

Systems change reborn: rethinking our theories, methods, and efforts in human services reform and community-based change

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Abstract This article introduces the reader to this special issue on Systems Change and highlights six lessons learned about theory, methods, and interventions for systems change that emerged across the included articles. The value of a systems approach to systems change is examined, including the need for frameworks, methods, and change activities that attend to the characteristics of systems.

Keywords Systems change · Mental models · Systems thinking · Social change

Community Psychology is ultimately concerned about social justice and social change. These goals require a sophisticated understanding of the contexts that give rise to social problems (Seidman, 1988) and the use of research methods and change strategies that attend to the complexities of social settings (Tseng et al., 2002). Although our field has dedicated considerable attention to these concerns, our abilities in these areas still lag behind the considerable need in our society for transformative change. This special issue on Systems Change was developed to increase the conceptual and methodological tools available to those involved in designing, implementing, and assessing social change.

Why focus on systems change?

We purposively used the frame of “Systems Change” for this special issue for several reasons. First, the term

“systems change” explicitly connotes a *change* in a *system*. For us the term “system” better captures the ecological and social change emphasis of our field than the more often used term “context”. In general, a system is a collection of parts that interact together and function as a whole (Ackoff & Rovin, 2003). While the term context can also connote this complexity, it more typically refers to a discrete environmental (e.g., neighborhood, school, organization, community) characteristic that has influence on a phenomenon of interest. Sense of community, classroom size, leadership style, and decision-making opportunities are all examples of contextual characteristics that are often measured or targeted for intervention by community psychologists. While these are all valuable foci for research and intervention efforts, these discrete variables do not capture the overall purpose and essence of the contexts within which they are embedded. Neighborhoods, schools, organizations, and communities are complex and dynamic; their character emerges through the interactions and interdependencies across the many actors, niches, and activities that exist within them. Attention to only one or a few system characteristics when attempting to foster social change can create null results and even have dire consequences. For example, Tseng and Seidman (2007) in this issue describe how California’s school reform movement failed, in part, because leaders considered a reduction in classroom size as essential to educational performance and ignored the inevitable fact that the creation of new classrooms would create a need for more teachers within the system. Without this resource the school system hired relatively unqualified individuals to fill this gap and inadvertently sacrificed classroom quality for classroom size.

Because significant social change requires that we alter the status quo, and the status quo is maintained and constrained by the systems we live within (Seidman, 1988), a

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focus on understanding and changing systems seems a worthwhile venture for community psychologists. Thus, it is our hope that this special issue reinvigorates a more deliberate consideration of the term “system,” and all it conveys, in the research and intervention work of community psychologists.

The second reason for using the systems change frame for this issue is that many recent initiatives by federal and state governments and national foundations have adopted the term “systems change” to illustrate their goal of creating sweeping and sustained transformative impact on neighborhoods, communities, and service delivery systems. In these efforts, a “system” such as a neighborhood, the mental health delivery system, or even a whole community, is the focus of change. Though popular, many of these efforts have struggled to achieve what was promised. As professionals engaged in this work ourselves (as a funder, evaluator, technical assistance provider, and designer) we looked to the literature to help us better understand how to do systems change effectively. We found few articles in our field that were pertinent to this concern. We hope this special issue will help to expand the contributions made by community psychologists to this field of study.

Third, for the past 20 or more years, a large academic discourse has been occurring around the concept of systems though this dialogue has not often involved community psychologists. As concepts such as chaos theory have begun to be applied to social as well as biological and physical systems, numerous debates concerning what a system is and how it should be understood, changed, and evaluated have occurred within the fields of systems thinking. It is our hope that this special issue helps to bridge the academic worlds of community psychology and systems thinking because we believe that efforts to create social change can be strengthened by insights gained in the systems science. We also believe that the largely theoretical discourse on systems can benefit from grounding in the practical world of community change work.

An introduction to the special issue

With these three purposes in mind, we sought articles for this special issue that represented exemplar descriptions of the theories, methods, and practice of systems change work. In the call for papers systems change was defined as: “change efforts that strive to shift the underlying infrastructure within a community or targeted context to support a desired outcome, including shifting existing policies and practices, resource allocations, relational structures, community norms and values, and skills and attitudes.” While authors were not required to incorporate systems thinking into their papers, many did. The following 17 articles

represent the diversity of the work in our field, targeting a range of systems, problem areas, and strategies for change. They include:

- *New theoretical frameworks* for systems change efforts. Christens, Hanlin, & Speer (2007) describe how the sociological imagination is a powerful tool for facilitating social change. Foster-Fishman, Nowell, & Yang (2007) present their framework for transformative systems change that integrates systems thinking and organizational change principles. Tseng & Seidman (2007) introduce a systems framework for understanding social settings for youth that emphasizes social processes, resources, and a setting’s organization of resources.
- *Valuable methods* for assessing systems and documenting change. Durlak et al. (2007) present results from their meta-analysis of competence-promotion outcome studies that demonstrate that social systems affecting children and adolescents can be altered. Emshoff et al. (2007) described their longitudinal analysis of community health collaboratives in Georgia and illustrate, using HLM, that collaborative characteristics, over time, influence the degree of systems changes made. Hirsch, Levine, & Miller (2007) illustrate the power of systems dynamics modeling for explaining the challenges of school reform efforts. Janzen, Nelson, Hausfather, & Ochocka (2007) describe how they engaged consumers of mental health services in a participatory action research process to document and track their systems change activities. Kreger, Brindis, Manuel, & Sassoubre (2007) present a framework for tracking the indicators of collaborative systems change efforts.
- *Rich case examples of systems change*. Griffith et al. (2007) present a process for addressing institutional racism in the health care system. O’Connor (2007) describes a strategy for eliciting and altering the mental models used by members of interagency teams. Campbell, Nair, & Maimane (2007) describe their efforts to create a health competent community in a rural South Africa community plagued by HIV/AIDS. Ford (2007) details how his action research efforts with one police department facilitated and supported the transformation to community policing. Staggs, White, Schewe, Davis, & Dill (2007) discuss their attempts at incubating systems change in the service delivery system for children in Chicago. Suarez-Balcazar et al. (2007) describe their efforts at creating a healthy food system within the public schools in Chicago.
- *Commentaries on the future of systems change*. Kelly (2007) discusses the implication of these articles for current and future community psychologists. Behrens & Foster-Fishman (2007) generate a list of systems

change principles that can be culled from these articles. Parsons (2007) posits that complex adaptive systems theory may be particularly useful for the endeavors pursued by community psychologists.

Overall, this group of articles tells a compelling tale of the passion for social change within our field and the challenges faced in pursuit of social justice. We introduce you to these articles by first highlighting a few insights about the theories, methods, and processes of systems change that emerge from this body of work.

Insights about theory as it relates to systems change

Theory is useful because it provides a framework from which to understand or explain what we observe or to predict what we anticipate will happen. Part of our own journey as co-editors of this special was to familiarize our selves with the large body of literature on systems thinking and transformative change.¹ As we reviewed the articles in this special issue, from this expanded framework, several insights emerged about the value of integrating a system's perspective into our field's systems change efforts. We highlight these insights below.

Attention to a system's boundary and the processes used to define it can improve the efficacy of systems change endeavors

For some systems theorists, the process of defining a system's boundary is the most critical step in a systems change endeavor (Checkland, 1981; Midgley, 2000). Boundaries clarify what is important and valued; they make explicit the focus of inquiry (including the problem definition) and the potential range of impact of a change initiative. Thus, boundary clarity not only helps the configuration of intervention and analyses efforts, but it also increases the transferability of the findings to other similar contexts. In this special issue Foster-Fishman and her colleagues describe how they engage system members in clarifying two types of boundaries in their systems change efforts: (a) how the problem is defined; and (b) who and what should be considered as part of the system given this problem definition.

Because system boundaries are an arbitrary construct, the act of defining boundaries is an essential step in any systems change endeavor (Midgley, 2000). For example, Christens et al.'s (2007) article in this special issue illus-

trates how the obesity problem in America is redefined when the boundaries of this problem are redrawn to include the increase in corn farm subsidies and thus the abundance of inexpensive fructose corn syrup as an additive in processed foods. By expanding the system boundaries in this way, Christens and colleagues highlight the need for solutions that expand beyond individual or even community level healthy eating programs.

The delineation of system boundaries can create opportunities for change or, when drawn too narrowly, reduce the resources available for system functioning. Thus, one lever for change is the intentional expansion of a system's boundaries. For example, in rural communities in South Africa that were plagued by HIV/AIDs, Campbell and her colleagues (2007) attempted to expand the HIV health care and support system available to these communities in multiple ways, including inviting tribal chief leaders and local service agencies to join these communities in these efforts. In the school system examined in Suarez-Balcazar's et al.'s (2007), change agents found an opportunity for systems change when they considered the new food vendors as part of their healthy food initiative.

Overall, this suggests that more attention is needed to how community psychologists define the problem situation and the boundaries around the targeted system. In many ways, the processes for creating these delineations fit well with the values and practices of community psychology. Systems theorists argue that problem definitions and system boundaries needed to be examined and negotiated with multiple system stakeholders in an ongoing and iterative dialogic process. (See Checkland, 1981 and Midgley, 2000 for excellent descriptions of these processes). These processes not only clarify boundaries for the change agent or researcher, but also serve to expand stakeholders' understandings.

