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Socio/Ethno-epidemiologies: proposals and possibilities from the Latin American production

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ABSTRACT

This article presents an approach to understanding health that acquires an original and autonomous development across different Latin American countries, despite being the result of reading and analysing national and international theoretical contributions from social sciences. The proposal seeks to integrate the epidemiologic perspective with those from the social sciences, sociology, and medical anthropology in particular, raising the need to place health problems in their socio-historic, cultural, political and economic context. From this framework, such aspects must be treated not only as epidemiological variables but, above all, as sociocultural and bio-ecological processes. It suggests to conceptually work from a perspective that investigates health-disease as a social process, an area of life in which most of the meanings, representations and practices that allow the reproduction of daily life are articulated. For that, we place the contributions in the field of Collective Health, present the main criticisms and limitations that have been raised to modern epidemiology and, from there, we develop theoretic-methodological proposals of ethno-epidemiology and sociocultural epidemiology directing the analysis towards the development of a superseding episteme.

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Introduction

The current state of knowledge and development of research in epidemiology has posed serious difficulties in responding to health problems at the population level. Although more sophisticated methodologies and analytical techniques are available, the generated discussions and criticisms, not only within the field but also from external sources, are becoming more frequent. This raises the need to develop a way of approaching health and illness in current society from a superseding perspective.

Starting from the criticisms and limitations posed to modern epidemiology, this article proposes an innovative field of knowledge that is developing autonomously in the Latin American setting. This is known as 'sociocultural epidemiology' or 'ethno-epidemiology' and will be generically labelled here as *socio/ethno-epidemiologies*. It is positioned in the field of Collective Health, and its focus goes beyond public health, community medicine,

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and preventive and social medicine (see Almeida Filho & Silva Paim, 1999; Frenk, 1992; Liborio, 2013; Paim, 1992, 2011; Sousa Campos, 2000).

Collective Health, as it has been built since 1970, results from two main sources: the criticism of the different health reform projects and movements occurred in capitalist countries and; the theoretic-epistemological elaboration and scientific production articulated in social practices. In Latin America, the theoretical work produced in the last forty years has redefined the field of public health-differentiating it from the way in which it has been traditionally conceived in Europe and the United States (Paim, 1992). Collective Health has been defined as a field of thought and scope of practices (Almeida Filho & Silva Paim, 1999) produced in, and from, Latin America, with the conviction that, to understand what happens in our countries, the elaborations must be local (Testa, 1992; Testa y Paim, 2010) – since there are many examples of unsuccessful imported models of care.

Thus, the designation of Collective Health acquires a much broader connotation than that of Public Health, which includes social medicine – a trend of thought that emerged as a criticism of the latter one–and reflects the development of social sciences in the field of health (Paim, 1992). Its theoretic-epistemological framework refers to an interdisciplinary field and not properly to a scientific discipline or medical specialty (Almeida Filho & Silva Paim, 1999). It focuses on the construction of new theories, approaches and methods in epidemiology and health planning, incorporating concrete investigations that apply the methodology and theories of social sciences in the field of health. From that theoretic-methodological effort, new modalities have emerged of interdisciplinary qualitative and quantitative approaches that delimit new objects of knowledge and intervention. Examples of these include the so-called 'Sociocultural Epidemiology' and the 'Ethno-epidemiology', which are studied in this article.

Criticisms of modern epidemiology

Criticisms about modern epidemiology have become increasingly frequent in Latin America (Almeida Filho, 1992a, 1992b, 2000, 2007; Álvarez Hernández, 2008; Barata & Barreto, 1996; Barreto, 1998; Breilh, 1995, 1997; Diez Roux, 2004, 2007; Haro, 2010; Silva Ayçaguer, 1997, 2005; Sy, 2009), as in the rest of the world, especially in North America (Krieger, 1994; Long, 1993; McMichael, 1995, 1999; Pearce, 1996, 2007, 2008; Rothman, 2007; Shy, 1997; Sterne and Smith, 2001; Susser & Susser, 1996a, 1996b; Taubes & Mann, 1995). Though this article will not expand on this topic, it is necessary to give an account of these criticisms in order to better understand the superseding potential of socio/ethno-epidemiology.

