



ENVIRONMENT AND HEALTH LIFESTYLES: STRUCTURAL AND INTERSECTIONAL ASPECTS OF HEALTH AND ILLNESS IN MEDICAL SOCIOLOGY

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ABSTRACT

Purpose and Methods: The paper traces the effects of the environment and other structural factors on individual health and illness, as analysed theoretically by Medical Sociology. More particularly, it focuses on the interplay between structural factors in sociology and individual agency, i.e. the extent to which one's health is a matter of personal choice or affected by macrosocial factors, such as living conditions, social status, race/ethnicity, gender, age and etc. **Results:** An imaginary debate between an expanded economic view on health (Becker 1979) and a sociological perspective (Cockerham 2013) is staged to weigh out different standpoints and the insistence on the primacy of either of the factors. William Cockerham's *health lifestyles* (2013) is analysed (an extension of the traditions of Max Weber and Pierre Bourdieu), as an interplay between *life chances* and *life choices*, stressing the primacy of structural factors, without disregarding individual agency, however, within the confines of particular structural restrictions. **Discussion and conclusion:** Criticism of Becker's economic health perspective is provided. Additionally, the intersectionality of structural factors is examined and their mutual co-determination. Finally, a claim is made for the need to connect environmental health with preventive medicine.

Key words: environment, health lifestyles, Medical Sociology, structure and agency, intersectionality

INTRODUCTION

Socio-economic and ecological factors are inherently related to individual health and social wellbeing. The Covid-19 pandemic has made explicit more than ever our health's dependence on external, ecological factors, the cost of human violations of the environment, the vulnerability of particular social groups, as well as the mutual interconnectedness of individuals in terms of disease spread and prevention.

MATERIALS AND METHODS

Medical Sociology is the discipline that studies the effects of environmental and other structural factors on individual and group health. Some of

the key questions it engages in in recent years have been related to the interplay between social structure and individual agency, i.e. the extent to which one's health can be treated as a matter of personal choice or affected by macrosocial factors, such as living conditions, social status, race/ethnicity, gender, age and etc. The purpose of the article is to explore theoretically this problem by comparing paradigmatic differences between two disciplines: Health Economics and Medical Sociology, with an emphasis on the existing ones within Medical Sociology. For this end, an imaginary debate between an expanded economic view on health (Becker 1979)(1) and a sociological perspective (Cockerham 2013)(2) will be staged to weigh out different standpoints concerning the primacy of either of these factors. William Cockerham's *health lifestyles* (2013)(2) will be analysed (an extension of the traditions of Max Weber and Pierre Bourdieu), as an interplay

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between *life chances* and *life choices*, within the agency-structure debate in sociology. Next, the intersectionality of structural factors will be examined and their overall mutual reinforcement and re-definition. Following Cockerham (2), a key argument to be maintained is that individual and collective health should be studied giving primacy to particular structural factors and relations, considering the complexity of their intersectionality, without disregarding individual agency.

Environmental factors and health

Deteriorating ecological factors and global warming have a serious impact on health, measured by the World Health Organisation (WHO) in terms of risk, disease burden and mortality rate. Some of the greatest health risks are caused by air pollution, affecting 90 % of the population and leading to the staggering figure of seven million preventable deaths annually, according to WHO (3). Unsafely managed water, poor sanitation and hygiene – additional risk factors, related to existing socio-economic conditions, affect more than half of the world's population, resulting in 800 000 preventable deaths per year (3). Poor management and manipulation of the environment (i.e. drainage, irrigation and design of dams) also bring serious infectious and vector-borne diseases, such as malaria (3). Unsafe work environment and exposure to chemicals are the reason for more than one million deaths annually (4). Climate change, leading to extreme weather conditions, such as droughts, intense heat waves, heavy rainfalls and cyclones, poses additional challenges to health, concerning the transmission of food, water-borne and zoonotic infectious diseases (3). Expected challenges of global warming combine a wide array of health with socio-economic and political hazards, such as food and water shortage, loss of biodiversity, forced migration, social and political tensions (3). Health risk factors that need to be estimated in the future combine ecological with socio-economic conditions, such as the effects of electronic waste and chemical mixtures, workplace conditions, involving chemical exposure, long hours especially of sedentary work, shift work and labour migration (3).

