# Syndemic: tautology and dichotomy in a new-old concept

## *Sindemia: tautologia e dicotomia em um novo-velho conceito*

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**ABSTRACT** In the wake of the decade's most severe pandemic, the term 'syndemic' reemerged as an alternative to better designate the nature assumed by COVID-19. The authors who advocate for this concept argue that it gives greater analytical breadth, which allows an understanding of the synergistic interactions between diseases and their social origins. This essay aims to analyze this concept in the light of historical-dialectical materialism. In particular, it dialogues with the Collective Health current developed under the influence of Marxism. Thus, the category of social determination of the health-disease process is called to the debate when its greater breadth is revealed before the syndemic concept. We found that the concept under analysis is tautological and reproduces old dichotomies of the biomedical model while criticizing it.

**KEYWORDS** COVID-19. Health-disease process. Pandemics. Syndemic.

**RESUMO** *No bojo da mais grave pandemia em décadas, o termo 'sindemia' ressurgiu como uma alternativa para melhor denominar o caráter assumido pela Covid-19. Os autores que defendem esse conceito argumentam que ele confere maior amplitude analítica, o que permite apreender as interações sinérgicas entre doenças e as suas origens sociais. O objetivo deste ensaio consistiu em analisar esse conceito à luz do materialismo histórico-dialético. Para tal, dialoga-se, sobremodo, com a corrente da saúde coletiva que se desenvolveu sob influência do marxismo. Assim, a categoria determinação social do processo saúde-doença é chamada ao debate quando se revela a sua maior amplitude ante o conceito de sindemia. Constatou-se que o conceito ora em análise é tautológico e reproduz velhas dicotomias do modelo biomédico, mesmo querendo criticá-lo.*

**PALAVRAS-CHAVE** *Covid-19. Processo saúde-doença. Pandemias. Sindemia.*

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## Prologue to a reflection

Are the terms 'epidemic' and 'pandemic' insufficient to explain the interaction that certain diseases establish in society? Do these terms capture the interactive nature of various health events, such as the accumulation of disease burden, with social, political, and economic factors? Is the term 'syndemic', then, an adequate alternative? Are cases like COVID-19 not, therefore, a pandemic but a syndemic?

Before these questions, this essay aims to analyze the concept of syndemic, submitting it to the theoretical sieve of historical-dialectical materialism and, thus, confronting it with the categorical and conceptual universe of collective health. Thus, we aim to test the relevance of this concept in the face of the concepts already used. This essay is a preliminary and not exhaustive theoretical reflection that maintains rigor vis-à-vis ideas, categories, concepts, and bibliography evoked in the debate.

Before proceeding with the analysis, we should clarify the syndemic concept. Introduced in the public health debate in the 1990s by medical anthropologist Merrill Singer, the concept attempted to reach a broader analytical dimension of the HIV/AIDS epidemic that had been ravaging the United States of America (USA) since the 1980s and was until then neglected by the hegemonic public health, because it is centered on the prejudiced idea of risk groups or only biological aspects.

The discussion was first made public more systematically in the article 'Aids and the health crisis of the U.S. urban poor; the perspective of critical medical anthropology'[1], in which Singer rightly identifies that the HIV/AIDS epidemic was a health crisis that could not be explained by the old biologicist bias of public health. The debate about the characteristics of the virus and what it causes in the human organism was and is essential, yet insufficient. The author[1] believes that the ways to describe and address the crisis at the population level were also inadequate since the endemic, epidemic, and pandemic concepts (which were also being applied to the case of HIV/AIDS) did not imply the necessary tools to achieve the effective social dynamics of the crisis.

Singer[1] argues that this peculiar dynamic arises from the synergistic interaction that HIV/AIDS establishes with the various elements of chaos in some U.S. cities. This interaction is marked by a mosaic of established endemic conditions, from diseases to a wide range of political-economic issues and social factors, including unemployment, poverty, housing problems, malnutrition, environmental and mobility problems, lack of access to health, alcohol and drug use, and other youth-related problems[1].

