The Role of Infrastructure in the Transformation of a Child-Adolescent Mental Health System

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Abstract

There is widespread recognition that the mental health system is not effective in meeting the needs of the children, adolescents, and families who seek its services. In response to this recognition, researchers and policy makers are developing and implementing strategies to transform the mental health system. This paper suggests that transformational interventions should not get ahead of our understanding of the complexities of a mental health system. In a complex system, all component parts are interactive and interdependent. Problems with one component cannot be solved in isolation from other components. The inter-relationships between problems are complex; and changes in the inter-dependencies between problems can cause dramatic shifts in policy priorities, such when state-level mental health services agencies respond to severe budget reductions in a recessionary economy. This paper examines the complex problem domains in state-level mental health systems, and proposes that a well-built infrastructure can serve as a stabilizing foundation for problem identification and solution implementation in a complex child-adolescent mental health system.

Keywords: Mental health, child-adolescent, complexity, infrastructure, evidence-based practices, participatory decision-making, program evaluation, feedback systems.

Acknowledging a Broken Child-Adolescent Mental Services Health System

In September 2009, Leonard Bickman, Ph.D.\textsuperscript{1} and Kimberly Hoagwood, Ph.D.\textsuperscript{2} convened a panel of researchers and advisors with expertise in the field of child-adolescent mental health services (CAMHS). The purpose of the conference was to consider why the CAMHS system is failing and how such systems could become more responsive to the mental health needs of children, adolescents, and their families (Bickman, 2008b).

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The panel’s characterization of CAMHS as failing reflects a growing recognition by researchers and policy makers throughout system. In 2003, President Bush established the New Freedom Commission on Mental Health. In its report, Chairman Michael Hogan observed:

Today’s mental health care system is a patchwork relic—the result of disjointed reforms and policies. Instead of ready access to quality care, the system presents barriers that all too often add to the burden of mental illnesses for individuals, their families, and our communities. The time has long passed for yet another piecemeal approach to mental health reform. Instead, the Commission recommends a fundamental transformation of the Nation’s approach to mental health care. This transformation must ensure that mental health services and supports actively facilitate recovery, and build resilience to face life’s challenges. Too often, today’s system simply manages symptoms and accepts long-term disability (Hogan, 2003).

Many family advocates, researchers, policy makers and providers share the view that the CAMHS system is failing by many standards (Frank & Glied, 2006; Garfield, 2009; Hoagwood, 2003; Mazade & Glover, 2007; Power, 2009). In its thirteenth annual report on national healthcare quality, Margaret O’Kane, President of the National Committee for Quality Assurance, described the mental health system’s performance on several behavioral health quality measures as “pitiful” (The State of Health Care Quality, 2009). The New Freedom Commission sounded the clarion call for “fundamental transformation” in mental healthcare delivery systems. And yet, five years after the publication of the Commission’s report, this recent observation by Michael Hogan is telling:

We are faced with the combined challenges of complexity, fragmentation, and absence of a national health care system or set of policies. Responsibility for mental health care has dissipated over time to multiple federal, state, and local settings….Thus we face the problem of how to organize and deliver services in a dissipated and fragmented system of care where no one is in charge and complex solutions are not likely to take root (Sederer, 2008, p. 1243).

How do we transform a fragmented, ineffective mental health system into one that meets the needs of children, adolescents, and families? This paper presents the view that a state-level,
mental health system is complex and dynamic - complex in that the vast multitudes of entities that make up the system are interdependent and continuously interactive; and dynamic in that the activities of system are affected by environmental factors that are fluid, potent, intrusive, and unpredictable. Because mental health systems are complex and dynamic entities, “transformation” should be understood as an evolutionary process, not a static event. Because mental health systems constantly evolve, transformation has no clearly defined beginning, middle, and end. Planned and deliberate transformational efforts will always begin in a system that is in constant flux. A policy maker will never be able to say “mission accomplished” with respect to having achieved a transformed mental health system. Complex, living systems are continuously adapting to a changing environment. Like people who must adapt to the changing circumstances of life, mental health systems always evolving in order to face new challenges that demand novel solutions in a dynamically changing environment.

By taking the view that a mental health system is complex and dynamic, we will be better positioned to examine the challenge posed by Michael Hogan: “…we face the problem of how to organize and deliver services in a dissipated and fragmented system of care where no one is in charge and complex solutions are not likely to take root (Sederer, 2008, p. 1243).”

Priority Problems in Mental Health Systems

A recently published study highlights the priority problems in mental health systems from the perspective of three stakeholders: mental health policy makers, advocates, and providers. In this study, Rachel Garfield (2009) conducted structured interviews with 35 stakeholders from four states: California, Massachusetts, New Jersey, and New Mexico. The purpose of this study was to identify the factors that shape mental health system transformation – national priorities
driven largely by the New Freedom Commission, or local priorities driven by circumstances specific to the state.

