Physical activity across adulthood: Early-life socioeconomic and biological factors and subsequent vascular outcomes

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Supervisory Panel: Rebecca Hardy, Rachel Cooper, David Bann, Diana Kuh
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BACKGROUND

- There are widely recognised benefits of physical activity for health across life.
- A better understanding of the lifetime determinants of physical activity is required so that evidence-based interventions to promote activity can be developed.
- Relatively little is known about how early-life growth and development relates to adult physical activity.
- There is also limited evidence on how lifetime participation in physical activity is associated with cardiovascular disease risk.

STUDY POPULATION

- Most aims of the PhD will be addressed using data from the MRC National Survey of Health and Development – a representative sample of 5,362 British participants followed-up 23 times since birth in 1946 (see figure below).
- Prospectively collected early-life measures.
- Physical activity self-reported at ages 36, 43, 53, and 60-64 years (ActiHeart data available at age 60-64).
- Clinic-based assessment of vascular structure and function at age 60-64.

FUTURE RESEARCH DIRECTIONS

- Review’s findings will inform planned NSHD analyses.
- Explore associations in the NSHD between birth weight, early growth, infant motor development, adolescent motor coordination, timing of puberty and:
  - underlying patterns of LTPA using latent class analysis.
  - change in LTPA with age using mixed-effects logit regression.
- Examine if there are benefits of current LTPA over and above previous participation in activity on markers of arterial structure and function at age 60-64 in the NSHD, i.e. if there are cumulative benefits.
- Replicate findings from the NSHD in other birth cohorts.

REFERENCES


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Neither the life of an individual nor the history of a society can be understood without understanding both.

C. Wright Mills, The Sociological Imagination, 1959

Exploring graduates’ educational careers through the lens of the life-course paradigm: a mixed methods case study of the 1958 British Birth Cohort

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What were the available opportunities across the cohorts’ life-course that may have influenced their decision to enter higher education at different stages?asters asked were ‘tell me your life story’. They were not specifically asked about their education, but most mention it.

How and in what ways do cohort members talk, unprompted, about their education? Do their narratives differ by age when gained degree? What is the significance of higher education in their lives and the way they tell their stories? I will conduct thematic and narrative analysis to explore these questions.

Finally I will draw upon the life-course narrative analysis to explore these questions. How and in what ways do cohort members tell their stories? I will conduct thematic and narrative analysis to explore these questions.


Allowing the five principles of the life-course guide to inquiry promotes the holistic understanding of lives over time. They provide the conceptual and analytical tools needed to employ the sociological imagination.

Agency: People construct their own life-course through their actions, reactions and choices. In 1958 started reading psychology, about a year before that I started questioning things and thinking about things, [and reading pop psychology] when I came out of the Navy. For me, it was very much a self-help, reflecting back on it, it’s easy to say, ‘you are old enough, you are old enough’.

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Lifespan development: Learning is lifelong, not just a single stage in youth.

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Non-Employment: A Risk Factor for Poor Cognitive Function and Decline?

Alison Sizer
Supervisors: Professor Marcus Richards, Professor Amanda Sacker and Dr. Rebecca Lacey

SUMMARY

- There was an association between non-employment and cognitive function (age 60+) in men and women.
- Men aged 60+ who had been non-employed for >20 years of their working lives had significantly lower cognitive function compared to men non-employed for ≤6 months.
- Women aged 60+ who had been non-employed for >5-10 years of their working lives had significantly higher cognitive function compared to women non-employed for ≤6 months.

INTRODUCTION

- The 2011 UK population aged 65-84 was 7.5 million, and is predicted to rise to 10.9 million by 2032.¹
- Ageing is associated with cognitive decline, a risk factor for dementia.
- Research indicates cognitive function is influenced by a range of factors acting across the life course, including employment characteristics.
- Although it is widely recognised unemployment is associated with health and mortality, its association with cognitive function and decline has not been adequately investigated.

DATA AND MEASURES

The MRC National Survey of Health and Development (NSHD) recruited 5362 babies born in a single week in 1946.