Can the environmentally induced overall disease burden and mortality rate be reduced or totally prevented? Conclusions from available data show that a serious percentage of premature death (24% of global deaths and 28% of deaths of children under five) is due to modifiable environmental factors (4). According to estimations, thirteen million deaths annually can be prevented, which is one quarter of all deaths and the existing diseases burden, caused by known avoidable environmental risk (3). It has also been estimated that people in low and middle income countries have the highest disease burden, with diseases, such as ischemic heart disease, chronic respiratory diseases, cancers and unintentional injuries, among the most common (4). Preventive policies, however, need to consider complex interlinking factors leading to health inequality. According to the WHO Global Strategy on Health, Environment and Climate Change (3):

“Single-determinant approaches are unlikely to achieve expected improvements in health equity and well-being, given the complex interaction of factors at the level of borders between countries, society and the individual. Approaches that are more integrated are required to address the upstream determinants of disease, which are often defined by policies in key sectors other than health.”

The Social Determinants of Health (SDOH), defined as the non-medical factors (e.g. knowledge, beliefs and behaviours), especially those termed as “upstream” factors, related to different forms of social inequalities, risk exposure, and social disadvantage (5), therefore, should become the starting point in health equity studies. Directing the attention to the socio-economic determinants of health (including a number of environmental, work-related factors, poverty and poor living conditions, as well as limited access to health care), can play a key role in avoiding health risk and improving health equity. It will be argued that expounding on the intersection of significant macrosocial factors (such as social class, age, gender, race/ ethnicity and etc.), on institutional set-up and relations, on policymaking practices and their overall social embedding, rather than on individual agency and

choice of lifestyle alone, could better explain existing data interlinking environmental factors, individual and collective health. In sociological theory this argument “translates” as the primacy of structural factors over individual agency regarding health and disease – a key debate within the paradigm of contemporary Medical Sociology.

Medical Sociology and the “Agency vs. Structure” Debate

Medical Sociology as a discipline explores the social determinants of health and disease of individuals and social groups, equally in terms of underlying causes and ensuing consequences. This involves studying additionally different macro and micro aspects of health: from the institutional patterns of health care providers within different social systems, social policies towards health and interaction with other institutions, to the underlying cultural patterns and social interactions, the negotiation of roles between doctors and patients, the subjective experience of illness and the constructed nature of medical knowledge and the disease in general. The search for the social causation of health and illness presupposes a more in-depth look at the agency vs. structure dichotomy in sociology and its macro and micro dimensions. The debate has existed since the beginning of the discipline explaining some paradigmatic distinctions deserving more attention by health sociologists (2). Social structure refers to “any recurring pattern of social behaviour “and the “ordered interrelationships” between the elements of a social system (6). It comprises equally social institutions (kinship, economic, political and etc.) and inherent norms, values and roles (ibid.), which predetermine and often restrict human behaviour. Durkheim, for example, as a functionalist, insisted on the pre-existence of such external social structures, defining and limiting our individual actions. However, functionalist theories have been criticised for overemphasising causal determination at the expense of social agency, stressing too much the rigidity of structures, which makes it difficult to account for social change (7). Macro approaches in health sociology dealing with structural relations involve structural functionalism and the conflict paradigm, as well as some postmodern theories. They analyse models of health care

provision by complex organisations within the political and class context of the capitalist system, the functioning and characteristics of the medical profession and its de-professionalisation, as well as different aspects of health inequalities studied by social epidemiology (7).

