

Successful Ageing

- a geriatrician's perspective



SG50 SCIENTIFIC COFERENCE ON AGEING

Assoc Prof Chin Jing Jih
Director, Institute of Geriatrics & Active Ageing
Tan Tock Seng Hospital

Outline

- **Themes and discussions in ageing research - historical overview**
- **Different models and approaches in the study of “successful ageing”**
- **Predictors of “successful ageing”?**
- **Reflection – a geriatrician’s perspective**

In the beginning...

Pre-MacArthur foundation Study (pre-1984):

- Funding crises (\$\$\$ → basic biomedical research)
 - Failure in biomedical research to retard “the vicissitudes of senescence”
 - Existing social and behavioural theory (disengagement theory) – discredited and outdated by mid-1980s
- ➔ the need for new theoretical developments in ageing research

MacArthur Foundation Study on Successful Ageing (1984-1993)

- Objective: intellectual and methodological foundation for a “new gerontology”
 - Emphasised importance of interdisciplinary co-operation.
 - 16 well-known researchers from high-profile institutions across US with diverse biomedical, behavioural and social-scientific backgrounds
- ➔ almost 100 scientific publications

Factors driving research on “successful ageing”

- Scholarship and growing influence of the work by MacArthur Foundation
- growing medical and political concern about the possible economic and health-care ‘burdens’ related to North America's ageing populations
- New demands on political management of life and death on both an individual and population level → biopolitics of ageing

Rowe, J.W., & Kahn, R. (1987)

Human aging: Usual and successful. *Science*, 237,143–149

- Division of people into “diseased” and “normal” → fails to recognize the heterogeneity of older persons
 - concept of normality → tendency “to create a gerontology of the usual” → functional decline or disease later in life
 - normal ageing as consisting of both:
 - **Usual ageing**
 - age-related decline in physical, social and cognitive functioning
 - extrinsic factors increases the effects of ageing
 - what counted as pathology, i.e., the clearly diseased or dysfunctional
 - not normal in the qualitative sense but rather potentially ill or at risk
 - **Successful ageing**
 - “little or no age-related decline or loss in “a constellation of physiologic functions”
 - extrinsic factors paying a neutral or positive role
- individuals themselves could potentially avoid such declines by maintaining and improving their health - better lifestyle habits related to diet/nutrition and exercise.

Rowe, J.W., & Kahn, R. (1997)

Successful aging. *The Gerontologist*, 37(4), 433–440

- Gerontology: prior preoccupation with disease and disability → a more robust view that includes successful aging.
- Successful aging - multidimensional, encompassing three distinct domains:
 - avoidance of disease and disability,
 - maintenance of high physical and cognitive function
 - sustained engagement in social and productive activities.
- An interdisciplinary database → reducing the risk of adverse events and enhancing resilience in their presence.



Many of the predictors of risk and of both functional and activity levels appear to be potentially modifiable, either by individuals or by changes in their immediate environments
→ intervention studies to identify effective strategies for successful ageing

Baltes, P. B. The many faces of human aging: Towards a psychological culture of old age. Psychological Medicine 1991; 21: 837–854.

Baltes' views on “successful ageing”:

- **adapting** to the bodily and mental changes in the later life
 - > **avoiding** physical and mental functional decline altogether
- use of **lifelong learning** and **new technologies**
 - ➔ develop **abilities to compensate for declining capabilities**
(but not to directly maintain these capabilities)
- conditions of ageing - **multicausal**
- physical and the social/psychological causes - **interwoven**

Paul Baltes vs John Rowe & Robert Kahn

- **Rowe and Kahn's framework:**
 - argued for **environmental and lifestyle** interventions (viewing the ageing person from **'outside'**)
 - emphasised the plasticity and malleability of bodily systems – in an 'it's never too late' approach
- **Baltes:**
 - argued for optimisation and the prevention of age-related decline through gaining knowledge about the possible compensation abilities related to cognition (a view from **'inside'**).
 - took bodily decline and decreased plasticity over time as a premise for interventions that would promote successful (optimised) ageing.

Critical gerontology

Finds problematic:

- the exclusion of disability in the construct of successful ageing.
- the general biomedicalisation of ageing
- modifiable lifestyle factors responsible for successful ageing → label as ‘failure’ patients whose disability may have resulted from lack of healthcare services and/or inadequate socio-policies
- the concepts of successful ageing left little room for “natural death”
→ successful ageing considered every manifestation of bodily ageing to be a disease or “due to past dietary and lifestyle indiscretions.