Cognitive outcome: Cognitive test scores for verbal memory (out of 45 words), and letter search speed and accuracy at age 43 and 60+.

Non-employment duration: Months of non-employment (from leaving full-time education to age 60+), categorised into: 0-6 months; >6-12 months; >1-5 years; >5-10 years; >10-15 years; >15-20 years; >20 years.

Control variables: Childhood factors (social class, cognitive ability, adolescent mental health); educational attainment; adult factors (head of household social class, occupational complexity; physical and mental health, smoking, physical exercise, participation in social activities).

METHODS

- The study sample comprised individuals with data on cognitive function at age 43 and 60+ and duration of non-employment. This resulted in a sample of 1481 (verbal recall) and 1571 (search accuracy) participants.
- Gender disaggregated associations between duration of non-employment and cognitive function (age 60+) were tested using linear regression, unadjusted and adjusted for control variables.

NON-EMPLOYMENT

Women experienced longer periods of non-employment than men.

COGNITIVE FUNCTION (AGE 60+)

- There was a crude association between non-employment duration and cognitive function at age 60+.
- Compared to 0-6 months non-employment, >20 years non-employment was associated with 6.35 fewer words recalled (p<0.0001). Adjustment for the control variables partially attenuated the association.

- Compared to 0-6 months non-employment, >6-12 months (p=0.047) and >20 years non-employment (p<0.0001) was associated with lower search speed. Adjustment for the control variables attenuated the association with >20 years non-employment (p=0.164), but not >6-12 months non-employment (p=0.22).

- Compared to 0-6 months non-employment, >20 years non-employment was associated with lower search accuracy (p<0.0001). Adjustment for the control variables completely attenuated the association with >20 years non-employment (p=0.236), and indicated >6-12 months non-employment was associated with lower search accuracy (p=0.012).

REFERENCES

Estimating the late-life effects of social and emotional well-being in childhood

Turner AJ, Fichera E, Sutton M

Manchester Centre for Health Economics, Institute of Population Health, The University of Manchester

Background

• Social and emotional well-being (SEW) has come under increased focus in the UK as a result of reports documenting declines in child SEW and the UK’s poor performance in recent international comparisons of child well-being.2

• As a result, it is important to consider the all of the lifetime consequences of poor SEW in childhood.

• The effect of SEW on a range of both health and non-health outcomes is well established.4 However, a lack of follow-up in commonly-used cohort datasets means the effect of SEW on late-life outcomes has largely remained un-tested.

• The limited number of studies investigating these effects have focused primarily on premature mortality as an outcome, with little or no attention paid to other important elderly outcomes such as retirement age. In addition, these studies often lack methodological rigour and have either not considered early death in the elderly, nor measured SEW in childhood or have not been conducted in representative samples.5

Aims & Objectives

• To develop a general model to estimate the effects of child characteristics on outcomes occurring in ages beyond those covered by cohort datasets.

• To apply this model to estimate the effects of SEW at age 11 on premature mortality and early retirement.

Model

Assume that the aim is to causal effect of some childhood variable, X, at age c, on some late-life outcome, Y, at age l. To do so, the following regression specification would be estimated:

\[ Y_{il} = \alpha + \beta X_{il} + Z_{il} \delta + u_{il} \quad i = 1, \ldots, N \]  

(1)

Where \( i = 1, \ldots, N \) represents individuals, and \( Z_{il} \) represent a set of controls which are correlated with both \( Y_{il} \) and \( X_{il} \). As is commonplace, variables contained in \( Z_{il} \) should be realised prior to age c i.e. pre-determine \( X_{il} \). Including variables realised after age c leads to the bad control problem, as these variables could also be seen as outcome of \( X_{il} \), resulting in a form of selection bias. \( u_{il} \) is a zero mean error term, assumed to be uncorrelated with both \( X_{il} \) and \( Z_{il} \).

