from the early years, through childhood and beyond. Since its inception in 2005, the study has collected information about three cohorts of children: a child cohort and two birth cohorts – altogether, information has been collected about 14,000 children and families in Scotland.

This symposium will showcase a range of analyses using GUS data, all of which take advantage of the longitudinal nature of the study. In doing so, it will present a detailed picture of childhood and family life in Scotland whilst highlighting the wide range of substantive areas covered by the study. In addition, the session will illustrate the unique opportunities GUS offers for academic researchers and policy makers alike. The symposium will showcase analyses using data collected through different means and from a number of sources, each using different statistical techniques to make the most of the data available.

Papers will consider topics including adverse childhood experiences; language development; maternal employment and the role of fathers in children's life.

Who Are the Mothers That Don't Return to Work After Having a Child? Evidence from the Growing Up In Scotland Study

Line Knudsen, Paul Bradshaw, ScotCen Social Research, UK

Supporting mothers who want to return to and remain in work after childbirth is an important policy objective for the Scottish Government. A number of existing policies seek to address barriers facing mothers who wish to return to work, however, there is a lack of research which looks specifically at the circumstances and characteristics of these mothers in the Scottish context. With a specific focus on mothers living in Scotland, this presentation asks: who are the mothers that do not return to work after having a child? Drawing on data collected from mothers in the youngest birth cohort in the Growing Up in Scotland study, this presentation considers the employment trajectories of mothers of 5 year old children living in Scotland. Using data collected at three different age points – when the cohort children were aged 10 months, 3 years and 5 years, respectively – it explores the characteristics of mothers who worked during pregnancy but had not returned to work by the time their child was aged 5. Focusing specifically on socio-economic characteristics and household variables, the presentation will identify which factors appear to be independently associated with mothers not returning to work. The presentation will finish with a discussion of the wider implications of the research – not least for policy makers and others with an interest in supporting mothers' return to work after childbearing.

The Dynamics of Early TV Consumption and its Impact on Children's Cognitive and Language Development

Markus Klein, University of Strathclyde, UK; Michael Kühhirt, University of Cologne, Germany

An important activity in a child's early years, and subject of controversial public and scientific debates, is whether and to what extent and in which developmental phase the child is viewing TV at home or not. Infant TV viewing might have detrimental effects to cognitive development because flashing lights, quick edits and scene change are overstimulating to developing brains. In addition, infant TV viewing may prevent children from participating in activities that are more cognitively stimulating. In the present analysis, we use data from the 2004/5 birth cohort of the Growing Up in Scotland study and investigate the relationship between naming vocabulary and picture similarity tests at age 5 and child's TV viewing history at home. To assess the cumulative impact of TV viewing over time on cognitive development, we use summary measures of the whole TV viewing history up until the cognitive tests instead of simple point-in-time measures during the child's early years. In our modelling, we apply inverse probability of treatment weighting, a statistical technique that was developed to properly adjust for time-varying confounding factors that may bias the effects of child's TV viewing history on early cognitive ability.

The Prevalence of Adverse Childhood Experiences in the General Population of Scottish Children

Louise Marryat, John Frank, University of Edinburgh, UK

Introduction: Adverse Childhood Experiences (ACES) were first explored in the US with adults who had medical insurance with Kaiser Permanente. Questions covered psychological, physical and sexual abuse, and household dysfunction. Half experienced 1+ ACE (Felitti Md et al., 1998). ACEs have been linked to a range of adverse health outcomes (Allen, 2015, Dube et al., 2003). Despite the current interest in ACEs, a recent Scottish report concluded that 'no published studies exist to date of the prevalence specifically of ACEs in the general population of Scotland' (Couper & Mackie, 2016).

Method: The current study uses data from the 'Growing Up in Scotland' study birth cohort 1, comprising 3119 children born in 2004/5 and followed up to age 8. Regression models were fitted to explore associations between risk factors and ACE scores. Proportion attributable risk was calculated for experiencing relative poverty in the first year of life with ACE scores at age eight.

Results: Two-thirds of children experienced 1+ ACE, with 10% experiencing 3+. ACEs were associated with deprivation: 91.8% in the most deprived areas reported 1+ ACE vs. 33.8% in the most affluent areas. Results suggested that poverty accounted for 22% of children experiencing 3+ ACEs.

Discussion: A high proportion of children experience ACEs in Scotland. ACEs were strongly, but not entirely, predicted by deprivation. Interventions which target children living in the most deprived circumstances may miss less deprived children also experiencing ACEs.

Conclusion: ACEs currently affect a large proportion of Scottish children, particularly those born into the most disadvantaged circumstances. Future research needs to be conducted, in order to see whether all children who have experienced ACEs have uniformly poorer outcomes.

The Differential Prediction of Language Development and Social Communication Skills at the End of Primary School from Home Learning Environment and Parental Mental Health in the Early Years: An Analysis of Data from Growing Up in Scotland

James Law, University of Newcastle, UK; Robert Rush, Queen Margaret University, UK; Line Knudsen, ScotCen Social Research, UK

A number of recent studies have examined the relationship between early parenting behaviours and language development through to school readiness and early literacy skills and in some cases there are data of the long term consequences of early language difficulties on adult performance. It is less clear how these patterns play out by the time children are ready to go to secondary school. Furthermore, outcomes are commonly confined to structural language difficulties.

In this presentation we focus on new data on children's performance at 10 years and specifically on both their language skills (WAIS) and their social communication skills (CCC2). We predict that although there will be a social gradient on both domains the predictive mechanisms will be different, structural language skills being directly associated with the home learning environment (visiting the park, going to the library etc.) but social communication skills being more closely associated with parental mental health (DASS). The analysis will be carried out using ordinary least squares linear regression, co-varying for gender and early health/development, with appropriate imputation of missing data.

Father-Child Relationships and Child Socio-Emotional Wellbeing: Adding to Longitudinal Evidence on the Role of Fathers in Shaping Child Outcomes

Katie Buston, Alison Parkes, Julie Riddell, Daniel Wight, University of Glasgow, UK

It is generally agreed that fathers' parenting style and behaviours will impact on outcomes for their children, though research which elucidates mechanisms behind this are much less well developed for fathers than for mothers. By analysing longitudinal data, we can better understand patterns and associations, and produce strong evidence about these key mechanisms. However, in longitudinal studies which focus on child outcomes, data collected from, or even about fathers, has been relatively sparse (see Kiernan, 2014). The paper outlines the nature of data that has been collected in such large scale longitudinal studies, and focuses on Growing Up in Scotland (GUS), a Scotland-wide study which is tracking the lives of two cohorts of Scottish children from the early years, through childhood and beyond. GUS has collected data from and about fathers at several time points for the largest cohort.

The paper reports findings relating to father-child relationships and child socio-emotional wellbeing (Parkes et al, forthcoming), highlighting risk factors for low father emotional supportiveness (as perceived by ten-year old children), which include: socio-economic disadvantage, family adversity, an unsupportive partner relationship, a more disruptive family climate, and the presence of a non-biological father figure.

The presentation will conclude by outlining future plans for GUS work elucidating aspects of fathers' relationships with their children: nested qualitative studies which will sample particular fathers, such as non-biological resident father figures, and/or which will focus on particular conceptual areas around the context of parenting and how it shapes father involvement and engagement, for example how one was parented oneself influences current parenting behaviours.

G3 PAPER SESSION: PRECARIOUS ECONOMIC TIMES

Early Career Trajectories: Precarity and Timing Within Labor Market Entry

Dirk Witteveen, City University of New York, USA

Research on job precarity and job stability have largely neglected the labor market trajectories in which these employment and non-employment situations are experienced. This study addresses the mechanisms of volatility and precarity in observed within work histories of labor market entrants using the National Longitudinal Survey of Youth of 1997 – a nationally representative sample of American high schoolers. Several ideal-typical post-education pathways are modeled for respondents entering the labor force between 1997 and 2010. The sequence analyses concentrate on varying indicators and degrees of precarity, including frequent (un)employment spells, involuntary part-time work patterns, and doubling-up jobs. Subsequently, a series of predictive models indicate that women, racial-ethnic minorities, and lower social class labor market entrants are significantly more likely to be exposed to the most precarious early career trajectories upon leaving the educational system. Moreover, leaving the educational system with a completed bachelor's degree is protective of experiencing the most unstable types of career pattern. A substantial number of NLSY'97 respondents have entered the labor market during recessionary times: the early-2000s recession and the Great Recession (2007 – 2009). While adjusting for various individual-level background and education variables, the findings also reveal a form of 'scarring' of the external macro-economic forces (regional unemployment level) on more hostile and turbulent early career. These pathways lead to considerable earnings penalties, not only immediately, but up to five years after labor market entry. Concerns have been raised in the social sciences about youths exposed to severe recessions at the start of their careers and whether this produces a 'lost generation.' The sequence analyses conducted in this study provide both visual context and quantitative evidence of the stratifying effects of such events on the early phases of professional careers.

Do Economic Recessions Affect Mental Health? A Longitudinal Fixed Effects Analysis of Psychotropic Medication Use in a National Cohort

Heta Moustgaard, Pekka Martikainen, University of Helsinki, Finland; Mauricio Avendano Pabon, Kings College London, UK

Background: A growing body of evidence suggests population mental health to be worse at times of economic recessions. Most of the research is, however, based on ecological or repeated cross-sectional designs and thus the possibility for causal inference is limited. Few studies have assessed individual level changes in mental health according to macroeconomic fluctuations.

Design: This study used nationally representative cohort data drawn from Finnish population and administrative registers (1,183,174 individuals aged 25-64 contributing 14,242,982 person-years) to assess the effects of year-to-year changes in regional unemployment rates on changes in psychotropic medication in 1995-2012. We analysed psychosis medication, sleep medication, sedatives, and antidepressants separately and as any psychotropic use. We used linear probability models with individual-level fixed effects to control for all unobserved time-invariant characteristics that may affect psychotropic use irrespective of macroeconomic conditions. We also controlled for region of residence and year to account for regional differences and time trends in psychotropic use. Further, we assessed individual employment transitions as possible mechanisms linking macroeconomic fluctuations to individual mental health.

Results: Regional unemployment rates were unrelated to the use of any, psychotic, or sleep medication both before and after controlling for individual level fixed effects. Antidepressant and sedative use were, however, significantly more likely when regional unemployment rates were higher even after controlling for all time-invariant individual characteristics. The probability of antidepressant and sedative use

increased by 0.09 (95% CI 0.02-0.15) and 0.07 (95% CI 0.02-0.11) percentage-points respectively for every one percentage-point increase in the regional unemployment rate and these effects were unaffected by controls for individual employment transitions.

Conclusions: Macroeconomic fluctuations seem to have a causal effect on individual mental health as higher regional unemployment rates predicted increased use of antidepressants and sedatives even when controlling for regional and temporal trends and time-invariant individual characteristics.

Fertility Reactions to the Great Recession: Evidence on the Mothers' Decision for a Second Child from the German Socio-Economic Panel

Claudia Recksiedler, University of Lausanne, Switzerland; Gabriela Gniewosz, German Youth Institute Munich, Germany

Economic uncertainties are linked to young men and women's delayed commitment to family obligations (e.g., Mills & Blossfeld, 2009). For the Great Recession of 2008, studies pointed toward declining fertility rates across many developed nations due to the threat or experience of unemployment and economic instability (Cherlin et al., 2013; Schneider, 2015; Sobotka et al., 2011). Most studies, however, focused on young adults' first transition into parenthood and evidence concerning the effect of the recession on higher-order births yielded mixed results (Goldstein et al., 2013). Because understanding mothers' decision for a second child is crucial in light of record-low birth rates below the replacement rate in Germany and other European countries (Eurostat 2016), the present study aims to identify trends in prevalence and timing of higher-order births, and to examine if the Great Recession influenced mothers' decision for a second child. Drawing on the German Socio-Economic Panel, we selected a subset of mothers who had one child under the age of 18 in 2006—shortly before the onset of the Great Recession hit ($N = 1,092$). We tracked our subsample over the recession years into the recovery period in 2014 and recorded annual measures of the birth of another child, perceptions of the recession, household income, self-rated health, marital and employment status, and educational attainment. Logistic multilevel models revealed that mother's individual characteristics, such as partnership status and education, influenced the likelihood of having second child. Although perceptions of the recession did not predict mother's likelihood to have a second child, families' household income did. Our findings suggest that increased uncertainties of the recession did not strongly affect mother's decision for a second child, except if families felt economic deprivation first-hand. We further discuss these findings for specific sub-groups that were particularly affected by the recession (Jenkins et al., 2013).

Labour Market Outcomes and the 2008 Financial Crisis: A Latent Variable Approach

Dan Orsholits, Matthias Studer, University of Geneva, Switzerland

The impact of the 2008 financial crisis has yet to be fully determined. While it is still too early to evaluate the long-term effects of the crisis on individuals' life course, it is possible to evaluate whether the crisis had an impact on individuals in the short- or medium-term.

The analysis will focus on two main labour market outcomes. The first is simply the effect the crisis had on the likelihood of experiencing unemployment and which groups were most or least affected. The second labour market outcome of interest is the effect of the crisis on employment conditions. More specifically, has the crisis made individuals feel that their employment is less secure, or more vulnerable, and their working conditions have objectively deteriorated (for instance changes in work arrangements, an increase in unpaid overtime).

The study focuses on two countries – Switzerland and the UK – and uses longitudinal data from Swiss Household Panel, the British Household Panel Survey, and the UK Household Longitudinal Study. The data is analysed using latent growth curve models and latent transition analysis. This lets us compare the effects of the crisis in a country that was relatively unaffected – Switzerland, for which preliminary results from a latent growth curve model show no significant effect of the crisis on the likelihood of unemployment – to a country that was heavily impacted by the crisis – the UK. The benefits, drawbacks, and suitability of each modelling approach in evaluating the different labour market outcomes will also be discussed.

Adaptation Processes and Health Problems in Precarious Prosperity

Monica Budowski, Rebekka Sieber, University of Fribourg, Switzerland

This presentation aims at understanding the adaptation of individuals that live in households situated in precarious prosperity, especially when this situation goes along with health problems of a household member.

Precarious prosperity describes a specific position situated in between poverty and secure prosperity. We link this insecure situation to quality of life (QOL) and adaptation and define QOL as good living conditions that go together with a positive subjective wellbeing. Thus, people who report high subjective wellbeing despite bad living conditions are considered to be adapted to their situation (Zapf, 1984). Zapf's definition of QOL and Lister's (2004) framework on agency in poverty are used to build a conceptual framework for our analysis. We dispose of three waves of qualitative interviews (2008, 2009, 2013) with households in Switzerland, Chile and Costa Rica and analyze them based on thematic charts. Case examples illustrate the adaptation processes during the time of the study, but the analysis will extend beyond the time of the data-collection period in that past experiences (personal and household biography) and households' and individuals' future anticipations are also considered to understand their QOL.

Results show that the processes of adaptation tend to be similar according to relevant social experiences. When experiencing health problems, adaptation to precarious living conditions seems to be possible if these diseases are (at least partially) cured or stable. The difficult living conditions are then relativized in light of the experienced health difficulties. However, a severe health problem is also the main reason that hinders adaptation and leads to low subjective well-being in precarious prosperity.

We conclude that looking at subjective well-being alone provides a distorted picture of welfare. Adaptation must be considered when evaluating the QOL of people living in precarious prosperity.

Poster Presentations

Healthy Ageing In Scotland (HAGIS) - A New Data Resource for Multidisciplinary Research

Elaine Douglas, David Bell, University of Stirling, UK

HAGIS gathers information on the economic, social and health circumstances of people aged 50+ years to inform policy debate and improve the outcomes for older people in Scotland. This poster will outline how HAGIS, as Scotland's first longitudinal study of ageing, provides a world class resource to enable multidisciplinary research of international significance.

HAGIS enables multidisciplinary collaboration: demographic data are gathered alongside many highly cited validated measures covering many topics including financial literacy, wellbeing, risk attitudes, health behaviours, cognitive ageing, social networks and loneliness.

HAGIS enables national and international collaboration: data are harmonised with the Global Aging Data platform to enable comparisons with other ageing studies in England, Ireland, Europe, USA, India, Japan and more.

HAGIS, as a data resource, is further enhanced by administrative data linkage: HAGIS survey responses can be anonymously linked to health, social care and education data to produce a truly world class data resource. How is health care usage associated with retirement planning? How are school exam results associated with later life wellbeing? How would you use this data?

Dr Elaine Douglas, Research Fellow and Project Manager for HAGIS, will answer your queries on how HAGIS can become a data resource for your research.

Whole Genome Association Analysis to Examine the Relation to the Lifestyle

Kazuro Shimokawa, Yuki Sato, Akira Narita, Jyun Yasuda, Takako Takai, Hiroshi Tanaka, Tohoku University, Japan

There exists something consumed for taste or stimulant effect with the dining habit, and it is known that some are discussed the possibility of the relation to the genome. These customs might come to have relations with the disease for the long term. We have collected 10,000 or more healthy people and investigated the relation between the dining habit and the single nucleotide polymorphism and tried to explain these relations from the side of metabolism, epidemiology.

Daily Nutrition, Muscle Mass and Mobility and in an Ageing Population

Tanya Wilson, Rachel Crockett, Elaine Douglas, Lee Hamilton, University of Stirling, UK

In this project we take an interdisciplinary approach to investigate the associations between everyday nutrition and physiological outcomes, and the subsequent associations with maintaining health in an ageing population. Our research links four distinct research strands across the disciplines of Health Science, Psychology, Public Health and Economics. We use a dataset drawn from the UK Biobank, which contains a wealth of information from over 500,000 participants including demographics, self-reported (subjective) measures of health, as well as detailed objective health measures (collected by health professionals). Our primary research question, investigates whether a relationship between everyday diet and physical function exists, and to what extent this relationship is modified by socio-economic attributes. Subsequent analysis focuses on dietary components, specifically the contribution of the quantity and quality of protein consumption in diet as compared to other macronutrients, and on measures of physical function and well-being that are associated with healthy ageing, such as physical activity, sleep, mobility and the risk of falls. To our knowledge this is the first interdisciplinary study to examine the associations between nutrition/diet, physical outcomes, socio-economic characteristics and ageing in a holistic approach.

Measuring Big Data Skills: Possible Proxy Measures

Alana McGuire, University of Stirling, UK

Big Data has become somewhat of a buzzword in the past couple of years, with research showing an apparent increase in demand for Big Data skills. However, a key question remains, how can we measure Big Data skills? I propose two proxy measures in my poster. The first measure is composed of data from the 1970 British Cohort 16-year follow-up arithmetic test. I argue that this provides a good basis on which to examine data skill inequalities, which may in turn be indicative of Big Data skills. Data from the arithmetic test was also merged with socioeconomic data from the 2004/05 follow-up study to examine inequalities in data skills. The second proxy is based on several skill shortage variables from the Employer Skills Survey. I argue that this creates a 'Big Data base skills' variable which measures how difficult it will be for employers to bring data into their organisation based on a number of factors, for example, the gender division of the workforce, the sector, and the size of the organisation. My poster will present both proxy variables, arguing why these variables are good proxy measures, and some regression models using the measures will be shown.

Lifetime Experiences of Care Among Children in England: Analysis of Administrative Social Care Data

Louise McGrath-Lone, Bilal Nasim, Lorraine Dearden, Ruth Gilbert, University College London, UK;

Katie Harron, London School of Hygiene & Tropical Medicine, UK

Background: In England, routinely-collected data monitors care provision and outcomes within a financial year for children in out-of-home care (OHC). Research exploring OHC experiences throughout childhood is lacking.

Methods: We analysed Children Looked After return (CLA) data for one-third of children in England who were born 1992-1994 and entered OHC (N=19,849). We described variation in OHC experiences throughout childhood, including total time in care, total placement moves and destination at final exit from care. We also used sequence and latent class analyses to identify common OHC careers.

Results: On average, children spent 32 months in OHC throughout childhood and moved placement twice. Most had a single period of OHC; however, one-third (33.0%) entered care multiple times. When leaving care for the final time, most children (42.6%) returned home to their parents. Sequence and latent class analyses identified common, age-specific OHC careers e.g., among children who first entered OHC aged 16+ years (n=2,178), most had a "short, single, voluntary placement" (49.4%).

Conclusions: Longitudinal analyses describe variation in OHC experiences that could enable service providers to better address the needs of children entering care but is not captured by financial year 'snapshots'. Future work should explore how outcomes vary across OHC careers.

Socioeconomic Circumstances in Childhood and Trajectories of Disability in the Second Half of Life: European Longitudinal Analysis

Aljoscha Landös, Boris Cheval, Stefan Sieber, Rainer Gabriel, Dan Orsholits, Matthias Kliegel, Claudine Burton-Jeangros, Stéphane Cullati, University of Geneva, Switzerland; Idris Guessous, Delphine Courvoisier, Geneva University Hospitals, Switzerland; David Blane, Imperial College London, UK

Objectives: Using a life course approach we examined the ways in which childhood socioeconomic circumstances (CSC) have an impact on activities of daily life (ADL) and instrumental activities of daily life (IADL), and whether the association is explained by adulthood socioeconomic position (ASP).

Methods: Data of 17,741 persons aged 50 years and older in 12 European countries (SHARE project) were used to measure the associations between CSC (1 most advantaged, to 5 most disadvantaged) and limitations with ADL and IADL using prevalence ratios (PR) estimated with Poisson mixed models. Models were adjusted for education and main occupation during adulthood, and potential confounding factors.

Results: For women, preliminary analyses showed that the lower the CSC, the higher the limitations with ADL. The negative association of a disadvantaged CSC (PR CSC5=3.08, p<0.001) on ADL kept a strong predicting value even after controlling for ASP, socio demographics, health status, and health behaviour in later life. For men, CSC had a weaker effect and was completely explained by ASP. Results were similar for IADL.

Conclusion: For women, a disadvantaged CSC is strongly associated with disability in later life. For men, ASP mediates the impact of lower CSC. Further analyses are ongoing to explain this gender difference.

The Transition of the Significant Others Among Elderly Japanese People: Using Discrete-Time Multinomial Logistic Regression Models

Tomoo Nakata, Hokusei Gakuen, University, Japan

The aims of this study were to examine the transition of the significant others among elderly Japanese people using panel data. Though the significant others are one of the origin of the resources for the older people, the transition of it with aging has not been inspected. This study utilized the National Survey of the Japanese Elderly, from wave I (1987) to wave VI (2002). The transition of the significant others of the people who recognized their spouse as it at the first survey and its differences among respondents' gender, residential area and characteristics; of the support would be revealed. The respondents' gender, age, educational levels, occupational status, marital status, economic status, health status were used as the independent variables. The results of the analysis using discrete-time multinomial logit models are as follows; 1) the transition of the significant others offering emotional support are affected by marital status and aging. On the other hand, those with tangible others are effected by respondents' gender, health status, educational level marital status and aging. 2) Female tend to change the significant others from spouse. 3) Some local area characteristics affect the transition of the significant others.

Mental Health Trajectories: From Childhood to Adulthood

Pamela Salsberry, The Ohio State University, USA

In 2015, an estimated 16.1 million adults aged 18 or older in the United States had at least one major depressive episode, representing 6.7% of all U.S. adults. Furthermore, approximately 20% of the U.S. population over 18 is diagnosed with some mental illness in any year. Life course frameworks present a critical lens to consider the development of mental health and illness by linking child behavioral conditions with later life outcomes. Developing mental health trajectories that can inform research and practice is of high value, as the timing and factors influencing outcomes (either positively or negatively) may be identified leading to new research and interventions. Using the National Longitudinal Survey of Youth (NLSY)-Young Adult Surveys this research tracks mental health outcomes (primarily mood disorders, depression, and anxiety) during early adulthood (ages 25 to 30 years) and relate these to childhood (before age 8 years) behavioral measures (using Behavioral Problem Index internalizing and externalizing scales). Differences across race (African-American and White) and sex are examined (sample size approximately 2650). Also, because of the NLSY design, we explore maternal as well as social context factors from early childhood through adulthood.

The Family Centered Care: The Midwives Perspectives

Maria de Fátima da Silva Vieira Martins, University of Minho School of Nursing, Portugal

Birth is a unique process for women. The care that a woman receives during labor affects the mother, the child and the family so it is important to know the context of women's lives. The attributes of family-centered care were recognized as some important. The family is considered as a care client assuring its participation in the planning of actions to be taken. An exploratory qualitative study was used. The sample consisted of 8 midwives in primary center care. The midwives know the importance of the family during the pregnancy, childbirth and post-partum, but they cannot define the philosophy of Family Centered Care. The midwives integrate the family on the care but the midwives knowledge about familycentered care is negative because the family is not considered as a client. The findings revealed that family centered-care was a comprehensive and holistic caring approach in maternity. To develop a woman-centered philosophy of care within the context of maternal newborn practice is very important. In this sense, new studies are needed to sustain the importance of Family Centered Care in the practice of pregnant woman care.

Impact of Mothers' Involvement in a Culture Sensitive Communication Intervention on Their Sexual and Reproductive Health Communication with Their Daughters in Alexandria, Egypt

Yasmine Yousry Muhammed, Hanan Mourad, Abd El-Aziz, Gehan Mohamed Mounir, Zeinab Nazeeh Shata, Alexandria University, Egypt

Background: Adolescents' sexual and reproductive health (SRH) education has been identified as a global challenge for improving adolescents' health. Such issues are usually surrounded by cultural sensitivities and gender disparities. Parent-adolescent communication is increasingly being recognized as a successful strategy for improving adolescents SRH knowledge.

Aim: Evaluate the impact of a culture sensitive educational intervention on mothers of adolescent girls targeting their SRH communication.

Methods: A pretest-posttest intervention targeted 63 mothers of adolescent girls. Mothers received 3 educational sessions to improve their SRH knowledge and their communication skills with their daughters.

Results: Participated mothers showed significant improvement in their SRH knowledge regarding different SRH issues. They showed significant improvement in their perceived importance of SRH communication with their daughters. Mothers also showed significant improvement in SRH communication and significant decrease in the mean number of communication barriers. However, improvement in communication of reproductive health issues was higher than that for sexual health issues, especially for issues of sexuality and sexually transmitted infections.

Conclusion: Similar, larger scaled sustainable interventions are needed to educate mothers on SRH issues and about their adolescent girls' needs and conflicts and to improve their communication skills considering the social, cultural and religious values and barriers.

Conduct Problems Trajectories and Psychosocial Outcomes: A Systematic Review and Meta-Analysis

Leonardo Bevilacqua, Russell Viner, University College London, UK; Dan Hale, Heriot Watts University, UK; Edward D. Barker, King's College Institute of Psychiatry, UK

Background: There is increasing evidence that youth who follow Early-Onset Persistent(EOP), Adolescent-Onset (AO) and Childhood-Limited (CL) trajectories of conduct problems(CP) show varying patterns of health and social outcomes in adulthood. However there has been no systematic review and meta-analysis on psychosocial outcomes associated with different CP trajectories.

Methods: We systematically reviewed the literature of longitudinal studies considering outcomes of three CP trajectories: EOP, AO, CL compared with groups with low levels of aggression or control participants. We performed a series of meta-analyses comparing each trajectory group to low aggression or control groups for 8 different outcomes in early adulthood or later.

Results: 13 studies met our inclusion criteria. Outcomes were mental health (depression), cannabis use, alcohol use, self-reported aggression, official records of antisocial behaviour, poor general health, poor education and poor employment. Overall, EOP individuals showed significant higher risk of poor outcome followed by AO individuals, CL individuals and finally control participants.

Conclusions: All CP trajectories showed higher risk of poor psychosocial outcomes compared to control groups but the magnitude of risk differed across trajectories, with a general trend for EOP to perform significantly worse, followed by AO and CL. Early intervention is recommended across domains to maximise likelihood of desistance from antisocial behaviour and improvement on several psychosocial outcomes.

Does Youth Participation in the School Help Avoid the Later Social Exclusion? The 1987 Finnish Birth Cohort

Marko Merikukka, Tiina Ristikari, Mika Gissler, National Institute for Health and Welfare, Finland

Background: The health and welfare of adulthood has origin in childhood and adolescence. Childhood and adolescence are the best times to prevent later social exclusion. One of the prevent possibilities is youth participation, which views participation as an opportunity for young people to speak up, to be heard and allowed to make their views known in matters affecting them.

Hypothesis: Aim of our study is to examine the hypothesis: youth participation in school help to avoid later social exclusion.

Data: The 1987 Finnish Birth Cohort yields longitudinal nationwide follow-up data that include a complete census of children born in a single year (N=59476). Children have been followed over time through the year 2012 using official registers maintained by Finnish authorities. The Finnish School Health Promotion study is cross-sectional classroom survey, which includes questions covering cohort members' school-work and health and lifestyle habits.

Methods: School level data can be merged to individual level register data (1987 FBC) by a unique numeric code regarding the school the cohort members attended in 8th or 9th grade. Structural equation models are used to modelling the structures and examining relations of individual and family-related determinants, youth participation (as mediator) and social exclusion.

Educational Outcomes Among Immigrants in High-Income Countries: A Longitudinal Analysis of PISA Scores from 2003 to 2015

Florencia Silveira, Kristie Rowley, Mikaela Dufur, Jonathan Jarvis, Brigham Young University, USA

Recent waves of immigration and political changes have sparked a debate among scholars and media outlets alike regarding the influence of immigration on a country's economic wellbeing and success. In education specifically, it is commonly assumed that immigrant students underperform relative to native students, and therefore that large proportions of immigrants negatively and substantially influence country-wide academic achievement. We would therefore expect countries with higher immigration in recent years, such as Sweden and France, to have lower achievement in recent assessments than in initial assessments, while countries with lower immigration, such as Iceland and Finland, to have improved countrywide achievement. Using the PISA assessment, we compare the performance of three immigrant groups (2.5 generation, second generation, first generation) to that of native students in each country, as well as to immigrants in other countries. Using a longitudinal approach, we examine and compare the intersectionality between immigrant groups, SES, and country of participation in 2003, 2006, 2009, 2012, and 2015 and its relation to achievement. To examine the influence of immigration on educational outcomes, we specifically benchmark the achievement of immigrant students in the following countries: Denmark, Finland, France, Germany, Iceland, Norway, Spain, Sweden, the United Kingdom, and the United States.

Does Malnutrition in Early Life Affects Cognitive Development? A Life Course Approach in Four Developing Countries

Nan Zhang, Tarani Chandola, University of Manchester, UK

Chronic malnutrition is a major global health challenge, particularly in low- and middle income countries. Few studies have examined the long-term influence of chronic malnutrition in early life on subsequent cognitive outcome and how recovering from early stunting can benefit cognitive development in a cross-national context. Analysing data on 8062 children in Ethiopia (n=1,999), India (2,011), Peru (n=2,052) and Vietnam (n=2,000) from the Young Lives Study, a cross-national cohort study on child poverty and wellbeing in the developing world, we studied younger cohort, enrolled in 2002 at ages 6-17.9 months, followed in 2006 at 5 years old and in 2009 at 8 years old. Longer term of being stunted was associated with lower cognitive scores at age 8 for both girls (p<0.05) and boys (p<0.01). We found catch-up growth from early stunting significantly increases cognitive outcomes of girls who were stunted at baseline (coef=7.91, p<0.01). No significant associations were found for boys. Recovery from early stunting is possible, in

particular for girls and this can lead to improvement in cognitive development. Given the important role girls and women play in contributing to family and national economies, improving nutrition in early childhood of girls in developing countries is a long term economic investment and driver of economic growth.

Dietary Habits During Pregnancy and the Risk of Postpartum Depression in Japanese Women

Yuki Sato et al, Tohoku University, Japan; The Group of the TMM BirThree Cohort Study

Mothers' mental health is one of strong factor which related to child health and development. The suggestions that association between recent dietary habits in pregnant women and the risk of postpartum depression are still scant from Asian population. We examined the association between dietary habits before childbirth and the risk of postpartum depression by using large-scale prospective birth cohort data in Japan. We used the data of 12,316 pregnant women who participated to Tohoku Medical Megabank Project Birth and Three-Generation Cohort Study until the end of December 2015. Participants also completed a self-administered questionnaire during pregnancy (at 24 weeks' gestation) and at 1 month post-partum. Dietary habits during pregnancy were assessed by 'frequency of having breakfast', 'frequency of eating-out', and 'frequency of using instant food', each measured on a 6-point scale. Postpartum depression was measured using the Edinburgh Postnatal Depression Scale (EPDS) at 1 month post-partum. The associations were assessed using multivariate logistic regression, adjusting for lifestyle and sociodemographic variables. High frequency use of instant food during pregnancy was related to increased risk of postpartum depression. Our results may suggest that certain dietary habits in pregnancy predict the occurrence of postpartum depression.

ELAStiC (Electronic Longitudinal Alcohol Study in Communities)

Ashley Akbari, Ronan Lyons, Damon Berridge, Swansea University, UK; Simon Moore, Frank Dunstan, David Fone, Shantini Paranjothy, Daniel Farewell, John Gallacher, Cardiff University, UK; John MacLeod, Matt Hickman, Bristol University, UK; Mark Bellis, Public Health Wales, UK

The ELAStiC (Electronic Longitudinal Alcohol Study in Communities) project was established to determine factors that predict pathways into alcohol misuse and the life-course effects of alcohol use and misuse on health and well-being. This is achieved through accessing existing longitudinal data cohorts/collections that are key sources of evidence for social and health policy, developing statistical methods and modelling techniques from a diverse range of disciplines, working with stakeholders in both policy, practice and the third sector, in order to bring together a diverse team of experts to collaborate and facilitate learning across diverse fields.

This is a unique project that makes use of existing data to understand the impact of alcohol use on measurable outcomes, including health and educational attainment data. The results of the data linkage between the multiple cohorts and routine data will be reported, as well as the challenges encountered from linkage between differing data sources and from different nations will be discussed. Our project aims to provide evidence that informs the UK Government's commitment to "radically reshape the approach to alcohol and reduce the number of people drinking to excess", by working with existing longitudinal data collected in the UK to inform policy and practice.

The Impact of the UK 2008-2010 Recession on Maternal and Infant Health

Eleonora (Noortje) Uphoff, Kate Pickett, University of York, UK; Neil Small, University of Bradford

Background: This study assesses associations between exposure to the 2008-2010 UK recession, financial stress and maternal and infant health.