Agency theories, on the other hand, opposite to structural theories, emphasise the socio-psychological aspects of the individual and the capacity for voluntary action (6). After the demise of structural functionalism, new agency-oriented theories appeared in the 1960s, such as symbolic interactionism and ethnomethodology, giving prominence to individual agency, viewing society as a temporary phenomenon involving constant change, exhibiting equally stable arrangements, but also “constant flows of activity and organization” (8). Therefore, agency theories do not deny the effects of social structure, but share the conviction that agency defines human behavior, rather than rigid social structures (2). Theories attempting to transcend the agency vs. structure debate include the French scholar Pierre Bourdieu challenging the dualism of macro and micro levels (6) and Anthony Giddens with his structuration theory, emphasising the duality of structure, both constraining and enabling individuals (2). Margaret Archer’s critical realism equally stresses the capacity of individuals interacting with others to redesign society by creating the structures within it, choosing the situations within which they have an impact (2). Nonetheless, Zygmunt Bauman (9) emphasises the constraints on individual choice by omnipresent structures, related to the limited choice of what is available and the social roles or codes defining what is appropriate. Therefore, we can conclude that to a great extent individuals may have the capacity to act independently, but this happens rarely and within certain structural constraints channeling their behaviour (2).

RESULTS

STAGING THE BECKER VS. COCKERHAM DEBATE

How does the agency vs. structure debate translate (in)between the paradigms of Health Economics and Medical Sociology, represented respectively by two key figures in the disciplines: Gary Becker and William Cockerham? What are the key determinants of health: individual will or

agency, or the overdetermining impact of social structures?

Gary Becker, a significant scholar in the third generation of the Chicago School of Economics, expands the application of economic theory to non-economic spheres of life (generally considered as part of the scope of sociology), such as health, family, discrimination and deviance. Additionally, he is considered to make a major contribution in Health Economics, building on the theory of human capital as one of its main contributors (10). Becker is led by the conviction that the economic approach has the capacity to explain and integrate a wide variety of human behaviour (1). Generally, he applies neoclassical cost and utility theory to wider social phenomena, accepting that all social actors impersonate *Homo Economicus*, a rational profit maximiser, emphasising the role of market equilibrium and stable preferences, which comprise the essence of his economic approach (1). Human capital theory informed Becker's focus on individual endeavours regarding health. Individual efforts to maintain good health are seen as possibly incurring some present costs (i.e. keeping a good diet or exercising), which, however, in their turn would enhance individual productivity and wellbeing in the long run (i.e. one's longevity and good health), treated as forms of social capital (10). Therefore, health is something one can invest in advance in terms of individual choices of behavior at the micro level (self-protection), but also in interaction with economic incentives offered by institutions and technologies (i.e. in the form of self-insurance or different pension plans, annuities and survival benefits) (10). In the presence of such incentives, it is concluded, one invests more in health and self-protection (10). Therefore, self-protection and self-insurance are complementary and this may lead to the reduction of risk and longevity under certain conditions (10). Later Becker, Philipson and Soares (2005)(11) developed a simplified generalised life-cycle model, analysing health and aggregate welfare, by creating a hypothetical individual, earning the average income per capita of a country for each year in his/her life, being exposed to the "survival probabilities" of the country for the time (10). On this base they coined the notion of "full-income" to reflect both gains in health and income per

capita to assess overall welfare and inequality in different countries (10). The model and conclusions reached by this paper influenced future research on the economic value of health improvement, different welfare indices and determinants of health inequalities (ibid.).

Health, on the other hand, Becker relates to other forms of human behavior, such as addictive behavior or habits, forward looking behavior and education, which require different trade-offs in the course of time (10). For example, one may be an addicted smoker or a workaholic, who does not exercise, not because he/she is unaware of the negative effects such habits inflict on health, but because the costs of giving up smoking or working less intensively will be more than longer life expectancy (1). Therefore, we can assume that long life is not the only goal, but decisions about health are complemented by other goals in life (ibid.). Becker and Mulligan (1997) (12), for example, analyse future-oriented behaviour (both introspectively and via the consumption of market goods) on health and longevity (10). According to their theory, increased longevity will influence future-oriented capital returns (ibid.). Similar arguments underlie the connection between health and other future-oriented forms of behaviour regarding education and fertility. One of the definitions of economics understood as "the allocation of scarce resources among competing ends" (1) is therefore extended in Becker's work to any non-market decisions, including health and lifestyle. In general, Becker's imprint on the Economy of Health, treated both as human capital and as consumption good, is significant (10), both in research and in institutional practices.