However, assume that due to limited follow-up, data on individuals is only observed up to age a, such that only the following regression specification can be estimated:

\[ Y_{il} = \alpha + \beta X_{il} + Z_{il} \delta + u_{il} \quad i = 1, \ldots, N \]  

(2)

In order to estimate the effect of \( X_{il} \), beyond age a, we need to ignore the bad control problem. Suppose that the estimate of \( X_{il} \) on \( Y_{il} \), \( \delta \), in equation (2) is significant. Now suppose that we can find a variable (or set of variables), realised between ages c and a, say \( p \), such that this effect disappears, i.e. find a set of variables \( M_{ij} \), \( j = 1, \ldots, f \), which when included in equation (2), \( \delta = 0 \). Call these variables, mediator variables. Here the effect of \( X_{il} \) on \( Y_{il} \) is completely mediated and is solely captured in the effects of \( M_{ij} \) on \( Y_{il} \). If \( Y_{il} \) is a strong predictor of \( X_{il} \), then we can assume that \( M_{ij} \) would also completely mediate the effect of \( X_{il} \) on \( Y_{il} \).

![Life-course of individual i](image)

Now suppose that we have another dataset which contains both \( M_{ij} \) and \( Y_{ij} \). Then, to estimate the effect of \( X_{il} \) on \( Y_{ij} \), we estimate the following three-step procedure.

In the first step, the effect of \( X_{il} \) on each mediator variable is estimated. i.e. for \( j = 1, \ldots, f \), we estimate:

\[ M_{ij} = \gamma + \theta X_{ij} + \sum_{k=1}^{f} \varphi_k M_{ik} + Z_{ij} \omega + \mu_{ij} \]  

(3)

Given that mediator variables may be correlated with each other, when the effect of \( X_{ij} \) on any mediator is estimated, \( \theta, l \), all other mediators are included in an attempt to avoid double counting. Here all pre-determined variables are included to limit bias in the estimates of \( \theta, l \).

In the second step, the effect of each mediator variable on \( Y_{ij} \) is then estimated:

\[ Y_{ij} = \beta + \sum_{l=1}^{f} \rho_{l} M_{ij} + \sum_{l=1}^{f} \xi_{lj} + u_{ij} \]  

(4)

Again to avoid double counting, the effect of all mediators is estimated in the same equation. The same sets of pre-determined variables from step 1 are included as controls in the step 2 regression so that we are adjusting coefficients identically in each step.

Results & Discussion

Model (cont.)

Again to avoid double counting, the effect of all mediators is estimated in the same equation. The same sets of pre-determined variables from step 1 are included as controls in the step 2 regression so that we are adjusting coefficients identically in each step.

If (3) and (4) are estimated using linear models, then coefficients from each step can be combined to approximate the effect of \( X_{il} \) on \( Y_{il} \) from equation (1) in the following way:

\[ \beta = \sum_{l=1}^{f} \rho_{l} \]  

(5)

Application

Data

• Data from the National Child Development Study (NCDS) is used for the first step. This follows ~17,000 individuals born in the UK in 1958 throughout their life-course, with data collected on them at birth and via follow-up interview at ages 7, 11, 16, 23, 33, 42 and 50.

• Data from the British Household Panel Survey (BHPS) is used for estimation in the second step. This is an annual survey of a representative sample of ~5,500 UK households. Every adult in a household has been interviewed, and re-interviewed in all subsequent years, since 1991.

Overview of estimation

1. Test whether inclusion of the mediator variables at age 46 (in \( M_{ij} \)) take up the effect of SEW on the outcome at age 50 (in \( Y_{ij} \)).

2. Estimate the effect of SEW at age 11 (in \( Y_{ij} \)) on each of the mediator variables at age 46.

3. Using 46 year olds in wave 1 of the BHPS, estimate the effect of each mediator on death and retirement by age 63 (in \( Y_{ij} \)).

4. Combine the estimate to obtain the effect of SEW on these outcomes.

• In steps 2. and 3. we control for a range of covariates (\( Z_{il} \)) which are available in both the NCDS and BHPS, comprising child characteristics (e.g. gender), parental characteristics (e.g. social class), and family characteristics (e.g. lived with both parents in childhood).

