

NATIONAL CHILD DEVELOPMENT STUDY UPDATE 2012



Every year, hundreds of researchers use information gathered by the National Child Development Study (NCDS) to carry out research projects in the medical and social sciences. This year's update summarises the findings from a few recent research projects.

NATIONAL CHILD DEVELOPMENT STUDY UPDATE 2012

'COGNITIVE FUNCTION' AT AGE 50

Those of you who took part in the age 50 survey in 2008 may recall being asked to do some assessments which measured your 'cognitive function'. Cognitive function describes the brain-based skills we need to carry out many aspects of daily life such as recalling information and maintaining focus on a given task.

Two of the assessments measured memory, a very important cognitive ability. You took an 'immediate' memory test in which you were read a list of 10 common words which you then had two minutes to recall. You also took a 'delayed' test that asked you to recall the same list of words around five minutes later. An 'animal

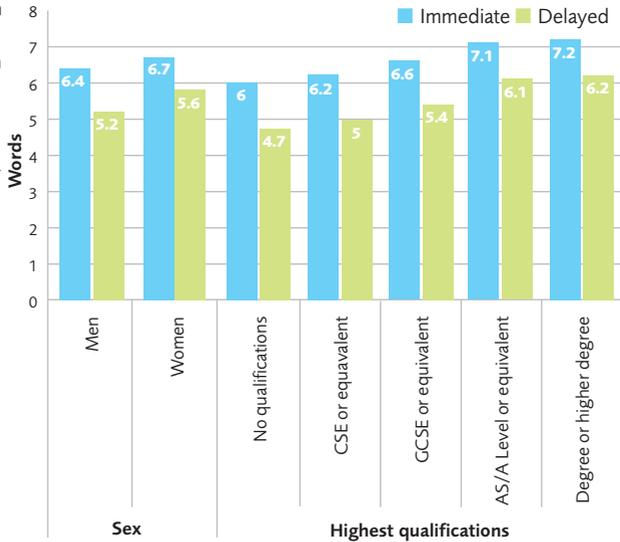
naming' test measured 'verbal fluency' by asking you to name as many animals as you could within one minute. Another test measured attention and mental speed by presenting you with a grid of random letters and asking you to cross out as many Ps and Ws as possible within one minute.

Researchers from the Centre for Longitudinal Studies at the Institute of Education, University of London, have examined how performance in these tests varied according to people's characteristics. Graphs 1 to 3 show some of the findings.



Graph 1: Immediate and delayed memory test scores by sex and highest qualification

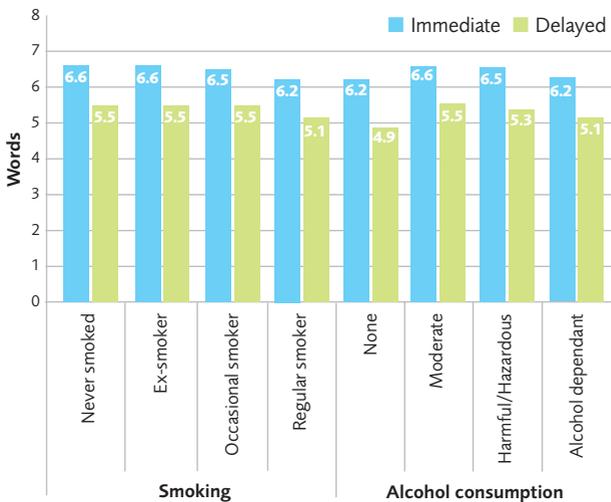
Women outperformed men in both memory tests and the delayed test in particular, recalling 5.6 words on average compared with 5.2 amongst men, an 8% difference. This finding received much attention in the media (Telegraph - 'Middle-aged women have better memories than men', Guardian - 'Absent-mindedness is a middle-aged male problem' and Daily Express - 'Women's memory is best' and was also given extensive coverage on BBC radio and Sky News). The findings were quite surprising as previous studies have suggested that women of this age typically have a poorer memory, which has been thought to relate to the onset of the menopause. Women were quicker than men on the letter cancellation test but made more mistakes and there was no difference between men and women on the animal naming test.



This research also suggests that education is positively associated with better memory at age 50. Those with a degree scored on average 32% higher than those with

no qualifications. Higher qualifications were also associated with better performance on the animal naming and letter cancellation tests.