An interview by Taubes and Mann (1995), published in *Science* is just one of the works that, arguably, has had more repercussion within and outside the epidemiological field. The work titled 'Epidemiology faces its limits'[1] gathers the opinions of prominent epidemiologists and biostatisticians regarding some fundamental methodological problems that epidemiology has not been able to overcome. The main issues are, on the one hand, that epidemiology, through the publication of uncertain research results and, on occasions, contradictory research result, generates anxiety among the public, false expectations and disbelief. On the other hand, the nature of epidemiological research methods and design can be weak. These matters are not new, both before and after this interview,

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the questions about such issues were present and still are (Álvarez Hernández, 2008). In the Latin American setting, the Brazilian epidemiologist, Maurício Barreto (1998) published 'For an epidemiology of collective health',[2] where he discusses that the challenge of modern epidemiology is to solve the problems that affect the health of populations. He proposes to systematize criticisms to delineate an epidemiology that contributes to the field of 'collective health'. Barreto (1998) identifies a crisis in the dominant paradigm; in its capacity of theoretical elaboration; for breaking away from its historical commitment; and in relation to the practice of public health and its explanatory capabilities, a crisis of conflicting results generated by different studies on the same topic.

In this sense, the Argentine epidemiologist based in the US, Ana Diez Roux (2004) warns about the fragmentation of the field because of the different 'types' of epidemiology: 'social' epidemiology, epidemiology of 'risk factors' and 'genetic' epidemiology, each of them with its own literature. Furthermore, in a series of editorials in *Collective Health* [3] magazine, she discusses some of the criticisms with Brazilian epidemiologist Naomar de Almedida Filho. Diez Roux (2007) wrote 'For an epidemiology with more numbers',[4] which is an answer to the provocation by Almeida Filho's book 'Epidemiology without numbers',[5] published in 1992. In her editorial, Diez Roux highlights as criticism of modern epidemiology, its growing methodological sophistication, which has resulted in an individualisation of problems and the biologisation of its study subject, which delimits the determinants of health exclusively at the level of biological characteristics. This concern is centred on the emphasis of biological measurement in epidemiology, with distrust over the utility or importance to health of the so-called 'soft' social or cultural variables. The most extreme expression of this process is the genetic determinism, increasingly discredited among geneticists themselves (Diez Roux, 2007).

In response, Almeida Filho (2007) wrote 'for an epidemiology with (more than) numbers: how to overcome the false quantitative and qualitative opposition'.[6] In it, Almeida Filho (2007) points out that the 'qualitative vs quantitative' opposition is unhelpful when it comes to establishing agreements to produce knowledge regarding concrete problems of nature, culture, society and history regarding health. He proposes a typology of studies methodologically integrated composed by three types:

> Combinations, strategies that articulate in the area of logistics, techniques of another methodological registry; Methodological compounds, mixed strategies where, for example, one can have two stages in one study; Methodological complexes, which are methodological hybrids.

What is clear, here, is that the focus is on the methodologic – difficulty lays in an epidemiology whose mathematization is abstracted from dimensions which, for many, cannot be quantified.

On this matter, the Mexican epidemiologist Gerardo Álvarez Hernández (2008) raises two core issues about the conceptualisation of modern epidemiology. Firstly, its propensity to the exclusive use of statistics as validation method and, secondly, the weakness of the theoretical constructs used to substantiate study methods. Both characteristics can be explained by the biologicist and individualist focus rooted in the positivist paradigm used by modern epidemiology to approach health problems. (Álvarez, 2008).

Likewise, it is observed that most epidemiological studies generally use different preestablished variables such as sex, age, social stratification, or occupational level, among

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others, without a reflection on the relevance of evaluating them in a particular population. The tendency is to group or classify the population according parameters that do not account for its ethnic or cultural specificity. These variables acquire similar values in all the poor or marginal sectors of the developing countries. Thus, the outcomes of such studies only contribute circular explanations of a general nature that do not aim to explain the problem due to particular socio-political, economic, cultural and historical characteristics and conditions (Sy, 2009). As pointed out by Bourdieu, Chamboredon, and Passeron (2008), when relying on factors that are transhistoric and transcultural, one runs the risk of assuming that what needs an explanation has been explained. This approach leaves unexplained what determines the historical specificity or cultural originality of the problem one seeks to understand.