References


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Lifetime Influences of Religious Practices and Beliefs on Mental Health and Wellbeing

Aradhna Kaushal, Dorina Cadar, Mai Stafford and Marcus Richards
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Introduction

Background

- There is some evidence that religious attendance, beliefs and practices are associated with positive outcomes for mental health; however there is a scarcity of longitudinal studies in this area [1,2,3].
- Religious attendance and religious beliefs may improve resilience to stress by providing a mechanism to cope with stressful life events [4].
- Depression affects 1 in 5 people over the age of 65 and is one of the leading causes of disability [5, 6].

The MRC National Survey of Health and Development (1946 British Birth cohort) has repeated measures of religious attendance and mental health. This unique dataset will enable us to investigate the lifetime influences of religion and spirituality, on mental health and wellbeing in older age.

Aim

To investigate the lifetime influences of religion and spirituality, on mental health and wellbeing in early old age.

Methods

Study sample

- Participants were 2,641 study members from the MRC National Survey of Health and Development (1946 British Birth cohort) who had provided data at ages 26, 36, 43 and 60-64 (1972, 1982, 1989 and 2009).

Exposure variables: Religious attendance and beliefs

- Religious attendance was assessed at ages 36, 43 and 60-64.
- Religious beliefs were assessed at ages 26 and 36.

Outcome variables: Mental Health and Wellbeing

- Mental health and wellbeing were assessed at age 60-64 using the 28-item General Health Questionnaire (GHQ-28) and the Warwick Edinburgh Mental Wellbeing Scale (WEMWBS) respectively.
- The GHQ-28 score ranges from 0-84; a high score indicates depression and anxiety symptoms.
- The WEMWBS ranges from 14-70; a high score indicates high levels of wellbeing.

Analysis

- Differences by gender were analysed using χ² tests.
- Regression analysis was conducted to test the association between religious attendance and beliefs in early midlife, and mental health and wellbeing at 60-64. All regression analyses were adjusted for gender.

Results

Figure 2. Religious attendance at ages 36, 43 and 60-64

- Women are more likely than men to:
  - report religious upbringing at age 36 (81% vs. 75%; p<0.001)
  - have religious beliefs at age 36 (71% vs. 56%; p<0.001)
  - attend church more often at age 36, 43 and 60-64 (p<0.001)

Conclusions

- Religious attendance and religious beliefs at ages 36 and 60-64 were positively associated with wellbeing at age 60-64. These associations were not found at ages 26 or 43.
- No associations were found between religious attendance and beliefs, and mental health.
- The mechanism of how religious attendance and beliefs might impact wellbeing and mental health is not clear; future work should investigate possible psychological, social and lifestyle factors which could be involved in this process.
The nature and nurture of wellbeing in adolescence

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Use of the twin model

The proportion of variation of any given trait in a population can be broken down into the genetic influences (A), the shared environment (C), and the non-shared environment (E).

Identical twins share 100% of their genes, and non-identical twins share 50%.

Non-shared environmental influences the individual uniquely. This makes twins less similar.

Proportion of variance explained by ACE model for individual traits and a wellbeing composite made up of numerous wellbeing indicators

Wellbeing and geographic location

The life satisfaction and happiness maps show differences in how much genetic variation is drawn out by the environment at different locations.

Does how scenic the environment is also moderate this relationship?

Twins Early Development Study (TEDS)
- UK ONS contacted all live twin births in England and Wales from 1994 to 1996.
- 13,694 families provided data at first contact.
- Data collection at 2, 3, 4, 7, 8, 9, 10, 12, 14, and 16 years of age.
- Wellbeing data collected at age 16 used 13 separate measures including: life satisfaction, subjective happiness, and gratitude.