The author[1] exemplifies how the syndemic behavior of HIV/AIDS can occur: poverty predisposes to malnutrition; this, in turn, can be associated with chronic stress and pre-existing diseases, compromising the immune system. The burden increases with socioeconomic factors that enhance the likelihood of drug abuse and exposure to HIV. Abuse substances elevate the risk of exposure to Sexually Transmitted Infections (STIs) which can, in turn, be a shared factor of HIV infection. The immune system is further damaged with advancing AIDS, increasing susceptibility to opportunistic diseases such as tuberculosis, with a higher likelihood of death.

Thus, an interactive dynamic is established, which Singer[1] affirms escapes the endemic, epidemic, and pandemic concepts. The author[1] then argues that it unveils a new epidemiological perspective that can reach the core of the diseases and social conditions underpinning the syndemics within cities.

Recently, with the COVID-19 pandemic, several authors[2-6] used this concept to conduct a broader approach to the health crisis. We engaged in critical dialogue with these authors, including Singer[1], displayed in three more sections. In the first one, we outline a brief description of the debate on the supposed syndemic nature of COVID-19. In the second,

we argue that this understanding is a tautology. The last section shows its dichotomous character. To this end, the last two sections bring to light the social determination of health perspective (or social determination of the health-disease process), built by collective health in dialogue with social and human sciences, particularly with historical-dialectic materialism[7].

## COVID-19: pandemic or syndemic?

Indeed, after the initial discussion developed within the HIV/AIDS epidemic, the moment of greater visibility of the syndemic concept occurred with the COVID-19 pandemic. Horton[2] rekindled the debate through a comment published in 'The Lancet', in which he argues that COVID-19 was not a pandemic but a syndemic. The author[2] believes two different categories of diseases are interacting within specific populations: on the one hand, COVID-19 with an infectious nature and, on the other hand, Non-Communicable Diseases and Disorders (DANT) that predispose individuals to severe forms of COVID-19 or that deteriorate because of it.

Horton[2] highlights that these conditions are accumulating within social groups, elevating the burden of disease determined by the patterns of inequality previously established in society. In other words, the accumulated diseases against a background of social and economic disparities exacerbate the adverse effects of each disease in isolation. Because of this, the author[2] emphatically affirms that COVID-19 is not a pandemic but a syndemic.

Horton's[2] comment negatively affected the academic debate and grounded some analyses and reflections. We should highlight Mendenhall's[3] consideration, who, while recognizing the relevance of Horton's debate[2], makes some reservations, as he argues that COVID-19 cannot be considered a syndemic in any country. This author[3] believes that COVID-19 is a syndemic in the context analyzed by Horton[2], considering the social conditions in the U.S. and the weak measures to combat the disease adopted by the government of that country. However, one cannot speak of a syndemic in countries with other social conditions and stricter measures to combat COVID-19, successfully controlling the health crisis.

Mendenhall[3] mentions the example of New Zealand, where the cases and deaths were quickly controlled with strict social distancing measures combined with a context of substantive social protection (including health), which resulted in milder health and social setting than most countries. Sub-Saharan Africa is also cited as an example, as COVID-19 similarly showed milder numbers in this region at the time, credited to the social and health measures adopted locally, more effective than in other countries, even advanced capitalism, such as the U.S. and the U.K. For this reason, Mendenhall[3] argues that Covid-19 is not a global syndemic but only reveals itself as such in some countries, in those where the social, cultural, political, and economic context has resulted in ineffective measures to combat the disease, acting negatively and reciprocally with it.

Other authors attempted to strengthen the understanding of COVID-19 as a syndemic, looking for evidence. Fronteira et al.[4] argue that three dimensions define the syndemic status: the concentration of diseases; the interaction between diseases; and the large-scale social forces that give rise to them. Based on this, these authors[4] investigated whether these dimensions are found in the context of COVID-19 and concluded that it is indeed a syndemic.

Indeed, Fronteira et al.[4] point out that COVID-19 has caused a more significant disease burden in several countries, such as those that face seasonal dengue epidemics or high DANT indicators. Diseases' overlap leads to dengue being neglected, which can produce greater cases and deaths from this disease. They also point out how the fear of becoming infected has influenced mental health or lowered healthcare demand for

other problems, aggravating them. Other synergistic situations are exemplified through the relationship between social distancing and domestic violence, or even between the infodemic (the exacerbated spread of misinformation) and the number of COVID-19 cases and deaths[4].