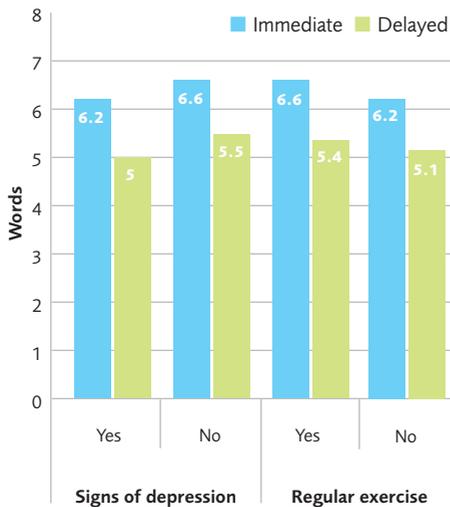
Graph 2: Immediate and delayed memory test scores by smoking behaviour and alcohol consumption



Regular smokers performed significantly more poorly than occasional smokers, ex-smokers and those who had never smoked on both memory tests (and also on the animal naming and letter cancellation tests) but somewhat surprisingly, those consuming no alcohol at age 50 had a poorer memory than those classified as 'moderate' drinkers. Even those who were considered to be 'alcohol dependent' performed as well (or better) as non-drinkers on the two memory tests (and also on the animal naming test).

NATIONAL CHILD DEVELOPMENT STUDY UPDATE 2012

Graph 3: Immediate and delayed memory test scores by exercise and depression



The average score on both memory tests was lower amongst those showing signs of depression at age 50 than those who did not, although on the letter cancellation test those who were depressed actually did a little better than those who were not. Performance on the animal naming test was not found to be affected by depression.

better memory at age 50 (and better performance on the animal naming and letter cancellation tests).



Taking regular exercise (at least once a month) was also associated with

The profile of the British population is changing with those in older age groups now making up an ever-increasing proportion of the population. This has led policy makers to become more interested in healthy ageing and a particular concern about the growing number of individuals with cognitive impairment. It is widely recognised that poor cognitive ability is linked with increased risk of experiencing dementia and other forms of disability. The number of people with 'cognitive impairment' is expected to increase from 461,000 in 1998 to 765,000 by 2031, which will lead to big increases in the costs of providing care.

These analyses are preliminary but the rich life-history information that you have provided over the course of the study will allow the causes of differences in cognitive ability in later life to be fully investigated. The intention is that similar assessments will be included in future surveys in order to measure the changes in cognitive ability which occur with age. The study will therefore play an important role in increasing understanding of the impact of lifestyle and other factors on cognitive ability and cognitive decline in later life which is vital if levels of dementia in the general population are to be reduced in the future.

CHILDHOOD PSYCHOLOGICAL PROBLEMS HAVE A LONG-TERM ECONOMIC AND SOCIAL IMPACT

One of the major strengths of NCDS is that it has followed such a large number of individuals from birth through childhood and into adult life. This makes it possible for researchers to understand the long-term consequences of problems experienced by some individuals in early life.

For example, a study jointly conducted by the Institute for Fiscal Studies in London and the RAND Corporation, a non-profit research organisation in the United States, showed that psychological problems experienced in childhood can have a substantial long-term economic and social impact. Researchers found that family income was about 14% lower by age 23, and over 25% lower on average by age 50 among those who experienced serious psychological problems during childhood than among those who did not. This was partly because affected children were 6% less likely to be in a stable relationship as adults, and so were less likely to benefit from living as part of a dual-income family. Another possible explanation is that those who had suffered from depression, anxiety or other psychological problems were also 11% less likely to work, and had more spells of unemployment, making it more difficult for them to climb the career ladder.

By contrast, childhood physical health problems were found to have much less of an impact on long term outcomes - major health conditions were associated with 9% lower household income at age 50, and minor health problems



with a 3% reduction, compared with people who didn't have health issues in childhood.

The research was published in the Proceedings of the National Academy of Sciences, and also reported in Time magazine.

'These findings demonstrate that childhood psychological problems can have significant negative impacts over the course of an individual's life, much more so than childhood physical health problems. The findings suggest that increasing efforts to address these problems early in children may have large economic payoffs later in life,' said James P. Smith, one of the study's authors.

