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The **PATH Through Life** Project

2012 Newsletter

"Science to improve mental health and wellbeing across the lifespan"

Contact Information

Email: karen.maxwell@anu.edu.au
Phone: Karen on 02 6125 8417 or Trish on 02 6125 8408
Mail: PATH Through Life Project, CRAHW, Bldg 63T1, Eggleston Rd. Australian National University ACT 0200
Website: http://crahw.anu.edu.au/research/projects/personality-total-health-path-through-life

Progress in 2012

In May of this year we completed collecting online questionnaires from the 20+ age group. 60% (1191) of those interviewed at Wave 3 completed the questionnaire while a further 5% completed part of the questionnaire. Because of lack of research funds we were only able to undertake physical and memory testing on a subsample of 546 participants who completed the online survey.

In August this year we started inviting our 40+ age group to complete the online questionnaire. At this stage 674 (67%) of the 1003 who have been sent invitations have completed the questionnaire. Interviewers have so far completed physical and memory testing on 384 of those who have completed the online survey.

Information for the 40+ age group

If you have not received an invitation to do the online questionnaire we will be sending the rest from the 9th February. For those who have received an invitation but may have lost the link or the password just email Karen (see above) and we will send the link and password again. It is very important for our results to get as many people completing the online as possible. We would like to strongly encourage you to complete the online questionnaire.

All local participants who complete the online and told an interviewer they would be willing to do the memory and physical testing with an interviewer will be invited to do so. At this stage we are not sure if we will be sending an interviewer to out of state regions to do this testing.

Many of you took part in our Brain MRI substudy at the time of last interviewing. Although we don't yet have the money to undertake this substudy at this wave, we may find the money to do MRIs on a smaller sample of previous participants.

Information for the 60+ age group.

For this age group we will be undertaking the usual face-to-face interviews with all participants rather than asking you to complete an online questionnaire. We hope to start in June next year.

Some Recent Research Highlights

Blood glucose levels: Dr Moyra Mortby has been looking at the relationship between levels of blood glucose (within the normal range), performance on cognitive tests and particular areas of brain volume. She found that higher glucose levels were associated with reduced volume in certain brain regions known to be related with memory and also with

performance on memory tests. This finding suggests the need for better lifetime management of blood glucose levels as this may contribute to improved memory in later life and possibly protect against dementia.

Activity levels: It is unclear whether the relationship over time between activity and cognitive ability is because people who are more active have higher levels of cognitive performance to start with, or active individuals are less likely to decline in cognitive performance over time. Analysing a number of waves of PATH data, Dr Allison Bielak found that those who were more active had performed better in memory and concentration testing at Wave 1. This was true for all age groups. However, there was no relationship between activity level and change in cognitive performance over time.

Attention deficit/hyperactivity disorder (ADHD): ADHD often persists into adulthood causing serious health consequences in young adults. The effect of this disorder has not yet been examined in older age groups. Dr Debjani Das, analysing the 40+ PATH age group, found that ADHD symptoms continue to be associated with ill-health and functional impairment in mid-life and are likely to be a major, previously unrecognised source of later-life morbidity with associated social and economic costs.

Childhood adversity and adult well-being: Most people have the resilience to maintain well-being even when exposed to trauma or adversity. However, recent studies have shown that childhood trauma lowers resilience in adults and affects mental health. Debjani Das has been investigating the role of a particular dopamine gene in the relationship between childhood adversity and adult resilience. (Dopamine is known to play a role in depression.) She found that those with a particular variation of the gene appeared to be protected against the adverse effect of childhood adversities since the decline in resilience associated with increased adversity was only seen in those without this particular variant of the gene.

Poor work environment and marriage: Dr Liana Leach, analysing the 40+ PATH age group, examined the relationship between high job demands, low job control, job insecurity and levels of positive support from partners. She found that each job adversity studied was positively associated with lower positive support from partners. These results identify the potential broader social costs of adverse work characteristics.

Cannabis use and cognitive performance: Using 3 waves of data from the 20+ age group, Dr Robert Tait examined the relationship between change in cannabis use and change in performance on memory and concentration tests. He found that stopping the use of cannabis was associated with improved memory for things just learned (the "shopping list") but none of the other tests. This was seen most strongly in former heavy users who showed considerably improved performance compared to remaining heavy users.

Average Physical results for 20+ (results from the previous interview are in brackets)
Please note that only 546 did the testing in the Wave just completed

Blood pressure: The average systolic pressure is 125 (123) and the average diastolic pressure, 77 (75).
Pulse rate: The average pulse rate is 73 (70) beats per minute.
Handgrip: The average handgrip strength for men is 52 kgs (52) and the average for women was 31 kgs (31).

Lung function:

Height	Men		Women	
	FEV-*	FVC-**	FEV	FVC
Less than 160 cms	NA	NA	2.8 (2.8)	3.3 (3.2)
160-169 cms	3.8 (3.5)	4.4 (4.3)	3.0 (3.0)	3.6 (3.5)
170-179 cms	4.2 (4.0)	5.0 (4.7)	3.4 (3.3)	4.0 (3.9)
180-189 cms	4.5 (4.4)	5.6 (5.2)	3.7 (3.7)	4.4 (4.3)
190cms or taller	4.8 (4.8)	5.9 (5.7)	NA	NA

* Expired volume in 1 second (litres) ** Full lung volume (litres)