Another way in which we sought to evidence the existence of the syndemic nature was by investigating particular cases. Ribeiro et al.[5] affirm that the case of Manaus, Brazil, reveals the synergy between pre-existing poor health conditions, social distancing relaxation, new SARS-CoV-2 variants, and the lack of coping measures that should have been taken during what they call a syndemic. These authors[5] compare the COVID-19 case in Manaus with the 'Spanish flu' caused by H1N1 in 1918, when similar conditions triggered a critical backdrop, including an even more lethal second wave. Thus, similarly, the analysis can also retroact, classifying this flu as syndemic at that time.

The type of interaction analyzed by Cunha et al.[6] is more specific, as it addresses the interference of COVID-19 in Brazilian dental care services. The authors[6] argue that the number of primary and specialized care fell by more than 40% in 2020 against 2019. Non-urgent care was reduced by more than 90% under the effects of social distancing measures. Thus, a harmful dynamic was created in the dental field that attached a burden of oral health problems to COVID-19.

Considering the two more specific studies, we should underscore that Ribeiro et al.[5] and Cunha et al.[6] do not place pandemic and syndemic as mutually-excluding conditions. They recognize a pandemic several times in their investigation. However, they highlight the dynamics of interaction between the social landscape, pre-existing diseases, and COVID-19, highlighting a syndemic nature underlying the pandemic. This understanding differs from Horton's[2] reflection, for whom there is no pandemic, but only a syndemic; or Mendenhall's argument[3], which corroborates Horton's[2] thinking about the existence of a COVID-19 syndemic, however, emphasizing that it does not have a global nature.

A common trait of all these authors is that they propose understanding COVID-19 beyond the virus or its biological aspects. By incorporating the concept of syndemic, they reveal their concern with the social origins of diseases and how, at the same time, they create other social contingencies. Undoubtedly, this concern is legitimate and contributes to broadening the coping perspectives. However, we question whether a new concept is essential for such an expansion or if the elaboration/application of this concept falls into redundancy before a broad pre-established understanding of health. We will discuss this in the next section.

## The tautological invention of the old or the reinvention of the new

The core of the concept under analysis, supposedly new, lies in understanding the (synergistic) social dynamics that diseases assume within specific populations[1]. By bringing this concept to explain COVID-19, Horton[2] leaves no doubt: the most important consequence of understanding this disease as a syndemic is to familiarize with its social origins, the negligible reach of purely biomedical measures vis-à-vis more vulnerable groups, such as older adults, blacks, and ethnic minorities, and the situation of essential workers, who are commonly underpaid and working in substandard conditions[2].

Fronteira et al.[4] corroborate the social dimension that unravels with this concept and claim that there is a new perspective of debate based on it. These authors[4] believe the 1990s saw the introduction of an innovative approach to understanding health as part of a biocultural synthesis that encompasses eminently the relevant social, political, and economic forces

at play and the environmental conditions that can lead to developing health or disease.

What Singer[1] and Fronteiras et al.[4] consider an innovative perspective consists of a dimension already debated (with breadth) since the 1960s, initially by Latin American social medicine and, later, by collective health. We refer, above all, to the importance given to social, political, and economic forces as those responsible for creating an interactive dynamic to produce health events, in this case, according to the authors mentioned above, a syndemic.

The difference is that the collective health perspective observes this dynamic in the entire health-disease process, not just in situations that would configure a syndemic. A decisive text to understand our counter-argument is the article by Asa Cristina Laurell[8], 'La salud-enfermedad como proceso social', published in 1982. This is because Laurell[8] can show systematically how diseases underlie a broader, socially-rooted process. Indeed, the author[8] starts from epidemiological profiles in three countries with very different social relationships, namely, the U.S., Mexico, and Cuba, to show how these profiles reflect specific social dynamics with different economic forces and policies.

In the discussion by Laurell[8] and several other authors of this current/movement, albeit with differences between them, the disease is never conceived as an isolated event but a component of a health-disease process, which, in turn, while manifesting itself individually and biologically, is always socially determined. In other words, in any health event, from the individual case to pandemics, there is always a procedural character (hence, multiple synergistic interactions) in which the touchstone is social (which includes the economy, politics, and culture)[7].