Distinctions between Becker's and Cockerham's view on health are paradigmatic. William Cockerham, elaborates a sociological view on health from the theoretical perspective of Medical Sociology, which emphasises the role of social factors in producing health and disease, deemed not as "background or secondary variables when it comes to causation, but have direct effects on physical health and longevity" (13). Cockerham studies the underlying social processes and conditions, returning to the agency vs. structure debate in sociology, often ignored by health sociologists (2):

“When applied to health lifestyles, the question becomes: Are the decisions people make with respect to food, exercise, smoking, and the like largely a matter of individual choice or are they principally molded by structural variables such as social class position and gender? One might think that lifestyle practices are simply a matter of individual choice. That is, a person either chooses to do healthy things as a lifestyle or not, and this is basically the whole story. On the surface, such a decision appears to be largely a matter of free will. But is this really the case? Are health and other lifestyles constructed by individuals without any specific reference to the social structures in their lives?”

Building on the theoretical heritage of Max Weber, Pierre Bourdieu, as well as Anthony Giddens, Cockerham perceives health and the inherent *health lifestyles* as a simultaneous function of the interplay between individual agency (*life choices*) and structural limitations (*life chances*) (2). From Weber he inherits the dialectical relationship between them, while Giddens’s structuration theory is embedded in the understanding of the duality of structure, both defining individual actions, but also being defined by them. Bourdieu’s theory of lifestyles, a key influence in Cockerham’s theory, relates individual practices to culture, structure and power relations within a structural framework (2). In *Distinction* (14), Bourdieu connects economic capital with cultural capital (e.g. family values and aesthetic tastes) in terms of consumption and their dynamic interdependence. Lifestyles are also an expression of one’s self-identity, following Giddens (15). They are not inherent only of the affluent upper classes, as previously assumed by Veblen (16), but can refer to lifestyle practices elaborated by lower strata, although defined by what Bourdieu calls “distance from necessity “ (2). Similarly, *health lifestyles* are for Cockerham related to a changed focus in studies from disease and medical care to chronic diseases and health in general, viewing the latter as an achievement, aiming to decrease the risk of premature death and provide a better quality of life (2). Consequently, the definition Cockerham provides of *health lifestyles* is that they

are “collective patterns of health-related behaviour based on choices from options available to people according to their *life chances*” (2). In his theory, while *life choices* and *health lifestyles* are voluntary, a function of individual choice and agency, *life chances* are determined by structural elements, such as social, class, age, gender, as well as living conditions, which may limit or empower individual choices and their outcomes, depending on the structural position within the social aggregate of a particular social group that individuals belong (2). At the same time, *health lifestyles* and the capacity to maintain them (i.e. for agency), are influenced both externally by field (a structural arena similar to class) and capital (economic, social and cultural (in Bourdieu’s theory) and internally by *habitus* (the internalised system of collective symbolic aspects of class status) (6). *Health lifestyles* are for Cockerham aggregates (containing patterns of individual behaviour), pertaining to certain social groups or classes, shaped by the following structural influences: 1) social class; 2) age, race/ethnicity and gender; 3) collectivities (linked through certain social relationships and networks, such as workplace, kinship, religion, and politics) (2); and 4) living conditions (2). Following Bauman (9), influences on individual behaviour are for Cockerham exerted by providing predetermined patterns of available choices (i.e. *agenda of choices*), and the *code of choosing* (in accordance with particular social rules) (2). In both cases, structural conditions define what to choose from and in what order of preference (e.g. one’s social class) (ibid.). *Life chances* (structural conditions mostly related to social class) and *life choices* (agency) act dialectically, enabling or constraining choices. Agency is not considered as passive in health terms, since individuals choose a lifestyle in accordance with the assessment of their resources and their class circumstances (2). Disposition to action (i.e. individual’s choices and process of evaluation) is guided by a certain type of “cognitive map” provided by the individual’s *habitus*, which consists of internalised social norms and conventions, applied habitually and almost intuitively (2). Practices (or actions), based on *habitus*, therefore can be the result of deliberate calculation, but quite often, on routine habits and intuition (2). In sum, Cockerham deems health not as related to

the individual paradigm, but sometimes defined by structure, without negating agency, and sometimes entirely “overwhelm[ing] agency” (2). In other words, the sociological paradigm teaches us to consider the way social structures affect individual choice and actions regarding *health lifestyles*.