Methods: Data from the Born in Bradford (BiB) cohort study, which recruited pregnant women from 2007-2010 in a deprived and ethnically diverse city in the North of England, is used to study low birth weight in term babies, preterm birth, smoking during pregnancy and maternal psychological distress in relation to exposure to recession as indicated by a date of recruitment since the first of August 2008. Results 10 035 mother-infant pairs were analysed. Pregnant women exposed to recession reported higher levels of psychological distress (adjusted β 0.05, 95% CI -0.00 to 0.10). This relationship was mediated by financial situation (β 0.02, 95% CI -0.03; 0.06). Exposure to recession was not associated with low birth weight or preterm birth, but reporting a worse financial situation was associated with preterm birth (OR 1.32, 95% CI 1.05 to 1.65). Exposed women were more likely to smoke during pregnancy (adjusted OR 1.40, 95% CI 1.23 to 1.60).

Conclusions: The 2008-2010 UK recession has negatively impacted on maternal distress, smoking in pregnancy and possibly preterm birth, partly through increased levels of financial stress.

Childhood Adiposity Trajectories Are Associated with Late Adolescent Blood Pressure: Birth to Twenty Cohort

Richard Munthali, Juliana Kagura, Zané Lombard; Shane A. Norris, University of the Witwatersrand, South Africa

Background: Elevated blood pressure in childhood is a risk factor for adult hypertension, which is a global health problem. Excess adiposity in childhood creates a predisposition to develop adult hypertension. Our aim was to explore distinct sex-specific adiposity trajectories from childhood to late adolescence and examined their association with blood pressure.

Methods: Latent Class Growth Mixture Modelling (LCGMM) on longitudinal data was used to derive sex-specific and distinct body mass index (BMI: kg/m²) trajectories. We studied 1824 black children (boys = 877, girls = 947) from the Birth to Twenty (Bt20) cohort from Soweto, South Africa, and obtained BMI measures at ages 5 through 18 years. Analysis of variance (ANOVA), chi-square test, multivariate linear and standard logistic regressions were used to test study characteristics and different associations.

Results: We identified three (3) and four (4) distinct BMI trajectories in boys and girls, respectively. The overall prevalence of elevated blood pressure (BP) was 34.9 % (39.4 % in boys and 30.38 % in girls). Boys and girls in the early onset obesity or overweight BMI trajectories were more likely to have higher BP values in late adolescence. Compared to those in the normal weight BMI trajectory, girls in early onset obesity trajectories had an increased risk of elevated BP with odds ratio (OR) of 2.18 (95 % confidence interval 1.31 to 4.20) and 1.95 (1.01 to 3.77). We also observed the weak association for boys in early onset overweight trajectory, (p-value = 0.18 and odds ratio of 2.39 (0.67 to 8.57)).

Conclusions: Distinct weight trajectories are observed in black South African children from as early as 5 years. Early onset adiposity trajectories are associated with elevated BP in both boys and girls. It is important to consider individual patterns of early-life BMI development, so that intervention strategies can be targeted to at-risk individuals.

Outcomes and Experiences of Growing up in Kinship Care. A Longitudinal Research Project 1998-2018 About Kinship Care

Jeanette Skoglund, Amy Holtan, Renee Thørnblad, RKBU Nord, University of Tromsø, Norway

Kinship foster care is one alternative type of out-of-home placement and can be defined as children being cared for by non-parental relatives within child-protection jurisdiction. In our project we explore kinship care families in Norway from a longitudinal perspective. Our focus evolves especially around the children in kinship care. Important topics include: social integration, stability in family situations, psychological health, socio-economic resources and experiences. Data material has been collected (qualitative and quantitative) at three different stages in the children's lives.

Early School Leavers and Early School Experiences

Stine Vernstrøm Østergaard, SFI – The Danish National Centre for Social Research, Denmark

This poster examines how early school experiences correlates with early school leaving at age 18. At age 18 14 pct. of all young in Denmark are early school leavers, which means that they are not engaged in neither have finished upper secondary education. Using both parents and young people's survey answers at age 7, 11 and 15 on school engagement, conflict at school, academic self-assessment, school changes and truancy from 'The Danish Longitudinal Study of Children born in 1995' (DALSC), we construct four groups of 18-year-old school leavers with different early school experiences using latent class analysis. DALSC are a cohort survey study of 6,000 children born in 1995, and data are linked with comprehensive high quality administrative data on family background and school grades. We name the four groups "the evenly satisfied", "the enthusiastic", "the uneven" and "the vulnerable". 37 pct. belong to "the evenly satisfied" group who liked school, did well academically and socially, but was bored in class and didn't like homework. 32 pct. belong to "the enthusiastic" group who liked everything about school and did well in all ways. 17 pct. belong to "the uneven" group who liked school and did well, but experienced bullying, had conflicts with teachers and other students and often changed school because of maladjustment. And finally 14 pct. belong to "the vulnerable" group who had bad school experiences both academically and socially. Even when controlling for family background, grades and intelligence, our results from a linear probability model shows that early school experiences for the four groups are strongly linked to the probability of being early school leaver at age 18. Especially the young people belonging to "the vulnerable" group have a higher probability of being early school leavers, but also "the uneven" group are at risk.

Parallel Session 4

A4 SYMPOSIUM

Mental Health Across the Lifecourse: New Insights and Analyses from the Birth Cohort Studies

Convenor: Praveetha Patalay, University of Liverpool, UK

In this symposium, we present four papers that investigate the development, transitions and lifelong consequences of mental health. Mental health outcomes are broadly defined and not only include symptoms of mental illnesses but also wellbeing and life satisfaction.

The first two papers focus on childhood and adolescence (using data from the Millennium Cohort and ALSPAC). In the first paper McElroy and colleagues present person-centered transitions between internalising and externalising symptoms through childhood and adolescence in ALSPAC and in the second paper Patalay & Fitzsimons investigate the relationships and transitions between mental ill-health and mental wellbeing in the MCS. In paper three, Narayanan and colleagues focus on wellbeing through adulthood, presenting data on overall life satisfaction and more specifically job and partnership satisfaction in the 1958 and 1970 birth cohorts. In the final paper Ploubidis et al present the early old age outcomes of experiencing mental ill-health in early life illustrating the longer term effects of mental health in childhood on a range of objective health indicators in later life.

Internalizing and Externalizing Disorders in Childhood and Adolescence: A Latent Transition Analysis Using ALSPAC Data

Eoin McElroy, Mark Shevlin, Jamie Murphy, Ulster University, UK

Research examining the association between internalizing and externalizing dimensions of psychopathology has relied heavily on variable-centred analytical techniques. Person centred methodologies complement the variable-centred approach by describing typical patterns of comorbidity within a given population. As such, person-centred methods may help explain the medium-to-large correlations that have been found between higher order dimensions of psychopathology. What little person-centred research exists has been cross sectional and utilised adult samples. The present paper takes a person-centred approach to the modelling of psychiatric comorbidity during a key developmental phase: middle childhood through adolescence. Analysis was conducted on data from the Avon Longitudinal Study of Parents and Children (ALSPAC, N= 9,282). Latent transition analysis (LTA) was conducted using eight DSM-IV disorders assessed at ages 7.5 and 14 years as measured indicators. At both time points, a four class solution provided the best fit, with classes labelled as i) normative, ii) primarily internalizing, iii) primarily externalizing, and iv) high risk/multi-morbid. There was considerable individual-level stability across time, with approximately 80% of children remaining in the same class at both time points. Compared with those in the internalizing class at baseline, those in the externalizing class were less likely to transition to a less severe class (i.e. the normative class). Person-centred methodologies demonstrate that the association between internalizing and externalizing dimensions is accounted for by a sub-population at high risk of experiencing psychiatric comorbidity, and 'cross-class' disorders which link the internalizing and externalizing spectra.

Mental Ill-Health and Wellbeing: Exploring Developmental Trends, Social Inequalities and Reporter Biases in The Millennium Cohort Study

Praveetha Patalay, University of Liverpool, UK; Emla Fitzsimons, UCL Institute of Education, UK

In a recent paper exploring whether the determinants of childhood wellbeing and mental ill health are the same using data from the age 11 years survey of the Millennium Cohort Study, we highlighted the unique and overlapping correlates of these two domains in childhood (Patalay & Fitzsimons, 2016, JAACAP). Limitations of this paper included the availability of only parent-reported mental health difficulties at age 11 sweep, which were compared to child self-reported subjective wellbeing, possibly conflating differences in predictors of the two domains with reporter biases and perceptual differences between the young person and their parent. In the current study, we use data from age 14 years, with self-reported mental ill-health (using the short moods and feelings questionnaire), wellbeing and parent reported Strengths and Difficulties Questionnaire. This permits the disaggregation of the reporter effects from the differential correlates of these two domains. In addition, we will investigate the transitions from age 11 to 14 years in both mental ill health and wellbeing, investigate longitudinal cross-lagged relationships between these two domains and investigate social moderators (e.g., peer relationships) of these transitions.

Trajectories of Life, Job and Partnership Satisfaction in The 1958 and 1970 British Cohort Studies

Martina Narayanan, Benedetta Pongiglione, Alissa Goodman, George B. Ploubidis, UCL Institute of Education, UK; Praveetha Patalay, University of Liverpool, UK

This paper examines (1) trajectories of life, job and relationship satisfaction in cohort members of the 1958 National Child Development Study (NCDS) and the 1970 British Cohort Study (BCS70), (2) whether trajectories differ for men and women, (3) whether trajectories can be predicted by income, number of children, employment and partnership histories, and (4) how cohorts born 12 years apart compare on life, job and relationship satisfaction at overlapping time points. Life satisfaction was measured at ages 33, 42, 46 and 50 in NCDS and 26, 30, 34 and 42 in BCS70. Cohort members rated how satisfied they were with the way their life has turned out so far on a scale of 0 (completely dissatisfied) to 10 (completely satisfied). They also rated how satisfied they were with their present job overall on a scale of 1 (very satisfied) to 5 (very dissatisfied) and how happy their relationship was all things considered on a scale of 1 (extremely unhappy) to 7 (extremely happy). Job satisfaction was measured at ages 23, 33 and 42 in NCDS and 30, 34 and 42 in BCS70. Relationship satisfaction was measured at ages 33, 42 and 50 in NCDS and 30 and 42 in BCS70. Predictor variables will include continuous household-size equivalised family net income, derived variables on employment histories (e.g. duration, part-time versus fulltime, and occupation category) and partnership histories (e.g. duration, number of partners and type of relationship), and number of children at different time points. Hybrid fixed and random effects models are used to model trajectories of life, job and relationship satisfaction over time, including predictor variables and gender comparisons.

Early Life Mental Health Symptoms and Objective Health Indicators in Midlife and Early Old Age: Evidence from The 1958 British Birth Cohort

George B. Ploubidis, Benedetta Pongiglione, Hugo Cogo, Martina Narayanan, Alissa Goodman, UCL Institute of Education, UK; Praveetha Patalay, University of Liverpool, UK

Early life mental health is known to be associated with psychological distress and other mental health phenotypes in adulthood, as well as socio-economic outcomes such as income. More recently a small number of studies have shown an association between early life mental health and physical health outcomes in adulthood. However, these studies have relied mostly on self-reported health outcomes and in the instances where objective health indicators were employed sample sizes were small. In this study we identified trajectories of early life symptoms of psychological distress (externalising and internalising symptoms at ages 7 to 16) in a population based prospective birth cohort, and investigated their association with objective measures of cardiometabolic risk in midlife, disability in early old age (age 55) and all-cause mortality. We found that externalising and internalising symptoms in childhood/adolescence are associated with various biomarkers in mid-life, all-cause mortality (up to age 55) and disability at age 55. The effects were more pronounced in women. Gender differences were not due to (slightly) different latent classes/trajectories. Sensitivity analyses where the trajectories/latent classes were forced to be identical between men and women returned similar results. The accumulation of risk hypothesis was confirmed in both men and women for the majority of the outcomes considered in this study, whereas the sensitive period hypothesis was confirmed in women only, specifically for age 16 where associations between the group of women that had experienced externalising and internalising symptoms only at age 16 and cardiometabolic outcomes and mortality were observed.

B4 SYMPOSIUM**SLLS Policy Group – Comparing Generations of Cohort Studies**

Convenor: Aisling Murray, Economic and Social Research Institute, Ireland

Inter Cohort, Intergenerational Differences and Transfers: Policy Pointers

John Bynner, UCL Institute of Education, UK (j.bynner@ucl.ac.uk)

Abstract coming soon

Income-Related Inequalities in Health and Physical Activity: Findings from the 1958 and 1970 British Birth Cohort Studies

David Bann, Benedetta Pongiglione, Alice Sullivan, George B. Ploubidis, UCL Institute of Education, UK; Mark Hamer, School of Sport, Exercise and Health Sciences, Loughborough University, UK

Background: Large socioeconomic inequalities exist across multiple health outcomes and health-impacting behaviours. How these inequalities have changed across different generations remains less well understood. We examined income-related inequalities in two health-related measures (body mass index and physical activity) in two British birth cohorts initiated in 1970 (British Cohort Study) and 1958 (National Child Development Study).

Methods: Data were from up to 6,609 participants from the 1970 cohort, and 9,483 from the 1958 cohort. Components of family income were reported when participants were 16 and 42 years old, and continuous household-size equivalised family net income calculated. Self-reported measures of body mass index (kg/m²) and regular leisure time physical activity (yes/no) were reported at 42 years; physical activity participation was reported in a single question in the 1958 cohort, and derived from multiple questions on leisure time activity participation in the 1970 cohort. Associations were examined using sex-adjusted linear or logistic regression models, with income log-transformed.

Results: Higher income at both 16 and 42 years was related to lower BMI in both cohorts. For example, a 1% increase in income at 16 years was associated with 1.0 kg/m² (95% CI: -1.3 to -0.7) lower BMI at 42 years in the 1970 cohort and -0.2 kg/m² (95% CI: -0.4 to -.04) lower BMI in the 1958 cohort. Higher income was also generally associated with lower physical activity participation, despite differences in the measurement of physical activity.

The Changing Contribution of Childhood and Early Adulthood Characteristics on Mortality: A Comparison of Finnish Cohorts Born in 1936-1950 And 1961-1975

Heta Moustgaard, Pekka Martikainen, Lasse Tarkiainen, Janne Mikkonen, University of Helsinki, Finland; Irma Elo, University of Pennsylvania, USA; Mikko Myrskylä

Background: Life-course epidemiology suggests that early life circumstances affect adult health, but most of the evidence is based on old cohorts born in the beginning of the 20th century. It remains unclear whether the influence of early life circumstances has diminished in later cohorts due to large societal changes such as educational expansion and improvement in living standards. We compared the magnitude of the associations between childhood circumstances and midlife mortality in Finland for cohorts born in 1936-1950 and 1961-1975.

Design: We used two 10% register-samples of households drawn from the 1950 and 1975 Finnish censuses with follow-up of children in the households for midlife mortality from administrative registers. We observed 992,094 and 1,105,140 person-years with 1,978 and 1,547 deaths in the 1950 and 1975 samples respectively.

Results: There were large differences between the two samples in early life circumstances, with parents of the later cohorts more often highly educated and in professional occupations. In the 1950 sample, children of manual or agricultural worker parents and children living in crowded housing had higher mortality in midlife whereas parental education, home ownership and family structure in childhood were unassociated with midlife mortality. Mortality differentials seemed to have increased for the more recent birth cohorts. In the 1975 sample, all measures of childhood circumstances (low parental education, manual and agricultural parental occupation, household crowding, living in rented housing and with a single parent) predicted higher midlife mortality. However, the only statistically significant increase in the strength of the associations was shown for having parents in manual or agricultural occupations (p for cohort interaction $p=0.036$), and living in rented housing ($p=0.035$).

Conclusions: The association between childhood circumstances and midlife mortality may have become stronger in more recent birth cohorts, even with educational expansion and overall improvement in living standards.

Temporal Change in the Life Course Among US Women: Diverse and Disorderly, or Demographic Transition?

Sara R. Zobl, University of Michigan, USA

The life course is an important site for highlighting the relationship between heterogeneity and inequality. In this paper, I explore the implications of socioeconomic privilege and disadvantage for young women's navigation of the pathway to adulthood. I document patterns of heterogeneity in American women's life courses before and after major 1960s and 1970s social movements – the sexual and gender revolutions, women's liberation, and civil rights. By comparing late Baby Boomers' and Millennials' ordering of four major life events—completion of formal education, labor force entry, marriage, and first childbearing—I draw out differences in the ways various groups have taken advantage of the opportunities women gained as a result of these legal, political, and social reformations. Drawing on rich longitudinal data from both National Longitudinal Surveys of Youth (NLSY79 & NLSY97), I conduct the first nationally-representative, cross-cohort comparison of women's aggregate life courses, explore patterns of change by educational

attainment and race/ethnicity. I find that young women's lives have not simply grown more variable than their mothers': emergent patterns of variation are consistent with second demographic transition theory, in which privileged groups drive and reap the greatest benefits of social and demographic change.

C4 SYMPOSIUM

The Development of Educational Disparity in Modern Industrial Societies

Convenor and Chair: Jon D. Miller, University of Michigan, USA

In modern societies throughout the world, there is a growing disparity of educational attainment. The most advantaged citizens acquire higher levels of education and expertise and the less advantaged increase their knowledge capital at a significantly slower rate. Longitudinal studies over decades and generations provide the ideal means to measure and assess this process and to understand the factors that drive increasing disparity. This symposium proposes to present papers from three modern democratic industrial societies and to utilize multivariate methods to seek to identify and describe the factors that drive increasing educational disparity. The three countries to be included in the proposed symposium are Germany, the United Kingdom, and the United States. All three countries have longitudinal studies that span three decades and each of these studies include measures of participant educational attainment, parent educational attainment, and child educational attainment. The German analysis will utilize data from the Germany National Educational Panel Study (NEPS). The British analysis will include data from the British Birth Cohort Study of 1970, and the U.S. analysis will utilize data from the Longitudinal Study of American Life (LSAL). Each of the three proposed analyses will present the results of their analysis and focus on the policy implications of the findings. The discussant will bring his vast experience in survey research and education policy to an integrative discussion of the findings.

The Development of Educational Disparity in the United Kingdom

Alice Sullivan, Vanessa Moulton, Emla Fitzsimons, UCL Institute of Education, UK

Using data from the British Cohort Study of 1970 and Millennium Cohort Study, this paper will describe the generational and intra-generational change in cognitive attainment in Britain. In this strand of work we will exploit a unique aspect of the new Millennium Cohort Study (MCS) at age 14, in order to assess both the intergenerational transmission of cognition between parents and children, and to understand the extent to which inequalities have evolved over time and across generations. A vocabulary test previously administered to the 1970 Birth Cohort Study (BCS70) cohort members at ages 16 and 42 has now been administered to the MCS teenagers and their parents. This allows us to assess whether the distribution of cognitive attainment has changed, whether socio-economic inequalities in attainment have changed, and whether the pattern of rivers of attainment has changed. [Coordinator contact information: Alice Sullivan, Director and PI of BCS70, Centre for Longitudinal Studies, UCL Institute of Education, 20 Bedford Way, London].

The Development of Educational Disparity in the United States

Jon D. Miller, Belén Lespra, Sandra Tang, University of Michigan, USA

Using data from the Longitudinal Study of American Life (LSAL), this paper will describe the generational and intra-generational change in educational attainment in the United States and provide a measure of the level of disparity between the top quartile and the lowest quartile of adults. The analysis will also examine the inter-generational change in educational attainment between the LSAL participants, their parents, and their children. The paper will include a multivariate analysis of the factors that predict educational attainment (and thus educational disparity) among LSAL participants. The paper will conclude with a discussion of the policy implications for the findings. [Coordinator contact information: Jon D. Miller, Director, International Center for the Advancement of Scientific Literacy, Institute for Social Research, University of Michigan, 426 Thompson Street, Ann Arbor, Michigan 48106. Tel: 1-734-615-3377. Email: jondmiller@umich.edu].

Parental Education, Parental Class Position or Parental Status? Which Factor Has the Biggest Long Lasting Effect on Educational Attainment of the Children?

Wolfgang Lauterbach, Hartwig Hümmel, University of Potsdam, Germany

Studies in social inequalities in educational attainment associated with the social origin of the juvenile show different results of the influence of social origin measured with different instruments. The class position of the parents, the status and the educational position, all three representing economic, socio-cultural and educational family resources influence differently the educational attainment process. But there is also an ongoing discussion whether these effects are (1) real, (2) they are based on measurement construction or (3) it is relatively unknown how they effect in different combinations the attainment process. In this latter regard, one issue has received relatively little attention: i.e. that of the

conceptualization, combination and measurement of social origins together in one model. Therefore, we propose decomposing social origins into parental class, parental status, and parental education and estimate these variables in one approach to get an idea of the strength of these effects.

Following this approach, we analyze data from the German Life Study (Life 2012). The Life study is one of a small number of studies worldwide, providing information about life courses of adolescents and adults up to the age of 45 (1979-2012). Thus, a range of 30 years is covered. The focus of analysis represents the cohort of individuals born between 1965 and 1967. We show that these three components of social origins have independent and distinctive effects on educational attainment. We also make some assessment of combined effects. So we distinguish between different combinations of status, class and education.

D4 PAPER SESSION: FURTHER EDUCATION

Social Background, Elite Institutions and UK Graduates' Career Trajectories

Markus Klein, University of Strathclyde, UK

Research on stratification and mobility has consistently shown that there is a direct impact of social origin on occupational destination net of educational attainment. In the UK, we observe this effect even for the highly educated, i.e. graduates from higher social backgrounds obtain more favourable occupational positions than those from less advantaged backgrounds. Moreover, it has been shown that horizontal differences such as the field of study and institutional prestige matter for graduates' labour market outcomes. However, two shortcomings in the literature can be identified.

Firstly, only a few studies applied a longitudinal and dynamic perspective on how individual's working careers are related to social background and HE characteristics. Social inequality and stratification by, for instance, institutional prestige may decrease over time, remain stable or increase over the life course.

Secondly, social inequalities in career progression may be dependent on the institutional prestige of the university, i.e. family background in interaction with the HE institution shapes the labour market entry and the rate of progression in the labour market. In order to address this gap in the literature we aim to shed light on (1) processes of career progression by graduates from different HE institutions and on (2) differences between HE institutions in graduates' social inequality in career progression.

In our empirical analysis we use the 1970 British Cohort Study (BCS70) which follows the lives of more than 17,000 people born in England, Scotland and Wales. Our analysis focuses on individuals who graduated from university until the age 34 and models changes in occupational status up to 10 years in their career. To analyse group differences in career progression in a holistic way, we use multilevel growth curve analysis which is increasingly used to model occupational trajectories, characterized by multiple measurements over time.

Different Degrees of Success? Social Origin and Graduates' Labour Market Transitions

Adriana Duta, Cristina Iannelli, Bozena Wielgoszewska, AQMeN, University of Edinburgh, UK

Intergenerational social mobility research analyses the relationship between social class of origin and destination based on information on individual and parental occupations collected at one or two points in time (i.e. at employment entry and at a mature age). However, these studies have paid less attention to understand how these inequalities develop across the life span. Focusing on tertiary graduates, our study improves upon the existing research by examining individuals' labour market trajectories (including movements in and out of employment and between occupational classes) and how these trajectories vary by social class of origin. Two sets of questions will be addressed: (1) What are the typical labour market pathways followed by graduates? In other words, how graduates' occupational and employment trajectories unfold before reaching a mature destination? Are these pathways different among degree and sub-degree holders? (2) How do these pathways vary by parental social class? Do differences in graduates' HE experiences (field of study and institution attended and degree class achieved) explain class-of-origin differences? This paper answers these questions using data from the 1970 British Cohort Study which provides rich employment and occupational histories together with other key information such as respondents' parental background and higher education experiences. We use sequence analysis followed by cluster analysis to identify the typical trajectories followed by higher education graduates. We further employ multinomial logistic regression to examine whether and to what extent there are social inequalities in the chance of following more or less advantaged pathways and whether these inequalities are explained by differences in higher education attainment, field of study and prestige of the higher education institution from which they graduated.

Assessing the Impact of Food Insecurity on the Academic Success and Post-Secondary Transitions of Students in The Toronto District School Board

Paul Anisef, York University, Canada; Karen Robson, McMaster University, Canada; Robert Brown, Toronto District School Board, Canada

Studies in North America indicate that behavioral, emotional, and academic problems are more prevalent among hungry children than non-hungry children with food insecurity linked to lower math scores, greater problems coping with peers, poor health status, and higher prevalence of illness. Food insecurity is generally defined across studies as an inadequate quantity and quality of food among children and youth and is measured in terms of meal skipping, with research studies often employing access to free meals within schools as a key proxy of low income. This paper employs TDSB 2011 Student Census data (focusing on 15,133 students who were 17 years of age and enrolled in the TDSB in autumn of 2011) to conduct an exploratory analysis of the following general research question: “What is the impact of eating breakfast on a regular basis during the school week on student’s academic success?” Student success will be understood to include grades and confirmation of acceptance to post-secondary education. A life course approach underpins our argument that early deprivation in the form of food insecurity influences the educational opportunities experienced by youth. Data on postsecondary applications to Ontario institutions--the Ontario University Applications Centre (OUAC) and the Ontario College Applications Centre (OCAS)--were matched to individuals in the Student Census data set across the 2012, 2013, and 2014 application cycles and then merged in order to determine if students had applied and confirmed acceptance at a university or college in any of these years. Multi-level regression analysis reveals clear effects of meals on high school achievement (and subsequent postsecondary confirmations), with intersections between individual characteristics such as gender and race altering these effects. By way of illustration, the advantage of breakfast eating is not as strong for Blacks as for other groups – in fact, it is non-existent when unpacked in this manner.

Elementary At-Risk Status and Post-secondary Access in the TDSB, 2000-2013

Robert Brown, Maria Yau, Gillian Parekh, Toronto District School Board, Canada; Yueming Xi, University of Toronto, Canada

The increasing importance of early elementary interventions for long-term student success has been recognized, but documentation through long-term cohorts is just beginning in Canada. This study follows 4,098 Toronto District School Board students from Senior Kindergarten, when they completed the first pilot Early Development Instrument (EDI) in 2000, to 2013, when students had finished up to five years of high school, and made transitions to post-secondary education (PSE) study. Measures of early school readiness are an essential but not comprehensive measure of long-term success. Students identified as 'high risk' in Kindergarten through the EDI were much less likely to do well in elementary school; they were more likely to be identified as Special Education Needs; and they were less likely to go on to PSE at the end of high school. However, the majority of students who did not apply to PSE were 'medium' or 'low' risk according to the EDI. This paper will closely examine those students who were originally classified as 'Low Risk' by the EDI when in Kindergarten but had not chosen not to apply to PSE when surveyed 13 years later. The study will look at achievement in Grades 3, 6, and 9; absenteeism in Grade 6; Special Education Needs by Grade 6; Grade 9 streaming (Program of Study); neighbourhood income; and socio-demographic characteristics from the TDSB Student Census such as student race, parent education, and family structure.

E4 PAPER SESSION: SOCIAL MOBILITY

The Role of Inter-Regional Migration in Achieving Social and Economic Success for Graduates on “New” Career Pathways

Bozena Wielgoszewska, Zhiqiang Feng, University of Edinburgh, UK; Darja Reuschke, University of Southampton, UK

Spatial inequalities often lead to mismatch between people and employment opportunities. As a result of this mismatch, many seek to enhance their life chances by migrating from one region to another. University graduates, who are both highly educated and highly mobile (Abreu et al., 2015), are expected to utilise this strategy effectively. In the UK, London is recognised as an escalator region (Fielding, 1992), which attracts many graduates, and promotes them faster than other regions. The extent to which this escalation occurs in the context of different types of career pathways is less straightforward. The aim of this research is to examine the role of inter-regional migration in social and economic intra-generational mobility, for the UK graduates on different types of career pathways. For this purpose, information about 1623 university graduates is extracted from the 1970 British Cohort Study, including their economic activity histories, their geographical location at different points of their lifecourse, and the direction of their social and economic intra-generational mobility, between age 16 and age 42. Sequence analysis is used to build a typology of career pathways, which distinguishes between “traditional”, “entrepreneurial”, “work-life” and “non-

standard” careers. Multinomial logistic regression is used to investigate the role of inter-regional migration in the social and economic mobility of these types of graduates. Preliminary results indicate that although many graduates on all career types move to London in early stages of their career and out of London in the later stages, these moves are only related to upward mobility for graduates on traditional careers. For graduates on other career types, migration is more likely to act as a travelator, preventing them from moving down social and economic strata, rather than facilitating their upward mobility.

Higher Educational Attainment, Labour Market Outcomes, and Gender Inequality Across Time: Canada and Germany

Lesley Andres, University of British Columbia, Canada; Wolfgang Lauterbach, University of Potsdam, Germany

Since 1981/1982, more women than men in Canada have earned baccalaureate and professional degrees and since 1988 women surpassed men in terms of attendance. However, labour market participation by women remains at 74% in 2011 (Fortin, Green, Lemieux, Milligan, & Riddell, 2012). The latest OECD (2016) figures indicate that the earnings of Canadian tertiary educated women in 2014 was 71% of that of men’s earnings. Analyses of German data sets have revealed that in relation to increasing educational levels, women experience substantial earnings gains at the beginning of their careers. Over time, however, income levels of women remain relatively stable and do not increase when compared with men (Blossfeld, Skopek, Triventi, & Buchholz, 2015; Tarvenkorn & Lauterbach, 2009). Labour market participation by women in Germany is characterized by high rates of part-time work. However, the earnings gap is similar to Canada at 72%. Esping-Andersen (2009) indicates that overall employment rates and related income levels mask the extent of gender inequality and that the real analytical challenge is to explain these dynamics and to identify related consequences. To get to the heart of this issue, he argues that the extent and nature of labour market participation across the life course requires examination. In this presentation, we employ a comparative life course approach to unravel the relationships among schooling, higher educational attainment, labour market outcomes, and gender inequality. We employ data from the Paths on Life’s Way project in British Columbia, Canada and the German Pathways from Late Childhood to Adulthood: Context and Development in Adolescence as Predictors of Productive Life-Courses (Life). Both studies have survey components, contain representative province (BC) and Lander (Hessen) wide samples, and span 28 and 33 years, respectively. Sequence analysis (SA) will be employed to document the life course trajectories of respondents to both the Paths and the Life studies. Statistical clustering techniques will then be used to reveal the most prominent patterns – by gender – and subsequent transitions will be employed. Such techniques enable comparisons among groups in terms of educational and later labour market outcomes and income levels. The detail contained in these studies will enable us to gain unique insights into the effects of educational and labour market policies of our respective countries in relation to young Canadian and Germans’ lives.

Occupations as Elevators? Social Change During the 19th Century and its Relationship to Occupations

Paul Lambert, University of Stirling, UK; Richard Zijdemans, International Institute of Social History, Netherlands

In times of economic restructuring it is possible that individual occupations change, not just in their technical content and the volume or skill level of their incumbents, but also in their relative position in the wider social structure. In such situations, the incumbents of those occupations which change more than others might experience an unanticipated adjustment to their social circumstances simply by staying in the same occupational field through their lifecourse: occupations might act as large-scale social elevators by imposing positive or negative social mobility upon their incumbents.

This paper hypothesises an ‘elevator effect’ associated with occupational change during late industrialisation, and evaluates the evidence for this effect and for its impact upon individuals. Detailed occupational positions are identified using large-scale microdata from the UK census (1851-1911) and the Historical Sample of the Netherlands (births 1812-1922). Occupations are analysed in terms of detailed taxonomies (ISCO and HISCO units and national specific coding frames). The relative social position of occupations is understood by assessing macro level data on the occupations, and by using the profile of micro-level social interactions between the incumbents of different occupations. Impacts upon individuals are assessed by exploring linked microdata on their own and family outcomes. In this manner, statistical analysis of patterns in the circumstances of occupations can help us to assess wider mechanisms of longitudinal social change that are of interest to historical and contemporary understandings of trends in social inequality. Evidence of an ‘elevator effect’ would also challenge a long established position in sociological research, the expectation that the same occupations do not change substantially in their relative social position through time.

International Student Mobility and Life Course. Transitions, Sequences and Turning Points Among Credit and Degree Mobile Students from Luxembourg

Emilia Kmiotek-Meier, University of Luxembourg

Transitions into and from higher education have been widely discussed. However, research on international student mobility (ISM) has paid little attention to ‘transition’ and ‘turning points’ within student mobility. I will discuss the interplay between different dimensions (e.g. living situation, education, relations with peers) in the process of transition into student mobility - understood as a ‘sequence’ within the life course; with special focus on (1) mobility-dimension and (2) the differences between degree (whole programme abroad) and credit (short stay abroad) mobile students.

Qualitative analyses are grounded theory driven, based on 15 qualitative semi-structured interviews with students from Luxembourg. The fieldwork took place between October 2015 and December 2016. Quantitative data (N=370) were collected between December 2016 and January 2017.

For degree students “a new life phase” starts simultaneously on two levels: entrance into higher education and move into another country. For credit students, start and end points of those two levels are disintegrated. While degree mobility follows the standardised life course: school -> study -> employment and can be seen as transition, credit mobility is rather a turning point.

Both, degree and credit mobile students describe and evaluate the movement abroad as influential in their lives. While degree students do it always in positive terms, credit mobile students are ambivalent. They relate to loss of autonomy after moving back to parental home. This reversed transition leads to frictions, with the self and parents, as once being autonomous credit students have to give it up or shift their aspiration to become “fully” autonomous for later.

Based on these results, sequentiality and the evaluation of the sequences (and their different dimensions) seem to be essential while discussing transitions within student mobility. The ‘linked lives’, especially parents, should not be overlooked either.

F4 PAPER SESSION: SUBSTANCE USE

Parental Health and Socioeconomic Differentials in Violent, Self-Inflicted and Substance Use - Related Hospital Admissions Among Adolescent Children

Hanna Remes, Pekka Martikainen, Heta Moustgaard, University of Helsinki, Finland

Introduction: During adolescence, high-risk health behaviours emerge as major causes of morbidity. Multiple parental factors are known to associate with children’s health and injury risks but few studies have assessed parental social background and parental health at the same time.

We aim to find out to what extent parental health problems may account for the association between parental socioeconomic status and hospital admissions due to high-risk health behaviour among adolescent children.

Data and methods: Based on longitudinal register data on a 20% representative sample of all families with children aged 0–14 years in 2000 in Finland, our dataset contain detailed information on parental socioeconomic status, family structure and parental health problems (hospital admissions for somatic and mental disorders, substance abuse, and other external causes of morbidity) to examine the associations between parental factors and violent, self-inflicted and substance use -related hospital care episodes among adolescents aged 13–19 years in 2001–2011.

