



OPEN LETTER

Beyond behaviour as individual choice: A call to expand understandings around social science in health research

[version 1; peer review: 2 approved]N Nakkeeran¹, Emma Sacks ², Prashanth N Srinivas ³, Anika Juneja³, Rakhal Gaitonde⁴, Surekha Garimella⁵, Stephanie M Topp⁶¹School of Global Affairs, Dr. BR Ambedkar University, Delhi, 110006, India²Department of International Health, Johns Hopkins School of Public Health, Baltimore, Maryland, 21218, USA³Health equity cluster, Institute of Public Health, Bangalore, Karnataka, 560070, India⁴Achutha Menon Centre for Health Science Studies, Sree Chitra Tirunal Institute of Medical Sciences and Technology, Thiruvananthapuram, Kerala, 695011, India⁵George Institute for Global Health, New Delhi, 110025, India⁶College of Public Health, Medical and Veterinary Sciences, James Cook University, Townsville, Queensland, 4811, Australia

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Abstract

The focus of behavioural sciences in shaping behaviour of individuals and populations is well documented. Research and practice insights from behavioural sciences improve our understanding of how people make choices that in turn determine their health, and in turn the health of the population. However, we argue that an isolated focus on behaviour - which is one link in a chain from macro to the micro interventions - is not in sync with the public health approach which per force includes a multi-level interest. The exclusive focus on behaviour manipulation then becomes a temporary solution at best and facilitator of reproduction of harmful structures at worst. Several researchers and policymakers have begun integrating insights from behavioural economics and related disciplines that explain individual choice, for example, by the establishment of Behavioural Insight Teams, or nudge units to inform the design and implementation of public health programs. In order to comprehensively improve public health, we discuss the limitations of an exclusive focus on behaviour change for public health advancement and call for an explicit integration of broader structural and population-level contexts, processes and factors that shape the lives of individuals and groups, health systems and differential health outcomes.

Keywords

behavioural sciences, social sciences, health behaviour, behaviour change, social hierarchies, social conditions

Open Peer Review

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Invited Reviewers

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report



report

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2. **Nanda Kishore Kannuri** , Public Health Foundation of India, Hyderabad, India

Any reports and responses or comments on the article can be found at the end of the article.



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Introduction

Social sciences have made critical contributions to our understanding of public health as a discipline, in interrogating relationships between the state, institutions, citizens and health, delineating the impact of social hierarchies on health, highlighting the role of governance, policies and power in the preventive, promotive and curative aspects of health, and providing insight in the design, implementation and evaluation of public health interventions. However, the social sciences are often reduced to individual behavioural sciences, which is only one aspect of the broader set of tools, skills, insights, and values that can be brought to improve population health. We, as social scientists, and public health researchers, are particularly concerned about a stream of behavioural studies that is presently dominating the health and public policy field under the *behavioural economics* label. By focusing on the individual level incentive architecture and the cognitive biases documented over the decades and framing these as the sole or pre-dominant level of intervention, these approaches could distract from a more holistic conceptualization of health and its social and societal determinants, as well as the more recently articulated concept of *social determination*^{1,2}. A focus on the behavioural aspects could become a “quick fix” leaving the larger structural issues unaddressed, addressing the proximal causes of the disease but being blind to the causes of the causes³.

For instance, there was a recent call for papers from the *Bulletin of the World Health Organisation* for a special issue⁴ on “*Behavioural and social sciences for better health*”, emphasising contributions from low- and middle income countries. Though admirable for its objective, this call limited itself to the efforts of behavioural sciences almost to the exclusion of other social sciences and used the individual as the only site of intervention. Given the World Health Organization (WHO)’s stated desire to “scale up the use of behavioural and social sciences in public health”, the use of behavioural science to examine factors beyond the control of individuals and the contributions and utilities of other social sciences should be recognized. Academic articles and special issues are one of the ways in which the public health research community shapes its evidence-base and research agendas. Hence, it is crucial that the conceptualisation of the social determination of health is more comprehensive, and that the full complement of social science methodologies and insights are represented, to avoid only including methodologically or socially convenient evidence.