It is argued that 'globalization' has tended to homogenise health problems and populations. This might be the case with epidemiology, though discussions regarding the 'epidemiological transition' would problematise it. However, in social and cultural terms, the reality in Latin America is characterised by the ethnic, racial, sexual, gender, historical, economic, environmental, and climate diversities, among others. These coexist and overlap in a more or less coherent or contradictory manner. The inequalities are not homogenous, and that is the limit to statistical standardisation or generalisation. It is true that one can measure degrees of inequality defined a priori, or independently of the populations where they will be applied. Nevertheless, it is also true that inequality is not expressed in the same way in a *villa miseria* (shanty town) than in a rural area. Even in the latter, it is not the same amongst indigenous or peasant populations (Sy, 2009, 2013). It is also not the same if each of these sectors are placed in Argentina, Mexico, or Brazil. There is diversity in inequality, and the invisibilization of cultures or ethnicities, languages, of habits and habitats, of socio-historical trajectories, environmental and economic diversities of the populations, which allow a better understanding of the current situation, has been one of the main difficulties in the strategies to improve health situations. This invisibilization has led to interventions being standardised.

As argued by Almeida Filho (1992b), though in most Latin American countries the models and policies of health care have been redefined, the health conditions of the populations have not been improved in the same manner. The explanations for this apparent paradox can be found in the inadequate conceptual basis of planning, as well as the organisation and administration of health services that rely almost exclusively on a conventional epidemiological perspective which does not take into account the historical and sociocultural nature of health problems.

Even the World Health Organization's Commission on Social Determinants of Health (CSDH) has pointed out that, though many health problems can be attributed to the socio-economic conditions of people, the design and execution of health policies have been centred on the treatment of illnesses. Such approach does not consider 'the causes of the causes', which can, undoubtedly, be identified in the social context. It is acknowledged that there is enough scientific evidence–mostly from developed countries–to carry out concrete actions to reduce inequities in health, though there is not a systematic effort to implement them. The CSDH also points out that a final understanding of the role played by social and cultural factors in the epidemiological profile of the population seems unlikely under the biomedical approach of modern epidemiology. Thus, the Commission recommended the exploration of innovative methodologies that are susceptible to

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the application in human populations (Commission on Social Determinants of Health, WHO, 2005).

One socio/ethno-epidemiology, or many?

In the Latin American setting, like others, social epidemiology is not homogenous, nor exempt from discussions amongst the different actors. It is a field that is still being defined and redefined both theoretically and empirically.

To talk about socio-epidemiology, social or sociocultural epidemiology means to take a position regarding those who, like Almeida-Filho (2000), argue that it is a 'scandalous redundancy' (p. 137) since the social-collective is already contained in the designative *demos*, as in the object of knowledge of epidemiological science. Although it also refers to a 'successful redundancy' (p. 155) in stating that it was not expected that the difficulty of epidemiology would fall precisely in its ability to address the social. Thus, this author, will start from a criticism, not only to modern epidemiology–as one previously developed–but also to Latin American social medicine. Particularly, to the proposal by Laurell (1983), raising the difficulty of understanding the health-disease process from the category of 'work process', or the one proposed by Breilh and Granda (1986) of 'social reproduction'. This would result in a reduction of the social complexity to only one dimension of life and highlights the need of considering other dimensions in the process, such as the symbolic and the everyday life (Almeida Filho, 1993).

Betancourt (1995), sought to broaden the theoretical framework regarding the social determination and of the health-illness process. He defined the latter as that which, despite expressing itself concretely in individuals, also focuses on how human groups to which the individual belongs live, feed, educate, rest, recreate and organise themselves. The health-illness process refers to issues that are expressed in the singular dimension of being, which despite belonging to a community, has unique characteristics. Likewise, Lima (1994) points out that Laurell limits himself to analysing the forms of collective manifestation of the disease, when it is necessary to acknowledge the form and specific way in which social processes and general determinations are expressed in the individual. It is also necessary, according to Lima, to know the relationship between the biological, including the psychological and the social. He argues that the studies carried out by Laurell are placed in the generality of the structural categories, where the individual occupies a reduced space. For the author, the genesis of diseases also involves individual dimensions, thus, necessary not only for explanation but also for prevention. In the case of capitalist societies, there is an open space, within certain structural limits, so individuals have different behaviours (Lima, 1994). Although these choices are clearly not free, they at least allow that concrete behaviours differ, if not in quality in degree. Hence, different trajectories in life will show different forms of deterioration with a more or less broad margin that also depends of the individual strategies within structural constraints. The exclusive focus on collective forms of suffering eliminates the possibility of visualising how deterioration is established in the individual field. This leaves aside singular processes of health-illness, in addition to practical processes of resistance and transformation existing within society, which are built from individual strategies or small groups (Fernandes, 2003).

