Medical Psychology and Sociology: Foundations of Sociology

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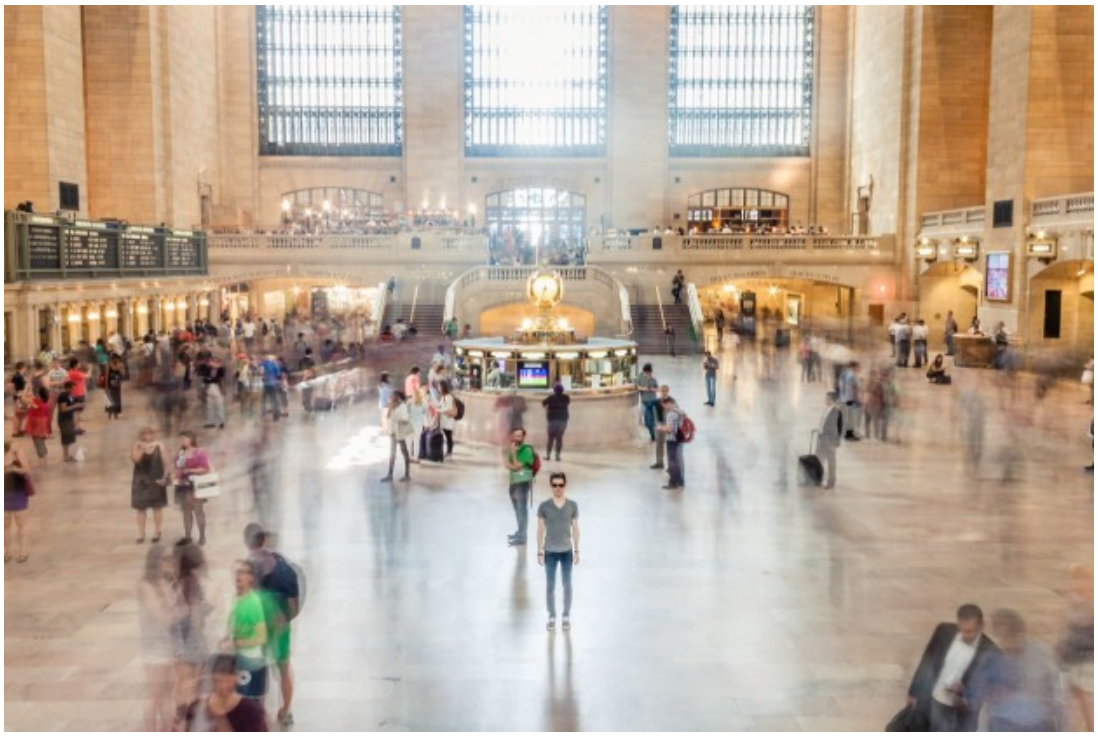
Socio-psychological and sociological models for the understanding of disease and health bring into focus influencing factors created by the social action of human beings. What are the social influences on health preservation, the development, and the social stratification of disease? How do social inequality and social stratification influence health? What role do occupation and unemployment play? What social-demographic determinants are important in medicine? We offer you all this information in the following article—along with all the facts pertinent to exams.



Sociological Influence on Health and Disease

Behavioral models and psychological models bring the person to the forefront to explain disease and health. Sociological models focus on the **influence of social structures on** health and disease. The structure of society, the economic system, and the organization of health assurance (e.g., the introduction of health insurance structures) all play an important role. Thus, you cannot be healthier without involving society and interaction with others and the environment. The most common association of sociological influence on health is the direct effect of poor socio-economic background on morbidity and mortality. Poor people in every society are associated with multiple diseases and limited access to healthcare.

Norms and Behavior Deviating from the Norm

Norms are a society's system of rules, which relate to the behavior of its members. Behavior that complies with the norms is reinforced and rewarded; behavior that deviates from the norms is sanctioned. Society places on the person a wide range of expectations relating to behavioral norms. If the behavior that deviates from the norms (e.g., quitting a job) is punished, this can harm a person's physical and psychological state of health.

Socio-Structural Factors

Social classes

A social class is explained as a group of people having similar or equal circumstances, i.e., their living and working conditions are on the same level. Almost all members of society classify their fellow men into specific categories. This 1st assessment occurs based on outer appearance, language, clothing, and occupation. Social classes behave hierarchically with each other and enjoy different reputations within society.

The concept of social classes is a keyword in sociology. Class-related terms and models are based on education, income, and occupational class. This **social class index** (or meritocratic triad) is seen as an important resource concerning life chances.