Table 1. Representativeness of TEDS Sample at age 16

<table>
<thead>
<tr>
<th>Age 16</th>
<th>Returned data (N families)</th>
<th>% Response rate</th>
<th>% White</th>
<th>% Female</th>
<th>% Mz (Monozygotic)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>6,079</td>
<td>55.9%</td>
<td>92.2%</td>
<td>54.4%</td>
<td>34.4%</td>
</tr>
</tbody>
</table>

Phenotypic maps:
Genetic variation on spectrum from one (green) to 10 (red)

Scenic or not: Variation in how scenic the location is on a 10-point scale from one (green) to 10 (red)
Empirical Analysis of factors of Taiwanese wage determination
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Motivation
- wage stagnation for younger generation: Taiwanese empirical economists attribute this to higher education expansion policy
- missing factor: crowding out effect from corporation arbitrage investment in housing market
- How does the Taiwanese government address the issue? Economic Cooperative Freetrade Agreement(ECFA) with China from 2009

Introduction
- Education Premium may have decreased due to the expansion education policy since 1994,since in terms of both number of graduates, and the portion relative to Taiwanese educated population
- Expansion in Housing Market, but real wage is not increased by the spin-off effect from the real estate prosperity as claimed by the government
- Industrial investment on real property increases by and large as opposed to those

The data for Taiwan is collected from a survey directed by Survey Research Data Archive (SRDA), The Panel Study of Family Dynamics (PSFD) is a large-scale panel data beginning 1998 involving local experts as well as foreign academia in various specialties such as economics, sociology, psychology, anthropology and statistics

Data
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Theoretical Framework

Real Wage in Equilibrium

\[
\max \tau \quad \text{s.t.} \quad \pi = R - w - rK + \frac{(1+\beta)r}{(1+\alpha)}K + \frac{(1-\beta)(1+\alpha)^2}{2}\frac{1}{2}\frac{(1+\alpha)}{2}\end{equation}

subject to \( y = f(K) + \frac{K}{K_0 + K_0} = \frac{K}{K_0}
\]
By F.O.C. \( \tau = 0 \) it implies the real wage equals to marginal Productivity of Labour:

\[
\frac{w}{\frac{MPL}{K}} = (1-\alpha)(\frac{K}{K_0})
\]
and since \( \frac{w}{R} < 0 \) it implies if more capital is used to invest in real estate market, it would reduce the real wage in equilibrium. Also, by F.O.C. \( \tau = 0 \), the optimal level of Capital is:

\[
K_0 = \frac{R^\alpha}{\beta + \gamma} + \frac{\alpha}{\beta + \gamma}R
\]

Mincerian Equation

Following the general Mincerian wage structure:

\[
W = \beta_1 + \beta_2 \text{Education year} + \beta_3 \text{Age} + \beta_4 \text{Gender} + \beta_5 \text{Property Loan} + \beta_6 \text{A} + e
\]

Education Return

Define education return \( R_e \) as the percentage change in wage from uneducated sector to educated sector:

\[
R_e = \frac{W - w}{w} \quad \text{year of higher education} = \beta_2
\]

\( R_e \) would be smaller after education expansion policy as relative supply of educated labour increases, called paribus:

\[
R_e = \beta_2 - \frac{\beta_5}{\beta_4 + \beta_6} \quad \text{Property Loan}
\]

Method

The dataset is segmented into three cohorts: cohort I (those born between 1953 to 1965), cohort II (born between 1965 to 1976) and cohort III (born between 1977 to 1964), cohort II (born between 1965 to 1976) and cohort III (born between 1977 to 1983) is suffering from the lowest education return, which is consistent with Chauvel [5].

Conclusion

- for the youngest cohort: in average a 1% change in arbitrage real estate investment for a company has a larger impact than 4 additional years of education
- FTA is not as beneficial as the Government declares: the increase in relative demand for skilled labour might not be strong enough to offset all the increase in relative labour supply caused by higher education expansion.

