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Commentary

Time to shift from systems thinking-talking to systems thinking-action

Comment on "Constraints to applying systems thinking concepts in health systems: A regional perspective from surveying stakeholders in Eastern Mediterranean countries"

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Abstract
A recent International Journal of Health Policy and Management (IJHPM) article by Fadi El-Jardali and colleagues makes an important contribution to the literature on health system strengthening by reporting on a survey of healthcare stakeholders in Low- and Middle-Income Countries (LMICs) about Systems Thinking (ST). The study's main contributions are its confirmation that healthcare stakeholders understand the importance of ST but do not know how to act on that understanding, and the call for collective action by the global community of systems thinkers committed to healthcare improvement. We offer three basic considerations for next steps by this community, derived from our recent work in ST and the related field of Knowledge Translation (KT): resist the temptation to adopt a reductionist approach; recognize not everyone needs to understand ST; and do not wait for everything to be in place before getting started.
Keywords: Systems Thinking (ST), Complexity, Strategic Communications, Knowledge to Action, Knowledge Translation (KT)

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Introduction

A recent International Journal of Health Policy and Management (IJHPM) article by Fadi El-Jardali and colleagues (1) makes an important contribution to the literature on health system strengthening by reporting on a survey of healthcare stakeholders about Systems Thinking (ST) in Low- and Middle-Income Countries (LMICs).

However, we are inclined to suggest the primary contribution of this study is not derived from its findings *per se*, which provide few if any significant revelations. Rather, the merits of the study include its confirmation of what most of us working with ST concepts recognize: healthcare stakeholders indeed understand the importance of ST. The problem is, they do not know how to proceed on that understanding. The study reveals the interest in ST among stakeholders in the Eastern Mediterranean Region (EMR), which we believe offers a catalytic opportunity for collective ST-informed efforts in that area. Finally, it makes a call for collective action by the global community of systems thinkers committed to healthcare improvement: it is time to move from ST-talking to ST-action. Of course, as the El-Jardali *et al.* study suggests, the next steps to making ST an accepted and integral part of health system policy and planning are not easily determined, in part due to some of the very barriers they would seek to overcome. As highlighted in the study, these include misconceptions and a generally weak understanding of ST concepts; the need for more capacity and skills; lack of funding; and lack of political support.

Reading *"Constraints to applying systems thinking concepts in health systems"*, we are struck by the idea that using an ST approach to promoting the use of ST by key health system stakeholders might be the best way to proceed. There can be little doubt that achieving this objective – having ST endorsed and applied more often by health system policy-makers and administrators – involves complexity. And a significant risk to any effort at dealing with complexity is to become overwhelmed by the myriad possibilities for action, and paralyzed by questions of where to start and what to do in order to "solve" the issue (2). This is a common response to complexity and the conundrum faced by anyone looking to develop an ST-informed action plan – but to give up in the face of this challenge would be unfortunate given the opportunity at hand.

On behalf of the wider community of systems thinkers engaged in healthcare improvement, we applaud the efforts of El-Jardali *et al.* to advance the discussion of ST closer to the goal of practical application. It must also be acknowledged that although LMICs may have particular challenges and that these must not be minimized (e.g. limited financial resources, weak government institutions, limited health human resources), around the world people are struggling with how to effectively promote ST approaches to health issues. Toward that end we offer three considerations derived from our recent work in ST and Knowledge Translation (KT).

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Using Systems Thinking (ST) concepts to promote Systems Thinking (ST) practice

1. Resist the temptation to adopt a reductionist approach

In their study, El-Jardali *et al.* found that misconceptions about ST among some of their study participants led to a conflation of ST concepts and tools with general good management practices. As an example, they found that 27% of their study participants inferred that the *"Ten Steps to Systems Thinking"* outlined in a World Health Organization (WHO) report constituted a guide to applying ST in practice.

Given the human tendency to simplify when confronted with complexity, such misconceptions are understandable. It has even been ventured that the temptation to view complex problems through a simplifying cause/effect lens is a fundamental mechanism of human cognition (3).

But those of us promoting the use of ST must avoid simplistic solutions. ST training and education, stakeholder-specific key messages and pilot projects that demonstrate the benefits of ST are all potentially useful interventions in support of our objective, but to be really effective they must be seen as part of a bigger picture. This is particularly relevant to El-Jardali *et al.* findings, where some of the more easily addressed needs they identified — skill building, for example — are up against formidable challenges captured under the deceptively simple heading of "*political and social factors*" (p. 405).

