Life course socioeconomic predictors of healthy ageing in Aotearoa/New Zealand: Differences by Māori ethnicity and gender.

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Homogenising older people

As the world population ages, public and government concern about the needs of older people have focussed on health care costs. This focus has resulted in alarm and a great deal of discussion about the ageing population as a burden on society.

In public health literature, there are three main hypotheses about the future of ageing and health: 'compression of morbidity', 'expansion of morbidity', or an 'equilibrium' hypothesis. A review found no consistent support for any of these predictions. But they did find conflicting evidence from countries with different levels of wealth and development.

Such findings point to ongoing problems with assumptions about the homogeneity of all older people. The dominance of these homogenising perspectives has limited attention to the broader life-time and social aspects of ageing and health.

Treating chronological age as a cut-off point at which a whole population becomes assigned to a problematic category; using population averages across countries without accounting for economic and cultural differences; and generally disregarding the social and cultural location of illness and health care, has led to the construction of older people as one (frighteningly) large homogenous group.

Diverse Experiences of Health.

The older we are in years, the closer to death and the more at risk of illness and infirmity we become. However, there are such broad variations in who gets ill, which illnesses are contracted, and at what age functional decline occurs, that age in years is not a good indicator of health status.

There is increasing diversity in older people's health status. For example, analysis of the psychological wellbeing of people aged 70 to 100 years, in just one city, in the Berlin Aging Study identified **nine** different sub-groups ranging from those who were "cognitively very fit and vitally involved" to those who showed "cognitive impairment, withdrawn, in despair".

Recognition of diversity is accompanied by recognition of the effects of a whole lifetime of experience on wellbeing in older age. A consideration of diversity among older people shows the need to consider inequalities in ageing experiences across the life course as important factors that predict health and illness in older age.

Life Course Inequalities.

Life course approaches to understanding the experiences of ageing view old age as a phase of development that is the outcome of earlier influences; they directly challenge assumptions of homogeneity while recognising the social, cultural, and cohort influences on how people age.

Research findings show that disparities in health in older age are the result of long-term cumulative disadvantage which begins in childhood.

Differences in health in older age are related to differences in social class, race, ethnicity, gender, education level, and material wealth or deprivation which produce lifelong inequalities. Older people who have experienced a lifetime of poor health and low

wage insecure employment, are most likely to reach later life least physically and financially able to maintain their own well-being.

Gender and Ethnicity

In general, ageing intersects with inequalities for particular demographic groups such as those of different SES (Victor, 2010; Kok et al., 2017), gender (Calasanti, 2007) and ethnic group status (Bin-Sallik & Ranzijn, 2001; Shuey & Willson, 2008), to shape the health of people throughout life.

Some of the strongest evidence is for the life course effects of being female compared to male, or belonging to minority ethnic groups. Scholars focussing on intersectionality also point to how belonging to particular sub-groups (eg female and minority ethnic group) has particular effects on health.

Summary and Aims

We propose a life-course mediational model, in which the link between childhood SES and late life health is mediated by education and adult socioeconomic position.

1. To consider gender and ethnicity as moderating factors in the mediational model Different models for women and those of Māori descent. Although disparities in SES go some way to explaining the relationships of gender and ethnicity to health, there are additional factors such as discrimination, access to health care, and stress that affect this relationship.
2. 'Healthy ageing' is not well represented by physical health alone. Accordingly, the outcome variable of health in our proposed model is assessed in terms of physical, mental and social wellbeing. Because ageing is part of an ongoing developmental process, rather than an achievement at a single point in time, these aspects of health were measured across ten years of older age.

HWR data collection.

2006-2016 sample. And Life Course Histories (800) in 2016.

Method

The sample included *n* = 729 participants (53% female, 40% Māori) who provided information on childhood economic circumstances, education, adult financial history and late life physical, mental and social health. The average age of the participants at the time of the interview was 72 years (*SD* = 4.5 years; range: 61-81 years).