A change in a system level outcome is not the same as, nor does it guarantee, system change

Systems change agents and researchers often focus on improving discrete system parts—such as a policy change or the infusion of new resources. The literature is rife with examples of systems change efforts that have yielded these outcomes yet still failed to create a sustained change in a system or a shift in the status quo. Systems thinking helps to explain why system level outcomes often fail to leverage systemic change by reminding us that a sole emphasis on a unitary system part (e.g., policy change) is usually insufficient for sustained system transformation (unless, of course, one is fortunate enough to locate that butterfly flapping its wing). Systems are made of parts—and their interactions—and it is the interaction between parts that define system functioning, give birth to entrenched patterns

¹ While there is not space in this article to provide a comprehensive review of the systems literature, we refer interested readers to Bob Williams' website (<http://users.actix.co.nz/bobwill>) for an excellent summary of key systems theories.

of interaction, and generate root causes to significant problems (Senge, 1990). A shift in a system part—such as a policy change—will only transform the status quo if that part also leverages necessary changes in other system elements. The character of the interdependencies and patterns across system components ultimately determine if such leverage can occur.

This suggests that researchers and change agents interested in systems change need to redirect their focus to understanding and shifting the interdependencies within systems and the consequences of those interactions. Foster-Fishman et al. (2007) describe an approach to systems change that considers system parts, their interactions, and critical levers for change. Hirsch et al.'s (2007) article highlights how inaccurate conclusions can be drawn when system interactions are ignored.

Insights about methods for systems change

Community psychologists have long lamented the significant gap between the theories of community of psychology and the methods that are employed. Luke (2006) was perhaps the most recent critic, noting the significant incongruity between our foundation in ecological theory and our primary use of methods that rarely go beyond the intra-individual level. Certainly, when systems change efforts are embedded within systems thinking theories, they risk the same lack of alignment. Systems thinking requires attention to a complex web of interdependencies, an awareness of the “whole” not just the parts, and the ability to recognize multi-directional cause-effect relationships with all causes emerging as the effect of another system dynamic. The regularity model of causation (x predicts y) that we typically rely on in our research is frankly ill-equipped to deal with such complexity.

Several of the articles in this special issue illustrate innovative methods for thinking about and changing systems. This leads us to our next lesson learned about systems change.

Systems change agents and researchers need methods that are equipped to capture system complexity

Systems are complex in many ways. For example, they contain a web of interactions, have members who hold multiple, diverse worldviews, and are self-organizing, adjusting to environmental threats and opportunities. Appropriate methods would attend to these complexities. We highlight two methods that are illustrated in this special issue that are particularly well equipped to attend to system interdependencies and multiple system realities. Parsons (2007) in her commentary to this issue introduces the

reader to a third method (complex adaptive systems theory) well suited for dealing with systems that are constantly adapting to their environments.

- *Systems dynamics modeling.* Hirsch, Levine, & Miller's (2007) article in this special issue illustrates an application of systems dynamics modeling (SDM). SDM is viewed by some system's theorists as the most advanced methodological technique for mapping and assessing system activities and outcomes. It rests on the notion that systems consists of reinforcing and balancing feedback loops, not uni-directional causal chains, and that an understanding of these interdependencies sheds light on systems functioning. While a statistician familiar with the complexities of SDM is needed to run computational modeling, SDM tools can also be used to visually graph a system manually (Kim, 1999).
- *Soft systems methodology.* Soft systems methodology is an approach for understanding human systems that emphasizes the social construction of reality and the presence of multiple, valid perspectives of a problem situation and its solution (Checkland, 1981). One goal in SSM is to generate multiple “rich pictures” of a system that portray these different worldviews and then work with systems stakeholders to integrate and accommodate these different perspectives. SSM fits well with the values and processes of community psychologists; it is intentionally designed to give voice to diversity within a setting and avoids the risk of forced consensus by requiring stakeholders to create a worldview that accommodates different perspectives. Griffith and colleagues (2007) and Suarez-Balcazar et al. (2007) in this special issue describe the value and/or use of SSM in their systems change efforts.

Insights about systems change efforts

Five articles in this special issue (Suarez-Balcazar; Staggs, O'Connor, Ford, and Campbell) provide rich case study illustrations of systems change efforts. All articles describe honest portrayals of the complexity of this work and the challenges we face as we engage in systems change efforts. We highlight below three lessons learned that emerge across these cases. Kelly, in his commentary in this issue, does an excellent job of discussing the implications of the lessons learned from these cases for the future of community psychology.