Results: Lower parental education and income, as well as coming from a non-intact or one-parent family associated with two- to three-fold hazard ratios of hospital admission due to high-risk health behaviour in adolescence. Adolescents, whose parents had been hospitalised for mental and behavioural disorders or external causes of morbidity, were likewise in a clearly higher risk of hospital admission due to high-risk health behaviour. To a degree, different patterns were found between boys and girls, and according to maternal or paternal characteristics.

Conclusions: The excess risks of violent, self-inflicted and substance use -related hospital admissions among adolescents from socially disadvantaged families are to an extent mediated by parental mental health and substance use problems. Policies aimed at tackling morbidity due to high-risk health behaviours among the young should focus on families with interrelated parental social and behavioural difficulties.

Why Adolescent Marijuana Use Has Not Increased in the Past Decade

Richard Miech, Lloyd Johnston, Patrick M. O'Malley, University of Michigan, USA

Background: Adolescent marijuana prevalence has not increased since 2005 despite a substantial decrease in the percentage of adolescents who believe marijuana use leads to great risk of harm. This finding calls into question the long-standing, inverse connection between marijuana prevalence and perceived risk of use, a connection central to many arguments opposing marijuana legalization.

We test two hypotheses for why marijuana prevalence did not increase after 2005: (a) decreases in adolescent use of cigarettes and alcohol reduced risk for marijuana use and counteracted the expected risk in marijuana prevalence, and/or (b) perceived risk of harm now plays a smaller role in marijuana use.

Methods: Data come from the annual, nationally-representative Monitoring the Future study from 1991-2016, which surveyed 1.1 million U.S. students in 8th, 10th, and 12th grade.

Results: The entire sample was stratified into three mutually exclusive and exhaustive groups based on cigarette and alcohol use. Within each of the three groups marijuana prevalence increased from 2005-2016. Paradoxically, when the three groups were combined into one analysis pool overall marijuana prevalence did not increase. The seeming paradox results from a decline in the percentage of adolescents who used cigarettes; as this group grew smaller so too did its disproportionately large contribution to overall marijuana prevalence. Perceived risk of harm from marijuana remained a strong indicator of use throughout 2005-2016.

Conclusions: Perceived risk of marijuana remains tightly associated with use, and adolescent marijuana prevalence today would be at or near record highs if cigarette use had not declined since 2005, according to study projections.

Cognition and Trajectories of Marijuana Use from Adolescence Through Young Adulthood

Brian Kelly, Purdue University, USA; Mike Vuolo, The Ohio State University, USA

The transition from adolescence to young adulthood is typically a period of heightened substance use behaviors. Considerable research has focused on the influence of substance use on academic performance during adolescence as well as the influence of substance use on educational attainment. Less well understood is the influence of cognitive ability on longitudinal patterns of substance use. This paper provides evidence of the role of cognitive ability in shaping trajectories of marijuana use from adolescence into young adulthood. We utilize the National Longitudinal Survey of Youth 1997, an annual nationally representative survey of adolescents aged 12-16 during 1997 (n=8,984). We used data assessing each individual through age 26 for latent trajectory analyses of marijuana use. We identified five primary patterns of marijuana use across this period: non-users, occasional dabblers, consistent users, persistent heavy users, and early heavy users who quit. Logistic regression analyses indicate that cognitive ability plays no role in whether or not young people have ever used marijuana by age 26. Multinomial regression analyses, however, indicate that adolescents scoring higher in cognitive ability are more likely to be occasional dabblers and consistent users of marijuana, less likely to be early heavy users, and no different from those with lower cognitive ability to be the persistent heavy users, net of the inclusion of numerous demographic and social covariates. These findings are robust to the inclusion of variables on peer group smoking, peer group drug use, and individual smoking at baseline. The findings indicate that cognitive ability may sort young people into different trajectories of marijuana use. Yet, young people with higher cognitive ability are more likely to be in lighter use patterns relative to both non-user and heavier user patterns. These findings have implications for considering the role of cognition in patterns of substance use over the life course.

Parallel Session 5

A5 SYMPOSIUM

Linking Health-Related Behaviours and Health Outcomes from Childhood to Midlife: Evidence from Three Longitudinal Cohorts in the UK

Convenor: Jeremy Staff, Pennsylvania State University, USA

Health-related behaviors, such as physical activity, dietary habits, and substance use, have been linked to various indicators of health and wellbeing. It is also well known that health related behaviors and health outcomes are influenced by changing social, economic, and demographic factors over the life course. In this symposium, we use rich longitudinal cohort studies that contain data from early childhood through adolescence (Millennium Cohort Study), midlife (1970 British Cohort Study) and later midlife (1958 National Child Development Study) to highlight short- and long-term associations between health-behaviors and health outcomes (i.e., obesity, psychological distress, self-reported health, etc.), and how both are shaped by early life experiences and circumstances. The first paper uses longitudinal data from the Millennium Cohort Study to examine intergenerational associations between parental employment experiences and offspring obesity. The second paper uses data from the British Cohort study to show how patterns of physical activity in adolescence shape health in adulthood. The third paper, using data from the National Child Development Study, shows how patterns of alcohol and cigarette use from age 23 to 55 relate to health and wellbeing in midlife. These papers are funded by a grant from the Economic and Social Research Council.

The Impact of Maternal Employment on Children's Weight

Emla Fitzsimons, Benedetta Pongiglione, University College London, UK

Background: The prevalence of childhood overweight and obesity has soared in recent decades. From 1965 to 2008, the proportion of 7-year-olds classified as obese and overweight had tripled. Over the same period, changes in intra-household working patterns have been stark. In particular, female labour force participation has sensibly increased, especially amongst mothers with children. We investigate whether the parallel rising trends in children overweight and parental working hours is coincidental or there is a causal relationship between the two.

Methods: We use data from the UK Millennium Cohort Study which contains detailed information on parental working hours from childhood, alongside measured body mass index (BMI), since respondents were aged 9 months (in 2000) to 14 years (in 2014). Overweight and obesity were defined based on the IOTF BMI cut-offs. We model changes in BMI over time as a function of changes in parental working hours using fixed effects regressions, which deals with time-invariant unobserved heterogeneity, which could affect both employment and investments in children (and thereby weight).

Results: Proportions of overweight or obese children was 18% at 3 years and more than 25% at the age of 14 years. Preliminary results suggest a positive and significant effect of not working mothers on children's weight, though they also point to the importance of distinguishing between lone parents and couples.

Next Steps: An investigation of the mechanisms will be explored using the rich longitudinal data, for instance whether this is through reduced time to devote to home production (such as meal preparation) or less supervision resulting in lower levels of physical exercise, amongst others.

Physical Activity in Adolescence and Health in Mid-Life: Evidence from the 1970 British Birth Cohort

Yael Flamand, Benedetta Pongiglione, David Bann, Mark Hamer, Alice Sullivan, George B. Ploubidis, University College London, UK

Background: There is a rich body of evidence on the health benefits of physical activity across different age groups. Less investigated, however, is the long-term impact of early-life activity on mid-life health. Using data from the 1970 British birth cohort we examined the impact of physical activity in adolescence on mid-life physical and mental health outcomes.

Methods: This analysis used data (N=17,270) on 86 activities at age 16, and health outcomes (self-reported poor health, psychological distress, obesity, self-reported blood pressure, and disability status) at age 42. Latent class analysis and machine learning variable selection techniques were employed in conjunction with multivariable regressions controlling for parental health, socio-economic characteristics, family structure and age 16 physical and mental health were employed to investigate the association between physical activity in adolescence and mid-life health.

Results: For in-school activities among females, medium level activity, compared to low, was associated with higher odds of mid-life obesity (OR = 1.335, 95% CI: 1.051, 1.695). No other associations were detected between any of the health outcomes and the latent class summary variables. We found few associations between individual activities and health. Motorcycling was negatively associated with psychological distress in males as well as self-reported high blood pressure and obesity in females. Dancing was positively associated with psychological distress but negatively associated with obesity in females.

Conclusions: We found weak evidence of association between physical activity in adolescence and various health outcomes in mid-life. Our results indicate that activity participation in adolescence does not necessarily lead to an active lifestyle in adulthood and that policies encouraging activity participation in all stages of the life course are needed.

Alcohol and Cigarette Use from Age 23 to 55: Links with Health and Wellbeing in the Long-Term National Child Development Study

Jeremy Staff, Jennifer Maggs, Pennsylvania State University, USA

Background: Using longitudinal data from the National Child Development Study (NCDS), an ongoing study of a nationally-representative British cohort born in 1958 (n=9,137; 51% female), we examined how patterns of alcohol and cigarette use from young adulthood (age 23) to midlife (age 55) are associated with health and wellbeing.

Method: We first used a nonparametric multilevel latent class specification to identify eight unique paths of alcohol and cigarette use from age 23 to 55, and then assessed how these long-term latent paths related to overall health, heart problems, chronic illness, and quality of life at midlife.

Results: Results show that adults who consistently drank within current recommended UK low-risk guidelines (i.e., not exceeding 14 units of alcohol per week) and abstained from smoking from young adulthood to midlife reported the best overall health and wellbeing, compared to latent paths involving steady, light-to-moderate (LM) drinking and both current and prior smoking, increasing drinking and smoking, and infrequent drinking/abstention.

Conclusions: British adults who consistently drank within new lower-risk recommended guidelines and abstained from smoking from young adulthood to midlife reported the best overall health and wellbeing across numerous indicators. However, apparent observed health benefits of stable low-dose alcohol use (versus abstention) are weakened by the fact that by age 55 almost all alcohol “abstainers” in the NCDS sample were former drinkers, and that respondents who followed infrequent drinking/abstention paths were the mostly likely to report poor health, psychological distress, and low educational qualifications in early adulthood.

Impact of adolescent risk for disordered eating on health outcomes across the life course - findings from the Northern Swedish Cohort Study

Evelina Landstedt, Umeå University, Sweden; Anne Hammarström, Uppsala University, Sweden;

Kate Fairweather-Schmidt, Tracey Wade, Flinders University, Australia

Objective: To date no longitudinal, population-based studies have examined the association between disordered eating emerging in adolescence and long-term physical well-being. This study sought to explore the longitudinal impact of disordered eating (DE) risk in adolescence on trajectories of BMI and functional somatic symptoms as well as several indications of poor well-being at early- and then mid-adulthood.

Design: Data were drawn from both men and women over four time-points beginning at age 16 years (Northern Swedish Cohort Study N=1,001).

Methods: A cumulative measure of DE risk indicators was computed. Latent class growth analysis (LCGA) was used to identify the number of sub-population trajectories of BMI and functional somatic symptoms with best fit to these data. Multinomial or binary logistic regression analyses were used to calculate odds for trajectories and poor well-being indicators such as medication, number of doctor visits and sick leave.

Results: Three subgroup trajectories were identified for both functional somatic symptoms (FSS; low stable, medium stable, high increasing) and BMI (medium stable, high increasing, overweight increasing). Presence of DE risk in adolescence increased odds of unfavourable FSS (30-75%) and increasing BMI (60%). Poor well-being in adulthood (ages 21, 30 and 42 years) was predicted by DE risk at age 16.

Conclusions: Using nearly three decades of data, this investigation illustrates the serious and protracted impact of DE risk early in life and underscores the urgent need for targeted interventions and preventive work during adolescence.

B5 PAPER SESSION: LATER LIFE

Longitudinal Associations Between Co-Occurring Health-Related Behaviours and Depressive Patterns Among Older Adults: A Case from Japan

Noriko Cable, University College London, UK

Background: Little is known how co-occurring cigarette and alcohol use would determine the patterns of changes in depressive symptoms older adults. Longitudinal associations between co-occurring smoking and drinking alcohol and patterns of changes in depressive symptoms were examined among older adults living in Japan.

Methods: Data were obtained from independently living older adults aged 65 and above who participated in 2 sweeps (2010, 2013) of the Japan Gerontological Evaluative Studies (JAGES) with complete cases (Men = 20,685, Women=19,326). Patterns of changes in depressive symptoms (No cases, Recovery, Onset, Repeatedly depressed) were derived based on the response patterns on the 15 item version of Geriatric Depression Scale Depression. Current alcohol and cigarette use were ascertained by responses to the relevant questions. Covariates were marital status, income (deciled) and age. Taking no cases as the reference category, independent and joint longitudinal associations between smoking, drinking alcohol and patterns of changes in depressive symptoms were examined. Men and women were analysed separately.

Findings: Most of the participants were an absence of depressive symptoms at both waves. Men had equal proportions in drinkers and non-users, while women were mostly non-users. Results from multinomial logistic regression did not support significant joint effects of co-occurring smoking and alcohol on patterns of changes in depressive symptoms. In both men and women, alcohol use was negatively associated with outcomes with a similar degree. Apart from recovery group in men, current smoking status was positively associated with the outcome, especially the repeatedly depressed group among women (RRR= 1.89, 95%CI=1.55-2.32).

Conclusions: Current alcohol and cigarette use did equally contribute to an onset and repeated experience of depressive symptoms.

Late Life Employment Histories and their Association with Work and Family Formation During Adulthood: A Sequence Analysis Based On ELSA

Morten Wahrendorf, Hanno Hoven, University Düsseldorf, Germany; Paola Zaninotto, Jenny Head, Ewan Carr, University College London, UK

Objectives: Guided by the life course perspective, we set out to extend current research on work force participation beyond age 50 by describing entire employment histories in later life and testing their links to prior life course conditions.

Methods: We use data from the English Longitudinal Study of Ageing (ELSA), with retrospective information on employment histories between age 50 and 70 for 1103 men and 1195 women (n=2298). We apply sequence analysis and group respondents into clusters with similar histories. Using multinomial regressions, we then test their links to prior labour market participation, partnership, and parenthood histories, measured for both early (age 20-34) and mid-adulthood (age 35-49).

Results: We find eight clusters, where three are dominated by full-time employees, but with varying age of retirement (before, at, and after age 60). One cluster is dominated by self-employment with comparatively later retirement. The remaining clusters are histories of part-time work (retirement around age 60 or no retirement), continuous domestic work (mostly women), or other forms of non-employment. Those who had strong attachments to the labour market during adulthood are more likely to have histories of full-time work up until and beyond age 60, especially men. For men, parenthood in early adulthood is related to extended working lives, but not for women. Continued domestic work was not linked to parenthood. Partnered women tend to work part-time or do domestic work. The findings remain consistent after adjusting for birth cohort, childhood adversity, life course health and occupational position.

Discussion: Policies aimed at increasing the proportion of older workers not only need to address later stages of the life course, but also early and mid-adulthood.

A Structural Equation Modelling Approach to Understanding Childhood Influences On Happiness, Cognitive Functioning and Well-Being in Early Old Age

Brian Dodgeon, Dick Wiggins, George B. Ploubidis, UCL Institute of Education, UK; Praveetha Patalay, University of Liverpool, UK

In this paper we examine the extent to which childhood influences an individual's health and well-being using a broad range of health and wellbeing outcomes at age 50 years from the National Child Development Study (1958 birth cohort). Our analysis focuses on symptoms of mental disorder, quality of life, wellbeing, overall self-reported health and cognitive outcomes as measured at age 50 years. It builds on previous reported research which employed multivariate regression models for each outcome, using a range of early life predictors (from birth to age 16 years) including parental education, social class, birthweight, family size and structure, parental working, maternal smoking during pregnancy and mental health.

In our structural equation modelling approach, we examine cross-lagged pathways of association between various childhood predictors such as family disruption or unhappiness at school, and the cognitive test results at ages 7, 11 and 16. We map out the relative importance of the childhood factors for the different outcomes, teasing out which predictors have the most direct effect on the various latent variables indicating happiness, cognitive functioning and well-being in early old-age, and which effects are largely mediated by other factors.

The later-life outcomes adopted in this paper are all well-known validated measures such as the Warwick-Edinburgh Mental Wellbeing Scale (wellbeing), CASP (quality of life), SF-36 (self-rated health), the Malaise Inventory (psychological distress) and cognitive assessments (including word recall, delayed recall, vocabulary and letter cancellation assessments). Data were available for 8,600 participants with available outcomes at age 50 years.

The analysis presents a novel way of untangling the differential impacts of early life factors on a range of mental health and related outcomes at an age where the cohort begin their journey into old age. Testable mechanisms in early adulthood through which these early life predictors impact on age 50 outcomes will be presented.

The Active Look of the Elderly for Social Sciences in Times of Austerity

Maria Alexandra d'Araújo, Stella Bettencourt da Câmara, Jaime R. S. Fonseca, ISCSP-ULISBOA, University of Lisbon, Portugal; Margarida Alpuim, School of Communication and Media Studies, Portugal

Western societies are struggling with political, social and economic challenges associated to demographic aging. It is crucial to encourage a multidisciplinary reflection about the role of civil society institutions during times of austerity. The main goal of this article is to contribute to this exercise by presenting a community intervention program for a group of old women. Wednesday Tea (Chá das Quartas) started in 2010 and it takes place in Alentejo, Portugal. While creating social policies, many factors should be taken into account. Redefining paradigms, overcoming stereotypes, thinking of ways to keep old people in their communities, co-constructing answers involving the aged, and fighting social isolation are some of the ideas we explore in this article.

C5 SYMPOSIUM

Innovative Latent Variable Approaches for Life Course Research

Convenor: André Berchtold, University of Lausanne, Switzerland; Matthias Studer, University of Geneva, Switzerland

Life course research is increasingly based on longitudinal studies to explain trajectories of change, their underlying factors, and future outcomes. However, accounting for complex time-dependent associations between variables can present methodological challenges. In this context, latent variable approaches are very promising: They can be used to reduce the complexity of the measured trajectories, to account for measurement errors, and to analyse processes that are only partially observed (e.g., due to missing data).

This symposium brings together innovative latent variable approaches developed and applied within the LIVES NCCR research project. Applications cover different fields, such as psychology, demography, health, statistics, and the sociology of work. The overall aim is to demonstrate and discuss these latent variable methods with respect to lifespan research. More specifically, the symposium includes:

- Latent change score models to examine the longitudinal relations between cognitive abilities and depressive symptoms in later life.
- Phase type models aiming at estimating latent phase leading to a life-course event with the example of illness and accident in old age in Switzerland.

- A combination of sequence and event history analysis to study how a previous “latent” trajectory influence an upcoming event.
- A combination of a double chain Markov model and microsimulation to describe entire trajectories based on partially observed ones.

Dynamic Associations Between Depressive Symptoms and Cognitive Performance in Later Life

Stephen Aichele, University of Geneva, Switzerland

Lifespan studies of depression and cognition have generally framed age-related changes in depressive symptoms as antecedent to cognitive declines. However, differences in cognitive ability (e.g., lower vs. higher fluid intelligence) may also predispose toward, or protect against, elevated depressive symptoms in later life. Moreover, differences in depressive symptoms and cognitive decrements are both associated with illness (especially cardiovascular disease) and may therefore proceed in tandem with worsening health. In short, the time course and temporal precedence of age- and health-related changes in depressive symptoms and cognitive abilities are not yet well understood. Here, we use latent change score (LCS) models to examine longitudinal relations between cognitive abilities and depressive symptoms in data from the Lothian Birth Cohort of 1936, (N = 1091, IQ first assessed at age 11 years, with repeated multi-modal assessments following age 70 years). LCS models are particularly well suited for studying lifespan vulnerability processes as these models simultaneously account for timepoint-to-timepoint (i.e., dynamic) associations between variables and also for longer term trend-like changes therein.

Phase-Type Models in Life Course Research: An Application to Accidents and Illness Occurring After 65 Years Old

Jean-Marie Le Goff, University of Lausanne, Switzerland

Phase-type models are duration models with two peculiarities: first, they are multistates models in which states of a studied system and transitions between these states are nonvisible except the transition to terminal event; second, transition hazard rates from one state to another, non-visible or visible, are considered to be constant. These models are often used and developed in reliability theory as well as in health sciences, for example in order to analyse the process of degradation of a machine or the progression of an illness. In our contribution, we will argue that phase-type models are potentially interesting in life course research, in which notions of transitions between phases are important. In the case of unexpected events of the life course like accidents or illness, it can be hypothesized that hidden situations in which are individuals at one moment correspond to differences in exposure to these events. An alternative hypothesis is to consider that these hidden situations correspond to the degree of individual resources (cognitive, etc.) allowing people to avoid these events. In our communication, we propose a phase-type model to analyse illness and accident for people aged more than 65 years old in Switzerland in which people can be in two situations of exposure to these events, low exposure and high exposure. Estimated results on Swiss panel data show promising results.

Two Markov Chains Better Than One? A Comparative Analysis of Generated Labour Market Trajectories Within a Dynamic Microsimulation Framework

Pauline Adamopoulou, Gilbert Ritschard, University of Geneva, Switzerland; André Berchtold, University of Lausanne, Switzerland

In this work we propose the use of a discrete-time finite Markov model within a dynamic microsimulation framework. To illustrate the utility of our approach we apply it to Swiss labour market data. Within this context, dynamic microsimulation aims to generate professional trajectories from the observed portion of trajectories of individuals of different ages.

We use Markov models to estimate the transition probabilities in and out of employment. Under the hypothesis that age should be a critical factor in employment transitions, we estimate the aforementioned transition probability matrices by age group. Furthermore, we examine the role of gender, and more specifically how gender interacts with age as manifested within these employment transitions. We also test for higher order dependencies. By applying the gender-specific and age-dependent probabilities estimated, we generate complete professional trajectories using a double chain Markov model. These microsimulation results are then validated retrospectively on both an individual and aggregate level by means of a complexity index and aggregate measures respectively. The primary interest is to show how a data-driven Markov model approach is flexible and easy to implement within the dynamic microsimulation framework. The secondary interest is to show how a microsimulation model need not necessarily be large-scale in order to draw meaningful conclusions. Not only can accurate estimates still be derived with limited data but also a great deal of insight can be gained on the diversity of individual trajectories.

Sequence History Analysis: Studying the Effect of Residence Permits' Trajectories on Labour Market Integration

Florence Rossignon, Jacques-Antoine Gauthier, Jean-Marie Le Goff, University of Lausanne, Switzerland; Matthias Studer, University of Geneva, Switzerland

The aim of this study is to propose a methodological framework to estimate the effect of past trajectories on the chances of experiencing a life course event. We developed a new and innovative method called Sequence History Analysis which combines Sequence Analysis and Event History Analysis. We applied this methodological framework to an original study of the effects of residence permits' trajectories on the employment obtained during the first entry into the labour market. We started by identifying typical past trajectories of residence permits using Sequence Analysis. We then estimated the effect of these typical past trajectories on the type of employment obtained during the first integration into the labour market using survival discrete-time models. The empirical research was based on the LIVES Cohort study, a panel survey of 1691 respondent which started in autumn 2013 in Switzerland. Analyses showed that, at equal socioeconomic background, second-generation immigrants who became Swiss during their teens are still less likely to get a high or an intermediate position or to be self-employed and more likely to be unqualified than Swissborn young adults. They also have lower odds of being a qualified and manual worker. Lastly, temporary residence permits unexpectedly increases the probability of obtaining a high or an intermediate position or of being self-employed in comparison with Swiss natives. We are confident that the proposed methodological framework may have a much broader field of application. For instance, it can allow us to study how previous occupational trajectories are linked to the probability of becoming a parent.

D5 SYMPOSIUM

Life Course Research Bringing Methods Together: Quantitative and Qualitative Comparative Views on Social Trajectories and Destinies

Convenor: Magda Nico, CIES - University Institute of Lisbon, Portugal

The idea is to bring together different scholars that have contributed with the enrichment of life course research through specific methodological techniques, namely sequence analysis, network analysis and biographical research. Although the methodological stance is an intrinsic part of the argument, the panel that I envision would tackle the particular contributions these techniques bring to the understandings of lives as processes, and what bridges these techniques are able (and willing) to make with other techniques. Altogether the panel would celebrate mixed methods and the collaboration of different methodological and theoretical traditions and practices, on behalf of a better understanding of the life course as a construct.

The Impact of Personal Networks on Psychological and Conjugal Vulnerability of Heterosexual Couples in a Long-Term Relationship: Combining a Social Network Approach with a Life Course Perspective

Rita Gouveia, Eric Widmer, University of Geneva, Switzerland

Personal networks and social support are paramount for the well-being of individuals, couples and their families as they provide resources to cope with critical events and transitions over the life course. Actually, "no couple is an island" (Felmlee, 2001) as the networks of relatives and friends, in which both partners are embedded, both shape and are shaped by conjugal interactions. Several characteristics of personal networks, such as the density of support, the level of ties' overlap between partners, and family interference, have been empirically proved to have an impact on conjugal and psychological outcomes. However, little is known about the longitudinal effects of those indicators on partners' adjustment. Therefore, the aim of this paper is to investigate the role of personal networks on both psychological and conjugal vulnerability of couples, by combining a social network approach with a life course perspective. For this purpose, we draw on data from the Swiss longitudinal survey "Social Stratification, Cohesion and Conflict in Contemporary Families", which has been following an initial sample of 1534 heterosexual couples residing in Switzerland over three waves (1998, 2004 and 2011). In this paper, we focus on couples who remained together between wave 1 and wave 3 (N=721). In order to explore the network effects, we focus on both functional indicators (emotional and financial support available, level of family interference) and structural indicators (friendship overlap, frequency of contact, and friendship transitivity). Psychological vulnerability was measured through a scale of depressive symptoms and social vulnerability scale. Conjugal vulnerability was measured by three indicators: conjugal satisfaction, separation thoughts, and frequency of conjugal conflict. Findings show that networks have significant long-term effects on both individual and conjugal vulnerability, although with different effects on men and women.

Black Boxes and Butterfly Nets: Understanding Youth Transitions Between Qualitative and Quantitative Paradigms

Rachel Thomson, University of Sussex, UK; Jeanette Østergaard, SFI, Denmark

In this paper we reflect on current research that establishes a panel for biographical research from within a longitudinal data set. The project demands that we work with and between qualitative and quantitative paradigms including an awareness of tensions between what Andrew Abbot describes as variable and narrative logics of cases. In this paper we reflect on insights arising from our experience of sampling cases from the quantitative longitudinal study, including the ways in which our approach was shaped by ‘black box’ logics of hidden causality as well as qualitatively imagined ‘butterfly nets’. We reflect on the different metaphors arising from the qualitative and quantitative paradigms, drawing on an interdisciplinary literature of case studies to think critically about how cases are made and what they do. While observing a series of methodological lessons that arise from our experiment we also point to and argue for the analytic dividends of working in this way. Empirically, the paper is based on reflections arising in relation to 47 young people (aged 19/20) from a longitudinal cohort study DALSC (6,000 children) for the first wave of a qualitative longitudinal study focusing on young people’s transition to adulthood. The collaboration is the result of a visiting Professorship at SFI Copenhagen that has enabled the authors to work together on DALSC.

Harnessing Complexity in Assessing Political Party Attachment Over Time

Gary Pollock, Tom Brock, Sam Illingworth, Manchester Metropolitan University, UK

The study of party alignment and de-alignment over the years has shown the ways in which aggregate support for parties has ebbed and flowed. Not clear, however, are the ways in which changes in party support at an individual level are manifest. This paper proposes that the rise in support for parties outside the mainstream and as well as for the Brexit vote can be traced to a tendency for people to become less attached to political parties over the past two decades.

Our arguments are based upon longitudinal data from the British Household Panel Survey and Understanding Society which track people and the ways in which their opinions have changed over the years. This individual level data is superior to cross sectional snapshots of party attachment which are representative of a particular point in time but which are unable to show how each person’s attitude has undergone changes. Sequence analysis is used to develop a typology which represents the different ways in which people have supported political parties since 1991 in the UK. The results contribute to a better understanding of the dynamics of individual trajectories of party support which help to explain why it is that weak attachment has reached a point whereby the mainstream parties might be under threat.

The Experience and Life Paths of Childless/Childfree Baby-Boom Women: A Mixed-Methods Study

Emmanuelle Turcotte, Université du Québec à Montréal, Canada

The proportions of childless/childfree women have been increasing in most post-industrialized countries since the Second World War. This phenomenon is explained mostly by social and cultural mutations that have expanded the options for women in every aspect of their life, often impacting the likelihood to be a mother or not at the end of their reproductive years. This study seeks to better understand, from a life course perspective, the intricacies of the educational, conjugal and professional trajectories of baby boomer women from Quebec (Canada), who present one the highest and accelerated rises of childlessness rates in the West. The general goals were to explore the different paths leading to a childless/childfree life, and to access a better knowledge of the diverse and complex experience of non-motherhood. Our convergent mixed methods design applies sequence analysis with the use of longitudinal survey data, and also employs narrative analysis of semi-structured interviews with 17 childless/childfree women. This methodological strategy enabled us to build a typology which revealed four different typical life paths, each of them having a specific interweaving of the educational, conjugal and professional. Qualitative data were found to give important insight into women’s values and representations about how they forged their lives with others (life partners, family members, colleagues, friends, etc.). Qualitative and quantitative single method studies on childlessness have had a tendency in the past to portray the non-mother as a celibate, well-educated, privileged and career-driven woman. Our mixed-methods study gives further evidence that this stereotype is no longer tenable and that childless/childfree life paths seem to result from a complex negotiation between personal aspirations, contextual opportunities and contingency.

E5 PAPER SESSION: SOCIO-BIOLOGICAL***The Early Life Course, Threat, and Genetic Transcription Patterns: A Pilot Study***

Michael Shanahan, Justin Chumbley, University of Zurich, Switzerland; Cathi Propper, David Peden, Rebecca Fry, University of North Carolina at Chapel Hill, USA

Childhood socioeconomic status is associated with adult inflammatory diseases (major forms of morbidity and mortality) but the mechanisms that mediate these relationships are not well understood. One prominent pathway is likely the chronic activation of the immune system due to a tendency to view experiences as threatening. The present pilot study examined experiences in the family-of-origin, the propensity to view ambiguous situations as threatening, and gene transcription patterns in peripheral blood (involving 53 genes, identified *a priori*) descriptive of immune functioning. Data come from a small subsample of the Durham (USA) Child Health & Development Study (spanning ages 3 months to 12 years). Propensity to view experiences as threatening was assessed with several short films, and parenting was assessed by way of behavioral tasks. Childhood socioeconomic status was associated with negative parenting throughout childhood, which in turn was positively associated with threat perception at age 12. In turn, whether youth described the short films as depicting threatening events was associated with mRNA levels for several key genes associated with inflammation at age 12. Results suggest that tendency to view experiences as threatening may be a decisive, early indicator with implications for health in later life.

Childhood Disadvantage, Life Course Processes, and Chronic Inflammation in Later Life

Patricia Morton, Rice University, USA

There is a well-established relationship between childhood disadvantage and adult health, but how these early-life experiences “get under the skin” to later manifest as poor health is less clear. To elucidate this process, the present study investigates how childhood conditions influence immune functioning—a key pathogenic process of health for older adults. Guided by cumulative inequality theory and biological embedding, this study examines adult health lifestyles and socioeconomic status (SES) as possible mechanisms linking childhood disadvantage to later-life chronic inflammation. A sample of 8,947 American adults aged 51 and older from the Health and Retirement Study was used to predict chronic inflammation and test statistically for mediation. The moderating effect of gender was also examined.

Findings reveal that socioeconomic disadvantage during childhood was associated with elevated levels of CRP but this relationship was fully mediated by adult SES and health lifestyles. In addition, gender moderated the effect of childhood SES on health behaviors, such that the effect of childhood SES on smoking was stronger for men. This study illustrates how social conditions shape health on a physiological level throughout the life course. Given the rising costs of long-term healthcare coupled with increasing life expectancy, a better understanding of the residual effects of childhood conditions is paramount to reducing the health burden faced by older populations. Identifying life course pathways that connect early-life events to health and aging processes can inform health policies as to how to intervene in an effort to mitigate the long-term health effects of childhood disadvantage.

The Association of Hair Cortisol and Melatonin Concentrations with Sleep Duration and Disturbance in The Whitehall II Study

Jessica Abell, INSERM, France; Jane Ferried, Martin Shipley, Mika Kivimaki, University College London, UK; Meena Kumari, University of Essex, UK

Study Objectives: Research which examines the association between cortisol, melatonin and sleep has been restricted to melatonin and cortisol samples collected from saliva, urine or blood and these methods have limitations. The objective of this study is to examine the association between hair cortisol concentrations (HCC) and melatonin with sleep duration and disturbance.

Design: A cohort study.

Setting: The Whitehall II occupational cohort study of British civil servants. Participants: The analyses were based on N=3367 participants (aged 59-83y) who had a HCC sample, N=3292 participants who had a melatonin sample with complete data on the exposure and covariates.

Exposure measures: Self-reported sleep duration and insomnia symptoms were assessed in 1997-1999, 2003-2004 and 2007-2009.

Outcome measures: HCC and melatonin measured in hair taken from the first, scalp near 3 cm hair segment. Hair samples were analysed using a column switching LC-APCI-MS/MS assay.

Results: We found a cross-sectional association between sleep duration & HCC; but no association between HCC and insomnia symptoms. There was also no longitudinal association between HCC and sleep. Both a cross-sectional and longitudinal association was found between short sleep and melatonin in hair samples and a cross-sectional association between insomnia symptoms (waking in the night and difficulty staying asleep) and melatonin was suggested.

Conclusions: We find an association between both HCC and melatonin measured in hair samples and sleep duration. There is also evidence for an association between insomnia symptoms and melatonin found in hair samples of older people.

F5 PAPER SESSION: PARTNERSHIPS

Financial Impact of Widowhood

Sanna Nivakosi, Economic and Social Research Institute, Ireland

The financial impact of widowhood has received relatively little attention in economic literature, in comparison with the financial impact of retirement. This is despite widowhood is a major life transition that affects a large group of people and the duration of widowhood can be measured in decades for many individuals. One half of married individuals (who don't divorce) will eventually spend some amount of time as widows or widowers. The relative lack of existing research may be due to data availability issues.

Another issue characterising research into widowhood is the interplay between both spouses' characteristics in determining both the timing of transition into widowhood and the financial impact of that transition. Using data from the first three waves of The Irish Longitudinal Study on Ageing (TILDA), this paper examines the financial impact of widowhood, by observing individuals over time as they transition into widowhood. The first part of the paper estimates individual level expected length of widowhood for those who are married in Wave 1. The expected length of widowhood is as function of i) the age gap between spouses, and ii) the longevity gap between spouses. To account for heterogeneity in longevity, life tables stratified by socioeconomic status are used in the estimation of expected length of widowhood. The analysis reveals a socioeconomic gradient in expected widowhood duration: those with low levels of education and low pre-widowhood income have longest expected widowhoods. The financial impact of widowhood is examined by measuring wealth and income and their components before and after widowhood. On the one hand, individuals with low pre-widowhood income replace a large fraction of their lost incomes with flat-rate widows pensions, whereas widows with high pre-widowhood incomes have wealth holdings that can potentially protect them from falls in standards of living during widowhood.