- **Educational class**: defined by the level of education completed
- **Income class**: defined by income
- **Occupational class**: defined by occupational prestige

Attributed and acquired status: origin and personal contribution

Person is given an **attributed status** based on his or her origin. **Acquired status** describes the status, which a person can achieve by their performance, skill, and effort.

The meritocratic principle says that positions and rewards should only be distributed based on the performance of the person—not on the basis of their attributed status (e.g., gender, origin, parental home or ethnic affiliation).

Social (vertical) mobility

The openness of a society can be perceived by studying the possibility of social mobility.

Under the prevailing circumstances, to what degree can a person influence his or her social position using his or her skill and effort?

The medieval estate-based society can be seen as an example of extremely low social mobility. Currently, due to the recession, there is a decrease in social mobility in industrial countries.

Social deprivation

Poverty, unemployment, homelessness, and belonging to a social fringe group can mean exclusion from society, i.e. social deprivation. **Social deprivation harms health,** independent of a person's level of education and occupation**.**

Important connections between status/class affiliation and health-related behavior

In lower social classes	In higher social classes
Generally an instrumental attitude towards the body: "As long as everything works, I do not need to see a doctor."	The body has symbolic value; health is seen as a value in and of itself.
Higher tolerance of symptoms and more frequent non-compliance	Better access to health-related information
Workers make less frequent use of cancer screening and have a higher risk of early disability as employees.	Population groups with a higher status more frequently experience allergic and atopic diseases.
People in socially weaker classes make less frequent use of prenatal care and screening for diseases.	Anorexia nervosa is a disease of the middle and high classes.

Social class gradients and explanatory hypotheses

Social class gradients describe the reduced levels of, e.g., obesity, alcohol, and nicotine abuse. Another factor is the prevalence of mental disorders when it comes to higher classes within a population. Two theories offer explanations for the origin of these social class gradients: the social causation hypothesis and the social drift hypothesis. **The social causation hypothesis has received a greater degree of proof than the drift hypothesis.** The latter could primarily be observed in the area of mental disorders, especially in schizophrenic people.

The social causation hypothesis (cause hypothesis)

This hypothesis states that being in a lower class in society is a cause/risk for developing certain diseases. The cause of the unequal distribution of health and disease is greater exposure to factors that endanger health (higher environmental pollution, worse working conditions, etc.) and risk behavior (nutrition, substance abuse, movement behavior, etc.), which is accompanied by affiliation to the respective social class.

The social drift hypothesis (selection hypothesis)

The social drift hypothesis argues in the opposite direction. It states that the unequal distribution of health and disease exists because disease forces social relegation or does not allow social advancement. This social drifting away is thus considered a consequence of a disease. The hypothesis states that mental illness causes one to drift further downwards of the social class.

Tip: both hypotheses often come up in preliminary examinations!

Demographic Structure of Society

Age

Age is a common characteristic that we use to differentiate or sub-group a population. Age cohort is a group of subjects who have shared a particular event during a particular period.

'Baby-boomer' age cohort:

- Post-WW (World War) 2 baby boom
- Currently between 52–70 years old
- Widely associated with privilege, as many grew up in a time of widespread government subsidies in post-war housing and education, and increasing affluence

Consider the elderly – those over the age of 65 as they typically retire and are not contributing to the workforce. Resultant shift occurs in their quality of life as their reliance on social support increases. In the United States, 10% of people live below the poverty line. 'Silent generation' and 'G.I. generation' was born during the Great depression and WW 2. By 2025, it is estimated that over 25% of the population will be over the age of 65.

The dependency ratio examines the proportion of elderly vs. non-elderly and the need for social support.

$$\text{Dependency ratio} = \frac{(\text{under 14 yo} + \text{over 65 yo})}{\text{between 15 and 64 yo}}$$

Image by Lecturio

Age-related decline of physical health can impact:

- Productivity
- Reliance and/or utilization of the health care system
- Loss of autonomy

The social significance of aging includes:

- Increased need for professionals who specialize in this age cohort (care, prevention)
- Age-friendly services
- Realignment of societal views (i.e. cultural, social, and economic)

Life-course theory of aging is a process mediated by:

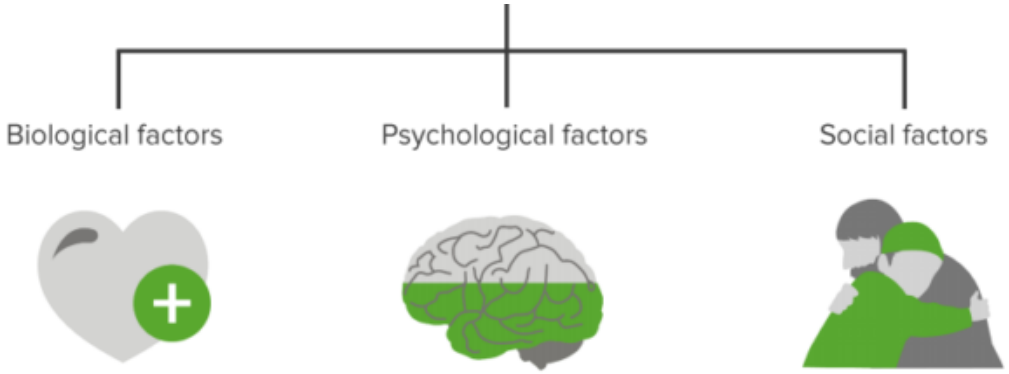


Image by Lecturio

There is a shift in age-related expectations with increased life expectancy.

Other theories of aging include:

1. **Age stratification:** It is the hierarchical ranking of people into groups based on their ages. It is used to regulate appropriate behavior. It exists so that society ensures people of different ages have access to different rewards, powers, and privileges.
2. **Activity theory:** It is also known as the implicit theory of aging. This theory holds that aging is considered successful when older adults engage in activities such as social interactions as opposed to the disengagement theory where aging is associated with inactivity. Certain activities/ jobs are lost with old age and social interactions must be replaced.
3. **Disengagement theory:** The theory states that aging is unavoidable and associated with mutual withdrawal from members of the society and thus social isolation. It leads to a greater divide between both individual and society

Gender

Gender is the range of characteristics regarding and differentiating between and from masculinity and femininity.

Considerations for determining the gender of an individual include:

<table>
<tr><td rowspan="2">Sex</td><td rowspan="2">Biological factors</td><td colspan="2">The sex someone was born with</td></tr>
<tr><td colspan="2">i.e. chromosomes XX vs. XY vs. intersex (genotype does not align with phenotype)</td></tr>
<tr><td rowspan="4">Gender</td><td rowspan="2">Identity</td><td colspan="2">The gender you “identify” with</td></tr>
<tr><td>Woman</td><td>Man</td></tr>
<tr><td rowspan="2">Expression</td><td colspan="2">The gender you “express” to the outside world</td></tr>
<tr><td>Trans-gender</td><td>Cis-gender</td></tr>
</table>

Genderqueer, also referred to as non-binary, is when an individual is not exclusively masculine or feminine.

This is a catch-all category which can include:

Those who have an overlap of gender identity	Have no gender (i.e. androgynous)	Those who move between genders

Sexual orientation

Sexual orientation refers to a person’s sense of identity-based on attractions, related behaviors, and membership in a community of others who share those attractions.

Sexual orientation is composed of:

Psychological components	Behavioral components
Who are you attracted to?	Who are you having sex with?
Erotic desires	Sex of partner

Sexual orientation is traditionally defined as including:

- **Heterosexuality**: attraction and sex with the opposite gender (i.e. the man with the woman)
- **Bisexuality**: attraction and sex with either gender (i.e. the man with either the man/the woman)
- **Homosexuality**: attraction and sex with the same gender (i.e. the man with the man)
- **Asexuality**: lack of sexual attraction to anyone

The social construct of gender refers to social norms, expectations, and roles assigned to each gender many times even before they are born. The gender roles can shape the expectations of 'proper' behavior.

Society tends to redefine the characteristics of each gender:

Man	Woman
Strong, dominant, aggressive	Submissive, emotional, 'soft'

These predefinitions are propagated by media and society and disapproved upon when broken. Societal views are more biased towards men than women (i.e. men shouldn't have feminine roles). The roles for men are perceived as having more value (i.e. home-maker vs. professional).

Society also assigns unequal value to jobs and education based on gender:

- **Men:** higher pay for the same job with the same qualifications; considered smart at school
- **Women**: less relative pay and responsibility; considered hard-working at school

There is a social difference in biological vs. psychological differences in health.

Gender segregation

Gender segregation is the separation of people according to the social constructs of gender.

Race and ethnicity

The race is a socially defined category that is based on physical differences between groups of people. The **racial formation theory** looks at race as a socially constructed identity, where the content and importance of racial categories are determined by **social, economic and political factors**. Many times the racial difference may be perceived or based on a historical perspective (i.e. the **color of your skin vs. the color of your hair or eyes**).