Breilh[9] entrenches the debate on this procedural character, consecrating the expression 'social determination of health'. When explaining this determination, Breilh[9] emphasizes the inseparability of individual and collective dimensions (and the natural and social), highlighting the complexity of movements (hence, interactions) between the several elements involved in these dimensions. (whether accumulating diseases, social conditions, or political processes). The author[9] believes that the many parts underpinning the process move and interact in a dialectical relationship between universal, particular, and singular. In this interaction, the central tendency is not one of balance or adaptation (either of the individual or the population) but mutual transformations between the agents and the elements involved.

As it is a dialectical-historical materialist theory, the central point of the social determination of health could not be other than the contradiction between the development of productive forces and the social relationships of production[8]. In the words of Breilh[9(21)]

> [...] the paradigm of social determination [...] proposes to decipher the movement of life, its historical metabolism in nature, the typical ways of living (economic, political, and cultural), and the movement of human geno-phenotypes within the framework of the movement of social materiality whose axis is the accumulation of capital, a name that social reproduction assumes in our societies.

Thus, the possibility of synergistic interactions and other mutually transforming interactions between the elements involved is presupposed in understanding health as a process. Furthermore, when recognizing that this process is socially determining, it is also presumed that several forces participate in the origins of the diseases but are reciprocally determined by them.

We should mention that the COVID-19 pandemic was analyzed through the lens of social determination, having demonstrated, for example, the role of agribusiness in the destruction of nature and, consequently, in changing the cycle of some diseases that only circulated among wild animals, but which started to circulate among humans[10] due to environmental changes. Alternatively, the

speed and global reach of SARS-CoV-2 reflect the capital's globalization, triggering accelerations and social interconnections compatible with the spurred rotation of capital, such as the rapid transit of people, objects, ideas, and customs[11].

Besides these processes are gender, ethnicity, and social inequality issues that the very authors[2-6] adopt the syndemic concept point out and, on this point, quite rightly. The issue is that this condition is not novel and, therefore, would not require the invention of a new concept for it to be deduced from reality. On the contrary, the debate on collective health (that unfolded from Latin American social medicine) already pointed to this nature, as it coined a broad conception of health. Even for events commonly analyzed by traditional epidemiology (to which public health has reservations), such as epidemics and pandemics, the debate on social determination is appropriate and can reveal its heterogeneous procedures, full of synergistic interactions.

In our view, the syndemic concept ends up being even more restrictive, as it only highlights social, political, and economic forces and the many possible interactions between diseases in a syndemic context. Where would these forces and interactions be when the situation is not syndemic? Wouldn't any health event be a result and, at the same time, co-responsible for some synergistic interaction?

The concept takes on an even more restricted scope when used in the sense of mere synergism between diseases, as already used by some authors[12,13]. In these cases, even the good intention of Singer's original formulation[1] is removed since its idea is about transcending biomedical parameters. Therefore, this disease-centered focus is not adequate. Reducing the syndemic to a synergism of diseases is a partial apprehension of the original proposal because it diminishes the role of social interactions that give rise to health events.

Despite the good intentions and the relevance of contesting the biomedical model, we understand that syndemics are a new-old concept when confronted with the Latin American debate; it is a tautology that even implies the restriction of a broad conception of health.

## The syndemic as a dichotomy of the health-disease process: the biological outside the social

The attempt to coin a concept for situations in which there is a synergy that can attribute social origins to diseases is a dichotomy between the biological and the social spheres because these social origins are not exclusive to situations classified as syndemic but an inescapable character of any health event. The health-disease process[8] idea presupposes the inseparability of social and biological factors and, thus, understands that health and disease are two stages of the same process[14-16].

When Singer[1] defends that his concept can reveal how the social sphere interacts with diseases, he cannot understand that the disease, as part of a process, is a social event. In the Singerian conception, the social sphere is a dimension that can interact synergistically with the disease but is external to it. From another perspective, we argue that, although there are social particularities external to the health-disease process, it carries with it, internally, the social character.

We see that COVID-19 is not merely the virus or the infected individual's pathophysiology, but it is added to the social history that underlies it; in other words, its social origins, the economic repercussions it causes, or the changes in personal relationships it promotes, among many other particularities. These are not external elements that act synergistically with the disease but are part of its history; they are the disease itself, conceived as a process and beyond biology.

