The association between cognitive ability measured at ages 18-20 and mortality during 30 years of follow-up—a prospective observational study among Swedish males born 1949-51

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Previous Research

• an association between childhood cognitive ability and mortality
• in two studies, the association was noticeably stronger for those in the lowest IQ quartile than in the other quartiles
• in one study, a graded increase of mortality was observed from high to low IQ test score

Objectives

• to investigate the association between IQ test score, measured at ages 18-20, and mortality during 30 years of follow-up

Method

• participants
  • 49,323 Swedish males
  • born 1949-51
  • conscripted for compulsory military service in 1969/70

• IQ test
  • the outcomes were ranked 1-9

  1. IQ < 74
  2. 74 < IQ < 81
  3. 82 < IQ < 89
  4. 90 < IQ < 95
  5. 96 < IQ < 104
  6. 105 < IQ < 110
  7. 111 < IQ < 118
  8. 119 < IQ < 126
  9. IQ ≥ 126

• mortality records
  • transformed into hazard ratios (HRs)
• socioeconomic position
  • participants → classified into 8 socioeconomic groups
  • their fathers → classified into 6 socioeconomic groups

Results

Discussion

• IQ test scores at ages 18-20 were related to all-cause mortality, cardiovascular disease mortality, and mortality from violent causes during a 30 year follow-up period

• IQ test score was not significantly associated with cancer mortality

My Opinion

Strengths:
• large sample size
• highly representative of males
• rigour in standardization of IQ test

Weaknesses:
• only studied males
• only males in military

Future Studies

• explore the association between cognitive ability and mortality in females

• explore specific explanations for the association
Questions