Broken Hearted After Spousal Loss Due to Widowhood – Rare or Usual?

Katharina Loter, Martin Luther University Halle-Wittenberg, Germany; Johanna Schütz, Max Planck Institute for Social Law and Social Policy (MEA), Germany; Hyo Jung Lee, University of South Florida, USA; Pasqualina Perrig-Chiello, University of Bern, Switzerland

Death of a spouse is often considered as an acute stressor that leads to health problems, such as the onset of stress-induced heart diseases or psychological problems (e.g., depression). Until now, previous research on bereavement has focused either on physical or psychological outcomes, not both.

We contribute to filling in this research gap in a multidisciplinary collaboration of researchers from sociology, gerontology and psychology, paying particular attention to the broken heart syndrome which combines physical and mental reactions to a stressful life event – in our case spousal death in later life.

Based on vulnerability-stress model and life course theory, we first aim to identify profiles of older widow(er)s in terms of heart-related psychophysical reactions before and up to three years after spousal death. Second, we analyze movement patterns of adaptation to bereavement over time. Third, we explore differences in individuals' preconditions among the identified subgroups, focusing on marital conditions and context of spousal loss.

Using five waves of SHARE data, we analyze a sample of 1,374 widow(er)s aged 50+ living in 16 European countries. Heart-related physical and psychological conditions (18 items on depressive mood, heart attack, high blood pressure, and heart-related medication), pre-loss marital and familial indicators, and socio-demographic characteristics before and after widowhood are assessed. We apply latent transition analysis and multinomial logistic regressions.

We arrived at a preliminary 3-profile parsimonious solution – comparable for both men and women over time – with well adapted healthy individuals, well adapted hypertensive individuals and affected individuals at risk for depression and heart-related conditions. Having social support seem to reduce the risk of experiencing broken heart syndrome. Poor financial situation and expectedness of spousal death are instead main risk factors for membership in the affected group. Our study confirms that there is a great variability in adaptation to late-life widowhood regarding psychophysical health outcomes.

Marital Status and Subsequent Changes in Physical Capability in England Among Men and Women Aged 60 Years and Older

Natasha Wood, Anne McMunn, Mai Stafford, University College London, UK; Elizabeth Webb, University of Southampton, UK

Background: Maintaining physical capability at older ages is important given the ageing population. Evidence suggests that married people have better physical capability than their unmarried counterparts, however most evidence is cross-sectional with little research on the longer term changes in physical capability. This paper aims to investigate the association between marital status and changes in physical capability over a ten year period among people aged 60 years and older in England.

Methods: Using six waves of the English Longitudinal Study of Ageing, marital status was captured in 2002 and physical capability was measured at six time points using the measure of walking speed, in metres per second (m/s). Growth curve models were run using MPlus v7 and models were sequentially adjusted for age, demographic and socio-economic measures, health behaviours and physical and psychological health.

Results: Overall married men and women had the slowest decline in walking speed over the 10 year period. Among men those who were divorced or widowed had greater declines in walking speed over the period than married men. For divorced men this was explained by their health behaviours, whilst for widowed men it was explained by both their health behaviours and their physical and psychological health. Among women those who were widowed or never married had a greater decline in walking speed than women in their first marriage. Widowed women's greater decline in walking speed was explained by their physical and psychological health, but for never married women the association remained unexplained.

Conclusions: Findings suggest that marriage may protect long term physical capability through improved health behaviours and better physical and psychological health for men. Although for women some of the association remained unexplained it's possible that circumstances in earlier life may select and retain women in marriage, resulting in a slower decline in physical capability.

Does Youth Matter? How Do Characteristics Relate to Youth Influence Partnership Biographies?

Jana Gläßer, University of Potsdam, Germany

How do the past shapes the future? This main question in life course research will be addressed in this paper. People are embedded in social structure and institutions but in the life course approach it is also assumed that the individual's early life decisions and conditions affects later life outcomes. Sociology research has shown e.g. the impact of experiences of divorce in the family of origin for once own risk of divorce or the influence of different personality characteristics on the timing of transition markers. But to analyze the dynamic of the life course, it is necessary to take a longitudinal point of view and to conceptualize the partnership biography not only as several transition markers but as a dynamic trajectory. So far, we do not know how factors related to youth have an impact on partnership formation in a dynamic perspective. In this view, the life course is conceptualized as early life influences (and their accumulation) on later adult outcomes. I will focus on the early life experiences and resources and their influence on partnership formation to examine the causal mechanism of the individual characteristics for the partnership biographies on the micro level. Therefore, I will use the longitudinal Life (2012) Dataset. Using multi-factor discrepancy analysis based on pairwise dissimilarities between sequences and regression tree method, it will be tested, whether and how personal and social resources anchored in youth have any influence on the partnership formation. First findings suggest, that especially early perceptions in youth about the later family and work life influence the diversity of partnership trajectories.

G5 PAPER SESSION: CHILD SOCIO-EMOTIONAL ADJUSTMENT***Internalising and Externalising Behaviour Profiles Across Childhood: The Consequences of Changes in the Family Environment***

Afshin Zilanawala, Amanda Sacker, Yvonne Kelly, University College London, UK

Purpose: Prior research suggests internalising and externalising behaviours may have heterogeneous patterns across childhood. Different aspects of young children's proximal family environments may adversely influence these behavioural profiles. Previous studies have used indicators of family instability at one point in time, or collapsed several indicators into an index. We assess multiple domains of children's family environment across childhood to better capture the lived everyday experience of children, and use a longitudinal approach that accounts for the heterogeneous profiles of internalising and externalising behaviours. Our aim is to determine whether patterns in internalising and externalising behaviours are in part determined by changes and events in the family environment across the first decade of life.

Methods: Using the Millennium Cohort Study and Latent Profile Analysis, we created longitudinal latent profiles for internalising and externalising behaviour using child behaviour scores at ages 3, 5, 7, and 11. Time-varying markers of children's environments from ages 3 to 11 years included: poverty, family structure, number of siblings, residential moves, maternal depression, and hospital admissions.

Results: We derived five internalising profiles and two externalising profiles. Consistent experiences of poverty and maternal depression in early childhood predicted higher internalising and externalising scores; early childhood, compared to middle childhood, appeared to be an important developmental period, moving out of poverty and maternal recovery from depression had immediate impacts on children's behaviours; and residential moves were only influential for externalising behaviours.

Conclusions: This study emphasises the importance of investigating interrelated features of a child's proximal family environment alongside examining patterns in children's behaviour across childhood. To best support children and their families, policy solutions can focus on modifying risky environments and considering interrelated features of a child's family environment.

Trajectories of Internalizing and Externalizing Mental Health Problems in Childhood and Adolescence: Influences of Parental Education and Family Climate (Results of The BELLA Cohort Study)

Ann-Katrin Meyrose, Fionna Klasen, Christiane Otto, Ulrike Ravens-Sieberer, University Medical Center Hamburg-Eppendorf, Germany

Background. Mental health problems (MHP) in childhood and adolescence are widespread and represent an important health challenge of our time. Over childhood and adolescence, internalizing MHP (e.g. symptoms of anxiety and depression) increase, especially in girls. In contrast, externalizing MHP (e.g. symptoms of hyperactivity and conduct disorders) are more frequent in boys and decrease with increasing age. Further, successful coping with developmental challenges depends on the individual resources. However, little is known about influences of parental education on the course of internalizing and externalizing MHP in childhood and adolescence. Additionally, information is missing indicating whether a good family climate may mediate the relationship between parental education and MHP in children and adolescents.

Methods: The BELLA cohort study is the mental health module of the representative German National Health Interview and Examination Survey KiGGS. We investigated data of 11- to 15- year-olds (n= 1,700) gathered at three measurement points over a period of two years. Latent growth curve modelling served to investigate effects of parental education on internalizing and externalizing MHP over time (measured by the Strengths and Difficulties Questionnaire), separately for girls and boys. Further, the course of the family climate was estimated and included as a mediating variable in the analyzed model (Dual-process-model).

Results and discussion. Higher parental education was identified as a resource for mental health in children and adolescents. That is, good mental health in children and adolescents can be understood as a non-monetary benefit of parental education. Family climate partly mediated the influence of parental education on MHP in children and adolescents. As expected, different trajectories were found for girls and boys concerning internalizing and externalizing MHP. Results provide implications for research on risk and protective factors of MHP in childhood and adolescence and are important for the composition of prevention and intervention programs.

Developmental Profiles of Co-Occurring Internalizing and Externalizing Problems Between Ages 3 to 11 in a General UK Population Sample

Ingrid Schoon, Leslie Morrison Gutman, Heather Joshi, Michael Parsonage, UCL Institute of Education, UK
 In recent years there has been a growing interest into the developmental typologies of emotional and behavioural difficulties. However, most studies have focused on separate dimensions of mental health, such as internalising problems, including depression and anxiety, or externalising problems, such as conduct problems, aggression, hyperactivity and impulsivity. These studies treat internalizing and externalizing problems as separate outcomes, or assume comorbidity is reflected through a summary score across different problem scales. Recognizing the systematic pattern of correlation among emotional and behavioural disorders, this study examines co-joint developmental profiles of internalizing and externalizing problems in a general population sample of children aged 3 to 11 years, drawing on data collected for the UK Millennium Cohort Study (MCS). At ages 3, 5, 7, and 11 years mothers reported on problem behaviour of their children using the Strengths and Difficulties Questionnaire (SDQ). We performed latent profile transition analysis (LTPA) to identify developmental profiles and identified 5 profiles differentiating between well-adjusted individuals (67%) scoring low on all problem scores, a group with school-age emerging problems (5%), a group with improving adjustment after initial early internalising problems (8%), a group with moderate yet improving externalisation problems (12%) and a group with high and increasing problems (4%). The analysis takes into account the timing and developmental change in adjustment as well as potential shared environmental stressors, such as family adversity and ineffective parenting. Findings are discussed in terms of homo- and heterotypic comorbidity, arguing that systematic patterns of correlations among mental health problems suggest varied manifestations of underlying psychopathological constructs that cut across traditional diagnostic boundaries.

Conduct Problems Trajectories and Psychosocial Outcomes: A Systematic Review and Meta-Analysis

Leonardo Bevilacqua, Russell Viner, University College London, UK; Dan Hale, Heriot Watts University, UK; Edward D. Barker, King's College Institute of Psychiatry, UK

Background: There is increasing evidence that youth who follow Early-Onset Persistent (EOP), Adolescent-Onset (AO) and Childhood-Limited (CL) trajectories of conduct problems (CP) show varying patterns of health and social outcomes in adulthood. However there has been no systematic review and meta-analysis on psychosocial outcomes associated with different CP trajectories.

Methods: We systematically reviewed the literature of longitudinal studies considering outcomes of three CP trajectories: EOP, AO, CL compared with groups with low levels of aggression or control participants. We performed a series of meta-analyses comparing each trajectory group to low aggression or control groups for 8 different outcomes in early adulthood or later.

Results: 13 studies met our inclusion criteria. Outcomes were mental health (depression), cannabis use, alcohol use, self-reported aggression, official records of antisocial behaviour, poor general health, poor education and poor employment. Overall, EOP individuals showed significant higher risk of poor outcome followed by AO individuals, CL individuals and finally control participants.

Conclusions: All CP trajectories showed higher risk of poor psychosocial outcomes compared to control groups but the magnitude of risk differed across trajectories, with a general trend for EOP to perform significantly worse, followed by AO and CL. Early intervention is recommended across domains to maximise likelihood of desistance from antisocial behaviour and improvement on several psychosocial outcomes.

Parallel Session 6

A6 SYMPOSIUM

Problematic Early Careers, Adult Well-Being, and Intergenerational Influence: Recent Contributions of the Youth Development Study

Convenor: Jeylan Mortimer, University of Minnesota, USA

Early career difficulties, often exacerbated during recessionary times, have the potential to erode personal well-being and to jeopardize long-term attainments. Moreover, parents' early attainments and subsequent trajectories affect the development of the next generation. This symposium draws on the Minnesota Youth Development Study's longitudinal, three generation data archive to address these issues. The first paper examines negative impacts of early unemployment and activation of the parental "safety net" on young adult self-efficacy.

The second provides evidence that sexual harassment in the workplace disrupts women's career progress and depresses adult income attainment. The third paper shows that weight gain, perhaps reflecting employment difficulties and economic strain, accelerates during the Great Recession among both men and women. The final paper demonstrates the robust effects of parental (Generation 2) educational attainment on G3 children's psychological well-being even when a multitude of prior experiences and attributes, which could render such effects spurious (including the same outcomes measured during G2's adolescence), are controlled. The papers, considered in tandem, show that experiencing setbacks in work and an uncertain economic climate during the highly formative transition to adulthood have long-term deleterious consequences. Moreover, challenges that curtail educational attainments will carry over to the welfare of the next generation.

Unemployment, Parental Help, and Self-Efficacy During the Transition to Adulthood

Mike Vuolo, Ohio State University, USA; Jeylan Mortimer, University of Minnesota, USA;

Minzee Kim, Ewha Woman's University, Korea; Jeremy Staff, Pennsylvania State University, USA

Youth unemployment reduces the capacity to achieve diverse markers of adulthood, including residential independence, economic self-sufficiency, marriage, and parenthood. As a result, it violates normative expectations, potentially undermining the young adult's sense of confidence. In this paper we investigate the effects of unemployment on young adult self-efficacy. While the unemployed have been found to suffer numerous psychological deficits, it is unclear from cross-sectional data whether such problems are due to selection processes, or attributable to the effects of unemployment. Moreover, since parents often come to the aid of their unemployed young adult children, we investigate whether their support may also have negative psychological repercussions. The data were obtained from participants in the longitudinal Youth Development Study through the decade of the twenties (age 21-22 to 31-32), from 1995 to 2005, prior to the recent Great Recession. Applying a two-level hierarchical modeling strategy, including time invariant background variables and a host of time-varying predictors (unemployment, parental economic and housing support, negative life events, educational attainment, school attendance, respondent income, marriage, and parenthood), we find that unemployment has negative consequences for youth's self-efficacy (measured by the Pearlin Mastery Scale). Youth thus suffered declines in self-efficacy during periods of unemployment as they navigated a critical period of transition to adulthood. The parental "safety net" in the form of financial support also came at a cost, reducing youth self-confidence. These common experiences thus diminished youth's personal psychological resources as they made the increasingly lengthy and precarious transition to adulthood. Interestingly, parental housing support (co-residence) did not have this negative consequence. We speculate that the capacity to reciprocate through the performance of household chores or other forms of support could bolster the young adult's self-efficacy despite the lack of residential independence.

Early Career Sexual Harassment and Long-Term Socioeconomic Attainment

Heather McLaughlin, Oklahoma State University, USA; Christopher Uggen, University of Minnesota, USA;

Amy Blackstone, University of Maine, USA

Many working women will experience sexual harassment at some point in their careers. Although previous studies have documented the immediate effects of sexual harassment on job satisfaction, absenteeism, and relationships with co-workers, few studies have examined whether sexual harassment has long-term consequences for women's careers. Because many targets quit their jobs rather than continue working in a harassing work environment, sexual harassment may have tangible economic costs for working women. Previous research has linked career interruption to significant earnings losses, but has yet to consider whether sexual harassment similarly disrupts "the usual trajectory of steady jobs with career ladders

that normally propels wage growth” (Western 2006: 109). This mixed-methods study examines whether sexual harassment and subsequent career disruption have long-term consequences for women’s careers. Using longitudinal survey data from the Youth Development Study, we test whether sexual harassment experienced in the late 20s is associated with women’s earnings in their early and late thirties. Adjusting for prior earnings, we find that sexual harassment impedes long-term earnings growth. Experiencing harassment in 2003 (at age 29–30) was associated with a 26 percent decrease ($1 - e^{-.301} = .260$) in 2011 biweekly earnings, at age 37–38, when careers are more firmly established. While our quantitative findings establish the effect of harassment on women’s career trajectories, our qualitative findings show precisely how and why sexual harassment affects women’s unfolding career stories. When participants were in their late 20s, we interviewed 33 survey respondents who had reported experiencing sexually harassing behaviors in the early career. Analyzing qualitative data from women interviewees ($n=19$), we find that sexual harassment significantly altered some women’s career attainment, pushing many women toward less lucrative careers where they believed sexual harassment and sexist practices would be less likely to occur.

Weight Gain and the Onset of Obesity During the Great Recession

Johanna Muckenhuber, University of Graz, Austria; Jeylan Mortimer, University of Minnesota, USA; Jeremy Staff, Pennsylvania State University, USA

The socioeconomic gradient in health is especially apparent in the study of overweight and obesity, major risk factors for a wide range of diseases. Since stress increases the likelihood of obesity and economic downturn and uncertainty heighten stress, it is not surprising that higher rates of obesity are found in times of economic recession. However, no studies have examined weight change as the economy falls and recovers with panel data. Moreover, we know little about how economic recession affects BMI growth among young adults. Our aim is to investigate whether BMI growth accelerated during the recent Great Recession and decelerated shortly afterwards. The longitudinal Youth Development Study, based in Minnesota, measured weight and height of 423 young adults (264 women and 159 men) between the ages of 24 and 38 on four occasions (1998, 2000, 2004, 2005, 2009 and 2011). Using hierarchical growth analysis, in a first step we assessed annual BMI growth--- $BMI = (\text{weight} * 4.88) / (\text{height} * \text{weight})$; annual BMI growth = $(BMI_{t2} - BMI_{t1}) / \text{years between } t1 \text{ and } t2$ ---descriptively, separately for men and women. The highest annual BMI growth occurs from 1998 to 2000. BMI growth declines until 2004-2005, and then accelerates between 2005 and 2009, the period including the Great Recession. After the Great Recession (2009 to 2011) we again observe deceleration in BMI growth. The pattern is similar for men and women. Further analyses, to be conducted, will add background variables and other controls. These preliminary results support the hypothesis that BMI growth accelerates in young adults during a time of economic recession. We conclude that determinants at the macro level, such as economic change, should be included in research on obesity.

Parental Education and Child Wellbeing

Jeremy Staff, Pennsylvania State University, USA; Jen Doty, Chen-Yu Wu, Jeylan Mortimer, University of Minnesota, USA; Monica Kirkpatrick Johnson, Washington State University, USA

Parental education is positively related to children’s physical health, academic success, and emotional well-being. However, key gaps remain in our understanding of the relationship between parental education and child outcomes. The lack of prospective information from parents is of concern because attributes and experiences early in the life course are likely to shape parental educational attainment, parental well-being, and children’s outcomes. Similarly, causal processes underlying the relationship between parents’ education and child outcomes are not well understood. Finally, given historical changes in educational attainments, a reliance on data from past cohorts may not be relevant to the experiences of the current generation of parents and children.

Taking a life course perspective, we address potential selectivity based on parents’ earlier experiences, which could drive both their educational attainments and their children’s wellbeing. Youth Development Study data were obtained from 265 parents (G2), from their parents (G1), and from their 422 children (G3, mean age 16). We find that G2 parental education is negatively related to G3 child depressed mood and positively related to child self-esteem and mastery, when controlling the same well-being indicators measured during the G2 parents’ adolescence, the education and income of G1 families, G2 marital and teen birth status at the time of the G3 child’s birth, and G3 age and sex. The association between parental education and child well-being is highly robust when we include potential mediators such as contemporary parental income, career attainment, and mental health. However, the effect of parental education on child wellbeing is substantially reduced when we account for the parent’s educational expectations for their child and the educational level of their spouse. This analysis suggests that parents’ education leads to assortative mating and higher educational expectations for their children, which in turn leads to better offspring mental health.

B6 PAPER SESSION: TRANSITIONS TO ADULTHOOD***Transition into First Parenthood: The Role of Parental Education and Risk Factors for Parents' Emotional Well-Being***

Gabriela Gniewosz, Sabine Walper, German Youth Institute Munich, Germany; Barbara Wilhelm, Ludwig-Maximilians-University, Germany

Studies have documented substantial challenges during the transition into first parenthood (Reichle, 2002), which affect couples' well-being. Depending on the presence of the following risk factors, the transition into parenthood may be experienced differently (Doss, et al., 2009): Parents' economic (unemployment, financial poverty) and partnership (domestic violence, young age) situation, experiences at birth (premature birth, birth complications), and child characteristics (difficult temperament). However, education can directly and indirectly serve as a resource for parents' well-being because higher education can mitigate the effect of risk factors (Hildingsson & Thomas, 2014, Walker et al., 2011).

This study examines 1) how parental, birth-, and child-related factors affect parents' emotional well-being before and after birth, and 2) how education serves as a protective factor that reduces the negative link between parents' risk factors and their emotional wellbeing. Longitudinal data with annual assessments for 384 German first-time parents from the German Family Panel "pairfam" were restructured, starting with T0 in the year prior to birth up to four years after birth (T1–T4). A latent mediation model was tested, specifying the expected effects of the independent variable (years of education), and mediation variables (economic situation; partnership factors; complication at birth; child's difficult temperament) on the dependent variables (emotional well-being), controlling for the stability of the dependent variables and covariates (migration background, age). The findings showed buffering effects on emotional well-being for higher educated parents, associated with lower prevalences in economic and partnership-related difficulties before child's birth. Further, higher levels of education mitigate the negative effects of economic stress, as well as a child's difficult temperament, up to four years after birth. However, independently from parents' education, complications at birth only predict couples' wellbeing the year after birth. Our findings indicated a predictive effect of parent's education that mitigates "more" sustained and personal risk factors.

School-To-Work-Transition and Well-Being in Australia

Hans Dietrich, Alexander Patzina, Institute for Employment Research (IAB), Germany; Jenny Chesters, University of Melbourne, Australia; Volker Reissner, University of Duisburg-Essen, Germany

The school-to-work-transition period is a demanding episode within the life course in all societies, as in the years of adolescence a sequence of severe and long-lasting decisions are to be made with respect to educational choice and getting integrated into the labour market (Ryan 2001). Failing within the educational process, becoming unemployed or starting the employment career in a precarious contract could take a negative impact on the future lifecourse. And that period of the life course is a sensitive time with regard to adolescences' developments and social relations (Mayer 2009). Well-being and mental health are possible outcomes (Schulenberg 2004), which themselves take impact on individuals further educational, labour market related and social life (Western & Tomaszewski 2016). The Australian HILDA data are employed to explore the relation of the school-to-work-transition period and individuals (subjective) wellbeing. HILDA is well established panel survey running since 2001, which a set of health and wellbeing related questions in all waves.

A model-specific sample is drawn out of the HILDA-participants including 3.201 individuals, interviewed firstly as new HILDA-persons in the age of 15/16 and attended at least two consecutive waves in the HILDA survey. Thus 22.745 records (7.1 records per individual in average) are included in the models. A set of model-specific selectivity checks are performed, controlling for effect of wellbeing on panel participation. Both models controlling for characteristics at the first interview and models controlling for life course events indicate effects of wellbeing on individuals' attrition rate, whilst well-known effects like educational attainment, experience of marginal employment drives attrition. Pooled models fixed effects and random effect models are estimated and related tests and robustness checks are performed. Pooled and random effects models indicate strong effects of social origin. Whilst parental SES effects widely disappear when controlling for educational attainment, the family composition at respondents age of 14 remains as strong effect. The same is the case with type of school attended. Specific attention is drawn on the relation of life satisfaction and the school to work transition, which is followed up to individuals age of 30. The process of individuals' school-to-work transition is introduced into the models by identifying detailed types of educational training, contract type of work period of unemployment and inactivity, and other activities.

The results support an own standing effect of the school-to-work- transition on life satisfaction both in the random and the fixed effects models. Robustness checks show the effect holds even under control of domains like domain specific life satisfaction, health, family formation, or unexpected life events. Relevance of the results will be discussed.

The Impact of School-to-Work Transitions On Later Mental Health

Aino Lappi, Pasi Haapakorva, Mikko Marttila, Tiina Ristikari, National Institute for Health and Welfare, Finland; Katariina Salmela-Aro, University of Jyväskylä, Finland; Ingrid Schoon, UCL Institute of Education, UK

Background: More than one-half of all mental health illnesses have an origin in childhood and adolescence. Those suffering from mental health disorders are more likely to leave school early with poorer education outcomes and consequently have greater difficulties accessing the labour market. Previous research suggests that people with mental disabilities have an increased risk to end up on fragmented school-to-work transition path. Less is still known about how the weak path itself affects later mental health.

Aims of the study: This study aims to identify the impact of school-to-work transition on mental health problems after the transition, while controlling also for pre-transition mental health problems, comprehensive school achievement as well as several family related social determinants. The focus of the study is on young adults whose school-to-work transition paths are mostly fragmented.

Data and methods: The 1987 Finnish Birth Cohort is a longitudinal register-based follow-up study following all young adults born in Finland in 1987, from the prenatal period through the year 2015 until age of 28. This present research covers all cohort-members who lived in Finland in 1994 (n=58 948). Sequence analysis was used to identify the 12 most typical school-to-work transition paths among the cohort members in early adulthood (age 18-25) and the cluster solutions were brought to a multinomial regression analysis to investigate how the transitions and covariates are predicting mental health disorders at age 26-27.

Results: According to preliminary results, the pre-transition mental health disorders increase the risk to end up on a challenging school-to-work transition path. The results also indicate that the fragmented transition path itself poses an additional risk for later mental health problems above and beyond the pre-transition risk factors.

The Development of Adolescents' Occupational Aspirations: Effects of Educational Tracking, Social and Individual Factors

Ariane Basler, University of Zurich, Switzerland; Irene Kriesi, Swiss Federal Institute for Vocational Education and Training (SFIVET), Switzerland

The formation of occupational aspirations is an important developmental task during adolescence. Aspirations influence adolescents' transition into adequate post-compulsory education and training (Clausen 1991; Heckhausen et al. 2013) and their subsequent occupational attainment (e.g., Beal & Crockett 2010; Schoon & Parsons 2002). Previous research has shown that occupational aspirations are influenced by adolescents' educational performance, socio-economic background and self-efficacy beliefs (e.g., Bandura et al. 2011; Armstrong & Crombie 2000; Furlong & Biggart 1999). A comparative study of Buchman & Dalton (2002) provides some evidence that a country's educational system affects the formation of aspirations. However, research on the relationship between system specific educational pathways and the development of occupational aspirations is still very scarce. Our paper will contribute to fill this gap by analysing the formation of ideal occupational aspirations in a tracked educational system, taking Switzerland as an example.

We examine how characteristics of the educational pathway, SES, academic performance and self-efficacy influence the status development of ideal occupational aspirations between the age of 15 and 21. Drawing from an institutional perspective (Meyer 1977; Gamoran 1996), we assume that characteristics of the educational pathway, such as track allocation or disruptions, are likely to affect the development of adolescents' occupational aspirations. Our analyses are based on the adolescent cohort of the Swiss Longitudinal Survey of Children and Youth (COCON). The adolescents were surveyed in 2006, 2007, 2009 and 2012 at the ages of 15, 16, 18 and 21. We ran multilevel models and decomposed time-varying covariates into a within and a between component, thus allowing the analysis of intra- and inter-individual change in occupational aspirations. The results show that the status development of adolescents' ideal occupational aspirations is strongly related to the track allocation in lower- and upper-secondary school, hence highlighting the explanatory value of an institutional perspective.

C6 PAPER SESSION: CARE AND CARING***The Impact of Informal Caregiving On Sleeping Problems in European Older Adults***

Vera van de Straat, Piet Bracke, Ghent University, Belgium

Objectives: In our ageing population people are increasingly confronted with caregiving responsibilities, especially for older relatives. Previous research describes how for women the provision of informal care implies worse sleep. In this study we therefore aim to look at how different types of informal caregiving are associated with sleeping problems and how these associations may differ by gender. Furthermore, we intend to study between-country differences in this association.

Methods: The second (2006/2007) and fourth (2011/2012) wave of the Survey of Health Ageing and Retirement in Europe (SHARE) are used. Longitudinal mixed effects logistic regression analyses with three levels -country, individual and period- are performed to examine the association between informal caregiving and sleeping problems. Data consists of 18,302 individuals aged 50 and older from 18 European countries.

Results: Preliminary results show that - controlled for gender, age, educational attainment, marital status and the current job situation – personal care or practical household help outside the household as well as personal care within the household are associated with more sleeping problems. No differences in this association are found between men and women. Finally, sleeping problems are less prevalent in countries where a higher percentage of the GDP is spent on care for the elderly.

Conclusion: Our study suggests that informal caregiving implies worse sleep. Care for relatives inside the household is likely to involve caregiving during the night, but the fact that care for people outside the household also affects sleep may signify sleep lost due to worries. Lastly, in countries where formal care services for the elderly receive more funding, people experience less sleeping problems, most likely due to less informal caregiving responsibilities.

Informal Caregiving and Markers of Adiposity in the UK Household Longitudinal Study

Elizabeth Webb, University of Southampton, UK; Rebecca Lacey, Anne McMunn, University College London

Introduction: Providing informal care is associated with poorer psychological health. However, less is known about more objective health outcomes such as adiposity. The aim of this study was to investigate associations between being an informal caregiver with measures of adiposity using a large, representative UK longitudinal study.

Methods: Data on 20,669 participants of the UK Household Longitudinal Study were used to explore the longitudinal relationship between caregiving and adiposity (body mass index (BMI) and waist circumference) one year later. We additionally investigated caregiving intensity (hours spent caregiving per week, number of people cared for and combining caregiving with paid work). Multiple imputation was used to account for missing data. Associations between caregiving and adiposity measures were tested using multivariable linear regressions. Analyses were stratified by gender, and interactions with age were tested. Models were adjusted for household income, educational attainment, socioeconomic position (NS-SEC), long-standing limiting illness, number of dependent children in the household and partnership status.

Results: Being an informal caregiver was associated with higher waist circumference (1.48cm, 95% CI: 0.42, 2.53) but not BMI amongst men in age-adjusted models. Women who were informal carers had higher mean waist circumference (3.62cm, 95% CI: 2.77, 4.47) and BMI (1.26, 95% CI: 0.89, 1.64) relative to non-carers. A caring-age interaction was present for women, suggesting that younger women carers (aged 16-44) had particularly high mean waist circumferences (5.44cm, 95% CI: 3.77, 7.10) and BMI (1.90cm, 95% CI: 1.17, 2.62). Caregiving intensity was found to be important, with increasing hours of caregiving associated with increasing adiposity.

Conclusions: Being an informal carer was associated with higher adiposity amongst UK men and women. Caring appears to be particularly negatively associated with adiposity when occurring during non-normative life stages, such as early adulthood, and when high intensity.

Eight-Year Institutional Care Use in Relation to Proximity to Dementia-Associated Death: The Influences of Socio-Demographic and Economic Factors Among Finnish Men and Women

Kaarina Korhonen, Lasse Tarkiainen, Pekka Martikainen, University of Helsinki, Finland;

Taina Leinonen, Finnish Institute of Occupational Health, Finland

Through population ageing an increasing demand for dementia-related institutional care can be foreseen. Using register data, we assess the use of institutional care by gender, age, marital status and household income in relation to proximity to dementia-associated death and death from other causes and to end of follow-up for those surviving through the study period. Individuals aged 70 years and over dying from dementia (n=20,645) and all other causes (n=82,699) in 2001–2007 and surviving to 2007 (n=60,208) were identified from an 11% random sample of the Finnish population using cause-of-death register. Differences in institutional care days were estimated by gender, age, marital status and household income in the eight-year period before death for those who died and prior to the end of follow-up for survivors using negative binomial regression with generalized estimating equations (GEE). Differences in care days were further plotted according to proximity to death and end of follow-up. Mutually adjusted, older age, being unmarried and lower income predicted higher levels of care use for both men and women in all cause-of-death groups. The effects of these factors were stronger on the care use of men than women among those dying from dementia. Among people dying from other causes apart from dementia and surviving to the end of follow-up the differences increased towards death, whereas among people dying from dementia the differences substantially reduced or disappeared after an initial increase. The results show that age, marital status and household income are major determinants of institutional care use among older men and women with dementia, and that their effects depend on the proximity to death. These results have implications for targeting of interventions aimed at promoting independent living.

D6 PAPER SESSION: METHODS

Disrupting the Qualitative/Quantitative Divide: Assembling Life History Narratives of Families Using Social Work from Quantitative Longitudinal Panel Data

Elaine Sharland, University of Sussex, UK

In the UK and Europe there are few qualitative or quantitative longitudinal studies of routine social work use and its outcomes among families with children. UK social work researchers have had little input into, and made relatively little use of, longitudinal panel/cohort studies. The presenter and colleagues undertook multivariate analysis using the four UK cohort/panel studies that capture routine social work use sufficiently to allow interrogation at all. Consistently we found that children and families using social work appear to fare worse than similar others over time. These findings must be treated with caution, because the data are so limited about social work itself or about severe adversities that may affect outcomes. Nonetheless, our findings are puzzling, potentially inflammatory, and deserve further interrogation.

This paper presents a distinctive method trialled by the research team, disrupting the quantitative/qualitative divide to explore whether a person-centred, narrative approach brought to longitudinal quantitative data could help make sense of our counter-intuitive aggregate findings. Using the British Household Panel Survey, this involved assembling the life histories of families using social work, piecing together several hundred variables capturing multiple dimensions of their lives over several years, to craft their stories before, during and after using social work. These narratives bring to light complexity, diversity, serendipity and the indirect pathways between needs, social work support and outcomes that families and their members follow.

We are confident that for those willing to subvert methodological boundaries, assembling life histories in this way can release narrative potential that is embedded within longitudinal quantitative studies, to enrich understanding of people's lives over time. For social work, especially in the absence of complementary qualitative or mixed-methods longitudinal data, our findings seem important. But our conclusions must be tentative, due to the continuingly marginal attention to social work in these apparently multidisciplinary datasets.

The Role of Stylistics and the Length of Invitation Letters to the Response Rate in Panel Studies

Roman Auriga, Leibniz Institute for Educational Trajectories, Germany

Initial letters play a crucial role to the response of people invited to take part in a study. They are often the first form of contact and the only way how the matters of a study can be addressed to the potential interviewees. Therefore, initial letters influence the decision making regarding taking part in a survey to a substantial extent. Evidence was growing that the use of advance letters—prior the first contact with the interviewer—can decrease survey nonresponse. Examining the role of initial letters, it has been tried e.g. to catch attention with the layout of the letters, with mentioning different subjects of the study depending on different groups of respondents or to allure the respondents by prepaid incentives.

Unfortunately, there is still little known about the influence of the language used in the letters to the response rate. The presentation will concentrate on an experiment exploring the influence of the invitation letter's style of speech to the response rate and the sociodemographic composition of the won sample.

