Syndemics: a new path for global health research

How we think about disease pathologies affects how we design policies and deliver care to those most affected by social and economic inequities. Conventional frameworks in medicine and public health, such as comorbidity and multimorbidity, often overlook the effects of social, political, and ecological factors. As the papers in this Series and the linked Viewpoint show, the theory of syndemics improves on conventional frameworks in both theoretical and practical terms by illuminating how macro-level social factors promote disease clustering at the population level and impact disease pathologies at the individual level.

The syndemics concept has three core features. Syndemics involve the clustering of two or more diseases within a population; the biological, social, and psychological interaction of those diseases; and the large-scale social forces that precipitate disease clustering in the first place. Originally developed by medical anthropologists to make sense of HIV/AIDS, the theory of syndemics offers an innovative way of understanding why diseases cluster together in populations disproportionately affected by poverty, social exclusion, gender-based violence, climate change, displacement arising from agricultural or industrial waste or pollution, and other forms of social and environmental stress.

The introduction of tobacco as a corporate commodity to Oceania precipitated one such syndemic. Tobacco use does not always interact syndemically—for example, plaque build up in the coronary arteries from tobacco use that impedes healing from a back injury may reveal a biological interaction but not reveal a macrosocial factor as a source of their clustering. Among Pacific Islanders, however, tobacco use clusters with the rapid escalation of non-communicable diseases (NCDs) such as coronary heart disease, cancer, diabetes, and chronic obstructive pulmonary disease. The rise of tobacco-related illness cannot be divorced from the introduction of industrially manufactured cigarettes to Pacific Islanders by tobacco companies. In this case, the concurrent rise in smoking and in this cluster of NCDs among smokers (as well as the biological impact of smoking on these conditions) comprises a syndemic. Syndemics involve more than simply co-occurrence of two or more diseases; they emerge when factors such as corporate exploitation, poverty, social trauma, environmental threat, and limited...
health-care access exacerbate biological interactions among—and outcomes to—clustered conditions. Such interactions are amplified in populations that face extreme structural, political, and social vulnerabilities, such as refugees or unauthorised migrants. In these situations, delayed medical attention aggravates undiagnosed disorders since people receive medical care only when symptoms become advanced, often resulting in escalated medical and social problems. Further, social and gender norms can affect syndemic interactions among certain vulnerable groups, especially when subjugation is amplified by poverty and gender-based violence.

This Lancet Series highlights three ways in which a syndemic framework can advance medicine, public health, and human rights. First, the syndemics construct provides powerful strategies for recognising how social, political, and ecological factors create and perpetuate structural vulnerabilities that contribute to syndemic emergence and exacerbation. Second, a syndemic framework enables understanding of how certain individuals, families, and communities (and not others) are consigned to harmful environments that make them vulnerable to syndemics with concrete effects on social and biological wellbeing. Third, this syndemic knowledge makes it possible to intervene effectively at both the policy and clinical levels. By addressing both the roots of sickness (inequality) and the treatment of symptoms (clinical care), syndemic intervention can strengthen strategies of prevention and care by considering the full scope of syndemic vulnerabilities, rather than treating disorders individually and ignoring the complex contexts in which they occur.

This Series makes the bold proposition that many epidemics can be better tackled by using a syndemic framework. Rarely does an epidemic emerge in isolation across a population, and a growing body of research emphasises the impact of living with two or more conditions on a person’s disability, morbidity, and mortality. For example, if the Global Burden of Disease Study group used the syndemic construct, it would more effectively take into consideration the effect of large-scale social forces on disease clusters among resource-constrained communities. The syndemic approach can thus make a valuable contribution to how researchers, clinical practitioners, and policy makers think about and intervene in health inequities and inequalities across populations. A syndemic approach requires the identification of social policies and clinical care that address the confluence of these mutually exacerbating conditions.

Attention to syndemic interactions reveals the need to build strong health systems that are accessible, affordable, and available for vulnerable populations. Health-care systems can have an iatrogenic role by exacerbating, or even precipitating, syndemics. Health intervention for one condition can cause the emergence of another, and overlooking the underlying biological effects of one condition on another can negatively affect health outcomes. Integrating the role of community health or social workers into clinical care, as a partner to a health-care provider, can improve compliance with medical recommendations despite structural vulnerabilities. Further, health systems that take syndemic interactions into account will be designed to optimise wellbeing of whole persons and address underlying social and structural causes rather than asking clinicians to treat individual diseases in isolation. The provision of patient-centred medical care that incorporates diagnostics and routine care within a single clinical encounter can save patients valuable time and money and improve patients’ outcomes by working to overcome underlying social, economic, and psychological impediments to treatment regimens.

The three papers in this Lancet Series and the accompanying Viewpoint show in concrete ways how
research that uses a syndemic framework can advance clinical medicine and global health. Merrill Singer and colleagues1 communicate the anthropological origins of the syndemic concept, define key terms, and provide concrete illustrations of syndemic interactions. In the second paper, we present comparative strategies for evaluating syndemics and describe how syndemic approaches to global health can inform integrative clinical medicine by advancing what we call “syndemic care”.2 Sarah Willen and colleagues show how certain populations, such as migrants, are prone to health-related human rights violations and associated syndemic vulnerability, and they advance a combined syndemics and human rights approach to health inequity.3 The Viewpoint by Alexander Tsai and colleagues4 shows the utility of syndemic approaches for social epidemiology and calls on researchers using the syndemic construct to take seriously the statistical power of interactions within population-level analyses. Together, these papers provide important insights, tools, and strategies for tackling health inequities in the domains of research, policy, and clinical practice to better address the relationships between large-scale social forces and health inequalities within nations and communities worldwide.

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9 Nichter M. Comorbidity: reconsidering the unit of analysis.