Empirical Results

- Figure 11: GLS estimated Education Return by Different Cohorts
- Figure 12: Fixed Time Education Return by Different Cohorts
- Figure 13: QR estimated Education Return by Different Cohorts
- Figure 14: GLS estimated Prop. Invest. Coef. by Different Cohorts
- Figure 15: Fixed Time Prop. Invest. Coef. by Different Cohorts
- Figure 16: QR estimated Prop. Invest. Coef. by Different Cohorts
- Figure 17: GLS estimated Education Return by Different Periods
- Figure 18: Fixed Time Education Return by Different Periods
- Figure 19: QR estimated Education Return by Different Periods
- Figure 20: GLS estimated Prop. Invest. Coef. by Different Periods
- Figure 21: Fixed Time Prop. Invest. Coef. by Different Periods
- Figure 22: QR estimated Prop. Invest. Coef. by Different Periods

References
Which factors across life are associated with discordance between self-reported and performance measures of physical capability?

Elizabeth Wloch, Diana Kuh and Rachel Cooper

Introduction

- Physical capability can be defined as an individual’s capacity to undertake the physical tasks of daily living
  - It is an important component of healthy ageing
  - It can be assessed using either self-reported or performance measures

- By comparing these measures it may be possible to identify two distinct groups of discordant individuals.
  - One group reports poor capability yet performs to higher levels than expected (underestimators)
  - Another group has higher levels of reported capability than expected given their poor performance (overestimators)

- By characterising these discordant groups it may be possible to identify those individuals whose needs may go undetected when only one type of assessment is used.

Methods

- Data taken from the MRC National Survey of Health and Development, sometimes referred to as the 1946 British Birth Cohort.

- Summary scores of both self-reported and performance physical capability measures at age 60-64 were produced to identify two discordant and three concordant groups (see Figure 1)

- Multinomial logistic regression was used to assess the association of factors, with both types of discordance.
  - The 3 discordant groups were combined to form the reference outcome category
  - Associations between each factor and discordance were first adjusted for sex then mutually adjusted for the other factors investigated.

Factors included in analysis:
- Gender
- Childhood Socioeconomic Position (SEP)
- Father’s occupational class
- Adult (SEP)
- Highest educational level attained at age 26
- Overall occupational class at age 53
- Incident health variables (Never experienced, present from age 43 or present at age 60–64 only)
  - Depression
  - Obesity
  - Marital status at age 60–64

Results

- In sex adjusted models all factors, except obesity, were associated with at least one type of discordance.
- Figures 2 & 3 show the factors significantly associated with discordance in the fully adjusted model
  - Women, those of higher SEP and those with symptoms of depression at age 43 were more likely to be underestimators and less likely to be overestimators
  - Participants who had never married were more likely to be overestimators

Conclusion

Gender, adult SEP and history of depressive symptoms should be taken into consideration when either self-reported or performance measures are used in isolation to assess physical capability, to ensure all those with needs related to their physical capability are identified.

Email: elizabeth.wloch.12@ucl.ac.uk Phone: 020 7670 5723
Human beings are social creatures. As social creatures we exist in an environment of complex social and ecological interactions and perceptions and proclivities as resultant in our development of pertinent social behaviors. Most importantly, the ethical nature of our social interactions involves a recognition of the value of young people’s own perceptions of the contexts within which they are operating (1). The study undertakes a positive relationship in an educational and supportive process; in which young people feel able to talk about things that matter and are treated with respect. Pupils receiving FSM feel increasingly emotional resilience. 

**Key indicators:** My teachers don’t really listen to what I say in class, I like my teachers, I get treated unfairly by my teachers, How good teachers think young people are at school work, I am happy when I am at school, The work I do in lessons is interesting to me

Key indicators: Teachers’ attitude towards students, Teacher-to-student interactions, Satisfaction with educational attainment, and Nussbaum’s capabilities. Those conditions include a recognition of the value of young people’s own perceptions of (a) the contexts within which they are operating (b) the significant others within those contexts and (c) their own capabilities (d)

**METHOD:**

The study, based on previous studies, posited that a positive relationship between young people and their parents, and between young people and their teachers, is central to the development of perspective and emotional health. Human beings are social creatures. As social creatures we exist in an environment of complex social and ecological interactions and perceptions and proclivities as resultant in our development of pertinent social behaviors. Most importantly, the ethical nature of our social interactions involves a recognition of the value of young people’s own perceptions of the contexts within which they are operating (1). The study undertakes a positive relationship in an educational and supportive process; in which young people feel able to talk about things that matter and are treated with respect. Pupils receiving FSM feel increasingly emotional resilience.