The analysed experiment was a part of survey in the context of the German National Educational Panel Study and contains two waves of measurement. In the first wave, initial letters have been sent to completely new respondents using two stylistic versions of text (a polite version versus a more direct one) and three length versions. In contrast, the second wave discriminates “only” between two stylistic versions of text. However, the stylistic differences between these two versions in wave two are bigger than in wave one.

It seems that linguistic theories related to politeness and the length of text couldn't be supported. The response rates in both waves are very similar. However, unexpected significant effect of socio-demographic characteristics of the contacted households could be found and will be discussed as well.

Distinct Trajectories of Healthcare Consumption of People with Disabilities During and One Year After Rehabilitation: The ReSpAct Study

Trynke Hoekstra, Femke Hoekstra, Rienk Dekker, Lucas van der Woude, University Medical Center Groningen, Netherlands; Tatjana Pchenitchnikova, Vrije University, Netherlands; Thomas van Nieuwpoort, University of Groningen, Netherlands; Florentina Hettinga, University of Essex, UK; Cees van der Schans, Hanze University of Applied Sciences, Netherlands

Worldwide more than 1 billion persons live with some form of a disability and nearly 200 million of them experience limitations in functioning. Furthermore, people with a disability and/or chronic disease are less physically active compared to the general population. An inactive lifestyle is associated with several adverse health outcomes, and also associated with considerable economic burden. The course of healthcare consumption (costs and utilization) during and after rehabilitation differs from person to person; unravelling distinct trajectories of healthcare consumption over time may provide information on different phenotypes in this complex patient population. Additionally; if we want to identify those people at risk of unfavorable trajectories, knowledge is needed on which individual characteristics predict distinct trajectories. The aim of the study is to unravel distinct trajectories of healthcare consumption (costs and utilization) of patients with disabilities during and one year after rehabilitation and to study characteristics associated with each trajectory.

Data are collected in the multidisciplinary Rehabilitation, Sports and Active lifestyle (ReSpAct) multicenter longitudinal cohort study including 18 rehabilitation centers and hospitals across the Netherlands. The study population consists of adult patients with a physical disability and/or chronic disease (n=1719) who participated in a physical activity and sports stimulation program. Physical activity, healthcare consumption and quality of life were assessed with questionnaires at six weeks before, 14, 33 and 52 weeks after rehabilitation. Distinct trajectories of healthcare consumption were analyzed with latent class growth mixture modelling in Mplus. Currently, we have only preliminary data available; analyses will be finalized before summer 2017 ready to be presented at the SLLS conference.

Comparing Multiple Psychometric Characteristics of Early Learning Environment Scales Between Longitudinal Studies of Iran and Germany

Shima Aminipour, Ali Asgari, University of Tehran, Iran

Many longitudinal studies tried to measure the quality of early learning environments and study their effects on children's life. However, little comparative research exists, on the multiple psychometric characteristics of the widespread used instruments. The purpose of this study is comparing multiple psychometric characteristics of two scales of Home Learning Environment (HLE) and Early Childhood Environment Rating Scale– Revised (ECERS-R) between the context of Germany and Iran. The scores of the HLE scale of 465 preschool children from “Growing up in Iran” project, the longitudinal Study of Iranian Children (LSIC) and 468 preschool children from National Educational Panel Study (NEPS) from Germany and the scores of the ECERS- R of 62 preschools from LSIC and 92 preschools from the BiKS study in Germany were examined. Rasch analysis has been conducted to examine the overall fit of the model, item difficulty, and Differential Item Function (DIF) of the German and Persian versions of the scales. In HLE, an item of ‘visiting a library’ misfits to the model in both countries. DIF results revealed significance differences in items functioning across two samples. Item difficulty map of Rasch analysis showed that reading out for children in German families are the easiest item, while Iranian parents tend to paint with their children more. In the scores of the ECERS- R, 13 items of German and 5 items of Persian version were the misfits (three joint misfit items were found). DIF results revealed significance differences of items functioning across two countries. Moreover, the item difficulty map showed Safety practices is the most difficult and Sand/Water is the easiest item in Germany. But in the Persian version Nap/rest and Staff-child interactions are the most difficult and easiest items respectively. Findings revealed that there are differences and similarities in the psychometric properties of these instruments across cultures that researchers should bear in mind and test before comparing the total scores of the scales.

E6 PAPER SESSION: MIGRATION AND MINORITIES

Occupational Mobility of Ethnic Minorities in the UK

Jagriti Tanwar, Uppsala University, Sweden; Jörg Hartmann, University of Göttingen, Germany

Using large scale longitudinal data of the UK Understanding Society, this paper aims to investigate occupational mobility differences between White-ethnic and men and women from ethnic minorities in the UK. Occupational mobility differences have, in contrast to labour market participation and unemployment risks, not attracted significant scholarly attention so far. Yet from the perspective of migrant assimilation theories, downward occupational mobility can lead to persistent ethnic segmentation just as higher upward occupational mobility can facilitate assimilation. A large body of literature suggests that among various ethnic groups in the UK, especially women of Bangladeshi and Pakistani origin remain disadvantaged in labour market while people of Chinese and Indian ethnic origin have made significant progress in access to labour market. Given these ethnic and gender differences, we particularly focus on Bangladeshi and Pakistani second generation and examine the extent to which occupational mobility differs between men and women. Adopting a life course perspective, we examine occupational mobility during early years of labour market career and apply discrete event history models with repeated events. The paper aims to show the effects of religion and ethnic racial discrimination on second generation's occupational mobility outcomes.

Life Course Effects of Refugees' Perspectives to Stay

Jörg Welker, Leibniz Institute for Education Trajectories, Germany

Migration sociologists widely agree that intentions to stay and return orientations are key predictors of migrants' motivation to invest in host country specific capital such as educational qualifications or social contacts (e.g. Diehl/Preisendörfer 2007). However, these empirical findings might not be directly conferrable to the newly immigrated population of refugees in Germany. Refugees' decisions to stay are not only influenced by individual intentions but also by intervening contextual constraints such as an uncertain perspective to stay which systematically distinguish them from other migrants. In most cases residence permits cover only short periods of time and thereby make the pay-off of investments in host country specific capital highly uncertain (Olczyk et al. 2016).

Existing empirical evidence on the effects of legal status on intentions to stay or return as well as on opportunities of participation and willingness to invest is limited and needs further research. Effects should especially be considered from a longitudinal perspective. Changes in a refugee's legal status might have a significant effect on his or her life course: with a legal status that increases the perspective to stay the intention of returning to the home country might decrease whereas the motivation for investments in host country specific capital should increase.

The paper presents hypotheses on the effects of legal status changes and methods that can be used to check these hypotheses. Longitudinal data will be used from the project “ReGES – Refugees in the German Educational System”, a quantitative panel study which started at the Leibniz Institute for Educational Trajectories in Bamberg, Germany in 2016. The main goals of ReGES are to describe the educational careers of recently immigrated refugees in Germany and to analyze which factors promote or restrain their individual careers.

The Impact of Socio-Demographic and Socio-Economic Characteristics on the Perception of Gains and Losses Across the Lifespan in Mumbai, India

Aude Martenot, Matthias Kliegel, Michel Oris, University of Geneva, Switzerland

At all stages of life, development consists of life changes or transitions, of which life events are markers and also creators. Lifespan researchers have suggested three functions of development: growth, maintenance and regulation of losses. With age, maintenance and regulation of losses are increasing, whereas growth is declining. This represents a change in the allocation of resources, i.e. a selective optimization in individuals’ adaptive capacity. Nevertheless, there are variations in development, depending on context and person-specific experiences.

Empirically, there is ample evidence that evaluation of changes and transitions across the lifespan appear to be much more characterized by a dynamic between gains and losses than absolute growth and decline. Furthermore, the distribution of those gains and losses is not the same throughout the lifespan. Age, as well as both socio-environmental and personal characteristics, has a considerable impact on it.

Our aim is firstly to confirm the emergence of the traditional pattern in a specific cultural context: India. So, we focus on evaluations of gains and losses across the lifespan as experienced by adults aged 20-84, living in the Mumbai megacity. Moreover, we take into account some socio-demographic information (sex, education, religion, residential area and self-reported health) that may have an impact on the gain/loss ratio. The analyses are based on two surveys (1255 respondents) conducted in the slums of Bandra (2012) and in the formal neighbourhood of Santa Cruz (2014), both parts of Mumbai.

Our analyses mostly confirm the theoretical pattern of decreasing gains and increasing losses across the lifespan. As observed in the descriptive distribution, sex, religion and residential area did not have a significant impact, contrary to education and self-reported health. Several linear regressions were conducted including besides age other possible predicting factors. The impact of age remains important, however, even after entering control variables.

Educational aspirations of immigrant and refugee families

Ebru Balaban, Leibniz Institute for Educational Trajectories, Germany

Education can be seen as the major key to successful integration of immigrants. In this context, family aspirations can significantly influence the education of their children. Previous studies have shown that families with an immigration background have higher education aspirations compared to local population, even if the actual positioning in the education system does not fit to these high aspirations. Various process-related and long term factors can lead to a higher educational aspiration and actual investment. Possible factors can be socioeconomic, but also cultural. By comparing traditional migrants with refugees we would expect different and same factors at play. On the one hand, there are similarities between these groups, such as lack of information about school system in the host country, discrimination experiences or language barriers. We will expect that these factors are most in common between these groups and will have the same influence in aspiration and investigation of education. On the other hand, differences in the status of stay and migrant optimism can also be observed and measure the integration to educational system in a negatively way. To summarize different factors can lead to low or high aspiration and investment of education. In order to elaborate this hypothesis, a presentation will be presented at the SLLS Conference that deals with the theoretical aspects of the educational aspiration and investment of families with migrant background compared to those with refugee background. The presentation is rooted in the study "ReGES - Refugees in the German Educational System" that was set up in 2016 at the Leibniz Institute for Educational Trajectories in Bamberg. The project aims at describing the educational processes and aspiration of children and adolescents by the use of panel analysis and provides a sound basis for researching educational aspirations from a cultural perspective.

F6 PAPER SESSION: FAMILY CIRCUMSTANCE***Family Poverty, Parenting, Material Hardship and Children's Socio-Emotional Adjustment: Analysis Using the Growing Up in Scotland Study***

Alison Parkes, University of Glasgow, UK

Background: Interrelationships between family poverty, parenting and children's socio-emotional adjustment are complex, and not well understood. Family stress and investment models suggest poverty may impact child adjustment via more negative and less involved parenting. Less well-established is whether material hardship may impact children's well-being more directly, for example via social comparisons ("direct effects" hypothesis). Currently, evidence on whether parenting affects the strength of poverty-adjustment associations is also limited. An added complication is that child problems may themselves compromise parenting, yet few studies allow for this.

Aims: This study used the Growing Up in Scotland first birth cohort (N=2586) to explore associations between poverty in early childhood, parenting, material hardship and child adjustment.

Method: First, latent growth curve models of externalising and internalising problems from ages 4/5 to 10 explored three potential mediators/moderators of associations between early poverty and child outcomes: dysfunctional parenting (parent-child conflict, parenting stress and low organisation), parental involvement and material hardship. Second, cross-lagged models explored associations between parent-child relations, material hardship, and child problems at three time points.

Results: In growth models, dysfunctional parenting partially mediated associations between poverty and externalising problems, while material hardship partially mediated associations between poverty and internalising problems. Dysfunctional parenting moderated (strengthened) associations between poverty and problems. Findings using parent-reported problems were partially supported using information from teachers and children at age 10. In cross-lagged models, conflict was more strongly predictive of externalising problems, while hardship predicted internalising problems. A small reverse effect of externalising problems on conflict was also found, as well as cascading effects between both problem types.

Discussion: Findings suggest different pathways from poverty to child adjustment, and buffering effects of less dysfunctional parenting for children living in poverty.

Residential Mobility from Birth to Adolescence: Findings from The Millennium Cohort Study

Ludovica Gambaro, DIW Berlin (German Institute for Economic Research), Germany; Heather Joshi, UCL Institute of Education, UK

Moving home is a common experience for families with children. As families grow, parents may make anticipated moves into more spacious accommodation or to an area considered better for children, but the pace of mobility abates as children grow older. In previous work, we examined the precursors, patterns and outcomes of moves occurring before children start school. Moves during middle or late childhood are added to the picture in this paper. As they are more likely to interfere with schooling and friendships, we expect that later moves will more often be triggered by unanticipated events and will lead to less advantageous residential changes. In this paper we explore this conjecture, comparing home moves in mid and late childhood to earlier ones.

We use data from the Millennium Cohort Study, which follows a cohort of children born in the UK in 2000-1 until age 14. We ask which families moved and when. We study the precursors of mobility in different stages of childhood to investigate whether these changed as children got older, and housing and labour markets deteriorated. Changes in parents' partnership status remain an important predictor of residential mobility throughout childhood. We also assess how far moves result in improvement or deterioration of the housing space and tenure, and, in neighbourhood circumstances. We know that moves in early childhood typically resulted in improvements, but that, even in the pre-school phase, families with relatively low resources and experiencing changes in parents' partnership often moved into smaller homes in a lower quality area. We investigate whether disadvantageous moves become more prevalent among those occurring at school ages, and whether they are more strongly related to family instability and the stresses of economic recession.

Family Resources for Children's Well-Being in the First Six Years of Life

Carolin Thoennissen, Barbara Wilhelm, Sabine Walper, Ludwig-Maximilians-University, Germany

Based on the family stress model (Conger, Conger, & Martin, 2010) this paper investigates family factors affecting children's development in the first six years of life. In particular, we address the role of parental education, financial hardship, coparenting problems, and several aspects of parenting, linking these factors to children's temperament and problem behavior across time. We expect that negative effects of social disadvantage (low education, financial hardship) on children's temperament and well-being are mediated through coparenting problems and the impaired quality of parenting.

Based on data from the German family panel "pairfam", we followed newborn children from wave 2 to wave 7, i.e. from their first months of life to age 5. Data come from 162 anchor persons (58% female) whose child was born between wave 1 (2008/2009) and 2 (2009/2010) and who participated in the subsequent annual assessments. The analyses are restricted to nuclear families.

Contrary to our expectations, neither parental education nor financial hardship was consistently linked to child temperament or levels of children's problem behavior (SDQ). Only ratings of child hyperactivity proved higher among lower educated parents. Furthermore, there was no overall evidence for impaired parenting among lower educated or financially deprived parents, although lower educated parents reported more worries and overprotection in parenting.

Path-models suggest independent contributions of low parental education and high worries/overprotection (age 1) to later child hyperactivity (age 5), controlling for earlier temperament (age 1). Coparenting problems (age 2) had indirect effects, mediated through increased worries/overprotection. Furthermore, child problem behavior at age 5 was predicted by parental negativity (age 3), controlling for earlier problem behavior (age 3) and temperament (age 1). Contrary to our expectations, coparenting did not prove relevant for children's problem behavior. Additional analyses test differences between mothers and fathers. The findings are discussed with respect to reciprocal effects between child behavior and (co) parenting.

Reference:

Conger, R. D., Conger, K. J., & Martin, M. J. (2010). Socioeconomic status, family processes, and individual development. *Journal of Marriage and Family*, 72(3), 685-704.

A Question of Security? Educational Expansion, Labour Market Uncertainty and Family Formation

Christian Brzinsky-Fay, WZB Berlin Social Science Center, Germany

The educational expansion has led to prolonged school-to-work transitions in all industrialised societies. At the same time, we observe a decrease in fertility rates and an increase in economic uncertainty during the school-to-work transition. With respect to occupational attainment, we know that men can compensate better for longer duration of education and increasing uncertainty than women. The question arises whether this is also true regarding first child birth, which also constitutes an important aspect of transition to adulthood.

Borrowing ideas from Carlsson and Karlsson (1970) on postponement, compensation and fixation I examine the labor market entry of West German individuals from leaving school until 20 years later for six birth cohorts (1950, 1955, 1960, 1965, 1970 and 1975) using retrospective life course data from starting cohort 6 (adults) of the German National Education Panel Study (NEPS). With a Cox Proportional Hazard model, I test whether economic uncertainty accelerates or delays the birth of the first child and how this changes over time. Economic uncertainty is measured by a new time-varying sequence turbulence measure, whereas educational expansion is captured by cohort effects.

The findings suggest delayed 1st child births for better educated, whereas increasing economic uncertainty measured by sequence turbulence surprisingly accelerates the timing of 1st child birth. Apart from that, both effects are only valid for women. Cohort effects couldn't be found, which implies that the effect of educational expansion is based on prolonged schooling only, whereas vocational education and higher education do not affect family formation.

Parallel Session 7

A7 SYMPOSIUM

Born in Bradford: A City of Research

Convenor: John Wright, Kate Pickett, Bradford Institute for Health Research (BIHR), UK

Born in Bradford (BiB) is a family of research projects working together to enhance children's health and wellbeing in a deprived and ethnically diverse community in the north of England. A major strength of the BiB research is the compelling track record of local community involvement and multidisciplinary collaboration across statutory, voluntary and community sectors to maximise engagement, efficiency and impact of the research.

This symposium will introduce Born in Bradford, starting with the impact of the original 13,500 strong observational birth cohort and leading on to its on-going follow-up of children in local schools and community locations. We will introduce an exciting new experimental birth cohort established to evaluate the impact of a range of early life interventions on children's health and development. We will share our innovative methods for linking to and using routine data on families' health, education and wellbeing, and share the successes and challenges of working within a collaborative framework with both the local community and local organisations.

Can a Research Project Change a City?

Rosie McEachan, Sally Barber, Bradford Institute for Health Research, UK

Bradford is the 6th largest city in the UK with a vibrant multicultural population and one of the highest birth rates in the country. Bradford is not without challenges; it hosts some of the most deprived areas in the UK, and has high mortality and morbidity rates. The Born in Bradford (BiB) research programme began in 2006 to explore why some Bradford families stay healthy and others fall ill. Between 2007-2011 over 12,500 pregnant mothers, 13,500 babies and 3,500 fathers were recruited. Uniquely, 45% of the cohort is South Asian and 39% White British allowing ethnic comparisons on health outcomes and behaviours. Detailed information on life circumstances were collected at baseline and families consented to ongoing routine data linkage via health and education records. 2017 sees the first cohort-wide face-to-face follow-up now children are 6-10 years old. Key findings include the link between acrylamide and birthweight, the impact of parenting styles and feeding practices on infant obesity; the impact of pollution and green space on birth weight, and ethnic differences in infant growth and mental wellbeing. Crucially, BiB aims not only to describe but also improve health through developing and evaluating health interventions. Findings have had local and international impact; work linking air pollution and health helped gain local investment to clean-up Bradford's polluting bus fleets and the European Commission used our findings to explore safe air quality limits for cities. Findings have also helped secure a £50 million Big Lottery investment to implement interventions to improve health of pregnant women: Better Start Bradford. The BiB research programme aims to improve the health of a city and provide a leading model for the integration of research and practice.

The Best Years of Their Lives? Working with Bradford Primary Schools

Elizabeth Andrews, Bradford Institute for Health Research, UK

Born in Bradford (BiB) is following our cohort of children attending Bradford schools, building on the success of our 'Starting School' study with 4-5 year olds in 77 primary schools. This paper explores our work with schools, the challenges faced and the development of partnerships that support the research. Successful work within school settings is only made possible through close collaboration with head teachers, teachers and school staff, Bradford Childrens Services, educational psychologists, SENCOs, and school nurses. Two special groups provide support and advice; our Teacher Reference Group (professionals from primary and secondary schools, special schools), and Parent Governors Group.

The studies discussed include BiB: The Primary School Years (BiB-PSY), conducted with 90+ schools to explore socio-emotional health and well-being and assess cognitive/fine motor skills in 6-9 year olds; Stand Out in Class (SOCS) introducing adjustable sit-stand desks into classrooms to reduce sedentary behaviour; School Nurses who measure blood pressure, fit accelerometers (objective measures of physical activity) and collect blood samples, and Promoting Learning, Activity and Cognition through the Environment at School (PLACES) measuring associations between use, characteristics and types of school playgrounds, with data from accelerometers, and assessments of children's learning, cognitive, subjective health and well-being. BiB aims to identify children experiencing difficulties with learning early in their first years of formal education so schools can provide the support needed. Schools receive results from our research and we

collect feedback to evaluate their impact. Our collaborators value our work and advise us about the issues important to them. Collaborations with 10 Special Schools to develop assessment tools for their students are in progress, and we are beginning discussions with secondary schools in anticipation of our BiB children approaching adolescence.

Born In Bradford's Better Start: An Experimental Birth Cohort Study to Evaluate the Impact of Early Life Interventions

Sally Bridges, Bradford Institute for Health Research, UK; Josie Dickerson, Better Start Bradford Innovation Hub, UK

The original Born in Bradford (BiB) cohort, like most birth cohorts, is a traditional observational epidemiological study used to elucidate factors associated with health outcomes. Based on the experiences of BiB, we have recently implemented a novel methodological approach to a new birth cohort – Born in Bradford's Better Start (BiBBS). Our focus in BiBBS is on intervention rather than observation, and so we refer to this as an “experimental birth cohort study”.

Better Start Bradford (BSB), a multidisciplinary partnership, was awarded £49 million from the Big Lottery Fund to implement 22 interventions to improve social and emotional development; communication and language; and nutrition and obesity in children aged 0-3. There is a need for robust evaluations of early years interventions to improve health and well-being, however, planning and implementing standalone RCTs for multiple, individual interventions would be slow, cumbersome and expensive. BiBBS will simultaneously evaluate the impact of multiple early life interventions within the BSB natural experiment using efficient study designs including Trials within Cohorts (TwICs) and quasi-experimental methods. The BiBBS cohort also provides the unique opportunity to investigate the combined effects of stacked (multiple, layered) interventions.

The BiBBS study will recruit 5000 babies, their mothers and their mothers' partners from January 2016-December 2020. Demographic, socioeconomic, health and lifestyle data together with biological samples are collected during pregnancy. Routine data from health, education and BSB interventions will be linked as the children grow up.

The novel design of BiBBS provides a feasible and ethical method to evaluate complex interventions and will contribute much needed evidence to inform policy makers and practitioners about effective approaches to improve health and well-being for future generations.

Routine Data Linkage and Bradford's City of Research

Pippa Bird, Sally Barber, Bradford Institute for Health Research, UK

Research-relevant data are collected by a wide range of organisations, from GPs and hospitals, to schools and Local Authorities. Born in Bradford studies are linking to these routine data sources in order to follow-up families efficiently (for both participants and researchers) using widely recognised, policy-relevant measures.

In the Born in Bradford (BiB) birth cohort and the new BiBBS experimental cohort, we are asking all families to consent to routine data linkage, and have developed approaches to enhance the coverage and quality of data. Information and consent processes have been guided by public consultation, to enhance relevance and clarity. Working in partnership with organisations collecting routine data has opened opportunities to propose new measures or ways of recording data, to improve data quality and utility for research.

Routine data linkage also forms the foundation of other research programmes in Bradford, including internationally recognised applied health research in older people and quality and safety of health care. We aspire to build on the unique strengths that Bradford has developed in data linkage and applied research to become a City of Research. Bradford's City of Research model will build on a ‘learning health system’ approach, where evidence informs practice and practice informs evidence in real-time. Data will enter the system from several sources including: 1) routinely collected data (with consent) 2) existing cohorts (BiB, BiBBS, Care75+) 3) New cohorts (e.g. a digital Bradford cohort) 4) Citizenscience 5) Public/patient feedback on service/treatment experiences. We aim for the City of Research to facilitate communication between the health system and other care/service systems (e.g. social care, education, justice), in order to facilitate learning using an integrated approach to improving health and wellbeing.

From Community Engagement to a City of Research

Neil Small, Shahid Islam, University of Bradford, UK

Longitudinal studies based in single cities offer the opportunity to interact over extended periods with study participants and others growing up in the city. The geographic focus also allows for the research to draw on the expertise of local policy makers and service providers and engage with them to implement study findings. There is the potential for a virtuous circle to be created, research questions reflect local priorities and research findings shape future services. What is possible is that one builds enhanced research literacy in the city and that research is better informed by real world problems.

This presentation offers examples that illustrate the potential in this shift towards a city of research but also problematizes some of the steps that must be taken. Born in Bradford is an ongoing observational birth cohort, now in its ninth year. In 2016, a second birth cohort (Born in Bradford's Better Start) was established, this time an experimental one. 22 early years interventions in three inner city areas are to be evaluated.

The cohort, together with access to routine data, provides a resource for this evaluation. We examine what steps are taken to engage communities to ensure they will benefit from the intervention programme. Communities experience many different stages of readiness and it is important to attain alignment between implementation efforts and the level of readiness in a community. We will explore the potential for community members setting agendas for what interventions are required and evaluating their effectiveness. These are areas of great challenge: what is community, how do you reconcile community engagement with research rigour, how do you support community empowerment and how does this reconcile with prevalent political processes?

B7 PAPER SESSION: EARLY ADULT HEALTH***Patterns of Musculoskeletal Consultations from Childhood into Emerging Adulthood: A Study of Paediatric Patients in Primary Care Over Eight Years***

Nuthana Bhayankaram, Rosie Lacey, Lauren Barnett, Kelvin Jordan, Kate Dunn, Keele University, UK

Background: Musculoskeletal pain in childhood has been linked with chronic musculoskeletal pain in adulthood. However, few studies have investigated pain trajectories from childhood to adulthood, and no studies have used medical record data to do this. Our aim was to use primary care consultation data to examine patterns of musculoskeletal consultations in cohorts of patients over eight years.

Methods: Registration and medical record data from 2003-2010 in patients aged 7-15 years in 2003 was obtained from 11 general practices contributing to the Keele University Consultations in Primary Care Archive. Analysis included patients who remained continually registered from 2003-2010. Annual consultation rates/1000 registered per cohort were calculated. Read codes were used to determine reasons for consultation.

Findings: Total musculoskeletal consultation rates increased with age in all cohorts, with rates of 76/1000 for 7 year olds up to 276/1000 for 22 year olds. At age 7, males had higher consultation rates but at age 22 females had higher consultation rates. Within total musculoskeletal consultations, there were an increasing number of consultations for musculoskeletal pain in all cohorts from 2003-2010. Younger cohorts had higher consultation rates for lower limb pain compared with back pain, whereas older cohorts had similar consultation rates for lower limb and back pain.

Discussion: This is the first study examining patterns of paediatric musculoskeletal consultations using primary care data. We observed that musculoskeletal consultation rates increased with age, with different patterns observed for males and females. We found that musculoskeletal consultations are common in children but the reason for consulting appears to change over time. As children aged, their consultation for a musculoskeletal pain complaint changed from lower limb to back and lower limb pain. Future work should further investigate patterns for individual patients to determine which children may be most likely to develop chronic pain during the lifecourse.

Educational Disparities in the Cardiovascular Health of Young Adults in the United States

Elizabeth Lawrence, Robert Hummer, University of North Carolina Chapel Hill, USA

Individuals reaching young adulthood in the 21st century are the first to come of age during the obesity epidemic. At the same time, this generation has attained higher education than previous cohorts. These shifting epidemiologic and educational contexts raise important questions as to how cardiovascular health differs across education among young adults in the United States. I use data from the National Longitudinal Study of Adolescent to Adult Health (Add Health) to identify educational gradients in ideal cardiovascular health for a nationally representative sample of U.S young adults. As a whole, the cardiovascular health of young adults is poor. But there are large educational disparities. College degree earners are most likely to have ideal cardiovascular health, with more than three times the odds of those with some college, five times the odds of high school graduates, and six times the odds of those who did not complete high school. Preliminary results indicate that not only are these disparities robust to extensive controls and potential mediators, but inequalities are even larger when one considers characteristics such as educational timing, school selectivity, and ambitions as components of educational stratification. The findings suggest that educational differences in life expectancy will likely continue to grow as these young adults enter middle and older adulthood, and reducing these disparities should be a priority for researchers and policymakers. Further, degree attainment, while a simple and useful summary of educational stratification, does not capture the full range of inequality, particularly among younger cohorts for whom college degrees are increasingly common.

Childhood Adiposity Trajectories Are Associated with Late Adolescent Blood Pressure: Birth to Twenty Cohort

Richard Munthali, Juliana Kagura, Zané Lombard, Shane A. Norris, University of the Witwatersrand, South Africa

Background: Elevated blood pressure in childhood is a risk factor for adult hypertension, which is a global health problem. Excess adiposity in childhood creates a predisposition to develop adult hypertension. Our aim was to explore distinct sex-specific adiposity trajectories from childhood to late adolescence and examined their association with blood pressure.

Methods: Latent Class Growth Mixture Modeling (LCGMM) on longitudinal data was used to derive sex-specific and distinct body mass index (BMI: kg/m²) trajectories. We studied 1824 black children (boys = 877, girls = 947) from the Birth to Twenty (Bt20) cohort from Soweto, South Africa, and obtained BMI measures at ages 5 through 18 years. Analysis of variance (ANOVA), chi-square test, multivariate linear and standard logistic regressions were used to test study characteristics and different associations.

Results: We identified three (3) and four (4) distinct BMI trajectories in boys and girls, respectively. The overall prevalence of elevated blood pressure (BP) was 34.9 % (39.4 % in boys and 30.38 % in girls). Boys and girls in the early onset obesity or overweight BMI trajectories were more likely to have higher BP values in late adolescence. Compared to those in the normal weight BMI trajectory, girls in early onset obesity trajectories had an increased risk of elevated BP with odds ratio (OR) of 2.18 (95 % confidence interval 1.31 to 4.20) and 1.95 (1.01 to 3.77). We also observed the weak association for boys in early onset overweight trajectory, (p-value = 0.18 and odds ratio of 2.39 (0.67 to 8.57))

Conclusions: Distinct weight trajectories are observed in black South African children from as early as 5 years. Early onset adiposity trajectories are associated with elevated BP in both boys and girls. It is important to consider individual patterns of early-life BMI development, so that intervention strategies can be targeted to at-risk individuals.

Early Life Event Trajectories and Early Adult Health: Evidence from The British Household Panel Survey and The UK Household Panel Study

Cara Booker, University of Essex, UK

The link between childhood experiences and later health has been established. However, many studies of childhood experience do not account for the temporal nature or clustering of events. This study examines how changes in parental relationships and employment cluster during the first 16 years of a child's life. These trajectories are then used to predict health in early and mid-adulthood.

We use data from the British Household Panel Study (BHPS) which ran from 1991-2008. The BHPS was then incorporated into the UK Household Panel Study (UKHLS) in 2010. Both studies interview annually on a wide variety of topics including health, family structure and employment. Using data from the BHPS, we use multi-channel sequence analysis to define parental relationship and employment states between the

ages of 0-16. Socio-demographic characteristics are used to describe the differences within and between childhood life event trajectories. Health outcome data including limiting long-term illness, GHQ-12 and the SF-12 from the UKHLS are predicted from the childhood life event trajectories. Seven parental relationship and employment trajectories were defined and differed by timing of parental employment and changes to family structure. Findings show that childhood life event trajectories differ by highest education attainment and gender. The findings suggest differences in markers of physical health between trajectory types while there were no differences in markers of mental health. For example, young adults who grew up in two parent families where only one parent was working or where no parents were working had poorer physical functioning as measured by the SF-12. Conversely, there were no differences in levels of SF-12 mental functioning. There were also significant differences in health outcomes between the trajectories. Findings suggest that the timing and clustering of childhood life events are linked to health outcomes in early adulthood.

Do Economic Recessions Affect Mental Health? A Longitudinal Fixed Effects Analysis of Psychotropic Medication Use in a National Cohort

Heta Moustgaard, Pekka Martikainen, University of Helsinki, Finland; Mauricio Avendano Pabon, Kings College London, UK

Background: A growing body of evidence suggests population mental health to be worse at times of economic recessions. Most of the research is, however, based on ecological or repeated cross-sectional designs and thus the possibility for causal inference is limited. Few studies have assessed individual level changes in mental health according to macroeconomic fluctuations.

Design: This study used nationally representative cohort data drawn from Finnish population and administrative registers (1,183,174 individuals aged 25-64 contributing 14,242,982 person-years) to assess the effects of year-to-year changes in regional unemployment rates on changes in psychotropic medication use in 1995-2012. We analysed psychosis medication, sleep medication, sedatives, and antidepressants separately and as any psychotropic use. We used linear probability models with individual-level fixed effects to control for all unobserved time-invariant characteristics that may affect psychotropic use irrespective of macroeconomic conditions. We also controlled for region of residence and year to account for regional differences and time trends in psychotropic use. Further, we assessed individual employment transitions as possible mechanisms linking macroeconomic fluctuations to individual mental health.

Results: Regional unemployment rates were unrelated to the use of any, psychotic, or sleep medication both before and after controlling for individual level fixed effects. Antidepressant and sedative use were, however, significantly more likely when regional unemployment rates were higher even after controlling for all time-invariant individual characteristics. The probability of antidepressant and sedative use increased by 0.09 (95% CI 0.02-0.15) and 0.07 (95% CI 0.02-0.11) percentage-points respectively for every one percentage-point increase in the regional unemployment rate and these effects were unaffected by controls for individual employment transitions.

Conclusions. Macroeconomic fluctuations seem to have a causal effect on individual mental health as higher regional unemployment rates predicted increased use of antidepressants and sedatives even when controlling for regional and temporal trends and time-invariant individual characteristics.

C7 PAPER SESSION: EDUCATION

Explaining School Sector Differences in Educational Attainment

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Questions regarding whether private, faith and academically-selective schools are superior to state, secular and all-abilities schools respectively continue to be debated, and past findings have been mixed. This paper seeks to address both whether private, selective and faith schools provide an academic advantage to their pupils, and if so, can this advantage be explained? We examine potential school-level mechanisms via which particular school sectors may be advantaged, including: 1. The socio-economic and academic composition of the school; 2. The nature of the school curriculum; and 3. The level of extra-curricular activity provided by the school. Using longitudinal data from the 1970 British Cohort Study (n=16, 884), we examine two academic outcomes at age 16: performance in high-stakes public examinations, and performance in low-stakes cognitive tests. Our findings show that that school sectors varied widely in terms of student composition, the curriculum offered, and the level of extra-curricular provision. Controlling for individual socio-economic background and prior cognitive scores, we found that private, selective (grammar) and faith schools were linked to an advantage in high stakes examinations, but this was not the case for low-

stakes cognitive tests. The academic composition of the school and the provision of an academically demanding curriculum were linked to superior examination and test results, but the level of extra-curricular provision was not relevant. These school level variables explain the grammar school effect on examination performance, and somewhat explain the private school effect, but do not account for the faith school difference. The differences in our findings according to the high stakes or low stakes nature of the outcome have implications for education research and policy.

