

# Social Epidemiology Research and its Contribution to Critical Discourse Analysis

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## Abstract

Social epidemiology has received great attention recently in research, particularly in population health. Health issues have been studied a long time as the link between health and society is very close. However, social epidemiology has brought innovative insights into population research. It explicitly investigates social determinants of population distributions health and health-related issues. The paper examines social epidemiology as a new approach to population health. The discussion includes its research methodology and its contribution to Critical Discourse Analysis.

**Keywords:** Social Epidemiology, social determinants of health, health discourse, critical discourse analysis, population health

## Introduction

It first appears that Social Epidemiology (SE) and Critical Discourse Analysis (CDA) are two unrelated fields of research as Social Epidemiology deals with social determinants of health; whereas Critical Discourse Analysis is primarily a linguistically orientated area. However, a close examination of the research in these two fields reveals their very close relationship. Social Epidemiology actually deals with different discourses in population health. According to Krieger (2001), 'social epidemiology' is distinguished by its insistence on explicitly investigating social determinants of population distributions of health, disease, and wellbeing, rather than treating such determinants as mere background to biomedical phenomena. Critical Discourse Analysis is also interested in social determinants which contribute to competing discourses, power relationship and control, and social injustice. This paper discusses the complementary nature of these two research fields and explores some implications for future research.

## Determinants of Health

The social determinants of health can be understood as the social conditions in which people live and work. It points to both specific features of the social context that affect health and social conditions translate into health impacts (Tarlov, 1996, Krieger, 2001).

The health of individuals and populations is influenced and determined by many factors acting in various combinations which are multicausal: healthiness, disease, and disability. Death is seen as the result of the interaction of human biology, lifestyle and environmental (including social) factors, modified by health interventions. (AIHW, 2004)

Health determinants can be described as those factors that raise or lower the level of health in a population or individual. Determinants help to predict trends in health and to explain why some people are healthy and others are not. They are the key to the prevention of disease, illness and injury. (AIHW, 2004, PHAC, 2004, BlueShield, 2005)

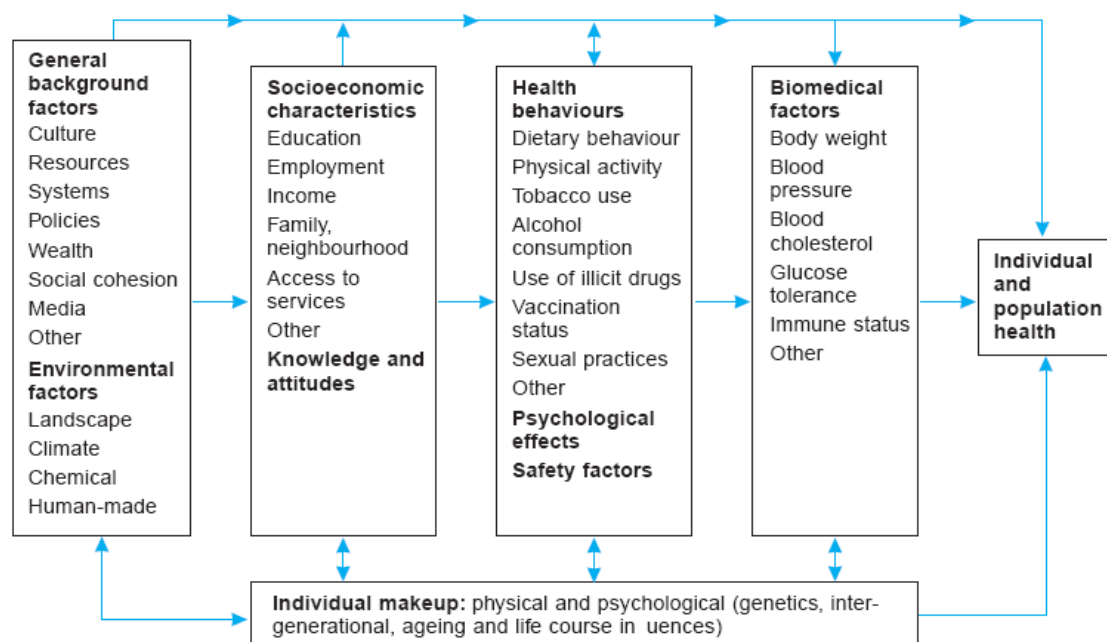
According to Krieger (2000), social determinants of health include:

- a society's past and present economic, political, and legal systems, its material and technological resources, its adherence to norms and practices consistent with international human rights norms and standards; and

- its external political and economic relationships to other countries, as implemented through interactions among governments, international political and economic organisations, and non-governmental organisations. (Krieger, 2001a)

In some contexts, health determinants are conceptualised primarily characteristics of the individual, such as a person's social support network, income or employment status. Population are not only collections of individuals but the causes of ill health are clustered in systematic patterns; and effects on one individual may depend on the exposure and outcomes experienced by other individuals (Evans et al., 2001, Smith, 2005) This flows from the fact that the determinants of individual differences regarding some characteristic within a population may be different from the determinants of differences between populations (Marmot, 2001).

According to (AIHW, 2004), determinants are in complex interplay and range from the very broad level, with many health and non-health effects, to the highly specific. The following figure is a simple framework of determinants and their pathways, with the general direction of effects going from left to right.



**Figure 1: A conceptual for determinants of health**

Sources: Australia's Health 2004 – Figure 3.1 pp. 123 (AIHW, 2004)

General background and environmental factors can determine the nature and degree of socioeconomic characteristics. These both factors can influence people's health behaviours, their psychological state and factors relating to safety.

These in turn can influence biomedical factors (e.g. Blood pressure, body weight, cholesterol etc) which may have health effects through various further pathways. At all stages along the path these various factors interact with an individual's makeup. In addition, the factors within a box often interact and are highly related to each other. (AIHW, 2004)

## Social Epidemiology

### What is Social Epidemiology?

Berkman and Kawachi (2000, p.6) define social epidemiology as the branch of epidemiology that studies the social distribution and social determinants of states of health, implying that the aim is to identify socio-environmental exposures which may be related to a broad range of physical and mental health outcomes (Berman and Kawachi, 2000). Syme (2000, p. ix) argues that social epidemiology deals with two essential aspects: (a) family, neighbourhood, community, and social group and (b) risks and factors and diseases. If one accepts that

individuals are embedded in societies and populations, one can postulate that the health of individuals is embedded in population health.

Unlike other sub disciplines of epidemiology which devoted to the investigation of specific diseases (e.g. cancer, cardiovascular), social epidemiology focused on specific phenomena such as socioeconomic stratification, social networks and support, discrimination, work demand, and control rather than on specific disease outcomes. In other words social epidemiology is the scientific study of how social interactions, such as social norms, laws, institutions, social conditions and strategic behaviour, affect the health of populations. (Berman and Kawachi, 2000, PAHO, 2002)

Social epidemiology examines the association between individual risk factors and poor self-rated health. Risk factors are normally socially based such as low income, lack of access to health care, low employment and smoking (Kawachi & Berkman 2000, p.174).

Social epidemiology deals with the questions "What is and what determines health and disease". Social epidemiology focuses on the identification of health potentials like social support or occupational qualifications and of health risks like stress, risk behaviour, social isolation etc. It provides the quantitative measurement of these risks and potentials on well-being, life quality, disease and mortality (University of Bielefeld, 2005).

Krieger (2001a) defines social epidemiology as distinguished insistence on explicitly investigating social determinants of population distributions of health, disease, and wellbeing, rather than treating such determinants as mere background to biomedical phenomena. Tackling this task requires attention to theories, concepts, and methods conducive to illuminating intimate links between our bodies and the body politic.

Social epidemiology has therefore broadened the objectives of traditional epidemiology and makes a strong contribution to the study of population health, which now includes the following:

- To determine the rates of specific disorders so that society can properly analyse the parameters of a problem, establish an effective public policy regarding it.
- To understand further the many factors that influence proper functioning in our society and culture.
- To understand more fully how our society and culture function, giving us normative information about the presence and absence of certain problems. The range of issues examined can be health, mental health, opinions, occupation, habits, and personal characteristics. (Keane, 1990)

## **Social Epidemiology Research**

Research in social epidemiology examines how features of social and institutional context (e.g. a neighbourhood's economy, demographics, social cohesion, political organisation, and employment patterns), rather than individual characteristics or health behaviours, influence persons' risk for disease and poor health (Eckenwiler, 2002).