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A life course assessment of menopause management in the MRC NSHD
Rebecca Woodward
Supervisors: Mai Stafford and Diana Kuh

Summary
- Women respond to menopausal symptoms in a variety of ways, ranging from no action to a medicalised approach involving the use of prescribed treatment.
- A life course approach suggests that health and social factors in early life and women’s health throughout earlier adulthood influence how women experience and respond to the menopause.
- A model has been developed and will be tested using the MRC National Survey of Health and Development to explore the role of health and social factors from early life and adulthood in predicting and influencing women’s response to menopausal symptoms.

Background
The menopausal transition is associated with many symptoms which women may find bothersome, such as hot flushes and night sweats, trouble sleeping, sexual problems and psychological symptoms (Mishra & Kuh, 2012). A life course approach to women’s health illustrates the role of early life factors in influencing the impact of reproductive and gynaecological health events in adulthood (Kuh, Wadsworth & Hardy, 1997), thus, life course exposures and experiences may influence menopausal symptomatology. Furthermore, health and social factors influence how women manage their symptoms during the menopausal transition (Morse et al., 1994).

There is currently little understanding of what influences the ways in which women respond to symptoms during the menopausal transition. A life course approach could potentially identify what factors predict reliance on health care services, the confidence to use self-management behaviours or the absence of any attempt to treat symptoms.

Aim
Develop a model to test how health and social factors from early life or earlier adulthood influence women’s experience of and response to the menopause.

Data and Methods
The MRC National Survey of Health and Development is a nationally representative British birth cohort study. It has collected data on 5,362 individuals, born in 1946, at 23 time points from birth into adulthood. The model will be tested using data from the Women’s Health Study. Between the ages of 47 and 54, 1005 female study members provided detailed data each year on their experience of symptoms often associated with the menopause transition and if and how they responded to symptoms.

Preliminary Results
Four management types were identified: consulting a professional, self-management behaviours, the use of both approaches or no response. A proactive response to symptoms (consulting a professional and/or self-management) was associated with symptom severity and duration, higher educational attainment, having additional health problems in midlife and regularly accessing GP services throughout adulthood. Solely consulting a professional regarding symptoms was associated with prior use of the contraceptive pill and previously seeking help for fertility problems. Self-management behaviours alone were associated with higher SEP in adulthood and higher levels of physical activity in later life.

Next steps
The next stage in my analysis will be to run a structural equation model, which will allow me to identify interacting pathways, mediating variables and the cumulative impact of life course variables on women’s management of the menopausal transition.

References
Will FreeSpace housing interventions work for vulnerable older people? An exploration of the health and wellbeing outcomes for older under-occupying homeowners.

Gail Lincoln, Frank Hucklebridge, Catherine Loveday, Gillian Rhodes

Premise
The study starts from a premise that there are down-regulatory effects on health & wellbeing caused by the stress of living in unsuitable accommodation, when there are perceived to be no viable options;

The Study Population:
HOMEOWNERS AGED 60+ and 75+ WHO ARE UNDEROCCUPYING THEIR HOMES
...in two age groups, 3 cohorts:
1. Would be movers who feel they 'can't'
2. Movers with little or no assistance
3. Movers with full FreeSpace housing intervention support (FreeSpacers)
...at three times:
1. 5 months before
2. Week of the move
3. 5 months after Total 90

Aims
To evaluate the effectiveness of FreeSpace as a housing intervention for older people who might otherwise not make, or see through, a life changing decision irrespective of the choices made available by housing providers.

To inform practice and policy in the provision of housing and support services for older people relating to relocation, decision-making and settling in.

Objectives
1. To measure and understand the participants’ attitudes, beliefs and behaviours in respect of relocation
2. To identify the bio-psychosocial effects and associations with H&W
3. To add to the literature on disease pathways and sub clinical effects in older people associated with loneliness, isolation and depression through lack of control of lifestyles, in particular housing situations
4. To contribute to the current understanding of the effectiveness of measuring chronic stress through hair cortisol concentrations.