Effects of Using Instruments for School Improvement Reported by School Leaders on Student's Achievement Test Scores: Results of an Analysis Based on a Longitudinal Multi-Level Sample of Austrian Primary Schools

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Samples allowing longitudinal analyses on the school level are still very rare in German speaking countries. However, the nationwide implementation of educational standards assessments in Austria during the last years, provide unique opportunities for such analyses. Reviews within the theoretical framework of research on school improvement and school effectiveness showed that results in longitudinal studies can look quite different from results in cross-sectional studies (Klieme & Steinert, 2008; Klieme 2013). Therefore, it is still an open question to what extent the use of instruments of quality assurance and quality development by schools has an impact on their improvement and effectiveness, especially in the mirror of large scale assessments.

The present paper tries to fill this gap by analyzing the effects of several instruments of quality assurance and quality development (e.g. internal evaluation, external evaluation, student's feedback, mentoring for novice teachers) longitudinally. Students of N = 260 schools were measured twice, first in 2010, in a representative baseline assessment, and second in 2013, in the first nationwide educational standards assessment in mathematics for primary schools. Tests were administered to fourth grade students, and test scores were calculated according to item-response theory (IRT), considering anchor items. Information about students' social background derived from student questionnaires, information about the use of instruments for quality assurance and quality development from school leader questionnaires. Analyses were conducted by taking into account the multi-level structure of the data, as well as the changing composition of the students body (e.g. by migration background and SES).

Preliminary results show a weak, but significant effect of the use of internal evaluation on the development of achievement test scores. Results are discussed before the background of similar effects obtained in a German study (Bischof, Hochweber, Hartig & Klieme, 2013), and with respect to methodological issues.

Beyond Cognitive Ability: The Role of Early Childhood Economic Insecurity in Estimating Grade Repetition in the United States

Chrisse Edmunds, Kammi Schmeer, The Ohio State University, USA

Scholars of educational inequality have long understood that economic disadvantage leads to lower cognitive ability in children (Duncan and Murnane 2011; Guo 1998). We examine the relationship between disadvantage and educational progress by examining how economic insecurity in early childhood can lead to educational delays by age 9. While much work has been done looking at cognitive skills as an outcome, we examine progress in school using grade retention and the potential mediation of this relationship by cognitive ability. We expect that although cognitive skills will have an association with educational processes, they may not fully explain the relationship between economic insecurity and educational processes. Our study augments what we know about the role of early childhood exposures in the creation of educational inequalities. We use longitudinal data from the Fragile Families & Child Wellbeing Study (N=3,168) to estimate the relationship between economic insecurity and grade retention. The study followed a cohort of children born in the United States around 2000 from birth through ages 1, 3, 5, and 9. The longitudinal data allow us to examine how exposure to economic insecurity early in the life course can influence educational progress, specifically grade retention, early in the children's schooling trajectory. We use logistic regression models to assess associations between economic insecurity throughout early childhood and grade retention at age 9. Preliminary results indicate significant associations between early childhood income-based poverty and insecurity measures and the risk of repeating a grade by age 9. When adding standardized scores on the Woodcock Johnson verbal test at age 5, the insecurity measures remain significant while the income effect is attenuated. Thus, although cognitive scores increase students' risk of grade retention and mediate the income association with grade retention, early childhood economic insecurity remains an important predictor of delayed school progress by age 9.

Do School Accountability Practices Increase Inequality of Educational Opportunity? Panel Estimates From PISA

Rodrigo Torres, University College London, UK

School accountability is one of the most controversial school reforms taking place in both developing and developed countries. The implications of its effects on educational outcomes are still a matter of important debate. In this paper, we aim to expand our understanding of school accountability by studying a set of school practices usually present in school accountability systems and their effects in educational outcomes for the subject of math. We make use of available data for 65 countries in several PISA applications (2000-2012) setting up a panel dataset to exploit variation in school accountability practices within countries over time. We focus on identifying which accountability practices could be increasing (or decreasing) average academic achievement and inequality in educational results at schools. We find a positive impact of posting academic achievement data publicly in inequality in outcomes and no gains in average achievement. Our results also suggest that schools' internal use of students' academic results for benchmarking purposes improves average performance and reduces inequality in students' outcomes. Our results are mostly robust to different specifications. This is one of very few studies using panel data to study this topic in an international context. We find important differences in our results when comparing them to cross-sectional estimates, usually found in the international literature.

Intrinsic Math Motivation Development and Student-Perceived Teacher Ability Perceptions

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Expectancy Value Theory (EVT) emphasizes the role of socializers in students' development (Eccles, 2007). Research showed that the teacher ability perceptions positively influence students' development of intrinsic task values (Upadyaya & Eccles, 2014). This paper focuses on student-perceived teacher beliefs (i.e. how the students think their teachers evaluate their ability), and how discrepancies between those perceptions and their own math ability beliefs can affect the development of students' motivation in math. If students perceive that the teacher considers their math ability higher than they themselves, this reinforcement should support the development of intrinsic motivation. Theoretical support stems from the Self Determination Theory (SDT, Deci & Ryan, 1985), arguing that when the needs for social support and competence are met, intrinsic motivation is fostered. Based on an Australian longitudinal study (Watt, 2004), 1257 students attending grades seven through ten from three cohorts are included. For math, students' intrinsic motivation, their ability beliefs, as well their perceptions of their teacher's beliefs were assessed. In latent True Intraindividual Change Models (Steyer, Partchev, & Shanahan, 2000), one-year changes in intrinsic motivation between grade levels were predicted by the student perceived teacher over/underestimation of their math ability, controlled for gender, math test score, and SES. As expected, the extent of teacher overestimation positively predicted growth in students' math intrinsic motivation after grade eight. The results are interpreted against the backdrop of SDT and EVT. The perceived overestimations of students' ability level in math seem to affect motivational development. If students perceive social and competence support, namely that teachers think that they are able in math although the student's self-perception is less optimistic, the development of intrinsic motivation is enhanced. The grade-specific prediction patterns will be discussed in terms of students increased need for support when important curricular transitions (after grade eight) approach.

D7 PAPER SESSION: GENDER

Changing Work-Family Trajectories: On Inferring Gender Equality

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This paper investigates how gendered work-family lifecourses have changed over time in the UK. Past research suggests that men and women's work trajectories are converging, largely because women are increasingly adopting more male-typical employment patterns. However, over the same time period, the UK has also seen a delay in the transition to parenthood, with the extent of that delay differing by level of education. As a key component of the gender difference in labour market outcomes and trajectories is the gendered effect of parenthood on labour market activity, this raises a number of questions. Has the timing of the point in the lifecourse at which gender inequalities emerge merely been delayed or have the differences in trajectories of women and men become narrower after the transition to parenthood? To what extent do the patterns of change differ by level of education? To examine how changing gender differences in work trajectories are related to how the timing of parenthood has changed over time, and how these patterns differ by level of education, we use data from the English Longitudinal Study of Ageing (ELSA), the 1958 and 1970 Birth Cohort Studies, and Understanding Society. We compare the employment trajectories of men and women born the 1940s, 1958, 1970 and early 1980s, distinguishing, by education level using tertiles for each cohort, the pre-parenthood phase from the parenthood phase. The findings will contribute to debates about increasing gender equality in labour market outcomes over the lifecourse.

A Cohort Comparison of Gender Differences in Exiting and Returning to the Family Home Among U.S. Young Adults

Sara Mernitz, Anastasia Snyder, The Ohio State University, USA; Bohyun Joy Jang, University of Michigan, USA

The gendered nature of the home-leaving and returning patterns of young adults has received scholarly attention (i.e. Stone, Barrington, & Falkingham, 2014; Gee, Mitchell, & Wister, 2003). Findings suggest that women leave the parental home earlier, and are less likely to return, than men (Gee, et al, 2003), yet it remains unclear why these processes occur (Seiffge-Krenke, 2013). The explanation for these differences often highlights family formation reasons—specifically, parenthood and union transitions (Stone, et al., 2014). However, recent evidence suggests that the timing to home-leaving is growing similar between genders due to the rising rates of women’s post-secondary education (Sironi & Furstenberg, 2012). Using monthly data from the National Longitudinal Surveys of Youth 1979 and 1997 (NLSY79 and 97, respectively), we conduct a cohort comparison to explore gender differences in timing to first exit and first return from the family home for U.S. young adults. Survival estimates indicated that women in the NLSY79 cohort exited the family home earlier than women in the NLSY97 cohort and men in both cohorts. Women in the NLSY97 exited the family home earlier than men in their cohort, but later than men in the NLSY79 cohort. For returns, women in the NLSY79 were the least likely to return to the parental home compared to all other groups; women in the NLSY97 were less likely to return to the parental home compared to men in their cohort, but more likely to return to the parental home compared to the men in the NLSY79 cohort. Preliminary Cox proportional hazards models find evidence that both men and women in the NLSY97 were significantly less likely to exit the family home than men and women in the earlier cohort. For returns, NLSY97 women were significantly more likely to return to the parental home than NLSY79 women.

Unfinished Business? Gender Divisions of Labour and Wellbeing in The UK Household Longitudinal Study

Anne McMunn, Lauren Bird, Amanda Sacker, University College London, UK; Elizabeth Webb, University of Southampton, UK

While the gender division in paid work has progressively diminished, this is less true of unpaid labour. A gender perspective requires an extension of investigations of stress and work beyond paid employment to include unpaid labour. The concept of ‘total labour’ recognizes this need to define labour broadly. This study provides a current picture of the divisions of ‘total labour’ amongst contemporary UK couples and then investigates longitudinal associations between gender divisions of labour and indicators of wellbeing. The study includes co-resident, opposite-sex couples aged 16-65 who are present at waves 2, 4 and 6 of the UK Household Longitudinal Study. Measures of gender divisions of labour and wellbeing were used from all three waves. Gender divisions of labour were measured using the number of weekly hours that each member of the couple spent in paid work, housework, and caring, as well as who has responsibility for children. Wellbeing measures included the General Health Questionnaire (GHQ), the Short-Form 12 (SF12), and life satisfaction. Latent class analysis was used to identify division of labour classes and multilevel modelling was used to investigate associations between gender divisions of labour classes with wellbeing across waves, adjusting for household income, educational qualifications, longstanding illness and age, stratifying by gender to investigate whether associations are differential within couples. Eight division of labour classes were identified, the largest being ‘dual-earner/low care’ couples at a third of the sample. Levels of wellbeing were significantly lower amongst men in the most traditional division of labour types compared with men in couples who shared labour more equally; however, men in female-earner couples also had significantly higher GHQ scores compared with men in more equal sharing couples. Couples with low levels of attachment to paid employment had the lowest levels of wellbeing regardless of levels of sharing domestic labour.

The Partial Modernisation of Gender-Typical Life Course Patterns in Germany

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The life course of most men is characterized by continuous full-time employment. However, women’s life courses include employment interruptions and often part time employment when they become mothers. These deviations from the so called “normal work biography” lead to a number of disadvantages for women like lower wages, lower occupational positions and lower pensions. Various political interventions in Germany in the past years aimed to shorten the time span of parental leave taken by mothers and to increase the share of fathers’ care work. Highly educated woman took advantage of this new political regulation (Bujard and Passet, 2013; Wrohlich et al., 2012) and the share of highly educated men taking parental leave rose to a new high. Does this lead to converging life course patterns among highly qualified men and women and are modern patterns emerging? To answer this question life course patterns of higher education graduates in Germany are analysed using sequence analyses. The empirical analyses are based on the 1997, 2001 and 2005 graduation cohorts of the graduate panel studies conducted by the German

Centre for Higher Education Research and Science Studies (DZHW). The sample comprises approximately 8,000 graduates. The investigation period for each cohort includes the first ten years after graduation on a monthly base. This period represents the so-called rush hour of life which is characterized by the start and establishment of the working career and family formation. The results show, that traditional life course patterns still dominate even though the proportion of fathers with parental leave experiences increased significantly in the last years. The live courses of mothers are diverse and there are tendencies of approximations to the “normal work biography”. Hence there is only a partial modernisation of gender-typical life courses on the part of mothers’ lives.

Mixed Methods in Life-Course Research: Gendered Re-Familisation in a Post-Socialist Context

Hana Hašková, Institute of Sociology of the Czech Academy of Sciences, Czech Republic

Mixed methods life-course research is applied to examine gendered re-familisation in Czech society. Gendered re-familisation implies a turn away from policies, which give women incentives to combine paid work with caregiving, towards incentives, which undermine women’s employment (Hantrais 2004; Saxonberg, Sirovátka 2007; Szelewa, Polakowski 2008). Gendered re-familisation has been identified as one of the major processes in postsocialist Central and Eastern Europe after 1989 (Javornik 2012). Little is known about its effects on employment participation of particular cohorts of mothers. To examine the changes in the way Czech mothers have participated in employment, I analyse life-history data from a questionnaire survey of the Czech population born between 1950-1985 and the biographical narratives of Czech mothers born between 1944-1986. My study demonstrates the power of mixed-methods life-course research for enhancing the understanding of gendered re-familisation in a post-socialist society. Contrary to the general assumption that re-familisation started with the post-1989 transformation, the deductive analysis of statistical life-history data showed that the increase in the amount of time mothers spend outside paid work after each birth dates as far back as the 1970s, as does the increase in the practice of not returning to work between births. The inductive analysis of the life stories (biographical narratives) revealed differences in pre- and post-1989 mothers’ experience of returning to work. Subsequently, quantitative and qualitative data were merged to obtain a more complex understanding of gendered re-familisation: Re-familisation in Czech society is rooted in the pre-1989 policy changes that contributed to the increase in the length of fulltime maternal childcare and to the practice of not returning to employment between births. This tendency was fueled by the post-1989 labour market, ideological changes and refamilialist policies, which strengthened the previously established trend and added new consequences in the sense of an increase in mothers’ employment instability and engagement in occasional short-term jobs.

E7 PAPER SESSION: HEALTH AND HEALTHCARE

Social Factors Influencing Uptake of Free Eye Examinations in Northern Ireland: A Cohort Study of 295,000 People

David Wright, Augusto Azuara-Blanco, Dermot O’Reilly, Ruth Hogg, Queen's University Belfast, UK

Background: Chronic eye conditions leading to vision loss significantly reduce the quality of life and increase the costs of care for older people. Progression of the most common sight threatening conditions, age-related macular degeneration and glaucoma can be slowed if detected early. However, there is evidence that social factors substantially influence detection programmes. We investigated the influence of these factors on uptake of free eye examinations among the over 60s to identify barriers to uptake.

Methods: Two large administrative datasets; the 2011 Northern Ireland Census and the Business Services Organisation ophthalmic database were linked, forming a cohort of 295,000 individuals. The ophthalmic database recorded individual uptake of eye examinations at community optometry practices over a five year period and the Census provided information on social context at the individual, household and area levels. Multiple log-binomial regression was used to estimate associations with uptake.

Results: 64% of the cohort attended at least one eye examination during the study period. There were no associations between uptake and educational attainment or measures of household wealth. Those with poor general health had lower uptake (very bad health vs. very good health; Risk Ratio = 0.93 [0.90, 0.95]). Those with chronic health conditions resulting in cognitive impairment were less likely to attend than those without. In contrast, physical impairments were not associated with uptake. At the household level, older people living with siblings or unrelated people had lower uptake than those living with partners or children. Those with no car access or living in more remote areas were less likely to attend (most remote with no car 18% less likely than least remote with a car).

Conclusions: We identified cognitive impairment, unusual living arrangements and transport difficulties as key barriers to older people accessing these eye care services.

The Impact of Local Coal Bans on Health Outcomes: Ireland as a Case Study

Anne Nolan, Seraphim Demsey, Sean Lyons, Economic and Social Research Institute, Ireland

Since the beginning of the 20th century there has been increasing concern about the detrimental impact of air pollution on health outcomes. Numerous negative health effects have been associated with air pollution, primarily cardiovascular and pulmonary morbidity and mortality. Outdoor air pollution and particulate matter (a major component of air pollution) have also been classified as Group One carcinogenic to humans by the International Agency for Research on Cancer. On 1st September 1990, the Irish Government introduced a ban on the marketing, sale and distribution of bituminous fuels (hereinafter known as the 'smoky coal' ban) in the capital city of Dublin; this ban was subsequently extended to other urban areas at different time points up to 2015. This paper exploits variation in air pollution levels due to the introduction of this legislation establishing new 'smoky coal' ban areas between waves of The Irish Longitudinal Study on Ageing (TILDA). We combine geo-coded data from the Environmental Protection Agency indicating locations with 'smoky coal bans' with individual-level data from the first three waves of TILDA to examine the impact of air pollution on cardiovascular and pulmonary health outcome measures. The panel structure nature of the data, along with the temporal variation of the coal ban enables a fixed effects approach to be used which allows us to control for unobserved time constant factors, and thus claim a greater degree of causality.

Analysing Heterogeneity in Smoking Behaviour Over Time: A Tutorial on Zero-Inflated Latent Class Growth Mixture Models Using Data from The Amsterdam Growth and Health Study

Trynke Hoekstra, Vrije Universiteit Amsterdam, Netherlands; Jos Twisk, VU University Medical Center Amsterdam, Netherlands

Researchers involved in tobacco research are often interested in analysing smoking behaviour over time in (large) life course cohorts. Although there is ample research, the methods of analysis are diverse and not always easy to compare. This diversity is partly caused by difficulties with analysing the extent of tobacco smoking (e.g. the amount of tobacco, such as the number of cigarettes, smoked). The main issue here is that these variables usually show distributions that violate normality assumptions required for many common statistical techniques. These violations are often caused by an extremely high number of zero counts (the non-smokers). Such zero-inflated distributions are challenging to analyse, especially for applied researchers. Moreover, it has been shown that the onset and development of tobacco smoking is heterogeneous, which in itself is difficult to analyse. Latent class growth mixture models are person-centred techniques that focus on relationships among individuals, aiming to group similar individuals based on their trajectory of tobacco smoking, and can easily be extended to incorporate an excess of zeros.

This paper will apply these techniques using data from the Amsterdam Growth and Health Study cohort highlighting the application of these techniques. Analyses were conducted in Mplus on N=344 participants who were measured up to 10 times between the ages of 13-42. We considered the 4-class quadratic model as the optimal model. Most participants could be characterised by a stable non-smoking trajectory (68%), whereas two medium-sized classes were obtained (both 11.5%) characterised by smoking onset after adolescence and heavy smokers (but declining after age 32), respectively. Finally, a small class showing chronic light smoking behaviour over time appeared consisting of 9% of the sample.

This paper illustrates in detail the application of (zero-inflated) latent class growth mixture models.

Effects of National Housing Quality Standards on Hospital Emergency Admissions: A Quasi-Experiment Using Data Linkage

Damon Berridge, Sarah Rodgers, Rowena Bailey, Rhodri Johnson, RA Lyons, Swansea University Medical School, UK; Wouter Poortinga, Robert Smith, Frank Dunstan, Cardiff University, UK

A housing improvement programme was delivered through a local authority to bring nearly 9000 homes up to the Welsh Housing Quality Standard (WHQS). Homes received multiple elements, including new windows and doors, and heating and electrical systems, through an eight-year rolling work programme. The study aimed to determine the impacts of the different housing improvements on hospital emergency admissions for all residents.

Intervention homes, council homes that received at least one element of work, were data linked to individual health records of residents. Counts of admissions relating to respiratory and cardiovascular conditions, and falls and burns, were obtained retrospectively for each individual in a dynamic housing cohort (January 2005 - March 2015).

The intervention cohort criterion was for someone to have lived in any one of the intervention homes for at least three months within the intervention period. Counts were captured for up to 123 consecutive

months for 32,009 individuals in the intervention cohort and analysed using a multilevel approach to account for repeated observations for individuals, nested within geographic areas.

Negative binomial regression models were constructed to determine the effect for each element of work on emergency admissions for those people living in homes in receipt of the intervention element, compared to those living in homes that did not meet quality standards at that time. We adjusted for background trends in the regional general population, as well as for other confounding factors.

People of all ages had fewer admissions for cardiovascular and respiratory conditions, and fall and burn injuries while living in homes when the electrical systems were upgraded, compared to the reference group. Reduced admissions were also found for new windows and doors, wall insulation and garden paths. In summary, improving housing to national standards reduces the number of emergency admissions to hospital for residents.

Simulating the Life Course of Psoriasis Patients: The Interplay Between Therapy Intervention and Marital Status

Dennis Linder, Arnaldo Frigessi, Nico Keilman, University of Oslo, Norway; Stefano Piaserico, University of Padua, Italy

Background: Psoriasis, a chronic inflammatory disease affecting primarily the skin, shows multiple comorbidities (depression, cardiovascular diseases a.o.). Patients experience social, employment, financial and partnership problems. Inversely, psychosocial impairments impact on the disease course.

Objective: To explore the feasibility of a model describing the interaction of psychosocial and clinical factors over the patients' life course.

Methods: We considered seven states for members of a hypothetical population. Transition probabilities between states were taken from population registers and from epidemiological research articles. Clinical experience allowed adjustments on the assumed parameters.

Results: Our macromodel, which simulates the effect of therapy intervention on patients' partnership status, yields a description of the transitions between the seven states. Adjustment of the assumed effect of treatment efficacy using sensitivity analysis shows only a negligible effect on the chances of living with a partner.

Conclusions: Mathematical modelling of interactions between social and health variables is in principle feasible. However, more complex models, comprising more variables (for instance: employment status, depression level, obesity etc.), are needed for more realistic simulations for the interactions studied. Since increasing the number of variables leads to an exponential increase of the model's state spaces, switching to micromodelling (representing each individual separately) may be required.

F7 PAPER SESSION: INTERGENERATIONAL EFFECTS

Intergenerational Educational Mobility and Depressive Symptoms Over Time Among US Latinos

Julia Ward, Allison Aiello, University of North Carolina Chapel Hill, USA

In the US, Latinos suffer a disproportionate burden of depression. Low educational attainment has been associated with depression among Latinos, and recent data suggests that parental educational attainment may also influence mental health. However, few studies have collected intergenerational data to assess the effects of educational mobility across multiple generations on offspring depression. Using data from the Sacramento Area Latino Study on Aging (1998-2008), we assessed the influence of intergenerational education on depressive symptoms over a 10-year period among 1,786 Latino individuals aged 60-101 years at baseline. Intergenerational educational mobility was classified: stable-low (low parent/low offspring education), upwardly-mobile (low parent/high offspring education), stable-high (high parent/high offspring education), or downwardly-mobile (high parent/low offspring education). Depressive symptoms were measured with the Center for Epidemiologic Studies Depression Scale (CES-D), with higher scores indicating more depressive symptoms. To quantify the association between educational mobility and CES-D scores over 10 years, we fit marginal models using generalized estimating equations to account for repeated CES-D score measurement, utilizing stable-low education as the referent and adjusting for identified confounders. Multiple imputation was employed to account for missingness. Compared to stable-low educational mobility, stable-high education and upward educational mobility were associated with lower baseline CES-D scores ($\beta = -3.88$ and -3.45 , respectively). Downwardly-mobile participants also had slightly lower CES-D scores than stable-low participants ($\beta = -1.03$). Depression trajectories over the follow-up period

differed by educational mobility such that average CES-D scores decreased among stable-low and downwardly-mobile participants and increased among stable-high and upwardly-mobile participants. However, this may be due to the larger loss to follow-up among those with low education and high CES-D scores. Overall, our results suggest that sustained stress from low intergenerational education may adversely impact depression among elderly Latinos. Those with stable-low educational attainment across generations may need closer monitoring for change in depressive symptoms over time.

Processes and Barriers in the Intergenerational Transmission of Divorce: Findings from a Prospective Longitudinal Study

Fred Berger, University of Innsbruck, Austria; Helmut Fend, University of Zurich, Switzerland

There is good empirical evidence for the transfer of divorce from one generation to the next for a variety of countries. However, a lot of work remains to be done to achieve greater understanding of the mechanisms that are responsible for the “social inheritance” of divorce.

This paper attempts to clarify the later issue. It is designed to specify in more detail the processes of intergenerational transmission of marital instability. In the literature, several moderating and mediating factors are discussed (Amato 2000; Berger 2009). The data for this paper comes from a multidisciplinary German longitudinal study with seven points of measurement. The study is rich on moderating and mediating variables and covers 33 years of development from early adolescence to mid-adulthood. It contains extensive information on the social, family, academic, career, health, and personality development of 811 married or divorced participants with a mean age of 45 years. 27% of the first marriages in the sample have already been dissolved. 16% had experienced the divorce of their parents in childhood or adolescence. Research goals are addressed through event history analyses with time-dependent covariates (e.g., cox, sickle (shaped) regressions).

Preliminary analyses confirm that marital instability is passed on from parents to children. Furthermore, they show that the investments made in mate selection prior to marriage and the fact that children were born in wedlock substantially reduce divorce rate. Both work as strong barriers. In contrast, an early age at the onset of sexual relationships and at the first marriage prove to increase the prevalence of divorce in adulthood. In addition, the transmission of divorce turns out to be strongly tied to the intergenerational reproduction of religious values. Contrary to prior research, neither low investment in school nor an early entry into labour market can be identified as moderating or mediating factors.

Contexts of Disadvantage

Ben Edwards, Australian National University, Australia; Diana Warren, Australian Institute of Family Studies, Australia

Growing up in poor households or poor neighbourhoods, and attending a disadvantaged school have all been found to be associated with poorer child outcomes. What is less well understood is how these 'contexts of disadvantage' overlap and interact to compromise children's life chances. Data from the first five waves of the Longitudinal Study of Australian Children (LSAC) are used to examine the association between family, neighbourhood and school level disadvantage and children's cognitive and social-emotional outcomes. Children who had been exposed to family, neighbourhood and school disadvantage were found to have substantially poorer outcomes. Disadvantage has both direct and indirect influences on children's outcomes; with parental investment shown to be an important protective factor in mitigating the negative effects for children's development. These results highlight the importance of creating an enriching home learning environment in the early years of childhood, as benefits are likely to accumulate over time.

Parental Military Service and Adult Family Relationships: More Evidence of the Intergenerational Impact of War

Walter Forrest, The University of Queensland, Australia; Ben Edwards, Australian National University, Australia; Galina Daraganova, Australian Institute of Family Studies, Australia

Prior studies suggest that wartime military service may reduce relationship satisfaction, intensify relationship conflict, increase the risks of intimate partner violence, and contribute to separation and divorce. Although these outcomes may also affect children's interpersonal relationships in adulthood, very little is known about the intergenerational consequences of military service for family relationships in adulthood. Using the results of a landmark, retrospective study of the families of men who served in the Australian army during the Vietnam War (1965-1972), we investigated the long-term impact of their war service on relationship status and stability among the adult children of war veterans and other military personnel. Our results indicate that the offspring of war veterans are more likely than their counterparts

to have had multiple long-term relationships and are more likely to be in a cohabiting relationship (and less likely to be married). However, we found no differences in the likelihood of divorce. These differences in relationship outcomes appear to be due to the impact of parents' wartime military service on children's home environments.

Studying the Intergenerational Transmission of Inequality in a Cross-National Perspective

Mioara Zoutewelle-Terovan, Aat Liefbroer, Netherlands Interdisciplinary Demographic Institute, Netherlands

It is well known that disadvantage runs in families, with young adults who come from a poor socio-economic background or have experienced family instability being more likely to experience negative life events themselves. Less known is whether the consequences of having a disadvantaged family background differ across national contexts. One important reason to expect so, is that country-contexts differ in the extent that they provide opportunities to children from a disadvantaged family to become independent and to make autonomous life-choices. In this paper, I examine this issue by using data for 20 countries from the Generations and Gender Survey and the Harmonized Histories dataset. I use two indicators of family disadvantage (parental level of education and experiencing family instability before age 15) and four indicators of disadvantage in young adulthood (level of educational attainment, experiencing a teenage birth, experiencing an out-of-wedlock birth, and experiencing union dissolution). To examine whether effects differ across countries, meta-analysis and meta-regression is used. In the meta-regressions, country characteristics like welfare regime type, level of economic security and the importance of familism are included. Preliminary results suggest that the effect of parental education on life outcomes of young adults differs quite strongly by country-context, whereas the effect of experiencing family instability shows much less variation across national contexts. Cross-national variation in the effect of parental education is related to country-differences in the level of economic security that people in different countries experience.

Parallel Session 8

A8 SYMPOSIUM

Childhood Adversity and Health in Adulthood: Evidence from British Birth Cohorts

Convenor: Mai Stafford, University College London, UK

Adverse childhood experiences and circumstances can have long-term consequences for health and wellbeing in adulthood. Definitions of adversity have ranged from a narrow focus on abuse and neglect to a broader conceptualisation including bereavement, family stressors and structural or socioeconomic disadvantage. The British birth cohorts have prospective and retrospective data on various childhood adversities and here we present research investigating their association with later physical and mental health and early mortality.

The first paper illustrates associations between different childhood stressors and adult allostatic load, metabolic syndrome, cancers and all-cause mortality, highlighting the importance of timing of stress for subsequent health. The second paper considers explanatory pathways from parental separation to adult psychological distress and suggests gender and cohort differences in these. The third distinguishes socioeconomic and psychosocial childhood adversity and examines how each is related to physical and mental functioning in early older age. The fourth describes the extent to which socioeconomic and psychosocial adversities co-occur in three cohorts (born in 1946, 1958 and 1970) and considers implications of any cohort differences for associations between childhood adversity and later mental wellbeing.

The final part of the symposium will be facilitated discussion of some of the next steps for future research.

What are the Links Between Early Life Stressors and Later Adult Health? Evidence from The 1958 British Birth Cohort Study

Michelle Kelly-Irving, Cyrille Delpierre, INSERM, France

Aim: To provide an overview of work carried out on different stressors occurring before 16 years of age and their association with health outcomes in adulthood, including a physiological measure of health, morbidity and mortality.

Method: Prospective proxy variables for potential stressors around birth (emergency caesareans) and during childhood (adverse childhood experiences) were identified in the 1958 National Child Development Study. These were analysed in terms of their mediated and unmediated relationships with different health outcomes in adulthood. Outcome measures include a measure of physiological wear-and-tear (allostatic load) and the metabolic syndrome at 45 years of age, self-reported cancer and all-cause mortality before 50 years of age.

Results: An overview of the results from these separate analyses suggests that the type of stressor, and the timing of the stressor may have different long-term consequences on health over the life course.

Discussion: We will hypothesise about the different plausible social-to-biological links between stressors in early life, the timing at which they occur and their respective effects on physiological processes which may lead to adult health outcomes. Conclusion: New directions for research and gaps in current knowledge on the links between early life stress and later health will be considered.

Parental Separation and Adult Psychological Distress: The Role of Material and Relational Pathways. Evidence from Two British Birth Cohorts

Rebecca Lacey, University College London, UK

Background: The relationship between parental separation and adult psychological distress is established, however little is known about the mechanisms involved. This study investigated the role of material (adolescent material disadvantage, educational attainment and adult material disadvantage) and relational (parent-child relationship quality, peer relationships and adult partnerships) pathways and how these may have changed over time.

Method: This study used data from the 1958 National Child Development Study (NCDS) and 1970 British Cohort Study (BCS). Parental separation was measured from 0-16 years. Psychological distress was measured by Malaise Inventory at age 33 years (NCDS) and 30 years (BCS). Information on material and

relational factors was taken from intermediate sweeps across the life course. Data are multiply-imputed yielding a sample of 10,923 NCDS participants and 10,714 BCS participants with complete data on psychological distress. Path analysis was used to calculate probit estimates and investigate direct and indirect effects via material and relational pathways and how these interlink across the life course.

Results: Parental separation was associated with increased reporting of psychological distress in adulthood in both cohorts. The direct effect was more important than the indirect effect in the BCS, but the indirect effect through relational and material mechanisms was more important in the NCDS. Material pathways were more important than relational. The picture for women appears to be particularly complex in both cohorts, with greater linkage between material and relational pathways across the life course.

Conclusions: Parental separation was related to increased psychological distress in adulthood. There is evidence that the pathways between parental separation and psychological distress have changed over time. The mechanisms involved are complex and involve both material and relational factors.

Cumulative Social Risk During Childhood and Physical and Mental Health Functioning in Older Age

Rishi Caleyachetty, University of Birmingham, UK; Rebecca Hardy, Rachel Cooper, Marcus Richards, Diana Kuh, Mai Stafford, University College London, UK; Laura Howe, Emma Anderson, University of Bristol, UK
Background: Recently there has been increased interest in the role of the childhood social environment in the etiology of adult diseases. This study examines whether cumulative exposure to social risk factors during childhood are associated with physical capability and common affective symptoms in adults aged 60 to 64 years.

Methods: Data came from the Medical Research Council (MRC) National Survey of Health and Development, with prospective childhood social risk factor data collected at ages 0 to 16 and retrospectively at age 43. Seventeen adversities were classed as socioeconomic or psychosocial in nature. Performance-based physical capability and common affective symptom data were collected at age 60-64.

Results: Mean physical capability scores were low with more childhood socioeconomic risk factors, even after adjustment for exposure to childhood psychosocial risk factors (P for trend <0.001). There was evidence for a trend for lower physical capability scores with more childhood psychosocial risk factors (P for trend= 0.008) but this association was weaker than the association with childhood socioeconomic risk factors. Common affective symptoms were higher with more childhood psychosocial risk factors (P for trend <0.001) even after adjustment for exposure to childhood socioeconomic risk factors. There was no association between cumulative exposure to childhood socioeconomic risk factors and common affective symptoms.

Discussion: Our findings suggest that there may be some specificity in the impact of childhood social risk factors on physical and mental health functioning in older age.

Childhood Psychosocial and Socioeconomic Adversity Across Three British Birth Cohorts

Natasha Wood, David Bann, Rebecca Hardy, Alissa Goodman, Catharine Gale, Mai Stafford, University College London, UK

Background: Little evidence exists on the association between the social environment experienced in childhood and adult mental wellbeing and whether this has changed for different generations. The aim of this paper is to describe the extent to which socioeconomic and psycho-social adversities in childhood co-occur in three British birth cohorts and to consider the implications of any cohort differences in the associations between childhood adversity and later mental wellbeing.

Methods: Data were drawn from three British birth cohort studies: the MRC National Survey of Health and Development (NSHD), born in 1946; the 1958 National Child Development Study (NCDS); and the 1970 British Cohort Study (BCS). Childhood environment was measured prospectively up to the age of 16 years and comprised both the socio-economic and the psycho-social environment. Adult mental wellbeing was measured using the Warwick Edinburgh Mental Wellbeing Scale, a validated instrument capturing both hedonic and eudemonic aspects of wellbeing.

