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The need for the "new health geography" in epidemiologic studies of environment and health

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Abstract

Growth during the past decade in what can be broadly referred to as social and environmental epidemiologic research has been an important contributor to an emerging understanding of environment and health relationships. While the incorporation of geographic information systems as well as concepts such as "neighborhoods" might be viewed as evidence of social epidemiology moving closer to health geography, I argue that the two fields are not well aligned. Health geography has much more to contribute to studies of environment and health, and attention by social epidemiologists to those potential contributions could help rectify this misalignment. This paper suggests a number of geographic perspectives on health and environment that could create useful connections between geography and public health, via social epidemiology. To illustrate this potential, I use an ongoing study of a Texas community exposed to a large petrochemical complex—an inquiry constructed in the mode of social epidemiology—as a case in point. I apply several perspectives and concepts from geography to the case study. Cultural ecology, discourse materialized, political ecology, and territoriality are used to assess the Texas City situation and suggest important types of understandings that can enhance the social epidemiology approach to environment and health. I conclude with a discussion of the prospects for a social epidemiology infused with this type of geographic thought and analysis.

Keywords: Social epidemiology; Cultural ecology; Cultural landscape; Discourse materialized; Political ecology; Territoriality

Introduction

This narrative has its basis in my experience as a health geographer who has led a large socio-epidemiological project for the last few years. That project has by necessity taken me to the large and impressive work of epidemiologists and others who are trying to unravel the degree and manner in which social and built environments affect health. The apparent divergence between the innovative work in "social epidemiology"[1] and the "new health geography" is, in my opinion, problematic and

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[1]As Krieger (2001) has argued, all epidemiology is inherently social and used to be recognized as such. Her definition of the term "social epidemiology," however, is "explicitly investigating social determinants of population distributions of health, disease and well-being." I am using social epidemiology even more broadly here to include epidemiological research on environmental health problems that are also concerned, if only secondarily, with some form of social determinant, issue, measurement, or analysis. And although social epidemiology research often includes researchers of various backgrounds, it is my view that traditional perspectives and methods from public health still dominate the field.

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noteworthy. At the most basic level, the differences between the two disciplines that historically have shared concerns and approaches is troublesome because the two disciplines *should* be able to inform and enhance each other. The current state of affairs suggests to me that such potential is not being realized and that we are in need of efforts to bridge the gap between what are two lively and exciting research practices.

How can social epidemiology and health geography more fully join forces, and to what ends will that joint effort, if at all possible, lead? This paper intends to take some first steps toward addressing those questions. My bias is with health geography and how it can inform social epidemiology and public health. That is the view I offer here, therefore. But I also want to stress that this argument is not intended as a critique of social epidemiology as much as a plea for what could come from the incorporation of geographic thinking—particularly thought from the cultural and critical sides of health geography—into social epidemiology, and public health more broadly. My particular goal is to illustrate the utility of several concepts from the new health geography, and geography more broadly, for the analysis of environment and health problems. A secondary goal is to consider how these concepts can complement or reshape in a positive way the typical social epidemiology approach to such problems.

The argument will proceed as follows. I first provide a short introduction to the cultural turn in health geography and then offer a brief view of the development of social epidemiology. As a part of that background for the argument, I draw upon very recent literature about the connection between culture and epidemiology that helps provide contrast and clarity for what health geography has to offer to social epidemiology. With that backdrop, I provide the core of the argument with reference to a case study through which selected concepts from health geography are used. I use the concepts of cultural ecology, discourse materialized, political ecology, and territoriality as analytical "levers" to pry open windows on the situation in which social inequalities, risk, and health disparities are complexly interwoven with place and time. I propose that those analytical levers offer valuable insights for epidemiological approaches to health and environment. I close the paper with some reflections on what the prospects for an epidemiology infused with this sort of analysis might be.

The situations of (cultural) health geography and social epidemiology

In order to understand why it is timely to consider health geography concepts in the context of social epidemiology, a brief synopsis of both fields is warranted. Kearns and Gesler (1998) and Kearns and Moon (2002) have provided excellent analyses and summaries of the changes in what was once called medical geography that gave rise to the new health geography. Their view, with which I concur, is that the new health geography was different from the old (and still existing) medical geography in three major ways. The first was a move from spatial analysis to an analysis of place and processes of place. This often entails a strong cultural component and conceives place as a "landscape"—a term and concept central to cultural geography. Thus "therapeutic landscapes" (Gesler, 1992; Williams, 1999), and "landscapes of consumption" (Gesler and Kearns, 2002) have become central concepts through which particular health and health care situations are investigated. I would add (and will draw on later), that Wil Gesler's early incorporation of some traditional concepts from cultural geography, such as cultural ecology and territoriality, are important albeit underutilized concepts in this vein.

The second important dimension of the shift from medical geography to health geography was the more explicit utilization of theory to make sense of data about health and place. Theorization has been pluralistic, and it seems that the specific choice of theory has been based, as in other disciplines, on the theory's relevance to the subject matter as well as personal inclinations and what is in vogue. Indeed, theoretical orientations continue to be widely divergent in what is a small cohort of researchers. The third outstanding dimension of health geography is a tendency toward a critical view of health disparities, systematic inequalities related to those disparities, and the forces that shape or cause them. Not unlike the move in public health toward population health and the concern for upstream factors that affect well-being (e.g., McKinlay, 1993), many health geographers have borrowed from critical theory to provide insights into the way people and places are negatively affected by larger-scale forces, such as state apparatuses and global firms.[2]

[2]For good overviews and examples of this literature, see Jones and Moon (1987), Kearns and Gesler (1998), and Curtis (2004).