DISCUSSION

The Becker vs. Cockerham imaginary debate on health exposes paradigmatic distinctions between the two disciplines: economics and sociology. Becker’s approach expanded to human behaviour in general is often defined as a form of economic imperialism, utilising the economics approach as the more powerful one in terms of explanatory power, although accepting some contribution by other social sciences (1). When applied to health, weighing out different individual preferences in terms of their utility, it firmly anchors the discussion on the individual plane, typical of economics – an approach strongly contested by sociologists. Even when analysis proceeds on the microsocial level in sociology, it always considers structural relations and influences, as proved by Cockerham’s model of *health lifestyles*, since socialisation and experience are considered to affect (both positively and negatively) individual choices. Such choices, however, are always treated as social aggregates, depending on different structural elements involving class, age, race/ethnicity, gender and etc. Statistical data of existing tendencies in health and disease clustered around them is seen as proof of such structural influences (2). Moreover, Medical Sociology insisting on the primacy of structural factors as a fundamental cause of disease and illness in contemporary societies urges for an immediate “paradigm shift away from an emphasis on the study of individual attitudes and behaviours regarding health to a more balanced conceptual approach that includes a renewed focus on structural effects” (13). Becker’s economic paradigm is deficient in such terms, accounting only for deterministic utilitarian preferences related to profit maximisation, although expanded to the wider non-material sphere and human life in general. Simplified methods, not based on empirical evidence in economics, as in some of Becker’s studies, may be considered as very powerful generalisations, but unrealistic, leading to

unpredictable and dysfunctional results, in economic policies (17) or institutional responses. While the economic model constructs purposefully a generalised atomised *Homo Economicus* to represent all humanity, *Homo Sociologicus* is much more complex, affected by processes of socialisation and group influences, while interacting with others and being shaped by structural determinants, which may facilitate or impede individual choice and action. Regarding health lifestyles, determinants, such as class, age, gender, sex, race/ethnicity and etc., often intersect and complicate analysis within sociology. The concept of intersectionality reflects different forms of structural inequality, such as sexism, ageism and racism, which are not cumulative, but interactive and co-determining, as each category derives its meaning from the other at a given point of intersection, producing “a uniquely hybrid creation” (Shields 2008: 305 in 18). However, health studies should decentre gender and provide awareness of wider “systems-centred” effects, focusing on complex historical processes, as well as on the effects of globalisation on health inequalities, the relationships affecting certain “multiply marginalised groups” in particular historical contexts, elaborating on what gives their prominence and what are their particular consequences (18). Thus, for example, poverty, unsafe living conditions, unhealthy diet and poor access to health care predispose certain social sections (e.g. Afro-Americans and people of colour in the US) to have much more compromised health and lower mortality rate (i.e. the intersection between class and race/ethnicity), also defined by models of structural inequality (2). Tomova and Nikolova (19) similarly conclude that extremely poor health and high mortality rates among Bulgarian Roma are due to a combination of structural factors, such as social class, discrimination, age, ethnospecific culture and traditions, highlighting poverty as the central one. Experience from the COVID-19 pandemic has further pointed at the intersection of class, race/ethnicity, age and gender as decisive factors when explaining the vulnerability and disease outcomes of certain social groups necessitating particular tailored responses in terms of treatment and prevention.

CONCLUSION

Although the article has attempted to argue for a better analysis of the structural effects on health lifestyles, often at the expense of individual opportunity for agency, or agency only within certain structural restraints (both external and internal), the enormous human-inflicted damage on the biosphere and the effects of pollution on health should direct us to think in a different direction, away from the structural-deterministic one. As Anthony Giddens proposes (20), following Hall (21), we need to connect health care systems with environmental protection, treating this as a form of preventive medicine. As the old saying goes, an ounce of prevention is worth a pound of cure. It is worth tracking the capacity of such a new form of agency to transform the structural damage inflicted on human health by external environmental factors and lead simultaneously to more health equity, safer and protected environment, as well as greater biodiversity. Work on health equity, however, poses serious challenges and necessitates wider structural transformation on a systemic level, aiming to provide access to limited resources and overcome discrimination and existing inequalities. Research in Health and Medical Sociology within the wider domain of public, socially responsible sociology, could be beneficial for informing the public and improving the conditions in most affected communities and areas.