Results: Aspects of the childhood environment were associated with adult mental wellbeing, but with some cohort differences. In NSHD only childhood psychosocial factors were associated with adult mental wellbeing. In NCDS and BCS both socio-economic and psychosocial factors were associated. One possible

explanation, to be tested and presented, is that the socioeconomic patterning of psychosocial adversities relevant for wellbeing differs across cohorts.

Conclusion: These three large, prospective studies provide consistent evidence that the childhood social environment is associated with adult mental wellbeing. Childhood socioeconomic factors may be becoming increasingly important for adult mental wellbeing in younger generations.

B8 SYMPOSIUM

Life Course Perspectives on Young Adult Outcomes: New Data and Results from the PSID Transition into Adulthood Supplement

Convenor: Katherine McGonagle, University of Michigan, USA

This symposium consists of four papers highlighting new data and results from the Transition into Adulthood Supplement (TAS) to the U.S. Panel Study of Income Dynamics (PSID). PSID-TAS is a longitudinal study of young adults aged 18 years and older that has collected six waves of data every two years from 2005 to 2015 for a cohort born between 1985 and 1997. These sample members originally participated in the three-wave PSID Child Development Supplement (CDS), providing rich life course data on a large and diverse sample who will be followed by Core PSID for the rest of their lives. We also provide an overview of the relaunched PSID-TAS, which will be fielded in 2017 and beyond and will cover all PSID young adults, regardless of whether or not they participated in PSID-CDS. The theme of the symposium is the effects of childhood circumstances and family background on social and demographic outcomes during young adulthood. In addition to describing the PSID-TAS study, the symposium includes three substantive papers that exploit various aspects of the data.

The Transition into Adulthood Supplement to the U.S. Panel Study of Income Dynamics: Overview and Potential for Life Course Research

Katherine McGonagle, Narayan Sastry, University of Michigan, USA

There is increasing scientific interest in the transition into adulthood due to the major changes in this period of life that have occurred over the past four decades. However, there has been a limited picture available about how U.S. youth pass through this period and about how characteristics of the youth's family of origin and childhood experiences affect this passage. In 2005, in recognition that the life course period from ages 18 to 24 years are critical for development, the U.S. Panel Study of Income Dynamics (PSID) began a new study designed to follow children in its families who had participated in the three-wave PSID Child Development Supplement and had turned age 18 years, called the PSID Transition into Adulthood Supplement (PSID-TAS). The scientific aim of PSID-TAS is to understand the causes and consequence of social, economic, and health transitions of young adults. PSID-TAS provides extensive information on educational, occupational, and relationship transitions that mark the changeover to adulthood in developed countries. Six biennial waves of data collection from 2005 to 2015 have been completed for the PSID-TAS, based on the original cohort from PSID-CDS. In 2017, PSID-TAS was relaunched to capture the transition to adulthood among all PSID sample members in their young adult years. These youth will be interviewed for several rounds of PSID-TAS, and will be part of the Core PSID study for the rest of their lives. This presentation will set the context for the other papers in this symposium featuring research using the PSID-TAS data by providing information about the study, including a description of the sample, content domains, data availability, and plans for the future.

Race and Class Differences in the Transition into Marriage and Cohabitation in the United States, 1985-2013

Deirdre Bloome, Paula Fomby, William Axinn, University of Michigan, USA

The transition into romantic co-residential unions has historically been considered a marker of the transition to adulthood. Scholars have extensively documented that between 1970- 1990, African Americans experienced faster declines in marriage rates and steeper increases in age-at-marriage than whites in the United States. We map continuity and change in racial differences in family formation using PSID data, expanding on prior literature in three ways.

First, we study the choices of today's young adults, including birth cohorts 1970-1995, the youngest of whom were 18-23 in 2013. Second, we examine how the trend in racial differences in union formation depends on how cohabitation is classified (as similar to being single, versus as similar to being married, versus as part of the process leading to marriage). Third, we investigate how the trend in racial differences in union formation has varied by class. We illustrate all that can be learned from the PSID main study and discuss how the PSID-TAS can be used to advance this science. Recent studies have documented a growing

class gradient in marriage, as people without a college degree have become increasingly likely to delay or forgo marriage. Much less is known about how racial gaps have evolved within classes. Some evidence suggests that racial gaps have increased most quickly among the highly educated. Yet this research focuses on individuals' own educations, rather than their parents' educations. Consequently, this research obscures long-term class stratification. Family and educational choices are often co-determined. We help disentangle these processes by incorporating parents' educational attainment, income, and wealth to describe how racial differences in family formation have evolved differently for people from advantaged and disadvantaged backgrounds.

The Effects of Childhood Health on Young Adult Education

Narayan Sastry, University of Michigan, USA; Robert Bozick, RAND Corporation, USA

For most youth, the transition to adulthood is now launched via the completion of secondary school and subsequent enrollment in higher education. We take a life course perspective to assess the role of health across the childhood years in shaping youth's likelihood of finishing secondary school and continuing to college. From this perspective, fundamental differences in the health of youth create distinct positional disadvantages that directly complicate how youth are able to sustain engagement in and progress through school, with effects moderated by family social factors and economic status. Youth experiencing physical and mental health problems will be less likely to complete high school and to continue on to college. These effects may also shape the relationship between socioeconomic status and health later in adulthood. A better understanding of the effects of childhood health on educational attainment will help reveal how and why health disparities by socioeconomic status emerge and about how socioeconomic status and health status are transmitted across generations. Our analysis draws on new data from the Transition into Adulthood Supplement (TAS) to the Panel Study of Income Dynamics (PSID). The PSID-TAS study follows an original cohort of 3,563 children who were born between 1985 and 1997 to PSID sample members. They participated in the PSID Child Development Supplement, collecting key pieces of information about their childhood, and were interviewed as they entered early adulthood across four rounds of biennial data collection from 2005 to 2015. With these data we explore three dimensions of the health-educational attainment relationship: (1) the types of health conditions youth experience, (2) the timing of these health conditions, and (3) the role of these health conditions as an intergenerational transmitter of socioeconomic status.

Family Instability in Childhood and Criminal Offending During the Transition into Adulthood

Paula Fomby, University of Michigan, USA; Stacey J. Bosick, University of Colorado Denver, USA

Family instability, or the experience of repeated changes in family structure during childhood, is associated with elevated levels of externalizing behavior and delinquency in middle childhood and adolescence. Little research has considered whether family instability predicts risk-taking and illegal behavior in adulthood. Criminologists document that most delinquent behavior does not persist into adulthood; hence, family instability may not be a risk factor for antisocial or criminal behavior in early adulthood despite its association with earlier problem behavior. Yet there are reasons to anticipate an enduring relationship. In particular, early family instability may produce problems in adulthood through a process of cumulative disadvantage. This perspective recognizes that setbacks accumulate throughout the life course and grants a causal connection between earlier and later problems. An association between early family instability and crime in adulthood may be explained by elevated levels of externalizing behavior in childhood and adolescence. Along the same lines, early family instability may influence adult offending indirectly by reducing the likelihood of life course transitions into union formation and employment that are associated with crime desistance. We use data from the US PSID Child Development Supplement and Transition into Adulthood Supplement (1997-2015) to investigate whether family instability in childhood and adolescence is predictive of self-reported offending measures and experience with the criminal justice system in early adulthood; whether externalizing and delinquent behavior in middle childhood and adolescence mediates the association between family instability and adult offending; and whether any remaining association is attenuated by accounting for entry into marriage, parenthood, or full-time employment. Finally, we evaluate whether, after accounting for pathways of accumulating disadvantage, family instability carries independent, enduring consequences for early adult offending.

C8 SYMPOSIUM***The Effects of Family Change on Childhood Outcomes: Comparisons Across Anglophone Countries***

Convenor: Mikaela Dufur, Brigham Young University, USA

This symposium highlights papers using longitudinal data to make cross-national comparisons of how family changes affect child and parent outcomes. Focusing on Anglophone countries allows scholars to compare settings that share language, common heritage, and similar democratic institutions, but that also have very different policy approaches to promoting child well-being. These countries also have varied family formation patterns, which may influence the degree to which family changes affect outcomes. These international comparisons explore whether distinct mechanisms within societies play a role in the effects of family change. The papers in this symposium present work from a project examining a specific type of change in children's family settings: changes in family structure. The papers use data from the United Kingdom, the United States, and Australia and cover a broad range of outcomes: two papers look at children's physical health and stress responses. Two other papers examine parental responses to family disruption and reconstitution by looking at how family changes over time are related to parental depression and discipline approaches in the home. Taken together, the breadth of these topics and the comparative approach can help us better understand how family change over time affects both family processes and outcomes.

The Effects of Family Structure Stability and Transition on Parent Health, and Children Health: A Cross-National Comparison of Three English-Speaking Countries

Shana Pribesh, Yuanyuan Yue, Old Dominion University, USA; Mikaela Dufur, Kristie Rowley, Jon Jarvis, Tiana Bettinson, Carolina Otero, Daniela Barriga, Brigham Young University, USA; Alyssa Alexander, North Carolina State University, USA; Ashley Larsen Gibby, Penn State University, USA

Researchers are finding links between family structure stability and disruption on specific children's health outcomes, such as anemia and obesity (Schmeer, 2013; Schmeer, 2012); as well as on children's overall wellbeing (Lee & McLanahan, 2015; Waldfogel, Craigie, & Brooks-Gunn, 2010). However, little is known about the relationship of family structure change and parental health. While prior studies suggest that mother's poor global health was strongly related to poor child health on all domains of functioning, including social role, physical, and emotional health, (Waters et. al, 2000), family structure research on parent global health has been neglected. Furthermore, cross-national or comparative research that examines the effects of family structure stability on parents' health and children's health is lacking. Therefore, using longitudinal data from the UK Millennium Cohort Study (MCS), US Early Childhood Longitudinal Study – Kindergarten Cohort (ECLS-K98), and The Longitudinal Study of Australian Children – Birth Cohort (LSAC-B), we investigate how changes in family structure are associated with parents' and children's global health across three English speaking countries with developed health care systems.

A Cross-National Comparison of the Relationship Between Family Structure Stability/Disruption and Parental Depression

Shana Pribesh, Old Dominion University, USA, et al (as above)

A large body of research has connected family structure to a variety of child and adolescent outcomes such as behavior, health and obesity (c.f. Boswell & Passmore, 2013; Golombok et al., 2013; Lamb, 2012; Dufur et al., 2010). A similarly large body of research has linked maternal and paternal depression to the same child outcomes (Gunlicks & Weissman, 2008; Fletcher, Feeman, Garfield & Vimpani, 2011). In family structure studies, parental depression is often treated as a control variable that is concurrent with family structure change (i.e., divorce). We improve upon this modelling technique by using longitudinal analyses to determine if change of family structure triggers depressive symptoms, thus acting as a mediator between family disruption and negative child outcomes. We also examine cumulative influences of family disruption on both maternal and paternal depression. Using data from the US Early Childhood Longitudinal Study-Kindergarten Cohort (ECLS-K98), the Longitudinal Study of Australian Children-Birth Cohort (LSAC-B) and the UK Millennium Cohort Study (MCS), we look for patterns that are common to English speaking, developed nations with differing levels of mental health supports. If family changes are associated with increased parental depression, this may help explain how family structure is linked with child outcomes such as behavior problems and stress.

Family Transitions and Childhood Stress: How Family Structure Changes Impact Bed-Wetting and School Reluctance in Anglophone Countries

Mikaela Dufur, Brigham Young University, USA, et al (as above)

Researchers have found associations between family structure transitions and a variety of negative behavioral, emotional, and educational outcomes in children. Many have hypothesized that these negative outcomes result from the stress children experience as their families undergo structural transitions (Fomby & Osborne, 2016). The present study examines the impact that family transitions have on child stress levels as exhibited through nocturnal enuresis (i.e., bed-wetting) and reluctance to go to school across the Anglophone countries of the US, UK, and Australia. This study differs from similar studies in that it examines the impact that family transitions have on direct child stress indicators, bedwetting and reluctance to go to school, whereas other studies use general stress measures. We use data from the Early Childhood Longitudinal Study 1998 Cohort (U.S.), Millennium Cohort Study (U.K.), and Longitudinal Study of Australian Children (Australia) to measure child stress. We hypothesize that nocturnal bed-wetting and school reluctance will increase as children experience family structure transitions. If we find that family structure is associated with bed-wetting and school reluctance, it may explain how family structure affects child academic and socioemotional outcomes through child stress; in addition, our results may highlight how different societal contexts matter for child outcomes.

The Effect of Changes in Family Structure on Child Discipline: A Cross-national Comparison of Parents in the UK, US, and Australia

Jon Jarvis, Brigham Young University, USA, et al (as above)

Past research connects family characteristics to a variety of outcomes; however, recent work focuses attention on how family structure changes shape family mechanisms and processes, such as access to parental capital (c.f. Lucas 2005; Mitchell 2008; Golombok et al. 2013). Relatively little comparative research on family structure and transitions exists, and often family structure categories are simplistic, capturing only the number of parents and marital status (Bjarnason et al., 2012; McCulloch et al. 2000; Frechette and Romano 2015). We aim to examine whether parents who go through changes in family structure are more likely to use physical discipline on their children. Using data from the UK Millennium Cohort Study (MCS), the US Early Childhood Longitudinal Study-Kindergarten 1998 Cohort (ECLS-K), and Growing up in Australia: The Longitudinal Study of Australian Children (LSAC), we examine the effects of movements across several family structures, as well as types of transitions (entry, exit, both entry & exit) on parental discipline strategies. We hypothesize that parents who experience partner transitions will experience more stress than those in stable family structures, as well as having less monitoring of their disciplinary strategies by new partners who are not biological parents to their children. Thus, such parents will be more likely than parents who experience no change in partner to use physical punishment on their children. We also explore whether these patterns vary across the three countries included here.

D8 PAPER SESSION: INCOME

Women's Early Career Earnings Risks: A Trajectory Analysis Approach

Janne Salonen, Kati Kuitto, Finnish Centre for Pensions, Finland

Early career development in terms of labour market attachment and earnings is important for later life, but also for future pensions and thus incomes in old age. Due to gendered labour market disparities and care responsibilities, which still mainly bear upon women in many countries, women's early career earnings risks are particularly interesting, yet less studied. In this paper, we examine early career earnings trajectories of young women by utilizing individual-level register data of the Finnish Centre for Pensions. The data includes information about working, education, receipt of wide range of social benefits and demographic factors. The cohort studied includes all women (birth year 1980, n=39,428) living in Finland. Their labour market statuses are followed up from 2005 (age 25) to 2015 (age 35). Our statistical method is a multivariate version of trajectory analysis that applies finite mixture modelling to longitudinal data. We model the information about earnings as a continuous year level dependent variable, and we thus apply mixture regression technique for mean modelling. The analysis revealed five groups with different earnings trajectories. Over half of women in this cohort belong to a trajectory with uninterrupted earnings at a rather high level, thus low risk. 12 per cent of the cohort, in turn, is characterized by high risk and very low labour market attachment. Further three trajectories feature differing growth curves. In a second step of the analysis, we test how several socio-economic and labour market status-related factors covary with the earnings risk. The results suggest that women's early career earnings trajectories may be more diversified than assumed and that the effects of parenthood and child-rearing for earnings development may be contextual to several other factors.

High Status Among Siblings and Peers: Long-Term Associations with Social, Economic, and Health-Related Living Conditions

Ylva Almquist, Bitte Modin, Centre for Health Equity Studies (CHESS), Stockholm University/Karolinska Institutet, Sweden

Siblings and peers constitute important sources of influence for child development but these influences are dependent upon the child's position in the sibship and the peer group. For example, first-born siblings are not only advantaged in terms of being older, stronger, and verbally superior, they may also be more motivated to fulfil parental expectations and amenable to parents' wishes, values, and standards. Having a central location in the peer group reflects a higher degree of popularity. The advantages stemming from this position include better access to information and opportunity to influence peer processes, as well as more respect and support. While research has revealed short- and long-term gains related to cognitive ability, education, and health among first-borns and popular children, few have explored these two types of status position and their long-term influences simultaneously. The aim of this study was therefore to jointly examine whether children holding advantageous positions among siblings and peers would be less likely to experience adversity in adulthood related to work, income, and health. We also studied the role of educational attainment for these associations. Regression analyses were based on a Swedish cohort born in 1953 (n=14,294), showing that both first-borns and popular children had lower risks of unemployment, receipt of social assistance, and mental health problems in adulthood. They were also less likely to end up in a situation characterised by multiple adversities. Educational attainment explained 30-65 % of these associations. A consistent finding across outcomes was that differences between popular and non-popular children were larger than differences based on sibling position. Thus, position in the peer group appears to be a more useful early-life indicator, at least for the social, economic, and health related outcomes studied here. Irrespective of the type of status position, however, education should be highlighted as an important pathway.

Lone Parents, Income Poverty and Material Deprivation

Morag Treanor, University of Stirling, UK

Lone-parents are more likely to experience multiple disadvantages, such as income poverty and material deprivation, due to their inadequate resources and employment. Often these disadvantages are conceived as factors associated with children's low levels of wellbeing, with lone-parenthood being included as another such factor: that is, lone-parenthood is viewed as a disadvantage that children experience in addition to income poverty and material deprivation, rather than as a family state that increases the likelihood of lone parents and children together experiencing the disadvantage of income poverty and material deprivation. Qualitative research exists that shows that low income and the poor quality of lone mothers' employment result in poorer wellbeing for both mothers and children. This chapter will use quantitative methods to complement the qualitative evidence, and to test its generalisability, by exploring lone-parents' employment, work intensity, family transitions, income poverty and material deprivation to disentangle the association between lone parenthood and lower levels of child wellbeing. In so doing, it aims to challenge the research that promotes lone-parenthood as yet another child-level disadvantage rather than a group of parents facing the same (or greater) income and material disadvantages as their children. It uses birth cohort data to explore the employment and poverty experiences of lone parents across this period and the impact on their children's wellbeing. The main points from the analysis is that: the well-being of children in lone-parent families is more determined by income and material deprivation than by lone-parenthood or changing family formations; that the longer the experience of lone-parenthood the lower the levels of employment and work intensity; that stable lone-parents have a higher incidence and persistence of poverty; that lone-parents have a higher incidence and deeper levels of material deprivation; and that lone-parents have greater precariousness in their employment as shown by the annual changes in work intensity.

Social Networks and Long Term Income Development

Timo Anttila, Tomi Oinas, Mari Kivitalo, Armi Mustosmäki, University of Jyväskylä, Finland

In this study we examine how social capital embedded in individuals' social networks is connected with long-term income development. We distinguish between bonding social capital and bridging social capital. Bonding social capital was measured with the possibility to get assistance in various situations in everyday life. Bridging social capital was measured with the diversity of associational memberships.

Analyses are based on interviews of 20 to 44 years old employees from the Finnish Living Conditions Survey of 1986 combined with register data on earned income from 1987 to 1997. Analyses were conducted with piecewise linear growth curve model covering three linear parts: before recession (1987-1991), recession (1992-1994) and after recession (1995-1997).

According to our results bridging social capital was associated with positive income development during the whole observation period. Social capital enhanced income development especially after 1990s recession as both bridging and bonding social capital were associated with higher earned income. This effect was mainly the result of bridging social capital which enables individuals to achieve higher income positions. Our results support the view that social capital is convertible into economic capital.

E8 PAPER SESSION: PARTNERSHIPS

Linked Lives: How Do Partners Share Their Personal Networks, and How Does It Evolve?

Claire Bidart, Aix Marseille University, France

Love is not just a story for two... The construction of a couple engages the entourage of each of the two spouses, and modifies it. Family, in-laws, old friends, new mates, colleagues, neighbors... can be very differently recombined during the events of conjugal life. Which part of the personal network is pooled and frequented together, which part remains dissociated and frequented alone? How is the partner or spouse positioned in Ego's network? How does this position evolve over time, and under the effects of the trials of life?

The questioning proposed here envisages linking life course studies and personal network analysis. It is based upon a longitudinal panel study of personal networks of 75 young people originally living in Caen (Normandy, France), followed during 9 years with 4 survey waves and continued over 20 years for some of them. Data analysis combines statistic measures (with 12345 relationships computed), qualitative methods (with very long interviews) and structural analysis (with 308 network graphs). The analysis of these data shows the diversity of forms of conjugality in their social dimensions. It also shows the effects of certain life events that involve both the conjugal tie and the relationships within the network. The beginning of a romantic relationship, the installation in a common dwelling, the birth of children, the separation of the couple, but other kinds of trials also, modify the structure of the network and the sharing of sociability. This kind of analysis also makes it possible to specify what "linked lives" can be.

Competence Match Among Romantic Partners in Germany

Gwendolin Blossfeld, Sebastian Prechsl, Leibniz Institute for Educational Trajectories, Germany

The question of "Who enters into a (romantic) union with whom and who stays in a union or separates?" is central to our understanding of the reproduction of social inequality in modern societies. Previous research has shown that couples tend to bond with individuals with specific characteristics (e.g. age, education, religion, race, ethnicity, occupation). Nevertheless, we find comparatively high separation rates among all kinds of matches. We argue that couples find each other based on observable characteristics such as educational attainment. But we expect an halo-effect of education resulting in competences being more important than formal education for the persistence of relationships. Hence, we expect that couples have more often the same competence level the longer the relationship lasts. Using data from the 2nd wave of the Programme for the International Assessment of Adult Competencies – Longitudinal (PIAAC-L), we study the competence match of adult couples living in the same household. The data allows us to study the competence match among partners regarding their formal education, the duration of their partnership, age differences among partners, their partnership status (cohabiting or married), the existence of (and if so age of) children.

Jupyter Notebooks and Multidisciplinary Collaboration in Longitudinal and Lifecourse Research

Vernon Gayle, University of Edinburgh, UK

The known universe of longitudinal data is ever expanding, and the second decade of the 21st Century is characterised by the explosion of new forms of data. The increased processing speed of computers and the expansion of affordable storage capacity present exciting opportunities for social science research. Multidisciplinary collaborations are increasingly common and empirical studies in longitudinal and lifecourse research are likely to become increasingly computationally intensive.

In this paper I discuss how techniques from computer science and e-Research can aid multidisciplinary research in longitudinal and lifecourse studies. The presentation will concentrate on four inter-related aspects of the longitudinal data analysis workflow – accuracy, programing efficiency, transparency and reproducibility. The theoretical focus of the paper is 'literate computing', which involves the weaving of research narratives directly into live computation, interleaving text and documentation with research code and results, in order to construct complete and transparent workflows with the goal of better communicating research results.

Jupyter notebooks (jupyter.org/) are an open source tool that have gained prominence in ‘big science’ and is especially effective in large-scale collaborations (e.g. the LIGO Collaboration).

As part of the presentation I will demonstrate how Jupyter notebooks can be used in multidisciplinary collaborations in longitudinal and lifecourse research. In particular the presentation will showcase how Jupyter notebooks can be used to assist in currently underexplored areas such as research code sharing, producing rich visual outputs, markdown and documentation, portability, and undertaking language agnostic data analysis.

F8 PAPER SESSION: SURVEYS

Childhood in Iran: Longitudinal Study of Iranian Children (LSIC)

Ali Asgari, Ali Taraghijah, Mona Mahdian, Shima Aminipour, University of Tehran, Iran

Focusing on the progress and development of children and the factors which might affect that is one of the important concerns of longitudinal studies in different societies which is worth studying. Although the findings of such studies allow researchers to clarify what are the important factors and their relations in children’s life but the findings may vary between cultures. The majority of longitudinal studies have been conducted in the western countries that have different cultural contexts, languages, and beliefs from other eastern countries. The purpose of the present study is to introduce the Longitudinal Study of Iranian Children (LSIC) called “Growing up in Iran” which is carried by Hamnava research institute in Tehran.

“Growing up in Iran” is the first longitudinal study in an Islamic country aims to collect national longitudinal data on the developmental aspects of children over pre-school and primary education (4-11 years old). The study includes of a single cohort of 500 children launched in 2012 that were selected randomly from a geographically/purposefully stratified sample of 5 different provinces of the country. A series of research instruments were developed or adapted to assess 7 developmental domains including learning environments, cognitive, socio-emotional, physical, spiritual, bioecological, and cultural developments of children over the childhood and early adolescent. 4 waves and a rich dataset were provided in each domain and first cross-cultural studies have shown interesting findings of similarities and differences between Iranian and other cultures.

The ORIGINS Project: A Healthy Start for a Better Future

Lyn Colvin, Susan Prescott, Desiree Silva, Lisa Gibson, Debbie Palmer, Erika Hagemann, Sarah Miller, Telethon Kids Institute, University of Western Australia, Australia

The environment in pregnancy and early childhood determine physiological, structural, immune, metabolic, and behavioral development, and influence susceptibility to both early and later onset diseases: the Developmental Origins of Health and Disease Hypothesis. Strategies to improve early life conditions and exposures in early life are critical in reducing the rising global burden of chronic disease.

The ORIGINS Project (ORIGINS) is a multidisciplinary collaboration between a large hospital campus (JHC) and a children’s research institute (TKI) to establish a new Western Australian birth cohort. A key strength and novelty is that it is fully integrated with clinical and diagnostic services at JHC.

Recruitment of pregnant women and their partners commenced in November 2016. Over 5 years we aim to recruit 10,000 women and their partners early in pregnancy and collect biological samples, routine data and web-based questionnaires on their physical and mental health, diet, physical activity patterns and a range of factors in their environment, creating a large biobank and databank. Participants also consent to linkage to national government datasets. Initially we will intensively follow up these families until the children are 5 years of age. We will then assess how these early life exposures have influenced their child’s growth, development, and health. Nested within the main observational cohort will be a series of intervention studies and RCTs to improve modifiable aspects of the early life environment (e.g. nutrition, physical activity, microbial diversity, weight gain, language development).

The Cleft Collective: A Multidisciplinary Prospective Cohort Study

Kerry Humphries, Amy Davies, Rhiannon Bennett, Yvonne Wren, Jonathan Sandy, University of Bristol, UK; Nicola Stock, Nichola Rumsey, University of West of England, UK

Funded by The Scar Free Foundation, The Cleft Collective is the world’s largest multidisciplinary cleft lip and palate research programme to date. Despite being one of the most common birth anomalies, little is known about the causes of non-syndromic CL±P. Treatment involves a considerable burden of care from birth onwards, together with a variety of social and psychological challenges.

The study addresses three key questions commonly posed by parents of a baby born with a cleft:

- What has caused my child's cleft?
- What are the best treatments for my child?
- Will my child be OK?

Up to 3500 children and their families will be recruited to the Cohort Studies. Capitalising on the centralisation of care in the UK, this research will be carried out in close collaboration with each of the NHS cleft centres and maternity units across the UK. Biological samples and questionnaire data are collected from all family members. In setting up the study, the research team has worked in partnership with patients, representative organisations, Clinical Research Networks (CRNs) and experts in the field, including nurses, psychologists, speech and language therapists, surgeons, orthodontists, geneticists and midwives. This has ensured that research decisions are informed by clinical experience, existing literature and patient perspectives. Recruitment commenced in December 2013 and is ongoing. We are currently recruiting via 14 cleft teams out of a possible 17 and have over 4500 participants to date. This presentation will provide an update of the progress of this study, along with discussion of successes, limitations, future plans and opportunities.

Multidisciplinary Collaboration in Defining Design and Content for Two Birth Cohort Studies in Québec (Canada)

Bertrand Perron, Nancy Illick, Institut de la statistique du Québec, Canada

The Institut de la statistique du Québec (ISQ) is still following kids born in 1998 throughout the Québec longitudinal study on child development (QLSCD). At the same time, ISQ is designing a new 2020 birth cohort study in collaboration with many partners. Funded by governmental departments and a private foundation, the Québec's birth cohort studies are at first oriented towards public policy matters, a situation leading to key decisions underlying the collaboration process. Primarily designed on population representativeness methodologies, these cohorts are well suited to test research questions in demography and epidemiology. Research in the fields of education and learning sciences, child development and social inequalities has also been a major influence in the definition of content to be included in data collection instruments. But cohort studies are powerful scientific tools, opening many opportunities for research developments usually initiated in universities, notably in the fields of genomic, epigenetics, neurosciences, and mental health. Scientific innovations can also be achieved by matching administrative, survey, and geographically localized data. In this presentation, we will describe the multidisciplinary collaboration process under which the definition of main instruments' content and special research projects are managed in order to harmonize different interests, from different actors. This process, based on consultations with governance committees, involves a common understanding of many criteria orienting choices to be made. At the end, it leads us to present the parameters defining the realization of the fourth phase (young adulthood period) of QLSCD, and those fixed or under assessment for the new 2020 birth cohort study, for which a pilot study will take place in 2018.

Keynote Presentation

Inequality at Home: The Role of Parenting in the Diverging Destinies of Rich and Poor Children

Ariel Kalil, University of Chicago, USA

Children face very different chances of getting ahead in life depending on the circumstances of their birth. Parenting and its role in the diverging destinies of rich and poor children are discussed in this chapter. Inequality begins at home. It develops from the myriad differences in the ways advantaged and disadvantaged parents interact with their children. Traditional policy interventions fail to attack the root cause of achievement gaps. To equalize the playing field, governments may need to invest in parents so parents can better invest in their children. Unfortunately, large-scale parenting interventions typically yield modest effect sizes at best and often do not even change children's skills in the long term. Understanding what motivates parents to invest in their children could have a major impact on the design of policies to reduce inequality in children's skill development. Insights from the field of behavioral economics can inform this question.

Parallel Session 9

A9 PAPER SESSION: CHILD DEVELOPMENT

Early Inequalities in Language Competencies at Age 5: A Comparison of Children in Germany and the US

Tobias Linberg, Leibniz Institute for Educational Trajectories, Germany; Frauke Peter, Ludovica Gambaro, German Institute for Economic Research, Germany

Inequalities in cognitive competences along socio-economic background emerge early in children's lives, well before they enter school. The magnitude of such inequalities varies markedly across countries, as the few existing international comparisons have shown.

Germany however is seldom contrasted to other countries, and this hampers our understanding of how different national contexts influence early inequalities. Moreover, existing studies tend to focus on mean differences. But inequalities may also differ in size along the entire competence distribution, leading to specific shapes of inequalities. Inequalities in one country may concentrate at the lower levels of competencies suggesting some children are left behind early, while inequalities in another country may concentrate towards the top of the distribution of competencies – pointing to an early elite.

In this paper we contribute to the emerging comparative literature on early inequalities and compare children in Germany to children in the US. In order to detect variations of inequalities we use quantile regressions and look at different positions of the conditional competence distribution using the Kindergarten cohort data of the German National Education Panel Study (NEPS) and the from the US Early Childhood Longitudinal Study (ECLS).

Our results reveal that in Germany inequalities in language competencies are much more pronounced at the lower end of the distribution of competencies. In the U.S. instead, a different picture emerges: the association between language competencies and social background is much more pronounced at the top of the distribution. These quite distinct patterns are discussed in light of the challenges that arise when making comparisons between cohort studies from different countries. Despite important caveats, the analyses offer fruitful insights. In particular, by showing where in the conditional competence distribution inequalities are more pronounced, the findings can provide relevant information for country-specific policies tackling inequalities before school start.

The Emergence of Social Disparities in Early Language Development: The Impact of Home Learning Environment

Manja Attig, Leibniz Institute for Educational Trajectories, Germany; Sabine Weinert, University of Bamberg, Germany

Persistent disparities in language development according to family background are well documented when children are three years of age (Hart & Risley, 1999; Weinert, Ebert & Dubowy, 2010). This holds true for vocabulary as well as early child grammar (Weinert & Ebert, 2013). In addition, process characteristics of the home learning environment (e.g. parenting quality) have been shown to impact language development (Lugo-Gil & Tamis-LeMonda, 2008).

The present paper used data of the first three waves of the infant cohort study of the German National Educational Panel Study (NEPS) to investigate the emergence of early social disparities in language at the age of two years (wave 3). Further, we tested whether the differences in early language skills (vocabulary, grammar) were predicted by (a) measures of the observed quality of mother's interaction behavior as well as (b) by joint activities (picture book reading). The analyses (stepwise linear regression analyses) concentrated on 711 families (371 boys) with German as interaction language.

Preliminary results showed social disparities related to mother's education in both indicators of children's early language skills, i.e. vocabulary and grammar. Both, the quality of mother's interaction behavior (assessed when children were 7 months (wave 1) and 16 months of age (wave 2)) as well as early picture book reading (wave 1 and 2) were predictive for the children's language skills at age two (though differentially for vocabulary and grammar) but only partially accounted for the observed disparities according to mothers' education. Thus, our results replicate the importance of maternal education and the home learning environment for early language development. They add to previous findings showing that various characteristics of the home learning environment are predictive for the language abilities at this age. In addition, we will report on differential effects of the emotional and stimulating aspects of early mother-child interaction.

Executive Function in the Early Lifecourse of Rural Children: Patterns of Stability and Change

Marc Scott, Clancy Blair, Eric Finegood, New York University, USA; Michael Willoughby, RTI International, USA

Executive Function (EF) is considered an important determinant of successful life outcomes ranging from academic achievement and intelligence to behavioral syndromes, such as ADHD (Blair and Razza, 2007; McClelland et al., 2007). Measuring EF in young children is challenging in part due to the amount of time and attention on the part of the child needed to make proper assessment. In this unique study, five to six measures of executive function, assessing the domains of working memory (WM), inhibitory control (IC), and attention shifting (AS) were measured at ages three, four and five in a sample of poor, rural children in Pennsylvania and North Carolina, USA (Willoughby et al., 2010). While prior work with these measurements showed evidence of an underlying unidimensional factor model, this study attempts to tease out at least two contrasting dimensions of EF; namely, WM and IC. The extent to which such components are stable over time in children is examined empirically in this sample. Using latent class analysis (Lazarsfeld and Henry, 1968), a form of model based clustering (Banfield and Raftery, 1993), we identify several distinct subgroups of children, particularly at age four. By examining the EF measurements prior and following this point of divergence, we note patterns of change that are substantively meaningful in terms of growth and development in the early lifecourse. The relationship between these subgroups and socio-demographic measures is explored. Missing data and sensitivity to assumptions regarding this are evaluated and handled in the analysis.

Birthweight and Early Child Outcomes: What Cut Off to Best Predict Subsequent Trajectories and Inequalities?

Lidia Panico, INED, France; Maxime Tô, University College London, UK

Among one of the most robust findings in epidemiological studies is that weight at birth is predictive of a number of child and adult outcomes. Most research is based around a cut-off of 2500 grams as a marker of “low birthweight”, however, this cut-off is relatively arbitrary and it is recognized that it may not be appropriate for all settings.