A sole focus on behaviour-shaping (individually or collectively) ignores behavioural and social science contributions that illuminate how structural factors and social hierarchies constitute lives of individuals and communities within which behaviours derive their meaning and relevance. Behavioural health is an essential component of social science, in both

research and practice, and many public health programs incorporate behavioural interventions. But public health scholars and professionals have examined many drivers of individual, community, and institutional behaviour, and have shown that interventions must work simultaneously and across many levels in order to achieve desired health outcomes. An exclusive focus on behavioural health with the individual as the sole unit of analysis is flawed and untenable for many reasons. With a number of countries including low- and middle-income countries like India establishing Behavioural Insight Teams (also called *nudge units*) and a number of programs like the Total Sanitation Campaign claiming to rely on insights from behavioural economics in the design and implementation, it is urgent to reflect on these approaches from a more critical perspective including not only the insights from the social sciences but also from larger public health ethics.

We discuss the limitations of an exclusive focus on behaviour change for public health advancement and call for an explicit integration of broader structural and population-level contexts, processes, and factors that shape lives of individuals and groups, health systems and differential health outcomes.

Conceptualising behaviour

An approach that focuses exclusively or even predominantly on individual behavioural drivers of health considers the individual as the main site of analysis, disregarding existing knowledge of social hierarchies and power relations, and the resulting social oppressions and conflicts. The unfair accumulation of markers of poor health among historically marginalised communities has been demonstrated through many global, national, and sub-national analyses⁵.

This individual-centred view conceptualises behaviour either as an individual’s unreflective response to situations or as an individual’s choice albeit conditioned by cognitive biases. The former renders aspects like agency and conscious social action invisible, and the latter focuses on ‘options’ as if they are equally available irrespective of individuals’ social locations. Concepts like “collective behaviour” and “steering” seemingly provide an escape from this dichotomy. However, such a restrictive behavioural approach often gets trapped in a language of either victim-blaming or paternalism. Focusing on behaviour as the only effective location to affect change fails to appreciate that most public health problems are interconnected to and nested within layers of health system challenges stemming from social and political contexts.

A behaviourally-focused approach which works only at the individual level implies a presumption in the minds of policymakers and program designers that they know what behaviours are in someone else’s best interest⁶. In a socially differentiated society, it may include additional presumptions on whose behaviours are of interest, manifesting as paternalistic or colonial. At a global level, conceptualising public health phenomena in ways that acknowledge and integrate an equity-focused and decolonised worldview urgently requires recognition of existing social hierarchies and power structures⁷.

Recognising social hierarchies and social conditions

An exclusive behavioural focus, not complemented by a social understanding of health, may treat behaviour as an ahistorical and apolitical entity disembodied from social processes. It may fail to adequately problematize the tension between individual and society in conceptualising behaviour. Unravelling the complex contexts and processes through which behaviours get shaped, reified, and differentially valued in society as well as identified and prioritised as relevant ones within public health programming, demands recognition of social hierarchies and power dynamics that operate along these intersecting hierarchies mediated through both distributional and recognition based mechanisms⁸.

For instance, the problem of open-defecation is addressed as if it were a behaviour that is rooted in individual choice or a cultural practice of a particular social group without adequately provisioning for piped water supply and improved sanitation. This involves the belief that open-defecation can be addressed without a prohibition of manual scavenging or provision of necessary infrastructure. As Link and Phelan emphasise, recognising the link between individual choices in behaviour and “social conditions” is unavoidable and such “fundamental social causes” cannot be addressed by merely readjusting the individually-based mechanisms but only by affecting changes in social conditions⁹. Methodologically, there has been a stream of behaviour studies that have depended largely on the randomised control trial; while necessary for many scientific questions, a purely experimental approach to such phenomenon as behaviour (even accepting the role of individual cognitive biases) does not do justice to the present understanding of health in all its complexity, and social determination.

Individual behaviours thus should best be seen as emergent manifestation of underlying social and historical processes that shape inequitable access to resources, power and prestige, and differential impacts of market, environment, and policies on people’s daily and inter-generational lives¹⁰. Comprehensively examining behaviour necessarily includes examining the behaviour and context of institutions and environments. Institutions themselves can be rich sites of analysis, uncovering how scientific evidence translate into policies, and how those policies may be enforced, circumvented, or manifested. Thus, critical social science which examines lived experience, societal and structural factors, and policy environments is necessary to shed light on such complexities.