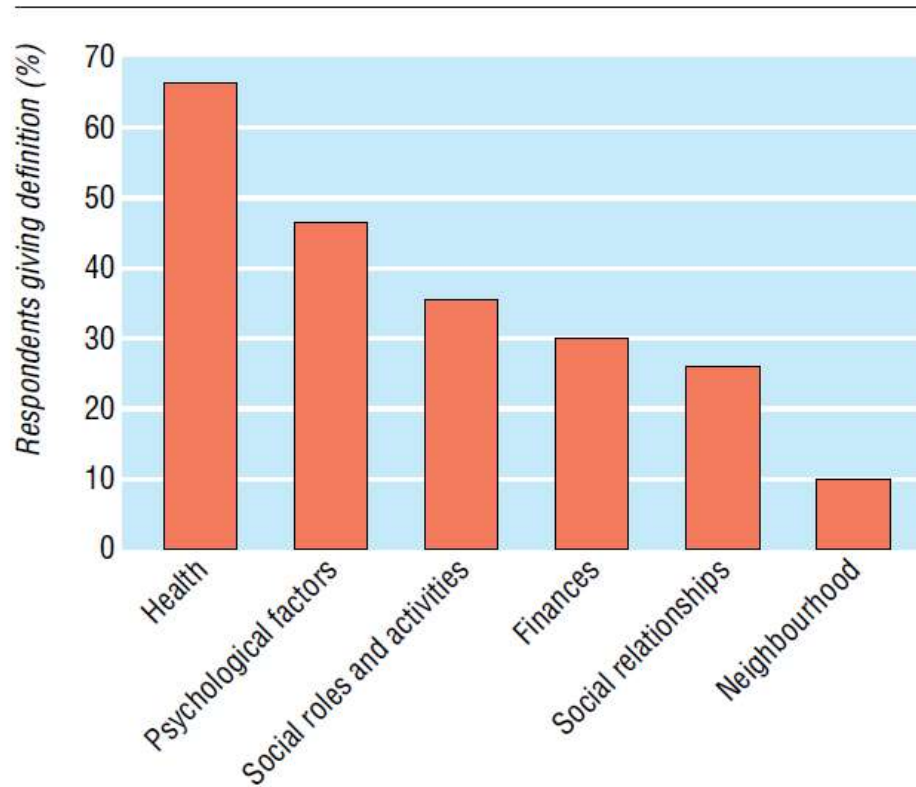
What constitutes “Successful ageing”?

What is successful ageing and who should define it?

Ann Bowling, Paul Dieppe

A definition of successful ageing needs to include elements that matter to elderly people

BMJ 2005;331:1548–51



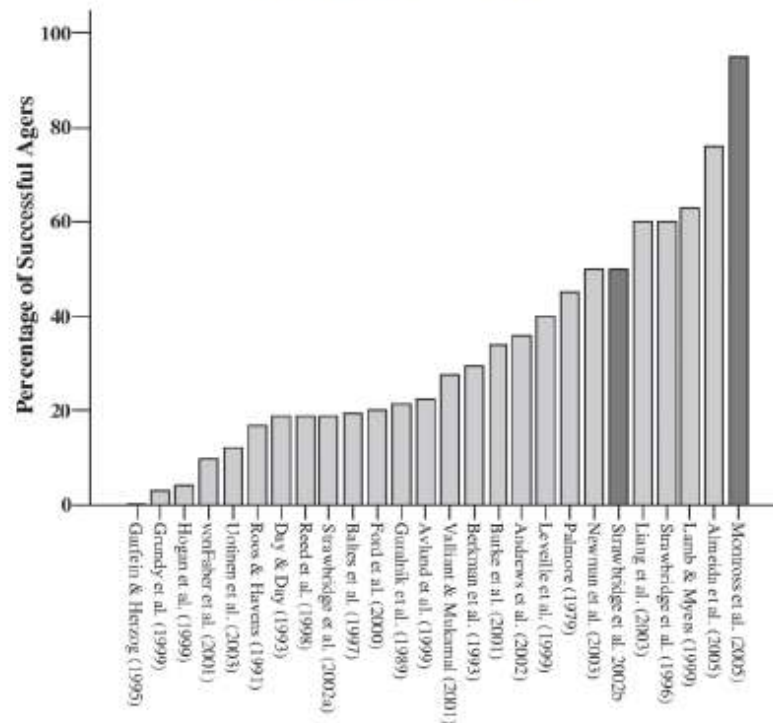
Most common definitions of successful ageing given by 854 people aged ≥ 50 in Britain

Definitions and Predictors of Successful Aging: A Comprehensive Review of Larger Quantitative Studies

Colin A. Depp, Ph.D.
Dilip V. Jeste, M.D.

American Journal of
Geriatric Psychiatry 2006

Figure 1. Reported Proportion of Successful Aging by Study



Note: Darker bars represent self-rated (SR) successful aging.

Other concepts:

- ‘productive ageing’
- ‘robust aging’
- ‘effective ageing’
 - utilitarian health-care practice and policies that maximizes quality of life for the largest number of older people
- what is NOT “unsuccessful ageing”
 - ageing research orientated towards medicine and geriatrics
 - ➔ attempt to isolate age-related diseases from ageing itself
 - BUT difficult to separate disease and ageing in terms of causality - of separating ‘primary ageing processes’ from processes caused by ageing

Biomedical approach

- Defines ageing largely in terms of the optimisation of life expectancy while minimising physical and mental deterioration and disability.
- Focus: absence of chronic disease or risk factors for disease, good health, high levels of independent physical functioning, performance, mobility and cognitive functioning.

