

A Longitudinal Investigation of the role of Lifestyle Factors in SuperAgers from NSHD

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Introduction

- Some, known as "SuperAgers," exhibit cognitive abilities comparable to those several decades younger [1-3].
- Although our understanding of the factors enabling SuperAgers to maintain their superior cognitive abilities is inconclusive.
- It is hypothesized that the factors safeguarding against cognitive decline may also play a role in maintaining exceptional cognitive abilities.
- The aim of this project was to investigate different lifestyle factors across the lifespan and their role in predicting SuperAger status in older adults from the National Survey for health and development (NSHD) birth cohort, a large longitudinal study of British adults from birth to old age [4].

Methods

SuperAger Criteria:

- Using cognitive data from age 44 and 77 of the NSHD cohort, SuperAgers were defined as those who:
 - Had a verbal memory score at 77 that was above the gender specific mean score for individuals aged 44 years, and
 - whose processing speed scores at age 77 were ± 1 SD of the gender specific processing speed mean.

Participants:

- 146 SuperAgers and 636 cognitively normal agers, met the inclusion criteria and were included in the present analysis.

Analysis:

- Binary logistic regressions were used to assess the significant prediction pathways between SuperAger status and lifestyle factors in mid-life and later-life.

Results

Variables	Mid-life		
	OR	(95% CI)	p value
Childhood cognition	2.19	[1.44, 3.34]	<0.001***
Mother's education	0.96	[0.77, 1.21]	0.75
Father's Social class	1.03	[0.85, 1.24]	0.76
Educational attainment	1.47	[1.17, 1.85]	0.001**
Sex	1.45	[0.97, 2.17]	0.07
Smoker status	0.81	[0.55, 1.20]	0.30
Social engagement score	1.04	[1.00, 1.08]	0.03*

Variables	Later-life		
	OR	(95% CI)	p value
Childhood cognition	2.15	[1.41, 3.30]	<0.001***
Mother's education	0.96	[0.76, 1.21]	0.72
Father's Social class	1.02	[0.84, 1.23]	0.87
Educational attainment	1.48	[1.17, 0.96]	0.001**
Sex	1.52	[1.01, 2.27]	0.04*
Satisfaction with life score	1.04	[1.00, 1.09]	0.07
Social engagement score	1.04	[0.99, 1.09]	0.16

- Childhood cognitive ability, and educational attainment consistently predicted superager status in both the mid-life model and later-life model.
- The only lifestyle factor that predicted superager status was social engagement in mid-life.
- No lifestyle factors in later-life predicted SuperAger status.

Factors

Early-life



Childhood cognitive ability (at age 15), Mother's education, Father's social class, Educational attainment, and sex

Mid-life



Smoker status and social engagement

Later-life



Satisfaction with life score and social engagement

References

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