1. **Latent Growth Curve Analysis**. We estimated changes in physical, mental and social health simultaneously over a 10-year period of older adulthood using latent growth curve analysis (LGC) in Mplus.

   Latent growth curve models have two main parameters: intercept and slope.

Here, the intercept refers to the average baseline score in 2006, and the slope indicates the average rate of change from 2006 to 2016.

2. **A mediation analysis** to assess the impact of childhood SES, education and adult life SES on late life health outcomes. We estimated the influence of life course determinants on both the intercepts (i.e., baseline levels of physical, mental and social health in 2006) and the slopes (i.e., changes in physical, mental and social health from 2006 to 2016). The analysis controlled for the influence of age on each path. First analysis with whole sample.
3. **Multigroup analysis** was performed to investigate differences across groups: non-Māori men, Māori men, non-Māori women, and Māori women.

Results

Life-course Determinants of Late Life Health

Total Sample

Childhood SES was positively associated with the highest level of education obtained (β = .21***), which in turn was linked to greater adult life SES (β = .18***). Childhood SES also had a direct effect on adult life SES (β = .20***). Better adult life SES predicted greater initial levels of physical (β = .22***) and mental (β = .17***) health in late life. Childhood SES had a direct positive effect on initial levels of mental (β = .14***) and social (β = .15***) health in late life. Similarly, education had a direct positive effect on initial levels of social health (β = .11***) in late life. Childhood SES had positive indirect effects on initial levels of physical (β = .06***), mental (β = .04*) and social (β = .04**) health in late life through higher levels of education and higher adult life SES. Education also had a positive indirect effect on initial levels of physical (β = .04**) and mental (β = .03*) health in late life via greater adult life SES. None of the life course variables had any influence on the slopes, i.e., the rate of change in health outcomes in late life.

A multigroup analysis was performed to test the model across the four groups. The model with *non-Māori men* mirrored the results obtained with the overall sample. Childhood SES was positively associated with educational level (β = .15*), which in turn was associated with adult life SES (β = .24***), and leading onto initial levels of late life physical (β = .41***), mental (β = .29***) and social health (β = .17*). In addition, Childhood SES had a direct positive effect on adult SES (β = .17**) and an indirect effect on initial levels of late life physical health (β = .08*) via education and adult life SES. Education also had positive indirect effects on initial levels of late life physical (β = .10*) and mental (β = .07*) health through adult life SES.

In the model with *Māori men,* childhood SES was predictive of levels of education (β = .22***) and adult life SES (β = .34**), but education was not significantly associated with

adult life SES. Further, adult life SES was not significantly related to late life health outcomes. However, childhood SES had a direct negative effect on the slope of late life physical health (β = -.36***).

Similarly, in *non-Māori women,* childhood SES was predictive of levels of education (β = .36***) and adult SES (β = .23**), but education was not significantly associated with adult SES. Adult SES was also unrelated to late life health outcomes. Childhood SES, however, had a positive direct effect on initial levels of late life mental (β = .24**) and social (β = .19*) health. In addition, education had a direct positive effect on initial levels of late life social health (β = .19*).

For *Māori women*, childhood SES was unrelated to education, adult life SES, and late life health outcomes. Education, however, was positively associated with adult life SES (β = .19*), which in turn predicted late life physical health. Further, education significantly predicted both the intercept (β = .23**) and the slope (β = -.39**) of late life social health.

Conclusions

1. Need to consider lifelong impacts on health in older age.
2. The importance of recognising how the diverse experiences of different socially structured groups produce different pathways to health.
3. It is particularly important to understand the impact of inequalities on the health of current cohorts of elders, so that their damaging effects are not reinforced by present policies and practices.
4. To address the social, rather than individual behavioural determinants of health in older age, broader societal action across the life course, rather than individually focussed education and intervention aimed specifically at older people, is needed to create a social environment that supports and maintains good health for all.