Lecture notes for session 4: Poverty and health – overview


• Important concepts

  • Socioeconomic Status (SES): position of an individual or family within a society's social and economic structure. Measures of socioeconomic status include?

    • Income: measured either in absolute terms or based on the number of people in the household (per the poverty measure)

    • Education: includes measures of respondent education as well as parental education levels. Is there a problem with such a measure?

    • Occupational status: a measure of the prestige of different jobs within a society.

    • Social class: often measured using self-reports.

    • Residential location: proportion of families of a certain socioeconomic status level (measured in other ways) living in that area.

  • Prevalence: proportion of individuals with a specific illness or disease at a given time.

  • Incidence: proportion of individuals contracting a specific illness or disease over a given time.

  • Direct and indirect effects: based on whether the association between two variables can be partially or wholly accounted for by a third variable. Not to be confused with spurious effects.

• SES and health differentials occur throughout the life span. As Haan et al. note,

  “All of these studies indicate the pervasive and consistent relationship between SES and health, a relationship that is found throughout the life course and across a wide variety of diseases and organ systems.”

They further note that these findings have been found across a number of countries, during different time periods and using different measures.
• Infants and children: SES is inversely associated with perinatal mortality, prematurity, low birthweight, small size for age, and late birth.

• Adolescents and early adulthood: major causes of death are associated with injury, which are heavily linked to SES. In terms of disease, having lower SES is associated with higher prevalence of heart disease, hypertension, diabetes, and mobility impairments.

• Middle-adult years: SES is associated with all-cause mortality such that persons of lower SES are more likely to die. Lower SES is also associated with higher rates of arthritis, heart disease, ulcers, diabetes, hypertension, bronchitis, and emphysema.

• Haan et al. suggest that disadvantage can accumulate across the life span to produce poor health outcomes later in life. What do they mean by this?

• Poor nutrition in utero or during childhood as well as poor living conditions in childhood could contribute to lower educational attainment which in turn produce lower levels of SES later in life.

❖ What does the Nun study show with regard to this argument?

• Haan et al. mention the Black Report in discussing the linkages between SES and health. What is the Black Report?

❖ A working group on Health Inequalities headed by Sir Douglas Black (Chief Scientist at the Department of Health and Social Security) to review the information on class differences in health status, to consider possible causes and implications for policy, and to suggest further research. The report had three components:

❖ A description of differences between occupational classes in mortality, morbidity and the use of health services, trends in these over time and comparisons with other industrialized countries.

❖ An analysis of the most likely explanations for these differences.

❖ Recommendations for further research and for policy strategies to reduce health inequalities or to reduce their consequences.

❖ How did the Black report describe the problem?

“most recent data show marked differences in mortality rates between the occupational classes, for both sexes and at all ages… a class gradient can be observed for most causes of death, being particularly steep in the case of diseases of the respiratory system… available data on chronic sickness tend to parallel those on mortality… the lack of improvement and in some cases deterioration of the health experience of the unskilled and semi-skilled manual classes relative to class I throughout the 1960s and early 1970s is striking… inequalities exist also in the utilisation of health services, particularly and
most worringly of the preventative services… France, like Britain and most other countries considered shows significant class and regional inequalities in health.”

- The explanations offered for the relationship between SES and health include:
  - Artifact: there is no relationship between class and mortality. Such a finding is an artifact of measurement.
  - Natural/social selection: health determines class position.
  - Materialist/structural: Material, physical conditions of life associated with the class structure are the complete explanation for class gradients in health.
  - Cultural/behavioral: Health damaging behaviors freely chosen by individuals in different social classes explain away social class gradients.

- The result of this effort was an extended debate and research tradition in Britain and abroad regarding the association between SES and health status.

- What explanations do Haan et al. offer for the relationship between SES and health?
  - Individual behaviors: The association between SES and health is due to higher rates of high risk behavior among persons of lower SES. Such behaviors include smoking, poor diets, alcohol consumption, and lack of exercise. This explanation is thought by many to be the major factor underlying the SES-health relationship. However, Haan et al. identify several problems with this explanation. What are they?
    - Even if the effect of SES on mortality and/or morbidity is reduced after including measures of behavior, such finding does not deny the possibility that SES is a predictor of both poor behavior and health.
    - The distribution of risky behaviors based on SES does not fully account for the gradient in health status based on SES. For example, even with lung cancer, an effect of SES remains even when variations in smoking are taken into consideration.
    - Are there any flaws in their assessments of the problems with this hypothesis?
      - Few studies have been able to provide a comprehensive battery of health risk behaviors when examining the association between SES and health. For example, in one of the most recent studies in this area, the authors are unable to account for patterns of dietary practices even though they have measures of smoking, drinking, and exercise.
      - On page 87, Haan et al. suggest that, “These and other analyses suggest that behavioral risk factors may interact with SES in the disease process but not account
fully for the association.” What do they mean by this?