Socio-psychological approach

- Emphasizes:
 - satisfaction with one's past and present life
 - continued social participation and functioning,
 - psychological resources, including personal growth
- Life course perspectives - successful ageing seen as:
 - a dynamic lifelong process
 - embedded in historical time and place, and influenced by the web of relationships individuals are linked to, as well as more distal social structural factors.
 - the ability to grow and learn by using past experiences to cope with present circumstances while maintaining a realistic sense of herself.

Complement and contrast

In general:

- bio-gerontological approach
 - ➔ emphasises a distinction between normal, pathological or successful functioning,
- social and psychological approach
 - ➔ emphasised the personal strategies necessary to deal with the changes that come with ageing.
- These disciplinary differences can complement each other but represents differences in perceived importance of different aspects of the ageing phenomenon:
understandings of ageing vs how to understand success in ageing

What constitutes “Successful ageing”?

What is successful ageing and who should define it?

Ann Bowling, Paul Dieppe

A definition of successful ageing needs to include elements that matter to elderly people

BMJ 2005;331:1548–51

Theoretical definitions

- Life expectancy
- Life satisfaction and wellbeing (includes happiness and contentment)
- Mental and psychological health, cognitive function
- Personal growth, learning new things
- Physical health and functioning, independent functioning
- Psychological characteristics and resources, including perceived autonomy, control, independence, adaptability, coping, self esteem, positive outlook, goals, sense of self
- Social, community, leisure activities, integration and participation
- Social networks, support, participation, activity

Additional lay definitions

- Accomplishments
- Enjoyment of diet
- Financial security
- Neighbourhood
- Physical appearance
- Productivity and contribution to life
- Sense of humour
- Sense of purpose
- Spirituality

Predictors of successful ageing

Colin Depp and Dilip Jeste. American Journal of Geriatric Psychiatry 2006; 14;6-20

- identified 28 studies with 29 different definitions that used large samples of community-dwelling older adults.
- mean reported proportion of successful agers: 35.8% (SD 19.8) but varied widely
- Multiple components of these definitions - 26 of 29 included disability/physical functioning.
- **Predictors of successful aging varied yet point to several potentially modifiable targets for increasing the likelihood of successful aging.**
- **most frequent significant correlates of the various definitions of successful aging were:**
 - age (young-old)
 - Non-smoking
 - Absence of disability, arthritis, and diabetes.
- **Moderate support was found for:**
 - greater physical activity
 - more social contacts
 - better self-rated health
 - absence of depression and cognitive impairment
 - fewer medical conditions.
- **Generally did not correlate with successful ageing:**
 - gender
 - income
 - education
 - marital status generally did not relate to successful aging

Determinants of Successful Aging Using a Multidimensional Definition Among Chinese Elderly in Singapore

Ng TP et al. American Journal of Geriatric Psychiatry 2009; 17(5): 407-416

- Cross-sectional and longitudinal data analyses were performed on **1,281 community-living Chinese elderly of 65 years and above** in the Singapore Longitudinal Aging Study cohort.
- Successful aging: **28.6%** of respondents
- Significantly associated with:
 - **age**
 - **female gender**
 - **≥6 years of education**
 - **better housing**
 - **religious or spiritual beliefs**
 - **physical activities and exercise**
 - **low or no nutritional risk**

Importance of education experience: Americans Changing Lives (ACL) study (James House et al)

- a nationally representative cross-section, randomly selected 3,617 adults aged 25 years or more,
- first interviewed in 1986, and then again in 1989, 1994, and 2001/2002.
- All these interviews included measures of functional limitation and longitudinal data at four points during the 16-year period of the research.
- Several conclusions:
 - 1. the proportion of people without functional limitations decreases with age.**
 - 2. educational level makes a big difference**
 - those with the most education are quite free of functional limitations until age 75 and beyond;
 - people with the least education experience the onset of functional limitations much earlier, at age 35, and precipitously after age 65.
 - 3. two great convergences :**
 - at age 25, >90% of adults, regardless of education level, are free of functional limitations.
 - by age 85 most people, regardless of their educational level, report some limitation in function.
 - 4. subjects, aged about 80, showed consistent small functional gains at a time of life when even stability is an accomplishment.**

Perceptions of a geriatrician...

Successful ageing: the need to translate and incorporate findings into practice

- Complex → **interdisciplinary** approach
- Successful ageing ↔ frailty
 - potential of extrapolating findings both ways
- Ageing research → policies, but need to be mindful of conceptual pitfalls and unintended consequences
- Predictors of successful aging → potentially modifiable targets → ↑ likelihood of successful aging.
- Efforts may need to begin in mid-life
- Impact of occupation
- Objective + subjective perspectives – equally important

Subjective approach: perceptions of Successful Aging among diverse elders with late-life disability

- Across race and ethnic groups, most participants with late-life disability felt they had aged successfully
 - ➔ **successful aging involves subjective criteria** and has a **cultural context not captured in objective measurements.**
- **Understanding elders' perception ➔**
 - common ground for communication between clinicians and elders
 - identify the most appropriate interventions to help elders achieve and maintain successful aging.

Discussion

***“Knowing is not enough: we must apply.
Willing is not enough; we must do.”***

Goethe

*(Quoted by Robert Kahn at a lecture on Successful ageing:
myths or reality?)*