Methodological convenience

It is often more difficult to measure and address structural and environmental factors¹¹, rather than individual level factors. Decision-making processes may not be transparent, and power dynamics may be intentionally or unintentionally obtuse. Tracking change longitudinally across many more stakeholders increases the scope and intricacy of measurement efforts.

There is a relative lack of evidence of population-level prevention strategies, which could address upstream social and environmental factors within which health-damaging behavioural choices are made. Such research faces political and cultural obstacles that restrict researchers who are unwilling or unable to produce evidence¹² as well as methodological challenges in “studying the complex relationship between the context of health and health outcomes”¹². Accounting for politics and social hierarchies, to use Szepter’s words, “makes for a devilishly complicated story”¹³.

Methodological convenience privileges a reductionist understanding of behavioural and social aspects of health. It is crucial to recognise the multitude of methodological approaches used by behavioural and other social scientists alike, such as ethnography, critical theory, and political economy in fields such as implementation science, anthropology, and policy analysis that lend themselves to exploring, understanding, and conceptualising public health problems as complex social problems. Being inclusive of the many facets of the social sciences will help foster theoretical pluralism, multiple perspectives, and sensitive health systems that engender, promote, and sustain good health.

Conclusion

Individual behaviour science makes critical contributions towards improved health outcomes but assuming this to be happening in autonomous spaces independent of socio-political contexts and competing interests diminishes its relevance. A call to scale up the application of behavioural and social sciences should promote and utilize approaches with a wider recognition of the scope of behavioural science, and the use of methods which recognize social complexity and address change at the structural and environmental levels. Hence, there is a need for a call that has a more inclusive and transformative view of health that embraces more expansive social sciences.

Data availability

No data are associated with this article.

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Reviewer Report 20 September 2021

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Nanda Kishore Kannuri 

Department of Social and Behavioral Sciences, Indian Institute of Public Health Hyderabad, Public Health Foundation of India, Hyderabad, India

The open letter highlights an important paradigm shaping developmental interventions including public health interventions across the world. The authors make their point that individual behaviour sciences, particularly behavioural economics, are gaining ground at the cost of broader and more holistic public health interventions based on theoretical and methodological underpinnings from social sciences.

It is a very timely piece that critically analyses a greater policy push to modify individual behaviours and guide them towards a 'desirable behaviour' through mainstreaming behavioural economics perspectives.

I have a few comments on the structure of the article in general and a few suggestions on the content that may help readers to situate the article in a broader debate around public health research.

1. The structure could have been more taut, avoiding a few repetitions in presenting the argument.
2. International readers could benefit if a few more India specific examples on recent nudge based developmental/public health interventions are included.
3. A reference to how public health discipline is largely grounded in a positivist ontology that is defining health research in general.
4. Including a point about the epistemological differences within the social sciences that shape the nature of evidence in public health research and interventions would help the reader to understand the hierarchy of knowledge within the public health discipline.
5. The argument could have been benefited if the article included some critical reflection on:
 1. The global health push – neoliberal forms of interventions under the rubric of global

public health- withdrawal of the state from providing health care, lack of investment in health care infrastructure, individualised public health.

2. The role of WHO in shaping the discourse around nature of evidence in public health - while WHO's commission on social determinants of health put forward a compelling case in 2008 for a public policy that should influence social and environmental factors that shape health inequities, eventually it seems that growing globalisation and neoliberalism, is leading to a renewed shift in WHO towards individual behaviour change model.

6. The reader will also benefit if the authors include a few concrete suggestions in outlining ways forward in their conclusion.

Is the rationale for the Open Letter provided in sufficient detail?

Yes

Does the article adequately reference differing views and opinions?

Yes

Are all factual statements correct, and are statements and arguments made adequately supported by citations?

Yes

Is the Open Letter written in accessible language?

Yes

Where applicable, are recommendations and next steps explained clearly for others to follow?

Yes

Competing Interests: No competing interests were disclosed.