- Selection: the relationship between SES and health is really due to the fact that people with poor health tend to “drift” into lower levels of SES rather than lower SES producing worse health. What are the problems with this explanation?
  
  - Studies on this issue have observed that the effect of health status on income is negligible.
  
  - This explanation relies on shifts in income and occupation and cannot account for the association between education and health, given that education is usually completed during the earlier part of the life span.
  
  - If the selection process were true, we would not observe drift for family members. However, studies do indicate that the health status of wives and children is partly dependent upon the SES of fathers and husbands.
  
  - This hypothesis cannot account for the SES-health relationship of older persons for whom income is not reliant on health.
  
  - If poor health produces a reduction in SES, then we should see the greatest declines over short periods of time. Yet, studies using longitudinal data have shown that the declines are greatest over longer periods of time.
  
  - For many diseases, incidence is related to SES. Similarly, unintentional accidents and SES are associated for younger adults and children.

- Medical care: note that the issue here is not whether persons with lower SES receive less or poorer quality medical care, but rather how this could account for the association between SES and health. Essentially, this perspective argues that medical care factors associated with lower SES individuals lead to disease incidence (due to less preventative medicine or delaying contact with the medical care system), or to worsening of conditions due to the quality of care received or to the inability to receive continued care (via prescribed drugs or physician visits). What are the problems with this perspective?
  
  - Research on countries with equitable health care systems reveal SES differences in health.
  
  - Some of the health-SES link can be accounted for by diseases or events for which the health care system could have little preventative impact. Examples include smoking-related diseases and accidents.

- Personal and social characteristics. Persons with lower SES tend to adopt patterns of thought and action that place them at higher risk for poor health. Examples of this explanation include control, sense of coherence, efficacy, hardiness, hopelessness, and
anomie.

- Community environment. SES-related differences in exposure to physical environmental hazards accounts for the SES-health relationship. Examples of environmental hazards include air pollution, water pollution, noise, and lead. Two problems with this approach:

  - The majority of these studies rely on examining associations between ecological measures of health and of physical environment.

  - Such an analytic strategy may lead to the ecological fallacy. 

    - An ecological fallacy can occur when using data collected at the community level to infer associations between factors at the individual level. Using data in such a way may lead to inferences about individual level processes that are incorrect.

    - Nevertheless, some research indicates that persons living in certain high risk areas are at a greater risk of suffering health consequences regardless of their individual SES.

- Work environment. Considerable research has documented the association between working conditions, both in terms of the physical environment and in the type of work involved, and health status. Generally speaking, persons occupying more menial positions tend to have worse health outcomes. Moreover, unemployment is associated with excess risk of mortality in addition to the risk that is due to loss in income.


- Parts of this article overlap with that by Haan et al. The overlap points to the acceptance of these hypothesized mediators of the SES-health relationship. Some of the overlapping explanations include environmental conditions, individual behavior, and inadequate medical care.

- Psychological stress and social isolation. Being at the “bottom” of the social hierarchy is associated with feelings of stigmatization and humiliation, which results in a loss of self-esteem and self-efficacy. In addition, it has been shown that persons with lower SES tend to have fewer social contacts. An abundance of research has shown the importance of social contacts and social support for individual health and well-being.

- Dutton delves into some important points regarding the importance of medical care and some strategies for improving the medical care of those living in poor circumstances. We will return to these issues during the lectures on the health care system.
Discussion

1. Haan et al. provide several suggestions for explaining the relationship between SES and health. Based on what we know about poverty, and your own experiences, can you think of any others?

2. Haan et al. suggest that a promising model for understanding the SES-health relationship is the control-demands model. They argue that this model has been applied to the study of job strain on health, but that it has not been applied more generally to the study of SES and health. Given the factors discussed here (e.g., individual behaviors, medical care), how would such a model be implemented?

My answers:

1. Per Dutton, social isolation. Other possibilities could include: family conflict (either violent or non-violent), stress of uncertainty, and health and/or health care beliefs/knowledge.

2. Generally speaking, disease rates will be highest for people who live in situations with high demands but have few resources to cope with those demands.