Social epidemiology uses the same methods and approaches as medical epidemiology but extended for the instruments of quantitative empirical social sciences (University of Bielefeld, 2005).

Eckenwiler (2002) and (Krieger, 2001a) stated the rationales of social epidemiology research:

- Public health advocates can use research in social epidemiology to set priorities for social, economic, and health policy to better promote health among society's most vulnerable groups. These groups of people tend to be held individually responsible for their poor health status, asymmetrically situated in relation to health and social policy makers, and disenfranchised from decision making processes. Therefore, it is unlikely for them to have their needs adequately understood.
- Social epidemiology research can lend strength to the notion that social justice is a proper moral basis for public health (Eckenwiler, 2002).

In contemporary the three main theories for explaining disease distribution are: (1) psychosocial, (2) social production of disease/political economy of health, and (3) ecosocial and other emerging multi-level frameworks. All seek to elucidate principles capable of explaining social inequalities in health (Krieger, 2001b).

According to (Krieger, 2001b), a psychosocial framework pays attention to endogenous biological responses to human interactions; a social production of disease/political economy of health framework focuses economic and political determinants of health and disease; whereas ecosocial and other emerging multi-level frameworks seek to integrate social and biological reasoning and a dynamic, historical and ecological perspective to develop new insights into determinants of population distributions of disease and social inequalities in health.

## **Social Epidemiology and Critical Discourse Analysis**

It first appears that social epidemiology and Critical Discourse Analysis are unrelated as the former is about health and the latter is about discourse analysis. However a close examination of these two fields reveals that social epidemiology and Critical Discourse Analysis deal with fundamental issues relating to social and economic aspects of discourse, social behaviours and resource distribution. For example, Harvard University researchers (1) have found that children of parents from working-class backgrounds are nearly twice as likely to become depressed when they get older than children from higher-income, white-collar families. This research was carried out by social epidemiologists who were interested in the relationship between social economic conditions and depression. The findings of such a study can be used by CDA researchers to further examine different types of discourses in which children and their parents live their experiences. How do they view themselves and relevant others in these discourses? (Roache 2001)

Another common feature of research in both social epidemiology and Critical Discourse Analysis is social equity or inequity. Kawachi and Kennedy point out from their research that there are huge inequities among nations and among American people undermine health, welfare, and community life. According to them, the gap between per capita Gross Domestic Product (GDP) among nations is astounding. The income ratio between the richest and poorest countries increased from a three-fold difference in 1820 to more than 75-fold nearly 200 years later. This figure should capture the interest of CDA researchers who are critical of the economic power of rich nations and their political influences exerted on poor nations. (Roache 2003)

Social epidemiology researchers at the University of Minnesota (2005), for example, have conducted research on the prevalence, determinants, and prevention of alcohol abuse and related social and behaviour problems such as traffic crashes, homicides, suicides, rapes and other assaults, drowning, and teenage pregnancies. They study environmental factors that contribute to the development and prevention of alcohol-related problems. This kind of research is important to CDA researchers in the sense that CDA researchers are not satisfied that these are the expected correlations between environmental factors and health conditions, which seem to be 'obvious' or 'normal'. CDA researchers are keen to challenge the concept 'nominalisation' so that policy makers need to be more discourse-conscious.

## **Conclusion**

In summary, the relationship between SE and CDA can be briefly described as follows:

- CDA challenges the concept 'normalisation'
- CDA examines discourse in terms of social injustice, power (or lack of power), inequalities
- CDA attempts to describe, explain and scrutinize how different communities, institutions and organizations operate in a social context in terms of power, interaction, control, management, policy and communication.
- Public health advocates can use research in social epidemiology to set priorities for social, economic, and health policy to better promote health among society's most vulnerable groups.
- Social epidemiology research can strengthen the notion that social justice is a proper moral basis for public health.

- CDA and SE are interested in social inequalities, injustice, and vulnerable social members.
- CDA researchers can use evidence (data analysis) from social epidemiology to strengthen their analysis and discussion
- Social epidemiology can be used as a tool for CDA and vice versa

As indicated in this paper, both CDA and SE are interested in social discourse. However each employs different research methods to investigate social environmental factors and social discourse. It is argued in this paper that these two research fields can make a huge mutual contribution to social research.

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