Reviewer Expertise: Medical Anthropology, Social determinants of health, Health Systems, Community based Participatory Approaches

I confirm that I have read this submission and believe that I have an appropriate level of expertise to confirm that it is of an acceptable scientific standard.

Reviewer Report 14 September 2021

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Marta Schaaf 

Independent Consultant, New York, NY, USA

This open letter argues that research that centers individual behavior limits our understandings, and thus policy responses, to public health concerns. The letter introduces the topic and then describes different ways that a focus on individual behavior undermines comprehensive understanding. The points are well supported with detail.

Overall, I found the letter to be clear and making an important argument. My feedback relates to the clarity of the argument and the writing, and can be addressed with minimal effort. Most of my comments relate to the introduction.

First, in the abstract, the authors might consider changing the phrase "multi-level interest" to "multi-level framing," which I think more directly communicates the point you are making. Second, the paper refers to the field of behavioural economics, which is being used to inform programs that address both health care workers and community members. However, your article appears to be concerned only with community members. It might be helpful to make this point up front - that you are not writing about programs that try to address the behaviours of HCWs.

Third, the introduction mentions "cognitive biases documented over the decades..." I was able to guess what you meant, but I am familiar with and receptive to your argument. It might be helpful to provide some slight clarification (I know you get into it later) about what is meant by the statement about cognitive biases in the introduction.

Fourth, the term "social determination" is not widely understood, and it might be read by some to be the same as "social determinants." Therefore, I think it would be quite helpful to define this term the first time it is used.

It might be helpful to your readers (and transparent) to say more about why you feel the WHO Bulletin call for papers was focused on individual level determinants. The letter state "this call limited itself to the efforts of behavioural sciences almost to the exclusion of other social sciences..." You might quote from the call, or, otherwise explain how the call was limited to behavioural sciences almost to the exclusion of other sciences. What justifies your statement?

The second sentence of the second paragraph is also not clear to me. "Given the WHO's stated desire to 'scale up the use of behavioural and social sciences in public health,' the use of behavioural science to examine the factors beyond the control of individuals and the contributions and utilities of other social sciences should be recognized." Do you mean that the WHO itself realizes the importance of going beyond behavioural science and so their call should reflect this? I read the sentence a few times and did not understand.

The paper argues that behavioural evidence is "socially convenient." Again, as someone who is primed to receive your argument, I understand what you mean. However, it might be helpful to less "in the know" readers to have a few more words or a description of why this approach is "socially convenient."

Sometimes it seems as if you are making your argument in very unambiguous terms. For example, the letter states that the Total Sanitation Campaign "claims to rely on insights from

behavioural economics." The word "claim" seems gratuitous, as if you are impugning the program designers for saying that it is informed by behavioural economics but it is not actually. Also, do you mean to imply that programs should never be "informed" by behavioural economics? To me, the word "informed" implies that the program designers used insights from behavioural economics; it does not mean that they did not use any other theories or insights. If they only used behavioural economics, then you might state that explicitly.

The term "manual scavenging" is used in the section on social hierarchies. I don't think that this term is widely understood outside of South Asia.

Is the rationale for the Open Letter provided in sufficient detail?

Yes

Does the article adequately reference differing views and opinions?

Yes

Are all factual statements correct, and are statements and arguments made adequately supported by citations?

Yes

Is the Open Letter written in accessible language?

Partly

Where applicable, are recommendations and next steps explained clearly for others to follow?

Yes

Competing Interests: No competing interests were disclosed.

Reviewer Expertise: Health systems, sexual and reproductive health and rights, human rights, social determinants of health

I confirm that I have read this submission and believe that I have an appropriate level of expertise to confirm that it is of an acceptable scientific standard.

Comments on this article

Version 1

Reader Comment 30 Sep 2021

Adithya Pradyumna, Azim Premji University, Bengaluru, India

Thanks for this very well articulated and important argument. I've reflected on some of your key points from an environmental health perspective in the form of a blogpost - available at this link:

<https://www.internationalhealthpolicies.org/blogs/on-the-constraints-of-behaviour-and-individual-choice-in-public-health-how-about-environmental-health/>.

Competing Interests: Nothing to declare.