Of course, as systems theory would attest, ST cannot be mandated across an organization. Such a top-down management approach is counter to the basic concepts of ST. But those of us involved in health system initiatives could consider the context in which we work, and strategize how to influence, even in small ways, areas we might not otherwise have a say in. To illustrate an approach we offer the example of a KT model developed by one of the authors to help a funding agency determine its role in increasing the use of health research evidence in policy and practice (4). Increasingly, it is acknowledged that the uptake of evidence is not a linear process; evidence is produced and used in complex systems. Accordingly, this model identified five actions to support an environment conducive to KT: building capacity for KT, undertaking KT projects, funding KT, advocacy (at various levels, including public, academic, political), and study of KT (KT science). A funding agency might not undertake all these actions, but the model illustrates the complexity of evidence use, pointing out, for example, that all the KT skill building in the world will not result in researchers working to have their findings applied in the "real world" if their academic institutions do not recognize them for it. Based on this model, the funding agency has partnered with other regional organizations to help promote KT in areas beyond its influence.

We submit that adopting a similar model to promote support for and the use of ST in healthcare planning and policy – and working with partners to extend the reach of ST promotion efforts – offers a promising way forward.

2. Recognize not everyone needs to understand Systems Thinking (ST)

As noted above, everyone loves a quick fix to problems. This may be especially true of elected officials – who need to convince their stakeholders that things are getting done –

but it is also true of government bureaucrats, health system administrators and even the public.

We suggest it is a fruitless task to try to overcome the quick fix mentality: it is not going to go away. Further, we think meeting specific stakeholders' varying needs – even if that means creating high-level presentations that simplify complex issues – will benefit ST. "*ST offers no quick remedies*" is not a message most stakeholders want or need to hear. Neither do many of them need to grasp the concepts behind ST, or to understand its terminology.

In a previous article we discussed the importance of strategic communications, (5) arguing it is underused in the KT field. A strategic communications plan asks who needs to know what and do what – and how – in order to reach the goals in question. It could aid those of us working to promote ST approaches to health system problems by identifying our audiences, and creating objectives and strategies for each based on their priorities and motivations and what influences them. To use two very different examples, drawing on El-Jardali *et al.*, one audience might be health managers keenly interested in learning about ST, in which case an education initiative might be appropriate (although we acknowledge it may be difficult to get approval for implementation). Another audience could be decision-makers at the highest level of government, who may be motivated by a desire for recognition, or fear of job loss (p. 400). This group, we suggest, does not necessarily need to understand and adopt ST *per se*, but since they are in a position to enable the application of ST, we need strategies to ensure they actually do so, based on our knowledge of their priorities and what influences them.

In our KT work, as we zealously set about raising awareness of this important area, we realized that many people are "doing KT" – that is, using research to improve policy and practice, in very sophisticated ways – but not calling it KT (6). To impose arcane language and concepts in an effort to educate or enlighten is unnecessary and potentially counter-productive. Based on the reactions we get from some senior health officials when we discuss ST, we suspect the same situation may be occurring here.

One ST-based initiative for implementing a widespread change of practice within a Canadian provincial health system involved a communication strategy and the creation of simple, high-level goals to help keep change efforts on target (7). At the local level, however, the recommendation was to allow considerable latitude for local implementation of the change as long as variations from the standard supported the overarching system goal. Allowing significant local input was key to winning local engagement. Similarly, in the effort to promote ST it is not necessary to get all players on board with the broad concept. It is, however, necessary to engage all players in meaningful and appropriate ways that contribute to the overall goal.

3. Do not wait for everything to be in place before getting started

A basic principle of ST is the unpredictable, self-evolving nature of complex systems. From an intervention standpoint, this means there will never be a perfect time to act. What is required is a willingness to take measured action in the absence of perfect evidence. Coupled with this is the need to incorporate rapid feedback loops to provide the

information required for guiding any necessary adjustments to implementation. Complex systems respond to change in unpredictable ways, so allowing for flexibility during the implementation of a change is absolutely necessary (8).

Studies such as the one done by El-Jardali *et al.* and frameworks like what was developed for KT support may not in themselves provide all of the direction required for moving ST thinking to ST action, but that should not keep us from getting started. We know a lot about what makes ST work for addressing complex issues (e.g. formation of networks and local teams, development of high-level goals, strong communications, distributed leadership, effective feedback mechanisms, etc.). And, as mentioned earlier, we also know what will not work, e.g. issuing dictums from on high. ST is designed to effect change through application at the grassroots level. This suggests a strategy of starting small, using ST to perhaps address a common issue, but confining the initial intervention to a specific local setting and, as it progresses and meets its objectives, allowing it to expand organically to other settings.

Conclusion: opportunity of the global network

The issue of how to bring ST to the everyday world of healthcare continues to be a challenge for systems thinkers intent on health system improvement. Although the more pressing obstacles for ST as applied to health system strengthening in LMICs are now better understood following the work of El-Jardali *et al.*, there is still much we can learn from each other. At the heart of a systems approach to complex problems are the precepts of forming networks and acting locally. Applying these concepts to promoting ST in practice suggests we maintain the dialogue, pursue areas where we can collaborate, and look for local opportunities to apply our knowledge.

Ethical issues

Not applicable.

Competing interests

Authors declare that they have no competing interests.

Authors' contributions

BJH and KN co-wrote this commentary.

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