

THE DEVELOPMENTAL PSYCHOLOGY OF AGED PERSONS

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Summary

This article reviews the main findings in the psychology of later life. It looks at a definition of old age and then reviews the main physical and cognitive changes, before moving on to look at mental health, personality, and psychological development. This article then reviews what is known about emotional adjustment and coping in later life, focusing on major transitions and losses that are frequently seen in old age. Finally, social functioning in old age is examined.

From this review it is apparent that old age may be a time with significant challenges, especially for those with health problems, but it is not a time when quality of life and adjustment are inevitably poor. While acknowledging that there exists a significant degree of heterogeneity in the elderly population, studies of mental health over the life span, coping and adjustment, and personality often fail to reveal any significant age effects when other factors are controlled. In addition, research has revealed often-surprising resilience in older adults. The important exception to some of these conclusions may be individuals over the age of 85 where social isolation may be a more significant problem.

1. Introduction

Remarkable improvements in health care, medicine, and living conditions have led to a dramatic increase in the numbers of persons reaching old age. These improvements will translate into significant increases in those over the age of 65 and, most strikingly, in the population of the oldest-old: those over 85 years of age. Consistent with this large increase in the number of persons reaching old age has been the growth in the fields of gerontology and geriatric medicine that has led to an astonishing amount of research and scholarship related to aging.

Aging refers to the process of becoming old, with the study of human aging usually concentrating on the later years of life. This article is concerned with psychological aspects of the process of becoming older, from about the sixth decade through to the end of life. It examines normal aging and its impact on physical, cognitive, emotional, and social aspects of functioning.

The article begins with definitions of old age. It then reviews physical and cognitive changes in later life and the challenges that these present for older people in terms of psychological adjustment. Aspects of mental health, personality, and theories of psychological development are introduced, before moving on to describe what is known about adjustment and coping with role transitions and loss. Finally, social functioning in later life is discussed.

2. Definitions

One of the major points of this article is that despite all the challenges associated with aging, with the exception of cognitive processes, age per se is rarely an important predictor of outcome related to mental health, coping and adjustment, and personality.

Yet, in discussing developmental psychology in the aged, it is still important to have a set of definitions of the period of life to be addressed.

Chronological age (how old a person is) is commonly used to define an age band of older adults. The start of the period of later life is not fixed and in many Western societies 60–65 is looked upon as the threshold of old age. The reason for this is possibly related to societal norms (e.g. retirement age) and to an age at which degenerative changes of aging become noticeable.

The age band of 65 years to 100 years or more is certainly very broad. It includes a range of 30–40 years, which is obviously more than one generation. Accordingly, the final stages of life can be subdivided into young-old (60s), middle-old (70s), and old-old (80+ years), or young-old (65–75 or 80), old-old (75–80 to 90), and very old (90+).

An additional way of defining age is to use *functional age*—to assign a person a functional age depending on their performance in relation to age-graded norms. Thus, a person might have a chronological age of 70 (be 70 years old) but have a functional age of 50 for reaction time and of 60 for speed of information processing. This type of definition therefore allows a separation of the degree of aging of different functions, and tells us more precisely about the nature of the individual's performance.

The related term of *biological age* may be used to relate individual function to age-based norms of physiological functions and, similarly, *social age* may be used to refer to societal norms of how people should behave at particular ages.

As noted by Baltes, scholars and researchers have not easily distinguished between normal, optimal, and pathological or sick aging. *Normal aging* refers to growing old with a manifest illness, whether physical or mental. This is not entirely uncommon for someone in their 70s. *Optimal aging* implies aging under the best personal and environmental conditions and is a primary research motivation for many gerontologists. Finally, *pathological or sick aging* refers to a process of aging where there is clear evidence for physical or mental pathology (e.g. senile dementia of the Alzheimer type).

3. Physical Aspects of Aging

Although aging is accompanied by a general decline in functional ability, there is significant heterogeneity in this process. Given this variability in age-related physical changes, this section will give a brief account of how aging affects vision, hearing, and the nervous system and will survey levels of disease and illness with a view to examining their effect on individuals.

3.1. Vision

Changes in vision and eyesight are predictable and common with older people tending to have poorer accommodation, often resulting in far sightedness. In addition, there is loss of acuity (ability to see detail), speed of adjustment to changes in light is slowed, and change in color perception, with colors at the blue end of the spectrum more difficult to distinguish. As such, older people often need glasses to read and brighter

light to see clearly. Moving from light to darkness or vice versa may become difficult (e.g. night driving). Subtle color schemes may cause confusion.

