

Original research article: Healthy lifestyle and life expectancy at age 30 years in the Chinese population: an observational study

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Blog title: Healthy lifestyle increases life expectancy

Introduction

Improving health and extending life expectancy are important public health objectives. By 2030, the Healthy China 2030 program hopes to raise the average life expectancy from 76.3 to 79 years. This study looks into how Chinese people's life expectancy at age 30 is influenced by low-risk lifestyle characteristics such as not smoking, drinking alcohol in moderation, exercising frequently, eating good food, and maintaining a healthy body shape. Comprehending these impacts will facilitate the development of initiatives aimed at improving the lifespan of the Chinese population.

Methodology

The researchers combined data from the China Kadoorie Biobank (CKB), the Global Burden of Diseases Study (GBD 2015), and the China Nutrition and Health Surveillance (CNHS 2015). The CKB study examined the relationships between lifestyle factors and mortality in a cohort of over 500,000 persons. The CNHS 2015 data included prevalence rates for lifestyle factors. Mortality rates were collected from the GBD 2015. Five modifiable lifestyle factors were examined: smoking, alcohol consumption, physical activity, food, and body shape. Statistical analysis included Cox proportional hazards regression for relative risk, population-attributable risk percent (PAR%) calculations, and life expectancy estimations using period life tables and Arriaga's decomposition method.

Results

The study revealed that adopting low-risk lifestyle factors improves life expectancy and reduces mortality risks. Participants who adhered to all five low-risk lifestyle factors had an estimated life expectancy at age 30 of 50.5 years for men and 55.4 years for women, which is 8.8 and 8.1 years longer, respectively, compared to those with 0-1 low-risk factors.

Among the 487,209 participants from the China Kadoorie Biobank (CKB), the baseline mean age was 51.5 years, with 40.9% men and 59.1% women. Notably, female participants, younger individuals, those with higher education, and urban residents were more likely to adopt a low-risk lifestyle.

During a median follow-up of 11.1 years, 42,496 deaths were documented, with significant reductions in all-cause mortality observed for non-smokers, physically active individuals, and those following healthy dietary habits. Conversely, heavy drinkers and individuals with obesity faced higher mortality risks.

The study also highlighted that the gains in life expectancy from adopting all five low-risk lifestyle factors were primarily due to reductions in deaths from cardiovascular disease, cancer, and chronic respiratory diseases. For men, 27% of the increased life expectancy was attributed to reduced cardiovascular mortality, while for women, this figure was 46%.

Further analyses showed that these associations remained consistent across various subgroups, including different residence areas, education levels, smoking status, obesity status, and baseline disease status. This consistency underscores the broad applicability and importance of maintaining a healthy lifestyle across diverse populations.

Conclusion

Adopting a combination of five low-risk lifestyle characteristics, such as nonsmoking, moderate alcohol intake, physical exercise, healthy eating habits, and a healthy BMI, considerably enhances life expectancy in Chinese individuals. This study found that these lifestyle changes can increase life expectancy by an average of 8.8 years for men and 8.1 years for women, owing to lower mortality from cardiovascular disease, cancer, and chronic respiratory disease. These findings highlight the vital importance of lifestyle changes for longevity and public health.

Impact of the research

This study underscores how adopting low-risk lifestyle choices significantly increases life expectancy in Chinese adults at age 30, emphasizing the pivotal role of lifestyle interventions in shaping public health policies.