Optimal Aging: Opportunity in Cultural Context

Jim Mitchell, Ph.D.
Professor of Sociology
East Carolina University

Optimal Aging in Cultural Perspective

* Human (Species) Development (diversity through adaptation, migration and interbreeding)
* Environmental Context
* Individual Life Course

➢Human Species Development

Adaptation (Large Cerebral Cortex negating "Instincts"), migration, and interbreeding continue.

We're taller, have thicker skulls, and cortexes larger than those of our ancestors.

Big Brains, however, have to be 'cultivated.'

Neanderthals (*Homo Neanderthalensis)* … Adaptive Failure

Lived from 200,000 to 28,000 years ago.

Co-existed with Homo Sapiens for 10,000 years in Europe/Western Asia.

Contributed 6% to modern Eurasian gene pool (Interbreeding)

Despite cranial capacity larger than modern humans, likely failed to survive last ice age. **Limited speech capacity likely arrested cognitive capacity.**

➢Environmental Context

Culture…the people and the built and natural things with whom/which we interact and/or contact. Knowledge is shared and fostered through symbolic or linguistic social or interpersonal exchange.

Environmental Context…Opportunity to Get Sick, Die, and Grow Old

Seasonal Nomads



…160,000 years to present
…full-time preoccupation with food & shelter. Death by starvation, exposure, trauma, bacterial infection.

Scarcity of fat/cholesterol, salt, and other nutrients. "Cravings" or happy regions in the brain would have been beneficial. Sporadic meat (very low fat) and abundant complex carbohydrates.

Few lived beyond reproduction.

Environmental Context, Opportunity to Get Sick, Die, and Grow Old

Infectious Disease … (about 400 AD through 1900) Europe and its colonies (North America) following collapse of the Western Roman Empire.

Plague: Bacterial infection transmitted by flea bites (and respiration). European pandemic (1347-1351) killed 25-40% of population.

Dark/Middle Ages marked by Christian-Political alliance to gain upper hand in conflicts to define those with "divine" right to rule (e.g., Holy Roman Emperors appointed by the Pope).

Public Health/Medical Successes

1796 –smallpox vaccinations

1840 – Henle's statement on the germ theory

1865 – Lister and antiseptic wound treatment

1880 – Pasteur discovers streptococcus, staphylococcus, and pneumococcus

"Clawed" the way out of the Dark Ages.

Environmental Context, Opportunity to Get Sick, Die, and Grow Old

Chronic & Degenerative Disease

Compression of Morbidity & Mortality … "Old Age Problem"…

Longevity beyond reproductive years. What to do with 'residual' reproductive organs?

Out of "Sync" with Environment?

Heart Disease, Cancers, Stroke?

Happy brain regions and abundant fat/cholesterol, salt, sugar, and simple carbohydrates?

Can those deficient in analysis of consequences (adolescents) 'say No?'

Degenerative Conditions…The '*Sneaky Ones'*

Auto-Immune or Hormonally-Implicated Conditions or Multi-Disease 'Syndromes'

… symptom management.

Residual to longevity*?*

Health and the Life Course

Aging: The accumulation of time.

Healthy Aging: Later-life consequences of our choices (big brains), residual injury effects, and toxin exposure during that time.

Optimal Aging…striving to minimize the impact of physical/cognitive limitations to maintain function.

My 86 year-old Aunt Nellie w/ late-stage COPD…"Nobody told me it would be like this."

Aging Services…

What of "Age Eligibility?"

Why do we "categorize" intervention by age?

The profit in ***fixing the broken*** undermines prevention and Optimal Aging.