Barreto and Alves (1994) also discuss the tension between the collective and the individual in epidemiology. They acknowledge that the approach adopted by epidemiology to

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understand the collective presupposes its social determination. Even when historically inherited structural circumstances exist, the individuals monitor their actions in interactive processes, negotiating, adapting and modifying meanings and contexts. From this perspective, epidemiology denies essential aspects of the human collective: the universe of meanings, motives, aspirations, attitudes, values and believes (Barreto & Alves, 1994). These authors emphasise the need to overcome both perspectives through a synthesis that contemplates the objectivity of the structures, as well as the subjectivity of individual practices.

This article returns to the proposals that began to develop from 1990, with the designation of 'ethnoepidemiology' or 'sociocultural epidemiology', suggesting a superseding understanding of developments which, like the previous ones, focus on the social production of disease identifying the economic as the main determinant. These perspectives will try to address the multiple 'determinations' or constraints, both at the level of personal trajectories and structural conditions.

'Ethno' epidemiologies

Almeida Filho is one of the main precursor advocates of 'ethnoepidemiology', which he also refers to as the 'epidemiology of the way of life'. The author argues that it is not about creating explicative models and combining them with sociocultural variables. It is not a mere question of granting a certain place to the social, within models of illnesses epidemiologically conceived. Instead, it recognises the belonging of health-illness phenomena to the social processes as an ethno-epidemiological totality.

The prefix 'ethno' links this perspective to the microanalytic approach provided by ethnography, seeking to recognise the worldview of one who is defined as a 'cultural other'. On this, the proposal is close to the arguments raised by Mitchell G. Weiss from Basel University, Switzerland. 'Cultural epidemiology' emerged from this institute, and it is methodologically based on the emic interview, which refers to the local concepts of disease and implies collaboration between anthropology and epidemiology. Some key concepts of anthropology are used from this perspective, such as the emic/etic distinction. Linguist Kenneth Pike has done some of this work when differentiating phonemics–minimal units of meaning in a particular language, in that sense refers to local perspective–and phonetics, which refers to the acoustic reality, or external perspective. The differentiation between disease and illness is another key distinction that comes from medical anthropology. The first refers to sickness in biomedical terms, and the second to the meaning, experience, and behaviour of sickness from the emic perspective, which is used to examine patterns of distress, perceived causes, and help seeking (Weiss, 2001, p. 17). This perspective is framed in a culturalist anthropology, where the anthropologist acts as translator or intermediary between the categories and, local and professional concepts. In this sense, 'cultural epidemiology', as presented from this perspective, would seek to identify syndromes or health problems from the local perspective (of those who suffer it) making them possible to be approached from a medical or biomedical perspective. There is a risk of medicalizing suffering in this perspective. A clear example of this is formulated in Weiss' article (2001), when he argues that the research must be oriented towards investigating problems of mental health that might be incorporated to future editions of the Manual of Diagnostics and Treatments in Mental Health (DMH). This means

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a medicalisation and psychiatrization of mental suffering, from a perspective which excludes other health determinants like, for example, living conditions. Doing so risk the 'culturalizing' (or attributing to culture) of what in fact concerns, among other things, situations of economic inequality and of power or access to education or work. Considering the works conducted in Bangladesh, India, Malawi, Ghana, among others (see Swiss Tropical Institute, 2004), a question could be raised about whether disease is culturally constructed or if cultural reality is clinically constructed. That is, is it an intercultural dialogue or a manipulation of the local knowledge towards the biomedical perspective, where the latter is not problematised.

