



Health geography II: ‘Dividing’ health geography

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Abstract

Over the years, various observers of health geography have sought to ‘divide’ the sub-discipline mainly along theoretical lines or to argue for a broadening of its theoretical base. Paralleling the growing theoretical pluralism within health geography has been a growing methodological pluralism. As in other parts of human geography, health geographers have embraced historical research, quantitative and qualitative methods, and computer mapping and geographic information science (GIS). Analysing recent contributions by health geographers, the question I seek to answer is whether the growing theoretical and methodological pluralism has paradoxically led to increasing divisions in the topics of study based mainly, but not solely, on what methods are employed in the research. While there are topical overlaps (e.g. quantitative and qualitative studies of particular vulnerable groups), it is less obvious as to how research using one methodology is informing research using the other methodology.

Keywords

health geography, methods, topics of study, quantitative, qualitative

I Introduction

Over the years, various observers of health geography have sought to ‘divide’ the sub-discipline, mainly along theoretical lines (e.g. Litva and Eyles, 1995), or to argue for a broadening of its theoretical base (e.g. Andrews et al., 2014; Carmalt and Faubion, 2010; Curtis and Riva, 2010a, 2010b; Guthman and Mansfield, 2013). Paralleling the growing theoretical pluralism within health geography has been a growing methodological pluralism. As in other parts of human geography, health geographers have embraced historical research (e.g. Chandra et al., 2013; Foley, 2014), quantitative and qualitative methods, and computer mapping and geographic information science (GIS) or, as Kearns and Collins (2010: 27) put it, ‘a diversity of and creativity of approaches (including

mixed methods within particular studies) is routine and even encouraged’.

What has not been so routinely encouraged, however, is to reflect on how research topics, theory and methodology are linked in health geography. A widely held view is that quantitative and qualitative methods are indeed complementary (Winchester and Rofe, 2010: 17), that quantitative methods can provide the *context* for more in-depth qualitative research or, conversely, that qualitative research can be used to *inform* quantitative research. Older antagonisms between quantitative and qualitative health

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geographers have arguably melted away, paving the way for a new *rapprochement*, a less divided sub-discipline. If indeed this is the case, and many health geographers believe it to be the case, then one might expect to see more examples of research by health geographers where the same or at least very similar topics – subject-matters, substantive foci of study – are examined using both quantitative and qualitative methodologies. Analysing recent contributions by health geographers, the question that I seek to answer, therefore, is whether such a growing theoretical and methodological pluralism has paradoxically led not to lessening but rather to *increasing* divisions in topics of study based mainly, but not solely, on what methods are being employed by different researchers.

II Quantitative and GIS research

Recent research taking a quantitative or GIS approach can be grouped into five broad topics of study: geographies of diseases in lower income and higher income countries; access to health services; the food-obesity-built environment nexus; health inequalities; and mental health.

What is notable is that geographers involved in research on geographies of diseases in lower and higher income countries share a lot in common methodologically. Multi-level modelling (e.g. Chum and O'Campo; Messina et al., 2013) and network analysis using GIS platforms (e.g. Perez-Heydrich et al., 2013; Qi and Du, 2013) appear to be commonly used methods regardless of the level of development (itself a highly contested notion) of the country of interest. What does distinguish the research is that infectious diseases remain the foci for research in the lower income countries, whereas non-infectious or chronic diseases are the main foci for research in higher income countries (e.g. Hernández et al., 2013; Lemke et al., 2013).

While access to health care services continues as an important theme in health geography,

it is also almost exclusively focused on issues in higher income countries. In the most recently published research involving health geographers, only one example was found of a study on access to health services in the context of a lower income part of the world. That study examined access to reproductive services in rural Africa (Yao et al. 2013). The remainder of the studies focused mainly on access to primary care (e.g. Gibson et al., 2014), screening (e.g. Henry et al., 2013) and preventative services (e.g. Evans et al., 2013) in the context of Canada (e.g. Bell et al., 2013), Europe (e.g. Kringos et al.) or the United States (e.g. Wan et al., 2013). What is common to all of these studies is the emphasis on differential access among vulnerable populations (e.g. women, the poor, visible minority populations) in contrast to the less vulnerable living in the context of where the studies take place.

Arguably, the most researched topic in health geography over recent years has been the food-obesity-built environment nexus. While all might agree that there are clear links between obesity and various negative health outcomes, there also appears to be a near obsession among health geographers with demonstrating links to some combination of food deserts (e.g. LeDoux and Vojnovic, 2013; Shannon, 2014), food mirages (Breyer and Voss-Andreae, 2013), exercise (or the lack thereof) (e.g. Rind et al., 2014), active transportation (or the lack thereof) (e.g. Lachowycz and Jones, 2014) or the built environment (e.g. Coombes et al., 2013). The latest papers on food deserts, exercise, active transportation and the built environment come from far and wide (e.g. Australia, Astell-Burt et al., 2013; rural China, Loh and Li, 2013; Portugal, Nogueira et al., 2013; South Wales, Sarkar et al., 2013; United States, Su et al., 2014). While the research is increasingly critical of previous work which tended towards a new form of environmental determinism or an almost conspiratorial view of how large food stores and the food industry work together to

make people obese, there remains the need to sort out the relative and competing importance of various health, environmental and social goals. For example, Widener et al. (2013) argue how single-occupancy commuting by automobile might afford better access to supermarkets, while Wasfi et al. (2013) argue in favour of using public transit as a way of increasing physical activity.