REFERENCES

1. Becker, G. "Economic Analysis and Human Behaviour", In: Chavdarova, T., *Economics and Sociology: American Economic Sociology after 1970: A Reader*, LIK Publishing, Sofia, pp.22-41, 1999.
2. Cockerham, William C., Chapter 7. „Bourdieu and an Update of Health Lifestyle Theory“. In: Cockerham, W.C. , *Medical Sociology on the Move. New Directions in Theory*. Springer: Birmingham, AL, USA, pp.127-154, 2013.
3. WHO global strategy on health, environment and climate change: the transformation needed to improve lives and well-being sustainably through healthy environments. Geneva: World Health Organization. Licence: CC BY-NC-SA 3.0 IGO, 2020.
4. "Preventing disease through healthy environments: a global assessment of the burden of disease from environmental risks", 13 September 2018, (<https://www.who.int/publications/i/item/9789241565196>) (Available on May 20, 2021).
5. Bharmal, Nazleen, Kathryn Pitkin Derose, Melissa Francisca Felician, and Margaret M. Weden, *Understanding the Upstream Social Determinants of Health*. Santa Monica, CA: RAND Corporation, 2015. (https://www.rand.org/pubs/working_papers/WR1096.html.) (Available on May 20, 2021).
6. Marshall, G., *Dictionary of Sociology*. Oxford, New York, 1998.
7. Giarelli, G., "Introduction: Why a Sociology of Pandemics?" Chapter 33. *Medical Sociology*." In: Korgen K.O. ed., *The Cambridge Handbook of Sociology, Volume 1. Careers in Sociology and the Development of the Discipline*. Cambridge University Press: New York, pp. 344-354, 2017.
8. Worsley, P. ed., *The New Introducing Sociology*. 3rd ed., Penguin Books: New York, 1987.
9. Bauman, Z., *In Search of Politics*. Stanford, CA: Stanford University Press.1999.
10. Soares, Rodrigo R., "Gary Becker's Contributions in Health". *Economics, IZA Discussion Papers*, No. 8586, Institute for the Study of Labor (IZA), Bonn, 2014. (<https://www.econstor.eu/bitstream/10419/106527/1/dp8586.pdf>) (Available on May 23, 2021)
11. Becker, Gary S., Tomas J. Philipson, and Rodrigo R. Soares, "The Quantity and Quality of Life and the Evolution of World Inequality". *American Economic Review*, 95(1), pp. 277-291, 2005.
12. Becker, Gary S. and Casey B. Mulligan, "The Endogenous Determination of Time Preference". *Quarterly Journal of Economics*, CXII (2), pp.729-758, 1997.
13. Cockerham, W.C., "The Rise of the Theory in Medical Sociology". In: *Medical Sociology on the Move. New Directions in Theory*. Springer: Birmingham, AL, USA, pp.1-10, 2013.
14. Bourdieu, P. *Distinction: A Social Critique of the Judgment of Taste*. London: Routledge & Kegan Paul, 1984.
15. Giddens, A., *Modernity and Self-Identity*. Stanford, CA: Stanford University Press.1991.

16. Veblen, T. *The Theory of the Leisure Class*. New York: Viking Press, (1899) 1967.
17. Bower, J. I. *The Two Faces of Management*. Houghton Mifflin, Boston, 1983.
18. Annandale, Ellen „Gender Theory and Health“. In: Cockerham, W.C., *Medical Sociology on the Move. New Directions in Theory*. Springer: Birmingham, AL, USA, pp.1155-172, 2013.
19. Tomova, I. and Nikolova, S., *In the Mirror of Difference: Roma Health Status and Access to Health Care*, Prof. Marin Drinov Academic Publishing, Sofia, 2011.
20. Giddens, A., *Sociology.*” Prozorets,” Sofia, 2003.
21. Hall, Ross Hume, *Health and the Global Environment*. Cambridge: Polity Press. 1990.