Levers targeted for change need to have cross level influences within the targeted system

Systems change happens when levers for change are targeted that can trigger shifts across system components. The

papers in this special issue targeted multiple and diverse levers, including changing organizational policies (Ford, 2007; Suarez-Balcazar et al., 2007), shifting system members (Ford, 2007; Suarez-Balcazar et al., 2007), strengthening and expanding relationships (Campbell et al., 2007; Durlak et al., 2007; Emsoff et al., 2007; Kreger et al., 2007; O'Connor, 2007; Staggs et al., 2007; Suarez-Balcazar et al., 2007); infusing new or different resources (Suarez-Balcazar et al., 2007), altering practices (Ford, 2007; O'Connor, 2007; Staggs et al., 2007), shifting system regulations (Ford, 2007; Tseng & Seidman, 2007) and changing system member's mental models (Ford, 2007; O'Connor, 2007). In many ways, this list represents the deep and apparent structures Foster-Fishman et al. (2007) emphasize in their systems change framework.

As the cases described in this special issue illustrate, levers that managed to alter conditions and practices in other subsystems or system layers were the most effective at facilitating systems change. For example, Ford (2007) describes how the policies and practice ideas implemented by a new police chief initiated some significant changes in community policing efforts by beat cops. Emsoff et al. (2007) discusses how inter-organizational efforts facilitated some changes within local organizations and communities. Staggs et al. (2007) and Suarez-Balcazar et al. (2007), on the other hand, describe the challenges to system change efforts when initial levers are not positioned to create these cross-level influences.

How can a change agent determine if the targeted levers for change are positioned to trigger system wide transformation? At least in these case examples, the extent to which the initial lever for change was tightly coupled with other subsystems was critical to the success. When targeted levers for change were dynamically linked with other system components, either exerting strong direct influences or having multiple, dense connections within the system, they were more successful at influencing system wide change. This suggests that attention to the character of the connections across system parts is a vital step in identifying which levers to target for change.

Systems change requires a shift in system members' "skill sets and mindsets" (Ford, 2007)

Most system change efforts spend considerable energy building the capacities of individuals and communities, with the belief that setting members need the knowledge, skills, and behaviors to implement the required changes. However, if systems change efforts really intend to shift the status quo, shifts in mindsets or mental models are also necessary. Senge (1990) describes mental models as cognitive frameworks that are constructed from one's knowledge and assumptions that guide decision making and

action. Mental models (or mindsets) maintain, constrain, and determine the status quo (Ford, 2007; Foster-Fishman et al., 2007). They provide individuals with frames that dictate their own behaviors, explain other's action, and direct resource and opportunity allocations. In other words, even if system members have developed the new capacities needed to implement a new program or practice, they are unlikely to implement or sustain these changes if the shifts do not cohere with their worldviews about how things should be done. Ford's (2007) paper provides an excellent case example of a systems change effort that changed both skill sets and mindsets, ultimately transforming the status quo. O'Connor (2007) introduces in this special issue a systems change strategy for identifying and changing mental models.

Discourse processes that engage system members in ongoing opportunities to discover and alter their worldviews are effective mechanisms for shifting mindsets and fostering systems change

Discourse involves honest, frank discussions that strive to generate new understandings about organizational and community life. In critical discourse processes, assumptions are revealed and multiple, competing perspectives and solutions are explored, debated, and valued (Fear, Rosaen, Bawden, & Foster-Fishman, 2006). Overall, when real conversations happen in an ongoing manner, new ways of being can emerge; old mental models get unfrozen and reformulated (Lewin, 1951) and significant social change takes hold.

Several of the authors in this special issue highlight the role and value of discourse processes in their systems change efforts. For example, Ford (2007), O'Connor (2007), and Suarez-Balcazar et al. (2007) discuss the importance of engaging multiple stakeholders in ongoing dialogic processes where opportunities for exploring the gap between current realities and desired states occur. While community psychologists have highlighted the importance of discourse processes in the past, a commitment to systems change efforts may require a renewed effort in discovering effective processes and strategies for engaging system members in these difficult, though vital conversations.

Conclusion

In many ways we view this special issue as a call to action for the field of community psychology. We are encouraging the field to embrace the theories and methods called for when one considers a *systemic* approach to systems change. The articles and commentaries included in this special

issue describe the successes and challenges in systems change work and highlight, to some extent, the value of a systems focus when we strive to shift the status quo. Of course, if we are to be effective in our efforts, we must strive to socialize not only the next generation of community scholars in the “system’s way”, but also the funders and change agents that design and create expectations for these efforts. Only when the initiatives, theories, methods, and resources directed towards systems change efforts become aligned with the complexity and realities of systems will our pursuit of a just world be realized.

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