Ethnicity is a category of people who identify with each other based on cultural differences:

Common language, ancestral, social, cultural, or national factors	Primarily an inherited status	Less statistically or concretely defined than racial groups

Ethnicity is a dynamic process and can change across generations.

Social constructs of race and ethnicity can impact:

- Level of and access to education and employment (disparity in pay and opportunity)
- Life expectancy, overall health, access to health care, and health behaviors

Racialization or ethnicization is the process of assigning ethnic or racial identities to a group that did not identify itself as such:

- Usually ascribed by the dominant group or population
- The racialized group often gradually identifies with and even embraces the ascribed identity

Immigration status

Immigration is the movement of people into a country of which they are not natives, to settle or reside there. **Immigrants** tend to move to more industrialized, economically sound, and politically stable countries. **Immigration** can have both positive and negative effects for the donor and recipient countries:

- Can alleviate labor shortages in the **recipient** country and lighten the social load in the donor country
- The exploitation of immigrants to optimize economic gain
- Social support and services cannot handle “herding” or mass movement of immigrants
- ‘Brain-drain’ of the donor country

Occupation and Disease

In the long term, high workloads have a negative influence on health. Workers are more often affected by physically hard labor and shift work, which fosters physical diseases. Doctors, e.g., are exposed to very high psychological loads, in terms of high responsibility, high level of time pressure, and high expectations from many sides (e.g., from patients, relatives, colleagues, family, etc.)

Person’s subjective impression of job insecurity is a stress factor!

Two models have been developed concerning the influence of stress in professional life. They describe the connection between stress factors in professional life and the **risk of cardiovascular diseases**.

The job demand-control model

A person’s workload can be described in the demand-control model in terms of 2 dimensions:

- **The amount and character of the demand**
- **The controllability of the tasks**
- New 3rd dimension: social support

Strong social support can serve as a stress buffer and compensate for high workloads.

High amounts of demand + low controllability = high workload (e.g., assembly line work)

Model of the occupational gratification crisis

As the name suggests, the model of occupational gratification crisis brings into focus **the relationship between occupational exertion and earned rewards** (e.g., payment, social recognition, etc.). Social support and attitude (goals in life, psychological stability, etc.) are buffers.

High personal commitment + low gratification = high workload (e.g., single mothers)

Ecological Factors and Health

Social	Work situation, social class, family relations, housing situation, and social network
Cultural	The cultural understanding of health and disease play an important role, which has to be taken into consideration when dealing with foreign patients! Symbolism, religion, and moral concepts have a great influence on the understanding of health and disease and their progress.
Natural	Biological, chemical, and physical circumstances are basic influencing factors on health and disease, especially if diseases accumulate following a long period of latency (e.g., radioactivity, chemical poisoning).
Technical	Risks and injuries, which result from technical devices, e.g., car accidents, electric smog, etc. On the other hand, many technical achievements impact the progress of the disease (e.g., modern medical devices).

Economic Factors and Health

The economic and financial situation of a country has a great impact on the health of an individual. The structure of the health system is also very important: statutory or private? In the United States, e.g., a lot of people in lower social classes have no access to medical care. The enormous impact of economic factors on health can be seen in terms of life expectancy as seen when comparing highly-industrialized countries and threshold countries.

Average life expectancy for men 2005–2010:

- Germany: 77 years
- Central Africa: 45 years

Social Demography in Medicine

Demography: The science of population combines elements from sociology, geography, medicine, and economics, and it examines the life, growth, and decay of human populations.

Generative behavior and its determinants

These are some terms you should memorize:

- **Fertility**: the number of live births, in women
- **Birth rate**: the number of live births in a given period, divided by the average population in the same period
- **Fertility rate:** the number of live births per 1,000 women of a certain age interval at a given point in time
- **Nuptiality**: marriage and divorce behavior within a population
- **Mortality**: the number of deaths in the population
- **m (death rate)**: the proportion of deaths in a given period, divided by the average population in the same period
- **Perinatal mortality**: the number of deaths between the 28th week of pregnancy and the 1st week of life, per 1,000 live and stillbirths
- **Lethality:** a measurement of the deadliness of a given disease
- **L (lethality rate)**: the number of people who have died in a given period, divided by the number of sick people in the same period
- **Gender proportion**: this describes the numerical relationship of men to women in the population
- **Share of the elderly/old-age dependency ratio**: the number of people over 60 years per 1,000 persons in the age bracket 15–59
- **DALY (**Disease-adjusted life years)**:** this concept aims to measure the importance of diseases in society. The DALY-measure describes the length of time in years spent in ill-health or time that is lost due to premature death.