Reasons owners want to move:
- Loneliness and distance from relatives, friends or facilities
- House bound
- Feel a burden, can’t cope with the cleaning or gardening
- Can’t afford heating and repairs
- Feel insecure, no community spirit
- Property in disrepair
- Cultural aspects relating to the location

Mixed Method:

Face to face questionnaire:
.. all participants 5 months before moving, week of the move and 5 months after. Including e.g. locus of control, personality types, preferences and lifestyle, life experiences and health.

Face to face interview:
... around 12 candidates – 2 from each group and age range group at the final stage. Semi-structured, based on themes emerging after the questionnaires have been analysed but allowing for free flow of expressive variation.

Hair cortisol concentration measures:
A sample will be taken from each participant to correspond with each stage. Benefits include..
• More effective than salivary assays for chronic stress.
• Retrospectively reliable up to 5 months (1 cm growth per month) – e.g. if participant not identified until time of the move.

Examples of why owners say they can’t move:
- No housing options available
- Want family to inherit property
- Can’t stand the trauma of moving
- Don’t understand how to go about it
- Don’t trust agents
- Too ill or anxious to cope
- Near to current support services

The FreeSpace Scheme In Summary (designed and piloted by the research author in London)

The local authority acquire the under-occupied property on a long term renewable lease in exchange for ‘handholding’ the owner through each stage of decluttering, finding and moving to alternative, smaller accommodation in the tenure and location of choice.

Financial support is given for moving or upgrading the property for letting via an interest free secured grant, repayable only when the property is sold. They can even repurchase using the loan e.g. in a cheaper area.

The council acts as landlord, managing and letting the property to a family in need, the owner receives the rent and the house reverts to their estate with vacant possession on their death or end of long term lease.

Mrs W’s FreeSpace, 3 bed. property – Basildon, she moved there with her husband who later died.

Mrs W’s new flat in Clayhall provided by Redbridge council who now rent out her bungalow to a family in need.

“I never knew I could be happy again, with no worries. My grandson calls in every day on the way home from school” (daughter lives nearby)

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Introduction

Social gradients, although evident in many different societies for a range of health outcomes, are less pronounced and sometimes absent for ethnic minorities (Bhopal et al., 2002; Bécares et al., 2012; Fischbacher et al., 2014; Zilanawala et al., 2014). This suggests an underexplored phenomenon influencing the validity of research findings.

This study aims to examine social gradients in health for Pakistani and White British women and infants in the Born in Bradford (BiB) study and the Millennium Cohort Study (MCS).

Methods

Excluded: other ethnic groups, stillbirths, 2nd or 3rd pregnancies of the same mother within the cohort, twins and triplets, data that could not be merged with area-level data.

Outcome measures: low birth weight (LBW) in term babies (<2,500g), preterm birth (<37 weeks), smoking during pregnancy, mental health (GHQ-28 in the BiB study, Malaise Inventory MCS).

Measures of SES: Maternal education, financial situation, receiving means-tested benefits, employment of the father.

Data analysis:

- Multivariate regression analysis
- Adjusted for maternal age and parity.
- MCS: adjusted for area-level clustering and country weight.

Results

- Social gradients in LBW and preterm birth for White British (p for trend < 0.05) but not for Pakistani infants (Figure 2).
- Lower odds of smoking during pregnancy for White British (all measures of SES, both cohorts) and Pakistani women (all measures of SES in BiB, financial situation and benefits in the MCS).
- White British women of higher SES reported better mental health (for all measures of SES in the MCS and for maternal education, benefits and financial situation BiB).
- For Pakistani women, social gradients were found in mental health for financial situation (Figure 3) and employment of the father in both cohorts, and for benefits in BiB.

Discussion

Social gradients in health were attenuated for Pakistani mothers and their infants living in the UK. Future research should test if our findings can be applied to other ethnic minority groups. Potential explanatory factors to examine include the validity of SES measures, international migration, acculturation, health behaviour, social support, and area of residence.

References