The health inequalities literature stretches across the life course from newborns (e.g. Norman and Fraser, 2014) to retirement and residential care of the older population (e.g. Jonker et al., 2013b). Much of the research is increasingly technical in nature (e.g. Meng et al., 2013), seeking to take advantage of newer statistical techniques to address limitations of the more conventional statistical approaches used by health geographers in the past (e.g. Hoffmann et al., 2014). Trying to model the role that small geographic areas play in the explanations of health inequalities remains an important topic (e.g. Jonker et al. 2013a), as well as when addressing how health inequalities are changing over time and space (e.g. Green, 2013) and differences between urban and rural populations (e.g. Jones and Lake, 2013). Although some of the studies examine changes over time and space, they are more likely to use cross-sectional data sets (e.g. Campbell et al., 2014) in contrast to longitudinal data sets where individuals are explicitly tracked over time and space (e.g. Norman and Boyle, 2014). While socio-economic characteristics, environmental indexes (e.g. Richardson et al., 2013) and sometimes social capital (e.g. Neutens et al., 2013) are used 'to explain' geographic variations of morbidity and mortality in many of the studies, there is little differentiation of the dependent variables beyond age and sex. In only a small number of examples was analysis of health inequalities affecting a vulnerable part of the population (e.g. a visible minority or immigrant group) the subject of the research (e.g. Subedi and Rosenberg, 2014).

While the overwhelming focus among quantitative health geographers has been on self-rated health and/or morbidity or mortality linked to biological causes, there is a small but growing literature which endeavours to link mental health outcomes either to the built environment or to parts of the population which are thought to be particularly vulnerable to mental health issues (e.g. adolescents). Similar to the research on self-rated health, some research on mental health outcomes attempts to link poor mental health outcomes to area deprivation (e.g. Fagg et al., 2013; Pearson et al., 2013) or conversely to demonstrate that positive built environments (e.g. greenspace) may have buffering effects on negative mental health outcomes (e.g. de Vries et al., 2013). Those researchers interested in mental health outcomes among vulnerable populations have been particularly interested in adolescents, their stressors and negative health behaviours (e.g. Kázmér et al., 2014; Twigg and Moon, 2013).

Summing up the recent trends in quantitative health geography, it might be fair to say that the growing sophistication in methods has not been equalled by an expansion of topics of research, although quantitative health geographers have still responded and contributed to new health challenges such as growing concerns related to health and the environment and food-obesity-built environment nexus.

III Qualitative research

While there are some subject overlaps among individual papers using qualitative and quantitative methods in health geography, the broader substantive themes tackled by qualitative health geographers appear to be quite different from those tackled by quantitative health geographers. There is also a remarkable level of eclecticism in topics among qualitative health geographers, especially those whose research is focused on issues in higher income countries.

Recent research carried out in lower income countries employing qualitative methods has mainly focused on the relationships between health and the environment in contrast to narrowing down to disease-specific issues – an exception being Mkandawire et al. (2013), who assess the vulnerability of orphans resulting from losing their parents to HIV. More typical is research that focuses on seasonality, safe water, hygiene and health risks in places as diverse as Nigeria (Oloukoi et al., 2014), Vietnam (Few et al., 2013), and India (O'Reilly and Louis, 2014).

The influence of therapeutic landscapes and their positive effects on health and well-being remains a favoured subject-matter among qualitative health geographers, although theory and methods have advanced considerably in research on the built environment since the concept entered the literature in the early 1990s. A small number of examples which overlap thematically along the food-obesity-built environment nexus were found (e.g. Ergler et al., 2013; Thompson et al., 2013; Völker and Kistemann, 2013). Closely related to the food-obesity-built environment nexus research, Gatrell (2013) and Andrews et al. (2012) have independently argued to extend thinking on the fixed nature of the built environment and its therapeutic value to notions of mobility and walkability as therapeutic processes.

A particularly unique focus on the built environment among qualitative health geographers has been a longstanding fascination with the 'stories' of mental health providers and receivers, shading into an interest in facilities of mental health care as therapeutic landscapes (e.g. Curtis et al., 2013; Liggins et al., 2013; Wood et al., 2013a, 2013b). Power (2013) focuses on the everyday sense of 'belonging' in the community among adults with intellectual disabilities as a comparative study in two very different places – Ireland and British Columbia. Campbell and Longhurst (2013) add a new direction to this research in seeking to

examine how women and men express their experiences of obsessive-compulsive disorder in virtual space, thereby extending the health geographer's gaze on therapeutic landscapes from the tangible, material world into the world of cyberspace. In a paper which also focuses on gender roles, Wilton et al. (2014) argue for the need to take into account 'masculinity' in health geography in a study of drug treatment programmes.