Demographic aging

Population pyramids illustrate all age groups within a given population at a given time, in graphic form. Note the following when it comes to the interpretation of a population pyramid:

- Left: man, right: woman
- Vertical axis: people’s age in years
- Horizontal axis: the actual number of people per age group (mostly in thousands)
- ‘ Bulges’: wars, natural disasters, and changes to family policy

The ideal basic forms are presented in the following graphic:

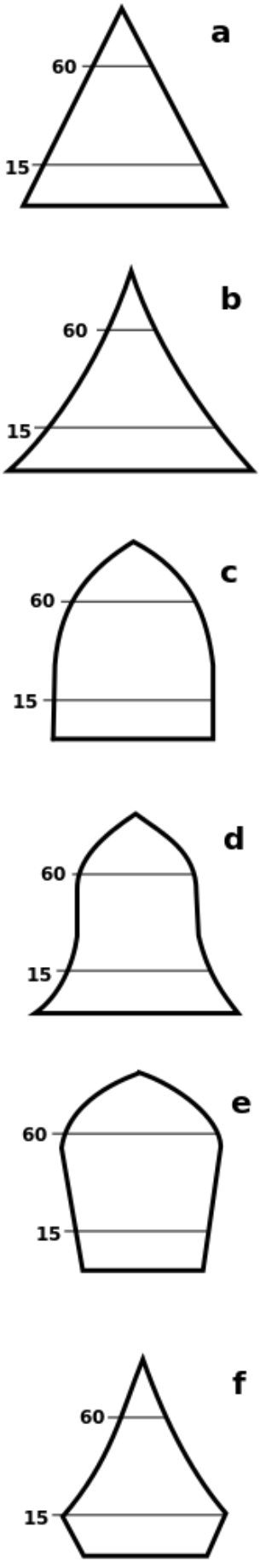


Image: Structure of age. By Rosso Robot, License:

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Explanation:

a. Linear or classic pyramid shape (isosceles triangular shape)
b. Widened or modified pyramid shape (pagoda shape)
c. Beehive shape
d. Bell shape
e. Onion or urn (exaggerated onion)-shape
f. Christmas tree or droplet shape

Theory of demographic shift

During nation-wide industrialization, shifts in the generative structure of the population occur. Although this theory originates from the 1920s, it still influences epidemiological thinking. The **5 stages** describe the **transformation of aspiring societies**: initially, high birth and death rates dominate. In the course of industrialization and modernization, the birth rates stagnate, the population shrinks, and life expectancy increases. **Germany and most other industrial countries are in stage 5.**

The 5 phases of demographic transformation

1. Pre-transformative stage	High birth rates, high death rates, and slight growth with a high 'population turnover'
2. Early-transformative stage	Slow decrease in death rates, continually high birth rates and the population grows
3. Mid-transformative stage	Death rates decrease further, birth rates slowly decrease, and population growth reaches its peak
4. Late-transformative stage	Birth rates decrease further and population growth also decreases
5. Post-transformative stage	Birth and death rates decrease further and population growth is roughly constant

Changes in the disease spectrum: epidemiological transition

The epidemiological transition describes the changes in the frequency of diseases and the causes of death. In modern societies, chronic-degenerative diseases rather than infectious diseases tend to dominate.

This has (had) the following consequences for medical practice:

Primarily, medical treatment no longer aims to cure the patient, but rather to preserve the quality of life. This entails implementing **rehabilitative measures rather than curative practice.** Demographic aging impacts both health and social politics. One of the goals is **compression of morbidity**, i.e. seeking to 'compress' diseases and disabilities into the shortest possible period immediately before death. Thus, good health

should be preserved during old age, to keep the enormous costs of chronic diseases at the lowest possible level.

Society in change: the law of contraction and the consequences for medicine

The law of contraction describes the historical tendency towards smaller families, with the consequence that solidarity between individuals only relates to smaller groups of people.

This sociological thesis was developed in the context of a background where the state is taking over more and more tasks relating to social security, thereby taking over the function of the family nucleus. Certain changes can indeed be explained by the law of contraction, however, in most cases, the nuclear family still forms the most important social and financial network.

Yet, it is an undeniable fact that the number of 1 and 2-person households are continuously increasing in Germany and very few multi-generational households now exist. Furthermore, both partners within a family work. One consequence of the health system is the changing way that things are being organized for sick and elderly people. There is an **increasing need** for **hospital beds, nursing, and retirement homes as well need for the provision of childcare.**

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Notes