In this paper, we use the French birth cohort study, Elfe (l'Etude Française depuis l'Enfance), a large, nationally representative sample of over 18,000 children born in metropolitan France in 2011. Information on a number of birth outcomes, including birthweight and gestational age, are recorded directly from the maternity notes, reducing recall biases. Prospective phone interviews with the carers collect information on child health and development, as well as household background information. We first explore whether birthweight predicts child outcomes at 1 and 2 years of age, across different spheres of child well-being (physical health, language development, motor development, etc.). We check whether these relationships vary across population groups (including according to household income, parental education, parental migrant status). Finally, we explore which cut off for “low birthweight” best predicts child outcomes at 1 and 2 years of age. We will pay particular attention at whether different cut-offs better illustrate inequalities in child outcomes. This is ongoing work. Initial results using the 1 year wave demonstrate that birthweight is a strong predictor for both physical health (including respiratory health and self-reported health) and development (as measured by the Child Development Inventory). Results also show that a cut-off of 2500 grams under-represents inequalities (initially tested across three maternal education groups), which can be observed up to a cut-off of about 2800 grams. Data relating to the 2 year interview is to be available imminently and will allow completing this work.

Educational Systems and Family. Transitions from School to Tertiary Education in an International Comparison of Canada, Great Britain and Germany

Marie Wohlbrandt, University of Potsdam, Germany

This research project is about a comparison of education systems in three countries and the individual income returns. In Germany, the educational system stands for a strong structure with early decisions. The transitions from school to further education and finally to employment are highly structured and regulated. Also, there is a strong correlation between social background and success in education and work. A comparison of different educational systems shall discover the real influence of educational system to the individual success. In Great Britain, the educational system is more open and with later decisions. In addition, the school-to-work transition is less structured. Canada take another alternative position, with continuous education courses and less social determination. Three data sets will be analyzed: In Germany the “Life-Study”, the Canadian “Paths of Life's Way Study” and the “British Cohort Study 1970” in Great Britain. These three studies investigate the life courses of the people, including education, work and family.

In this research project the transitions in school and further education ways are from special interest. Two main questions have to be answered: First, what is the influence of education systems to the individual income returns and second, what is the influence of family and social background to the individual income returns? Event analysis discover the individual combination of school, tertiary education and vocational training over life course for each person. Structural equation models discover the influential variables at the important time points of transitions. The first analysis shows a correlation between the different transitions in school, the educational achievement and the education status of the parents. In Germany, this correlation is the strongest, in Canada the weakest. Especially the early selection in the German school system leads to a strong influence of the parental education status.

B9 PAPER SESSION: ADOLESCENT DEVELOPMENT

Is the Parental Professional Career Reflected in the Aspirations of their Children? Intergenerational Transmission and Occupational Aspirations

Nicole Kaiser, Brigitte Schels, Friedrich-Alexander University Erlangen-Nuremberg, Germany

This paper examines the impact of parental professional career succession on children's occupational aspirations at the age of 17. In previous research on intergenerational occupational mobility life course effects are either passed over or changing impact of parents' status over children's careers is observed. So far, there is less knowledge on the role of the occupational mobility within the parents' life course.

Does the occupational status of parents' first job and latest job influence occupational aspirations of adolescents? Which moment in the parental career is more important? How does parental occupational mobility and career succession affect children's occupational aspirations?

The intergenerational transmission of occupational status (aspirations) is based on the assumption that parental resources are passed on to their children. Parental resources vary after the first job in the professional career when they move upward or downward, face smooth careers or career breaks. On the one hand, the resources from the parents' latest job are particularly up-to-date and available for the children. On the other hand, one can suggest that familial resources are dominated by the first job because the further career progressions depends more and more on external facets (e.g. economic conditions). Considerations lead to divergent assumptions: The parental first job can be expected to be more important for adolescent's aspirations than the latest job – as well as the other way round. Moreover, we can assume that parental downward mobility and career interruptions reduce children's aspirations; which could be explained by familial discouragement. We can also argue that parental downward mobility and interruptions may increase children's aspirations aiming to improve their individual career prospects. Data from the personal and youth questionnaire of the German Socioeconomic Panel (GSOEP) is used. Linear regression models are applied to estimate the impact of parental career information on the ISEI of adolescent's occupational aspirations.

Social Integration and Health from Adolescence into Adulthood

Kathleen Mullan Harris, Karen Gerken, Yang Claire Yang, Ping Chen, University of North Carolina at Chapel Hill, USA

It has been well established that social connections are good for your health. Social ties, embeddedness in social networks, and engagement in social life have been found to boost self-esteem, protect against illness, and facilitate coping with stress and injury or disease.

This research uses data from the National Longitudinal Study of Adolescent to Adult Health (Add Health) to examine how social integration within multiple domains—family, friends, community, and other institutions—and across the early life course from adolescence into young adulthood is associated with biophysical health in adulthood. Most research on social connections and health focus on aging populations, but we argue that the daily stresses of adolescent and young adult life are just as consequential for stress-activated biological processes that undermine health early in the life course when disease risks are typically asymptomatic. We explore patterns of social integration across 15 years from adolescence into young adulthood and test life course models of exposure to its protective effects including evidence for a sensitive period, accumulation, or pathway process of how social integration is related to health. We then explore the psychosocial and behavioural mechanisms through which social integration influences biophysical health. In addition to the unique life course measures of social integration from adolescence into adulthood, we use objective measures of adult health from biomarker data and an inverse probability of treatment (IPT) weighting estimator to address selection bias associated with social integration. We also test for interactions in the effects of social integration and its mechanisms by sex.

Optimal Duration of Participation in a Job Training Program That Promotes Positive Youth Development

Youngjo Im, University of Chicago, USA

This study of a job training program aims to offer a clearer view onto how the program works, with an ultimate goal of assisting policy and program designers in identifying effective strategies that promote positive youth development. This study investigates likely heterogeneous effects of length of stay on youth outcomes in three domains: employment and earnings, criminal behavior, and welfare receipt. Using data from the National Job Corps Study, this study focuses on examining: whether longer stays in a program are beneficial for those who are criminally involved; whether shorter stays in a program are as beneficial as longer stays for all youth outcomes; and whether youth outcomes are different among those who enrolled in a program before and after zero tolerance discipline policy implementation. I create decision trees and construct piecewise generalized linear models that yield discrete lengths of stay, which I break down into five distinctive durations. These have differing effects on youth outcomes. A stay of 6-8 months increases total hours of work and earnings, whereas a stay of 8-14 months decreases criminal activities. Less than 2 months of stay has detrimental effects on all youth outcomes. The program implemented a zero tolerance policy during the sample intake period. This policy altered the program's impacts, as demonstrated by fitting multivariate generalized linear models. Compared to the pre-policy cohort, the post-policy cohort demonstrates better labor market outcomes and a lower level of criminal activities. By adding new insights to the debate on the Job Corps effects, this study will invigorate policy and program designers' efforts to engage youth to become more employable and productive citizens.

Assessment of Adolescent Development During a Gap Year in Secondary Education Using Self-Determination Theory

Aidan Clerkin, Educational Research Centre, Ireland; Jennifer Symonds, University College Dublin, Ireland

Transition Year (TY) is a one-year 'gap year' programme that is integrated into Irish secondary education. Its purpose is to promote maturity and personal development with a view to preparing students for the world beyond school. Qualitative studies have shown that TY is generally viewed positively by students and teachers, with many participants reporting greater confidence and self-reliance, and teachers and students alike suggesting that student-teacher relations are enhanced during the year. This paper draws on self-determination theory by examining the extent to which participation in TY may be seen to contribute to students' perceptions of themselves as self-determined learners. Participants are 1563 second-level students from 20 schools around Ireland who took part in the first wave of a three-wave longitudinal survey in the year prior to TY. Schools were randomly-selected and all students were invited to participate by completing a questionnaire addressing, among other factors, aspects of self-determination including their perceived academic competence, autonomous motivation, and relationships with teachers. Propensity score matching was used to adjust for pre-existing differences between TY participants and non-participants (e.g., younger students within a cohort are more likely to choose to enrol in TY). Following this matching process, a balanced group of 1242 students was identified such that participants and non-participants reported similar baseline characteristics. Latent growth modelling was used to determine patterns of change over time in the selected outcome variables and to examine differences in development between the two groups. Significant differences were found between TY participants and non-participants in initial levels of engagement, showing that students who went on to take part in TY were more engaged prior to participation. Changes in engagement over subsequent years were similar for both groups. No significant differences were found between the two groups' perceptions of their competence, autonomous motivation at school, or relationships with their teachers.

Growing Old, Growing Realistic? The Growth Trajectory of Adolescents' Occupational Aspirations

Feifei Bu, University of Stirling, UK; Maria Iacovou, University of Cambridge, UK; Paola De Agostini, University of Essex, UK

This study examines how young people's occupational aspirations change over a five-year period from age 11 to 15. The analysis is based on a nationally representative sample of English youths (N=2,745), using multilevel growth models and focusing on the prestige dimension of occupational aspiration. Results over a range of descriptive and multivariate analyses provide strong evidence that young people's aspirations do change over time, becoming more realistic (that is, more closely aligned with both the young people's own capabilities, and the state of the labour market). In general adolescents' aspirations increase with age, but at a declining rate, so that their aspirations begin to decrease after age 13. Gender, birth order, ethnicity, cognitive ability and self-esteem significantly influence the initial levels of occupational aspiration

measured at age 11. However, socioeconomic status (SES) influences not only the initial status but also the growth rate of aspiration, with the gap in aspiration between low- and high-SES adolescents widening considerably with age.

C9 PAPER SESSION: EDUCATION

Girls' and Boys' Sex-Typed Occupational Preferences in Early Adolescence: The Role of Family Socialization Practices and Parental Ability Attributions During Childhood

Anne-Laure Paroz, Marlis Buchmann, University of Zurich, Switzerland

Adolescents tend to prefer sex-typed occupations as they perceived them as more appropriate (Miller and Budd 2006). There is evidence that sex-typed parental socialization practices shape children's gendered self-concept and prepare them to endorse the appropriate gender role (Eccles et al. 2000). To date, however, only few studies have investigated, from a longitudinal perspective, the role of sex-typed parental ability attributions and sex-typed activities within families during childhood for adolescent occupational preferences.

This study aims to partly fill this gap by analyzing data of the child cohort of the Swiss Survey of Children and Youth COCON (www.cocon.uzh.ch). The sample is representative of 6-year-old children residing in the German- and French-speaking parts of Switzerland in 2006 (N=1273). We use data collected in 2006, 2009, and 2012 (children's age 6-12), including information provided by the children and the primary care giver. Based on multiple linear regressions, we investigate how sex-typed parental ability attributions and different types of everyday-life activities during childhood affect the adoption of sex-typed occupational preferences in early adolescence. The analyses focus on the role of these socialization factors while taking the status of the desired occupation into account as adolescents are also concerned about the prestige of an occupation.

The findings show that the higher the prestige of adolescents' desired occupation the less likely is the development of stereotypical occupational preferences in early adolescence. For boys, sex-typed parental ability attributions and male-typed activities during childhood play an important role for constructing a gendered self, leading to sex-typed occupational preferences. For girls, the engagement in parent-child female-typed activities reinforces the typicality of occupational preferences. Results indicate that sex-typed preferences in early adolescence are shaped by previous social interactions within families. However, the prestige of an occupation helps young adolescents to compromise over the sex typicality of their preferences.

Working Class Kids and School Qualifications: An Investigation of Scottish Education Using Longitudinal and Administrative Social Science Data

Vernon Gayle, University of Edinburgh, UK; Chris Playford, University of Exeter, UK; Roxanne Connelly, University of Warwick, UK; Susan Murray, University of Stirling, UK

There has been a long running negative association between social class and outcomes in school examinations. Pupils from less advantaged social classes have generally had poorer performance. In this paper we investigate contemporary social class effects using data from the Scottish Longitudinal Study and newly available linked administrative data.

The resounding finding is that working class pupils have less favourable outcomes in school qualifications. The effects of social class can be observed net of gender, parental education and household type. Parental education plays an important role in filial (i.e. their child's) educational outcomes but there is no interaction with parental social class. A more subtle finding is that the outcomes of pupils with parents in lower supervisory and technical occupations share close similarities with children of parents from both semi-routine and routine occupations. This is important because sociologists have previously theorised parents in lower supervisory and technical occupations as a blue collar intermediate class, but in this analysis their children's educational outcomes are more similar to pupils from the wage-earning working class. We observe some occupation-level differences within social classes. For example, the children of teachers have good outcomes whereas children with parents in catering and hospitality occupations perform worse than counterparts in the same social class.

This work is innovative because it analyses administrative records linked to an existing longitudinal dataset. The findings are important as they provide up-to-date evidence that can directly inform policy debates in the areas of education and social mobility.

Who is Willing to Participate in Continuing Education? The Transmission of Learning Motivation from Adolescence to Adulthood in Germany

Matthias Sandau, University of Potsdam, Germany

Continuing Education is an important individual resource in the current and future world of work. Changes in the occupational and technological structure and rising skill requirements entail that workers have to continuously advance their abilities and knowledge by pursuing continuing education. As the first step to participate in continuing education, the motivation to learn is an integral component. According to the current body of research, learning motivation in the job is related to previous learning processes. Especially the school years, during which personality is shaped in a determining way, have a lasting effect on learning motivation in adulthood. However, research about lasting effects of learning motivation in school is mostly retrospective in nature. Closing this research gap, this paper investigates the transmission of learning motivation from adolescence to adulthood. For this purpose, the influence of learning motivation and academic self-concept in school on the motivation for continuing education and also on the participation in continuing education are analyzed. Following the theory of habitual learning motivation, it is assumed, that a persistent learning motivation in adolescence has a positive impact on learning motivation in adulthood. Using structural equation modeling, the analysis is based on approximately 1000 participants of the German longitudinal study "Pathways from Late Childhood to Adulthood (Life)" as interviewed in 1980, 1982, 2002 and 2012. Results show positive transmissions of adolescent learning motivation and self-concept on motivation for continuing education and also on participation. Especially pupils with a high learning motivation over a number of years in school seem to generate a habitual learning motivation, which is transferred into professional life.

The Stratification of Intergenerational Skill Transmission: A Comparison Between the Cognitive and the Non-Cognitive Domain

Bastian Mönkediek, Volker Lang, Martin Diewald, Bielefeld University, Germany

Research indicates the significance of non-cognitive skills for social status reproduction over and above cognitive skills. These results lead to a growing interest in the intergenerational transmission of non-cognitive skills. This study is one of the first to compare the transmission of cognitive skills with a range of non-cognitive skills relevant for status acquisition; specifically, self-efficacy, the willingness to take risks and patience. We analyze how transmission processes differ between cognitive and non-cognitive skills, and assess the importance of parent's skills compared to other family background characteristics and children's developmental potential (indicated by birth weight) for skill transmission. We take a multidisciplinary approach to our topic; an approach that combines insights from sociological stratification research with a behavioural genetic research design: We use data of the first wave of the TwinLife panel and behavioural genetic models to address our research questions. The TwinLife panel is the first longitudinal study of twin families in Germany using a national probability based sampling design and covers a broad range of topics relevant to research addressing the dynamics of social inequality. Our results indicate that intergenerational transmission is more stratified for cognitive compared to non-cognitive skills. In addition, we observe differences within the non-cognitive skill domain. Here, transmission effects on self-efficacy are stronger than those on the willingness to take risks and patience. Moreover, our analysis suggests that children's developmental potential is a relevant moderator of skill transmission processes.

D9 PAPER SESSION: LATER LIFE

The Life Course, Cohort Dynamics, and International Differences in Aging Trajectories

Steven Haas, Pennsylvania State University, USA

Over the past two decades, substantial progress has been made into understanding the determinants of population health. Among the many strands of work within the expanding interdisciplinary field of 'population health' two of the most fruitful have focused on a) leveraging comparisons across populations to illuminate processes that would be otherwise obscured in studies of single populations, and b) investigating the salience of life course processes and the early life origins of disease. While each of these lines of inquiry has provided important insights, limited work has attempted to integrate them on either a theoretical or empirical level. However, a number of important insights are possible only at their intersection. The life course perspective highlights the importance of time and place within which individuals and cohorts are embedded in determining risk exposures, while nation-states act as essential structural forces shaping the distribution of exposures across geographic and temporal space. This study leverages data from the HRS, ELSA, and SHARE to examine the intersection of the life course perspective and international-comparative research on later life health. The goals of this paper are three fold. First, we will estimate country-specific aging-vector models of functional health for a common set of cohorts. This allows us to model trajectories of functional health over time uniquely for a given set of birth-year cohorts. Second, we empirically compare functional health trajectories across countries with a specific focus on the

role played by cohort dynamics. Finally, we test for between-country differences in the relative impact of poor childhood health and socioeconomic disadvantage on functional health trajectories and their international heterogeneity. We find substantial variation in aging trajectories and that shifting cohort dynamics play an important role creating differences across international contexts. We also find that the impact of a wide variety of life course factors, including childhood health and socioeconomic disadvantage have on functional health trajectories varies across context.

Associations of Changes in Public Transport Use with Physical Activity and Adiposity in Older Adults

Anthony Laverty, Eszter Vamos, Christopher Millett, Imperial College London, UK; Elizabeth Webb, University of Southampton, UK

Objective: We investigated predictors of two changes in older people's public transport use: taking up public transport use among non-users; and increasing public transport use. We also investigated associations of these changes with physical activity, Body Mass Index (BMI) and waist circumference.

Methods: Data come from the 2008 and 2012 English Longitudinal Study of Ageing. Logistic regression assessed the predictors of taking up public transport use and increasing public transport among adults aged ≥ 50 years. Gender-stratified logistic and linear models assessed associations of changes in public transport use with changes in physical activity and adiposity.

Results: Participants becoming eligible for a bus pass, retiring from work and moving house had increased likelihood of both taking up public transport, and increasing use between 2008 and 2012. For taking up public transport Adjusted Odds Ratios (AOR) were 2.17, 95% Confidence Interval (CI) 1.52; 3.10 for becoming eligible for a free bus pass, 1.61, 1.21; 2.17 for retirement and 1.51, 1.06; 2.05 for moving house. Women who increased public transport use had mean BMI 2.03kg/m² lower (-2.84, -1.21) at follow up than those who did not, although this was not statistically significant after adjusting for BMI at baseline (-0.40kg/m², -0.82, 0.01). Women who took up public transport were more likely to be physically active in 2012 (AOR 1.95, 1.24; 3.08), and this relationship was only modestly attenuated by adjustment for physical activity in 2008 (AOR 1.61, 1.00; 2.60).

Conclusion: The key predictors of changes in public transport use among older adults were becoming eligible for a bus pass, retirement and moving house. Both taking up, and increases in public transport use were associated with reduced adiposity at follow up as well as changes in physical activity. These findings strengthen the case for considering public transport provision as an effective means of promoting healthier ageing.

Informal Caregiving and Markers of Adiposity in The UK Household Longitudinal Study

Elizabeth Webb, University of Southampton, UK; Rebecca Lacey, Anne McMunn, University College London

Introduction: Providing informal care is associated with poorer psychological health. However, less is known about more objective health outcomes such as adiposity. The aim of this study was to investigate associations between being an informal caregiver with measures of adiposity using a large, representative UK longitudinal study.

Methods: Data on 20,669 participants of the UK Household Longitudinal Study were used to explore the longitudinal relationship between caregiving and adiposity (body mass index (BMI) and waist circumference) one year later. We additionally investigated caregiving intensity (hours spent caregiving per week, number of people cared for and combining caregiving with paid work). Multiple imputation was used to account for missing data. Associations between caregiving and adiposity measures were tested using multivariable linear regressions. Analyses were stratified by gender, and interactions with age were tested. Models were adjusted for household income, educational attainment, socioeconomic position (NS-SEC), long-standing limiting illness, number of dependent children in the household and partnership status.

Results: Being an informal caregiver was associated with higher waist circumference (1.48cm, 95% CI: 0.42, 2.53) but not BMI amongst men in age-adjusted models. Women who were informal carers had higher mean waist circumference (3.62cm, 95% CI: 2.77, 4.47) and BMI (1.26, 95% CI: 0.89, 1.64) relative to non-carers. A caring-age interaction was present for women, suggesting that younger women carers (aged 16-44) had particularly high mean waist circumferences (5.44cm, 95% CI: 3.77, 7.10) and BMI (1.90cm, 95% CI: 1.17, 2.62). Caregiving intensity was found to be important, with increasing hours of caregiving associated with increasing adiposity.

Conclusions: Being an informal carer was associated with higher adiposity amongst UK men and women. Caring appears to be particularly negatively associated with adiposity when occurring during non-normative life stages, such as early adulthood, and when high intensity.

E9 PAPER SESSION: CHILDHOOD ADVERSITY

Age of Alcohol Initiation and Heavy Drinking in Early Adolescence: Findings from the Millennium Cohort Study

Yvonne Kelly, Richard Watt, Annie Britton, Amanda Sacker, University College London, UK;
Ben Thurman, Mentor, London

Background: Heavy drinking among young people is associated with an increased risk of accidents and injuries, risky behaviours, premature death and educational failure. Heavy drinking among young people is also linked to patterns of heavy and problem drinking throughout the lifecourse. Identifying factors associated with heavy drinking among young people could inform alcohol harm reduction strategies.

Prior work using large scale population based data (Millennium Cohort Study) showed that the following were strong correlates of self-reported ever having drunk, and heavy drinking among 11 year olds: parental drinking; peer drinking; Expectations towards alcohol – positive and negative; alcohol harm Awareness.

Age at initiation of drinking is contested as a risk factor for harmful drinking patterns, in part because previous investigations have not been able to separate out different patterns of initiation e.g. light occasional vs. episodic heavy drinking.

Data and methods: In this paper data (due for release at the end of March) from the Millennium Cohort Study on over 11,500 14 year olds will be used to investigate factors hypothesised to be associated with heavy drinking (expected prevalence approx. 5%). We will look prospectively to see whether factors from earlier in childhood and early adolescence predict heavy drinking behaviour at age 14, including: age of initiation ('when first had a drink' and 'when first had 5 or more drinks'), well-being (socioemotional difficulties, self-esteem), smoking, drug use, supportive family and peer relationships, expectations towards alcohol, awareness of alcohol harms, parental drinking, drinking in the family setting, and peer drinking. Data will be analysed using multivariable regression modelling techniques.

Alcohol Abuse in Parents and Subsequent Risk of Psychiatric Morbidity in Early Adulthood: A Longitudinal Analyses of Sibling Pairs and their Parents

Pekka Martikainen, Kaarina Korhonen, Heta Moustgaard, Hanna Remes, Mikko Aaltonen, University of Helsinki, Finland

Background: Alcohol consumption is strongly associated with subsequent psychiatric morbidity, but its effects on other family members are poorly established. We estimate the contribution of parental alcohol abuse on the psychiatric morbidity of adolescents, with particular emphasis on the timing and persistency of exposure in childhood.

Methods: We used a nationally representative 20% sample of Finnish families with children born in 1986-1996 (n=136 575) followed up over the years 2000-2011. We identified parental alcohol abuse and psychiatric morbidity in the offspring using inpatient care and medication registers. The effects of parental alcohol abuse at different stages (at 0-4, 5-9 and 10-14 years) of childhood on psychiatric morbidity after age 15 were estimated using population averaged models and sibling fixed effects models. Fixed effects models control for unobserved characteristics shared by siblings.

Results: Adjusted for age and sex parental alcohol abuse at age 0-14 was associated with about a 2-fold increase in psychiatric morbidity in adolescence. Further adjustment for baseline parental education and income as well as time varying family type and education reduced these effects by about 50%. In the fixed effects specification those with exposure to parental alcohol abuse had about 30% higher chances of experiencing psychiatric morbidity compared to non-exposed siblings. Those with repeated exposures over some of the three different stages of childhood had highest morbidity. In particular, in the fixed effect specification those with early exposure at ages 0-4 combined with exposure also at other stages of childhood had about 80-90% higher psychiatric morbidity as compared to non-exposed siblings.

Conclusions: Early exposure to parental alcohol abuse is strongly associated with subsequent psychiatric morbidity. Although these effects are to some extent due to characteristics shared by siblings in the parental home, repeated exposure to parental alcohol abuse is strongly associated psychiatric morbidity later in life.

A Life of Difference: Health Trajectories of People with Experiences of Childhood Adversities Compared to their Majority Population Peers

Josephine Jackisch, Ylva Almquist, Stockholm University/Karolinska Institutet, Sweden

Most children born in Sweden grow up in a home that allows them to develop and flourish in life. However, not all parents are able to ensure a supportive environment, which may cause the state to intervene. This intervention will sometimes result in the child being removed from the parents and placed in a foster family or in institutional care. For other children, no action is taken or the parents are left with a warning. Regardless of the measure decided by the state, these children have been shown to be a highly vulnerable group at risk for a wide range of poor health outcomes across life. The current study takes its starting-point in life-course theories of health development, focusing on how the health trajectories of vulnerable children may differ from those of majority population peers. We also pay special attention to how and at which point in the life course these trajectories diverge. Based on a data material encompassing 14,294 individuals born in 1953 in Sweden, we use group-based trajectory modelling based on hospital data to construct ill-health trajectories in adulthood between the ages of 20 and 56. Distinctive life-course trajectories of ill health are described in the population. Differences in the risks of ending up in each specific ill-health trajectory are further explored using multinomial regression analysis. According to the results, individuals with markers of adverse childhoods were at all ages of adulthood more likely to be admitted to hospital. Once at the hospital they were staying longer on average and were more likely to die. Furthermore, experiencing episodes of adversity in early life was associated with trajectories characterized by earlier onset, higher burden, and longer duration of ill health. Our results are discussed in light of theories about vulnerability and the life course health development conceptual framework.

Emotional Health Across the Life Course: Role of Genetic Factors in Resilience to Adverse Childhood Experiences

Darya Gaysina, Ellen Jo Thompson, University of Sussex, UK; Marcus Richards, MRC Unit for Lifelong Health and Ageing at UCL, UK

A large body of evidence suggests that adverse childhood experiences (ACE), such as poverty, parental divorce, parental death, parental neglect and abuse, are associated with emotional problems across the life course. ACEs are very common worldwide, with nearly a half of adults in the UK experience more than one adversity in childhood. Therefore, ACEs have a substantial contribution to the social and economic burden associated with emotional problems. However, not everyone who faces early adversities will experience negative outcomes in later life. (e.g., resilience). Genetic factors may contribute not only to vulnerability for emotional problems, but also to resilience. Therefore, the present study aims to explore the role of multiple genetic factors (DNA markers) in resilience to ACEs using longitudinal data on emotional health (ages 13, 15, 36, 43, 53, 60-64, and 69) and prospectively collected measures of ACEs (ages 0-15) from the MRC National Survey of Health and Development (NSHD). Genotyping information is obtained from blood DNA samples collected at age 53. First, we derived the cumulative index of childhood adversity (ACE index) using 20 ACEs. For the purpose of the present study, a binary variable (0-3 ACEs versus 4+ ACEs) was also created. Second, we defined resilience phenotypes as: 1) stable absence of emotional problems across the life course in a high risk group (more than 3 ACEs); and 2) better than expected emotional health based on the ACE index. Finally, we tested for the effects of multiple DNA markers (>200 single-nucleotide polymorphisms (SNPs) across 27 candidate genes) on resilience across the life course using two complementary approaches: gene-set approach and polygenic risk score approach. We will present the results of these analyses. We will also discuss the potential of genetically informative approaches to studying resilience and vulnerability to early-life adversities in existing longitudinal cohorts.

Lifetime Experiences of Care Among Children in England: Analysis of Administrative Social Care Data

Louise McGrath-Lone, Lorraine Dearden, Ruth Gilbert, University College London, UK; Bilal Nasim, University College Cork, Ireland; Katie Harron, London School of Hygiene & Tropical Medicine, UK
Background: In England, data related to children in out-of-home care (OHC) is routinely collected through the Children Looked After return (CLA) to monitor care provision and outcomes in a financial year. However, evidence about experiences of OHC throughout childhood is lacking.

Methods: We analysed CLA data for one-third of children who were born 1st January 1992 to 31st December 1994 and entered voluntary or court-mandated OHC during childhood. This longitudinal data extract

contained care histories from birth to age 18 for 19,849 children. We described variation in experiences of OHC throughout childhood, including total time in care, the number of placement moves and destination at final exit from the care system. We then used sequence and latent class analyses to explore whether there were common childhood experiences of OHC.

Results: On average, children spent 32 months in OHC throughout childhood and experienced two placement moves. Most children had a single period of OHC; however, one-third (33.0%) entered care multiple times. When leaving the care system for the final time, children most often returned home to their parents (42.6%), moved to independent living (17.6%) or “aged out” of the system (16.2%). Sequence and latent class analysis (based on characteristics such as legal status, placement setting and stability) identified common, age-specific OHC careers. For example, among children who first entered OHC aged sixteen or older ($n=2,178$), four common experiences were identified: “short, single, voluntary placement” (49.4%), “long, single, voluntary placement” (36.9%), “court-ordered care” (7.7%) and “repeated voluntary placements” (6.0%).

Conclusions: Longitudinal analyses describe variation in children’s experiences of OHC that cannot be captured by standard 12-month statistical ‘snapshots’. Understanding the varying trajectories of OHC across childhood could enable service providers to better address the needs of children entering OHC. Further work is required to explore how outcomes vary across different OHC careers.

F9 PAPER SESSION: TRANSITIONS TO ADULTHOOD

A Longitudinal Study of Engagement in Study/Work Across the Mid-Schooling and School to Work Transitions in Finland

Jennifer Symonds, University College Dublin, Ireland; Ingrid Schoon, UCL Institute of Education, UK; Katariina Salmela-Aro, University of Jyväskylä, Finland

In Finland, young people are tracked into the academic or vocational school systems in mid-adolescence then typically move on to a post-school destination such as university, polytechnic or full time work in the first years of young adulthood. Working with longitudinal data from the FinEdu study, we used piecewise linear growth modelling to estimate how engagement, conceptualised as effortful behaviour and valuing study/work, altered at each transition point, depending on which pathway young people followed as they aged from 15-to 22-years. After controlling for achievement, gender and socioeconomic status, we found that moving into a vocational track after comprehensive school was associated with more positive growth in engagement with schooling by age 17-years, compared to moving into an academic track.

At the school to work transition, we found that young people moving from both academic and vocational tracks reported increased effortful behaviour if they were in full time work at age 22-years. However, those coming from a vocational track valued work less across time, whereas their academic counterparts valued it more, possibly due to the types of jobs these pathways fed into. The development of engagement after transferring from an academic track to university or polytechnic was more stable than if transferring to work, aligning with the continued focus on academic qualifications and study. In the presentation, we will discuss these results in relation to our recent model of engagement as a dynamic, developmental process of behavioural self-regulation and psychological investment.

Do Intentions Predict Behavior? The Role of Uncertainty in the Transition from LAT to Cohabitation

Alisa Lewin, University of Haifa, Israel

Studies show that many couples “slide” into “unplanned cohabitation” and that the decision to cohabit may not be deliberate or thoroughly considered. The current study asks whether intentions to live together (and uncertainty in these intentions) predict actual transition to cohabitation among people in non-cohabiting relationships. This study draws on the two waves of the cross-national comparative Generations and Gender Program (GGP) (United Nations, 2005). The first wave was carried out 2003-2006 and the second wave was carried out three years later (2006-2009). The findings show that intentions to live together among people living apart differ by age and gender. The great majority of young people intend to cohabit within three years, whereas only a minority of older people have these intentions. There is also an interesting gender difference, among the youngest age group more women have intentions to cohabit than men, but among the older age groups the pattern is reversed, and fewer women have intentions to cohabit compared to men. Actual transitions do not differ by gender but they do differ by age. Younger people were more likely than older people to transition from LAT to marriage and cohabitation and they were more likely to break-up and re-partner. A higher percentage of older people stay in a LAT relationship compared to younger people.

Preliminary findings suggest that intentions to cohabit are related to actual transition to cohabitation. Moreover, the findings suggest that uncertainty in intentions to live together affect actual transitions: A higher percentage of those who said “positively yes” transitioned to living together than people who said “probably yes.” Next, I will conduct multi-variate analyses and I will also examine differences by gender.

Trajectories of Perceived Support from Family, Friends, and Lovers in the Transition to Adulthood

Matthew D. Johnson, Harvey Krahn, Shichen Fang, Rebecca Horne, Nancy Galambos, University of Alberta, Canada

Trajectories of perceived support from family, friends, and lovers were examined in 923 high school seniors surveyed across the transition to adulthood (age 18 to 25). Growth models revealed a cubic pattern of support from family members, which peaked at age 20, no change in friend support, and a linear decrease in lover support. Women reported higher levels of support than did men for all sources except fathers. Over time, friend and lover support decreased for women but increased for men. Mother and father support were higher among young people who had left home, and cohabitation/marriage was associated with lower friend support and higher lover support. Support in close social relationships in the early 20s is dynamic; personal characteristics (e.g., gender) and life course transitions such as leaving home and marriage contribute to changing levels of perceived support.

Living and surviving the crisis: Methodological discussion and results of a qualitative follow-up study with young adults in Portugal (2009-2017)

Magda Nico, CIES-IUL, University Institute of Lisbon, Portugal

In 2009 a qualitative research on the transitions to adulthood in Portugal was developed and 52 young adults, born between 1977 and 1983, 26 to 32 years old at the time, were interviewed. The economic and political crisis had given its first steps at the time, and neither the objective nor the subjective or projected effects of the crisis were felt. Biographical and life calendar material was collected using a holistic form and to content analysis.

During the course of 2016, seven years passed those interviews about their ongoing and planned transition to adulthood, the contact with these individuals was recovered. The relative success of this recovery has to do with the specific snowball strategy chosen in the first “wave” of the study. The interviews are developed through different but interconnected instruments: the life calendar, that aims to guide the conversation and to collect chronological information on their demographic and other events, the life Story, where interviewees talk freely while respecting the chronological order of the events, and are asked to pick up on how their lives were going at the time of the last interview, specifically explaining the expected and unexpected course of their lives since then, the (past) Reality Check, where two relatively short citations from the previous interview were selected, and interviewees are asked to freely comment and update their perceptions. And finally, the Locus of control exercise to situate their most important events since 2009 in an “agency structure” scale, in order to understand how much of the crisis effects they acknowledge as such and simultaneously operationalize the principles of life course research. Counter intuitive results were found when it comes to the subjective positioning of their most important turning points in the “agency-structure” scale.

CONFERENCE END