Paralleling quantitative health geographers, qualitative health geographers have also focused on vulnerable populations. Although aboriginal peoples are certainly not unique to Canada, health geographers in Canada have built up a significant body of research establishing a range of examples of how the Canadian government has failed the Aboriginal population, resulting in significantly poorer health outcomes than are found in the non-Aboriginal population of Canada (e.g. Big-Canoe and Richmond, 2014; Senese and Wilson, 2013; Skinner and Masuda, 2013; Tobias and Richmond, 2014; Willox et al., 2013). Lewis (2014) considers the role that migration plays both in facilitating improved or paradoxically negative health among gay men, while Tobin et al. (2012) examine, using a time-geography framework, the HIV risks of African-American men who have sex with other men. A third vulnerable group who have received attention from health geographers in recent years are older people living in rural areas, identified as both care receivers and caregivers (e.g. Herron and Skinner, 2013; Joseph et al., 2013).

As suggested in the introduction above, Andrews et al. (2014) have argued for relational geographies of health. Andrews et al. (2013) demonstrate how relationality might be employed in a study of holistic health practitioners. Finally, in a paper which epitomizes the gulf between quantitative and qualitative health geographers, Tan (2013) adopts a relationality approach to argue that smoking spaces should be reconceptualized as 'enabling

spaces of wellbeing', even as researchers should not discount the negative physical health effects of smoking. For quantitative health geographers, smoking is seen strictly as a negative health behaviour to be taken into account as a variable in multivariate frameworks to explain poor health outcomes.

IV Explaining the divides?

The debates about the links among ontology, epistemology and methodology are part of much broader debates to which health geographers have contributed (e.g. Philo, 2007). In essence, the personal ontological and epistemological decisions made by the researcher-scholar dictate the methodological approach for some health geographers. For example, choosing to research the environmental factors which lead to skin cancer as a disease leads to one set of methodological and data choices, in contrast to research on why some people sun tan, which leads to another set of methodological choices.

A second response to explain the divides in health geography might be to argue, as Winchester and Rofe (2010: 17) imply, that qualitative researchers need not be 'defensive' in justifying their approach while qualitative research can provide 'powerful forms of geographical explanation, including analysis, theory building and geographic histories'. Implied within this argument is that the topics of qualitative research need not necessarily complement the topics of quantitative research.

A third explanation might reflect the choices that a health geographer makes about relevancy in contrast to curiosity-based research, or whether one chooses an idealist theory or a non-idealist theory (see Rosenberg, 2014). If the goal of research is to alter public policy (e.g. to reduce skin cancer), decision-makers ultimately want to know how much an intervention will cost and how many persons will be affected. If the goal is a deeper understanding about

aesthetics and cultural norms, a qualitative approach is more likely to yield those insights. Parenthetically, it might be noted that there are few examples of intervention research led by health geographers, although there are examples of health geographers contributing to policy changes at more macro levels.

While each of the three explanations is reasonable, there is also something unsettling about them. The explanations help us to understand the choices that health geographers make, but they do not help us to understand the lack of communication between health geographers using quantitative and qualitative approaches. Health geographers should not confuse *acceptance* with *communication* and *collaboration*, and, arguably, this is the challenge going forward.

V Conclusions

Although most health geographers have become accepting of the findings from *both* quantitative and qualitative research methods, it remains the case, judging by the number of papers recently published, that quantitative research continues to dominate over qualitative research and that, crucially, the substantive foci of those using quantitative methods are not the same as those who use qualitative methods. It might be that some of the papers discussed in this review are parts of larger mixed methods studies, but few of the papers gave any indication that this was the case.

While quantitative health geographers remain focused on disease-specific research, particularly in lower income countries, on access to health services in higher income countries, the food-obesity-built environment nexus, and measuring health inequalities at national and regional scales, qualitative health geographers appear to be more interested in mental health and health vulnerability in highly specific populations. While there are topical overlaps (e.g. quantitative and qualitative studies of particular

vulnerable groups), it is less obvious as to how research using one methodology is informing the research using the other methodology.

In the early 1990s, in the debates about medical and health geography, the 'old division' in the sub-discipline, some people defiantly held onto to the older label, medical geography, and some groups retained both labels to avoid divisions in their groups (see also Philo, 2007). Today, health geographers might be wise to consider whether a 'new division', one perhaps unanticipated, is now taking place between those who adopt quantitative or qualitative methodologies, not only based on theory and methodology, but also based on the very foci of their research – on exactly what subject-matters emerge, make sense and/or are selected for the researcher's attention.

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