The research confirms the findings of an earlier study that used data from the US. But, the American study relied on people's memories of their own mental and physical health in childhood. Another major strength of NCDS is that it includes information on children's physical and psychological health, collected during childhood.

NATIONAL CHILD DEVELOPMENT STUDY UPDATE 2012

DO GRAMMAR SCHOOLS HELP WITH SOCIAL MOBILITY?

The invaluable information you have provided about your earnings and employment over the years has been used extensively by researchers who are interested in social mobility, which is the extent to which people's social class or economic status changes between childhood and adulthood. Many researchers have compared your experiences with those participating in the British Cohort Study which is following thousands of people born in Britain in 1970. Research has typically found that people born in 1958 have experienced more social mobility than those born in 1970 and it is these findings that lie behind many headlines over recent years proclaiming that social mobility is declining in Britain.

In new research published in 2011, researchers from Bath Spa University used information from NCDS to find out whether the grammar school system helped to promote social mobility. They wished to discover whether the decline in social mobility could perhaps be explained by the replacement of grammar schools and secondary modern schools by the comprehensive system, in almost all parts of Britain.

The researchers focused on just over 3000 NCDS cohort members. A third had attended comprehensive schools, a quarter had gone to grammar schools and two fifths had been to a secondary modern. They compared the jobs you did at the age of 33 with the work your fathers had done 17 years earlier – when you were 16 – and examined whether you had 'climbed the social ladder'. The researchers also looked at the salaries you earned at age 33 and compared

these to how much your fathers had earned 17 years earlier, having adjusted the figures for inflation.

One of the main advantages of using NCDS for this research is that you all sat tests to measure your academic ability at the age of 11. This enabled the researchers to examine what difference going to a grammar, comprehensive or secondary modern makes in terms of earnings and occupational status for adults of similar abilities.

The study, published in the British Journal of Sociology, found that high-ability children from working-class homes were no more likely to move up the social ladder if they went to a grammar school rather than a comprehensive. Attending a grammar school did increase the chances that a working-class child would earn slightly more than their parents. But children from middle-class homes who went to grammar schools also earned slightly more than their parents had done.





However, overall the advantages that grammar schools offered society were cancelled out by the social disadvantages experienced by those who went to secondary moderns who, in general, did not have a different social class or earning power from their fathers.

These findings attracted attention in the media (for example 'Grammar schools do not improve social mobility for working-class' - Guardian).

Vikki Boliver, who led the research team, said many "bemoan the introduction of the comprehensive school as depriving academically able children of a crucial ladder of opportunity. Our analysis provides a more rounded approach." Adam Swift, another member of the research team said that grammar schools "confer no more advantage" to working-class children than to those from slightly more wealthy backgrounds.

A NEW COHORT STUDY FOR BRITAIN

Britain is unique in having a set of cohort studies that have followed individuals from birth into adult life. In March 2011, at a speech at the British Academy, David Willetts, Minister of State for Universities and Science announced that there would be funding for a new birth cohort study to be launched in the next couple of years. The new Birth Cohort will be run by the Institute of Child Health in London and will be the first UK-wide cohort for whom detailed information will be collected before birth and in the first year of life. It will also examine differences within and between ethnic groups. As David Willetts said:

'British birth cohort studies are acknowledged worldwide as unique data resources which have underpinned innovative research on the health, socio-economic status and wellbeing of people in our country. The five studies to date – in 1946, 1958, 1970, 1990, and, most recently, in 2000 – have followed large cohorts of babies from birth into adulthood. They have yielded a series of important findings and have influenced crucial areas of healthcare policy and education – from alcohol consumption and obesity to child development.'



KEEPING IN TOUCH

If you change your address or phone number, please let us know so that we can contact you in the future.

You can tell us by:

- Calling us free (from a UK landline) on 0500 600 616
- Emailing us at ncds@ioe.ac.uk
- Completing the contact form on the study website: www.ncds.info
- Or writing to us at National Child Development Study, FREEPOST KE7770, London WC1H 0BR (no stamp required if posted in the UK)

Photos: Getty Images/Mary Evans Picture Library/Stock/Shutterstock