Although advocates for the concept (syndemic) criticize and try to overcome the

biomedical model, they end up falling into the same dichotomy of this model, even if they advance in the apprehension of multiple interactive aspects, which is because they continue to understand the social sphere on the one hand and the disease (as a biological event) on the other. They take an existing a priori separation (social and biological) as a starting point, which would finally be resolved with the syndemic concept.

This trend reproduces the positivist bias, as it first fragments and then gathers the pieces within sophisticatedly thought-out theories but with little ballast in the social totality. Covered by the subterfuge of interaction, these theories are conceived as the antithesis of positivism (in health, very well represented by the biomedical model); however, they assume this position without realizing that they reproduce a starting point very similar to the biomedical model.

In our view, the starting point must be different. The social and biological spheres need not be united because they are not separate in reality. As Lukács[17] shows, the social being is, at the same time, a natural (biological) being, since, through the transformation of non-human nature, the human being can transform himself individually and collectively, ontologically leaping toward a new sphere of being. It is a continuous process of complexification that begins with the inorganic being and the ontological leap (breaking with the qualitative structure of the being towards a higher structure) that paves the way for the organic being's (nature) existence. From the core of this (organic) being, the human species detaches itself (a new leap occurs), thanks to its teleological ability to transform nature in an end-directed way. Hence the new leap that can give rise to the social being without making it cease to be, at the same time, inorganic and organic.

This complexification bears higher levels of existence but always presupposes the existence of lower levels. Thus, there is no social being without nature; at the same time, the existence of the social being means a dialectical rupture (rupture-continuity) by nature vis-à-vis its *modus operandi stricto*, raised to a new (social) *modus operandi*[17].

Here we understand human health as a particularity of the social being; as such, it carries with it nature and society inseparability peculiar to this sphere of being. Although health is expressed biologically and individually, it develops within a scope that is no longer pure biology. Therefore, the biological sphere (found in a pure state in nature) has been imbricated with the social sphere since the latter's origins. In turn, the health-disease process is always an organic articulation between social and biological[7,16].

If our starting point is another, the point of arrival also becomes another. As we do not start from an understanding that separates biological and social spheres to join them in a synergistic (syndemic) relationship, our point of arrival consists in the possibility of reconstructing the processuality between universal-particular-singular at the level of concrete thought and, with that, open paths for transformative interventions. This fact implies understanding how the universality of the capitalist mode of production produces particular relationships of class, gender, and ethnicity; how these relationships reverberate in the material conditions of individuals' lives (singularly); and through which mediations does this processuality occur in time and different spaces.

Obviously, the same principles are valid when the particularity analyzed/faced is a pandemic or a disease that affects the neighborhood, the factory, or the individual. Making the connections (understanding the interactions) between the singular, the particular, and the universal is a given condition when it comes to health or any other particularity of the social being, understanding the latter as the result of an ontological leap from the natural being. Therein lies the heuristic (and practical) key to intervening in health beyond the biomedical tool, avoiding its dichotomies.

## A brief epilogue or a prologue of further reflections

We found that the idea of a pandemic may be sufficient to explain the history of COVID-19 in 2020/2021, as long as it is understood beyond its biological aspects as a socially determined process. Thus, the concept of syndemic is redundant because of the possibilities that the debate on the social determination of the health-disease process generated at least 50 years ago. Moreover, it is a concept that restricts the possibilities of understanding health in all its breadth, as it gives eminence to social forces in particular situations when, in fact, they are universally present, even inseparable from the biological dimension.

Why, then, are new concepts forged outside Latin America to explain processes that we Latinos have been able to explain for a long time? In these final reflections, we hypothesize that this condition is due to the peripheral position we hold socially, including the intellectual colonization of the debate. This fact implies that, on the one hand, in Europe and the USA, the public health debate does not reverberate consistently and that, on the other hand, we incorporate heteronymous concepts despite the concepts elaborated by some theoretical currents from the Latin American 'soil'. Obviously, the validity of this hypothesis and other possible reasons for the problem mentioned must be tested in further reflections.

## Collaborator

Souza DO (0000-0002-1103-5474)* is responsible for the elaboration of the manuscript. ■

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