In contrast, Almeida Filho's proposal returns to concepts of epidemiology, from a critical perspective. When referring to 'risk factors' he points out that these do not exist beyond their statistical, epidemiologic and clinical significance. Furthermore, he argues that epidemiology should be open to the research of the symbolical aspects of risk determinants. Considering the complex, subjective and contextual nature of the relationship between health-disease and social process, the author suggests focussing less on the classic approach to 'risk factors' and more on 'fragilization models', which are more sensitive to symbolic specificities and the interactive character of the relationships between subjects and their cultural and sociohistorical environment. The symbolic would include the identification and description of discomfort, and the explanation regarding its origin and the actions oriented towards palliating or enduring that problem (which could be added to the approach of cultural epidemiology in the operationalisation that makes the concept of illness). However, this research will be broadened to include the relational, the environment and the particular sociohistorical contexts. Therefore, the intention is not to make a translation towards biomedicine, but understanding it in its own terms, seeking to identify actions that weaken health to attenuate deteriorating processes, as well as strengthening those actions that are protective. It must be considered that many answers that could be interpreted as 'cultural' must be understood as the result of historical processes and socio-environmental changes. Hence, they are cultural responses in conditions that people do not choose, such as a context of poverty, lack of access to education, work, drinking water, or an environment suitable for human life. From this perspective, one can argue that any event or social process, to represent a potential source of risk to health needs to be in resonance with an epidemiological structure of the human collectives. This relationship is not exclusively about the external action of an aggressive environmental element, as suggested in the metaphor of factors-producing-risks, nor the internalised reaction of a susceptible host. It is a system (totalised, interactive, procedural) of pathological effects (Almeida Filho, 1992a, 1992b, 2000). Therefore, it requires models capable of approaching the relationship among subjects and their bio-cultural and socio-historical environments.

If one takes this contextual approach to its logical conclusion, it is possible to argue that 'risk factors' are nothing more than an expression of the 'way of life' of the population groups under study. 'Way of life', which can be thought of as a wide and fundamental condition determinant of the health-disease relationship, is mediated by two dimensions: 'way of life' itself and living conditions (Possas, 1989). Hence, 'way of life' must be seen as a theoretical construct that does not merely include the individual components of health but also goes beyond to include sociohistorical dimensions, encompassing divisions of

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social class and culture, and taking consideration of the symbolic aspects of everyday life in society.

There is an opening for ethnographic research to address unexplored issues and model new scientific objects in the field of collective health. This could be achieved with the development of ethnoepidemiology. This discipline is not about the application of the epidemiological methodology to transcultural research in health, nor the introduction of ethno-models into the explanatory approach to risk. The ethnoepidemiological perspective starts primarily with self-reflection, acknowledging the sociohistorical character of the epidemiological discipline itself. It requires the construction of interpretative models of the health-disease process capable of integrating both perspectives through the application of methodological strategies that competently combine the quantitative and qualitative approaches into a single ethnoepidemiological strategy. One of its central assumptions is that health-disease phenomena are social processes and, conceived as such, they are historic, complex, fragmented, conflictive, dependent, ambiguous and uncertain. (Almeida Filho, 1992a, 2000). As Norma González González (2000) rightly points out, it is not simply about changing the statistical representation of the phenomenon. It must reach a conceptual development that allows understanding of the historical and social base of unequal distribution of health in human populations. It is a discipline whose ultimate purpose is to transform concrete realities of health.

Sociocultural epidemiology

Those who refer to sociocultural epidemiology highlight the necessary integration of the methods, techniques and theory of medical anthropology and epidemiology (Álvarez Hernández, 2008; Haro, 2010; Hersch-Martínez, 2013; Hersch-Martínez & Haro, 2007; Menéndez 1990, 2008, 2009). A core part of this proposal is centred in the recommendation of joining quantitative and qualitative methods, from the conformation of interdisciplinary teams to study the multiple forms (biological, behavioural, cultural, political) in which the process of health, disease and care express themselves, and not only the clinical or statistical manifestation of the illness. Thus, it seeks to recover the historical and sociocultural nature of health problems, researching how human groups are organised to address the health-disease process, particularly in those settings in which health inequality and vulnerability are more evident. The combination of quantitative and qualitative techniques supposes the methodological need of creating indicators with cultural, social and biological pertinence, but also with sufficient empirical validity. Hence, the data for their construction are not subject exclusively to the statistical value they possess, but also to the feasibility of their collection and the acceptance of the subjects (be they individuals or populations) with whom they work (Álvarez, 2008).

From the Latin American socio-epidemiological perspective, the subject will be considered not only as a unit of description and analysis or, as it has traditionally been considered: that is, the 'subject of study'. It will also be included as a *transforming agent*, which produces and reproduces social structure and meanings. In this approach, work is carried out using relational approaches, which seeks to recognise each of the significative actors in relation to a given problem and identify the form in which they relate to each other. Such links will allow the identification of the different factors that operate with respect to a given problem and incorporate the opinion of the conglomerate of significant social

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actors. Thus, to address health problems in communities implies a political and ideological commitment in which the effective participation of the population takes place. It is not only about regaining the other's rationality, but to include the needs, objectives and decisions of social actors themselves so they assume the projects regarding specific problems as their own (Menéndez, 2008).