While these changes may have a significant effect on lifestyle, typically the adjustment is gradual and not experienced as particularly distressing. On the other hand, a significant minority of over 75s, estimated as 16%, is blind or partially sighted due to cataracts, glaucoma, or macular degeneration. This may cause more dramatic changes in a person's life and consequently has greater implications for psychological adjustment.

3.2. Hearing

There is some deterioration in hearing from the age of 40, but clinically relevant deterioration typically occurs after the age of 60. Approximately 75% of those aged 75–79 have some degree of hearing difficulty and by 80, 25% of speech is not heard. Much of the deterioration is in the perception of high frequency sounds but pitch discrimination also becomes less sensitive and it becomes harder to pick out meaningful sounds such as speech from background noise.

Hearing impairment may have the consequence of interfering with interpersonal relationships. Elderly people may withdraw from conversation rather than face the embarrassment of misperceiving what is said. This may cause hearing-impaired individuals to become socially isolated. Furthermore, the person susceptible to paranoid reactions may believe that someone is purposely speaking in a low voice in order to confuse or irritate them.

3.3. Nervous System

As will be discussed in more detail below, there is a loss of neurons in the central nervous system with age, and there is decreased efficiency of those remaining. The brain becomes 10%–15% lighter during normal aging, and there are changes in electrical and neurochemical activity. Sleep becomes lighter and more fragmented and basic reaction times are, on average, slower.

3.4. Disease and Illness

Certainly one of the most predictable changes with illness is physical deterioration and, indeed, the onset of disease and illness. According to Borson and Unutzer, persons over 65 in the United States account for more than one-third of the total personal health expenditures and use three times the national average hospital bed days, twice the average number of prescription drugs, and one and a half times the number of physician office contacts. Chronic diseases and disabilities account for most of this increased health service utilization in later life, as most persons over age 65 suffer from one or more conditions that significantly impair health or function. Degenerative arthritis affects 50%, hypertension 40%, hearing loss 30%, urinary incontinence up to 30%, heart disease 28%, diabetes mellitus 15%, and significant impairment of vision 13%. Furthermore, 40% of men and over 50% of women who live beyond the age of 70 have two or more chronic diseases, and most of those over 80 have multiple health problems requiring professional care. In addition, falls and fall-related injuries occur in 30% of

older adults living in the community and in more than 50% of those living in nursing homes. Widowed people and those from lower socioeconomic conditions are more likely to have a long-term limiting illness.

In discussing the impact of illness, a distinction may be drawn between *impairment* (damage), *disability* (functional limitation resulting from impairment), and *handicap* (limited capacity to function due to an interaction between disability and the environment).

Many of those with a degree of impairment suffer no disability unless tested to the limits of competence. When impairment starts to cause disability, many older adults may change their routine; for example, by not driving at night. It is possible for a small degree of disability to cause handicap.

The fear that the impairment will lead to disabling dependency is, of course, a major worry of older people. For those who do become very disabled or dependent on others, this has a considerable impact on the self and on relationships with others.

One of the aims of modern medicine is not so much to lengthen life but to reduce or compress morbidity, disability, and handicap so that a good quality of life may continue to be enjoyed into very old age. Coping with chronic illness will be reviewed below.

4. Cognitive Aging

Research into cognition and aging has increased enormously since the late twentieth century. Yet, conclusions drawn from this research are somewhat confusing due to disagreement about the inclusion or exclusion of subjects with medical problems and multiple medications and the inadvertent inclusion of subjects with early dementia. Cardiovascular disease, for example, affects more people in older age groups, and has been shown to be related to reduced cerebral blood flow, which in turn is related to poorer cognitive function.

Physical exercise, which increases cerebral blood flow, has been shown to improve reaction time in older adults. It is important, therefore, that factors that correlate with age are appropriately recognized to offer a more satisfactory explanation of cognitive decline than age itself.

A further issue is related to the increased incidence of brain pathology in older adults, with cognitive functioning being severely affected in 5% of over 65s who suffer from dementia. However, the relationship between brain pathology and intellectual functioning is not clear-cut. Minor or moderate brain shrinkage, for example, does not necessarily affect cognitive competence and the changes due to aging do not appear to be part of a continuum, with the severe decline due to dementia.

The broad domain of cognition has been divided by neuropsychologists into subdomains that include attentional processes, language functions, learning and memory, processing speed, and the executive functions. Dunkin and Kasl-Goodley provide a review of the research on age effects on each domain.

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Biographical Sketch

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