Social epidemiology becomes an integrating operative and analytical referent, whose main objective is to apply different methods to approximate of the multifactorial and collective dimension of diseases, taking as one of its axes the category of 'avoidable damage'. This concept must be understood by identifying in the determinants of the disease the multiple factors that occur in the pathological expression, as well as the 'causes of the causes'. This involves the limitation of damage, but also reflects how popular perceptions about vulnerability relate with the production of knowledge regarding risk and the design of integral actions destined to its reduction. (Hersch-Martínez, 2013; Hersch-Martínez & Haro, 2007). Hence, one asks to what extent modern epidemiology identifies as risk factor is of social or cultural matrix to focus on the risk scenarios from where that and other factors emerge. The importance of sustaining as an instrumental purpose the understanding of how society responds to the health-disease process, and how this knowledge can serve to prevent, control or mitigate avoidable damages at the collective level must be highlighted (Álvarez, 2008).

From the framework of social epidemiology, one not only will investigate the explanatory models of diseases generated outside the biomedical paradigm, but also its epidemiological transcendence in terms of 'avoidable damage'. In this paradigm, prevention and care are prioritised, as well as essential social actors. Furthermore, one will contemplate not only the challenges involved in promoting health actions from specificities and local perspectives, but also what are the political obstacles inherent in those actions. Finally, it will not only formulate categories of impact measurement, but also consider the type and quality of social scenarios that arise from the impact (Hersch-Martínez, 2013).

Sociocultural epidemiology is thought of as a conceptual and applicative tool based on different descriptive and analytical strategies, which are selected based on the nature of the health problem being studies (Hersch-Martínez & Haro, 2007; Haro, 2010; Hersch-Martínez, 2013). Unlike Almeida Filho (1992b), who highlights the need for a new 'ethnoepidemiological' paradigm, Menéndez (2009) argues that it is not necessary to develop a new paradigm for the exercise of a social epidemiology. Sociocultural epidemiology does not seek, at least in principle, to develop a new scientific discipline. However, Hersch-Martínez (2013) recommends that the development and foundation of a new epidemiological theory and practice requires expanding and deepening its scope, without distancing itself from the contributions of biomedical research, integrating them with the results of the social sciences in the same field of knowledge to generate a synthesised view of health-related phenomena. In the methodological field, this implies significant changes in the formation of human resources, as well as a knowledge dialogue focused on the specific nature of the problems rather than disciplines.

Is a new episteme necessary?

By placing oneself in the field of Collective Health and returning to the criticisms of modern epidemiology–the main starting point–it is necessary to problematise the

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episteme in which the sciences are based, starting from a clear differentiation between nature/culture, and biological/social (Samaja, 2004). Biologization, individualisation, quantification and generalisation–the main criticisms of modern epidemiology–are only possible from such episteme. The alternative proposals immediately refer us to the consideration of non-Western epistemes, which decolonial theory labels as 'epistemes-other'. This perspective can be identified in Colombia, in relation to the so-called 'intercultural epidemiology', as a 'strategy that allows to know the epidemiological profile of the multiethnic and multicultural reality according to the different epistemes associated with health and disease processes'. Furthermore, this strategy allows the organisation of health services from an intercultural perspective (Portela, 2014, p. 249). Here, the recognition of diversity implies an equitable valuation of 'epistemes-other' or forms of knowing–comprehension, signification and action–of societies with dissimilar logics to which biomedical rationality underlies. Portela (2014) suggests, as a point of departure for the analysis, the global dimension of ethnicity, before the traditional divisions of anthropology (ie economy, social organisation, health, etc), since it could not speak of an indigenous medical system as such, but a culture of health. The latter is not limited to therapeutic, medical practices, classification systems, thoughts or philosophical conceptions, which can only be understood within a 'project of ethnicity'. To think a medical system as established by modernity, from this perspective, would be theoretically and methodologically inadequate. An intercultural epidemiology would be developed within the framework of a model of intercultural health services that address the ways of life of indigenous communities, to its peculiar ecological and environmental conditions, incorporating as theoretic-methodological research strategy the dialogue and negotiation of cultural meanings among health teams and communities around health and disease, life and death, healing and care. It requires some degree of conceptual and financial flexibility to be able to adapt the actions together with the authorities of those territories (Portela, 2008, 2014; Puerta, 2004).

From this perspective, as well as from ethno-epidemiology, the need arises to think from an 'episteme-other'. For that reason, one risks to think of epistemes, even ontologies that problematise the attribution of a 'natural' character, external, objective and independent of human action, to the biological or so-called 'natural'. Malnutrition is one such example: can it be treated as a merely physical problem? Considering the production and availability of food, is it environmental? Is malnutrition exclusively social or sociocultural? Or is it socioeconomic? Isolating malnutrition as a problem, or cutting it from one edge or another eliminates the possibility of seeing the problem with all its complexity. By denying a human character to nature, the episteme of science clearly separates the latter from culture, and it should not be forgotten that the episteme of science is the result of particular sociohistorical processes that enabled scientific development, which does not mean that it is scientific. Separating nature from culture is unthinkable, if one resorts to epistemes belonging to diverse indigenous populations from Latin America, which have favoured the development of other forms of knowledge. When referring to the worldview of Amazonian groups, Descola (1996) points out that such differentiation does not exist. Animals, plants, landscapes, stones, and even the stars receive human attributes and characteristics. They have a soul, and are conceived and treated as persons. In this sense, he is arguing that nature is a cultural construction. It filters, codifies and reorganises entities and primary properties from materials that culture has not provided itself. As the

natural environment is anthropized and in varying degrees, its existence as an autonomous entity is a philosophical fiction (Descola, 1996, 2005, 2012).

Final comments

The matters addressed in this article show that there is still much debate in relation to the development of the socio/ethno-epidemiologies. The proposal in this paper identifies the need to think from a different episteme, which enables the consideration of overlapping and juxtaposed ecological factors as processes of socio-environmental change that, starting from the current situation, consider broader factors such as the trajectory and history of groups, and their way of life. The latter is considered as an instance that integrates living conditions and lifestyles as constitutive of the environment they occupy. Therefore, ethnographic research, focused on studying the occurrence of the disease in community context, with an analysis of the traditional knowledge and practices, as well as the way in which different factors of socio-environmental change affect it, should provide tools that contribute to an integral understanding of the problem from an episteme that does not limit the conceptions of health-disease in the medical sciences.

It is necessary to find a methodological approach where none of the aspects that make the health-disease-care process are overlooked, that allows an explanation of the ‘real’ processes in the community/social group/ethnicity, and that results in working with communities (which is not the same as imposing external categories on communities) (Sy, 2013).

In principle, this paper agrees with authors such as E. Menéndez, Armando Haro and Hersch Martínez regarding the need to start developing a sociocultural epidemiology, from the integration of theories, methods and techniques that come from epidemiology and medical anthropology. However, the goal must be the development of a paradigm that escapes the dichotomies reproduced by modernity by distinguishing between nature/culture, science/politics or ideology, among others. We work with ‘objects-subjects’ that manifest in ways that resist conventional structures. Hence, an approach is necessary to overcome impenetrable classifications, taxonomies and dichotomies. We must overcome the rigidity implied by the forms of describing, analysing and naming the epochal and disciplinary reality. What we suggest is to develop a matrix of knowledge that enables the creation of new ‘objects’ and more creative modalities of approaching problems. The field of collective health means occupying an interstitial space that seeks to overcome the dichotomous, taxonomic and classificatory thinking that distinguishes between scientific/non-scientific, individual/collective, health/disease, female/male, among others. We consider that a socio/ethno-epidemiology that lets us move between different cultures, ecologies, epistemes and ontologies as way of learning, dialoguing and accounting for events that affect health is paramount to secure a field like collective health. We must overcome the ‘inter’ and ‘transdisciplinary’ to give rise to a body of knowledge of its own, epistemically part of the limitations, criticisms and needs that emerge within the field itself and, consistent with its academic project, management and practices that respond to the demands and needs of local populations.

Notes

1. “La epidemiologia enfrenta sus límites”.
2. “Por uma epidemiologia da saúde coletiva”

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3. *Salud Colectiva*.
4. “Por una epidemiología con más números”.
5. “Epidemiología sin números”.
6. “Por una epidemiología con (más que) números: cómo superar la falsa oposición cuantitativo cualitativo”

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