The priority problems identified by Garfield’s interviews with the 35 participants are informative about the complexities of mental health systems. Gathering her data from open-ended interviews, Garfield grouped the responses into categories of problems, listing these categories by four states and three types of respondent (policy maker, advocate, or provider). By tabulating Garfield’s policy categories, the frequencies with which problems were identified are summarized in Table 1. Because there was overlap in some policy categories, the tabulated frequencies were aggregated into one collapsed category (see, for example, several types of issues were related to the broad category of funding services).

<table>
<thead>
<tr>
<th>Table 1: A rank ordering of mental health policy issues identified by three types of stakeholders in four states (Source data: Garfield, 2009, p. 1331)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Policy issue</strong></td>
</tr>
<tr>
<td>Governor’s budget cuts / county funding / funding levels / reimbursement levels / Changes in Medicaid payment</td>
</tr>
<tr>
<td>Shift to recovery model / consumerism and recovery / wellness model</td>
</tr>
<tr>
<td>Children’s community care / children’s MH system</td>
</tr>
<tr>
<td>Parity</td>
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<tr>
<td>Involuntary commitment</td>
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<tr>
<td>State psychiatric hospital beds / adult inpatient services</td>
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<tr>
<td>Corrections system</td>
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<tr>
<td>Mental Health Services Act</td>
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<tr>
<td>Supportive housing</td>
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<td>Authority for mental health policy</td>
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<td>Carve-out versus integrated care</td>
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<tr>
<td>Corrections system</td>
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<tr>
<td>Evidence-based practices</td>
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<tr>
<td>Health reform</td>
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<tr>
<td>Service definitions or performance measures / Medicaid service definitions</td>
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<tr>
<td>Stakeholder collaboration / local collaborative input</td>
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<tr>
<td>Access to prescription drugs</td>
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<tr>
<td>Deaths at state hospitals</td>
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<td>EPSDT</td>
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<tr>
<td>Investigations into state hospitals</td>
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<td>Olmstead compliance or community-based care</td>
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As shown in Table 1, the only policy area that was universally mentioned by policy makers, advocates, and providers in all four states was service funding. The next greatest policy issue concerned the states’ shift to recovery models of mental health care. Child-adolescent mental health issues were also frequently cited as policy concerns. It is interesting to note that evidence-based practices were mentioned only twice as a top policy concern, and workforce policy was mentioned only once. The fact that service funding is a major policy issue for all participants is not surprising since the interviews were conducted during a period of economic recession (May 2007 through March 2008). However, the preoccupation with service funding by all respondents supports the perspective that mental health systems are dynamic and must continuously adapt to changing environmental conditions – and changes to mental health service budgets typically trump all other priorities.

Regarding Garfield’s search for the factors that drive mental health priorities – national or local, she offers these conclusions:

Not only do specific issues on state mental health policy agendas vary across states, but they also materialize in ways particular to state circumstances. These examples demonstrate that much of state mental health policy is specific to state circumstances and reactive (Garfield, 2009, p. 1332).

Another study, similar to Garfield’s, involved interviews with 55 state and territorial mental health agency (SMHA) directors, who oversee $28 billion through which over 6 million Americans receive services for serious mental illnesses (Mazade & Glover, 2007). These researchers identified many of the same policy priorities listed by Garfield (2009), as well as
many others. Mazade and Glover grouped the priorities of the SMHA directors under three broad categories: enhancing consumer empowerment; addressing workforce crises; and ensuring financial stewardship. With respect to the category of financial stewardship, the researchers note the pressure that SMHA directors are under to demonstrate fiscal accountability:

Consumers, families, state legislative budget and finance committees, advocates, the Governor’s Budget Office, media, and providers all exert pressures on the SMHA to justify investments in various programs and to provide evidence that targeted expenditures on new programs and continuation of traditional services are worth the investment. Unfortunately, these data are not always readily available, making it difficult for the SMHA directors to compete with other state agencies that also seek fiscal resources for programs they consider critical (Mazade & Glover, 2007, p. 1149).

In complex mental health systems, with interconnected and interdependent components, problems are often linked in negative, recursive cycles. Data are needed to document service effectiveness, with such data justifying funding to support an expansion of effective services. Without data demonstrating service effectiveness, funding is not available, effective services cannot be implemented, no evaluative data are collected, and no argument for increased funding can be made.

These studies cited here (Garfield, 2009; Mazade & Glover, 2007) are two of many studies that document the many needs, problems, and priorities confronting state-level mental health systems. Other studies that have viewed state mental health services in their totality as systems include: (Bjorklund, Monroe-DeVita, Reed, Toulon, & Morse, 2009; Carpinello, Rosenberg, Stone, Schwager, & Felton, 2002; Cashin, Scheffler, Felton, Adams, & Miller, 2008; Crump, 2007; Davis, Geller, & Hunt, 2006; Edwards & Smith, 2007; Ganju, 2008; Hyde, 2004; Willging, et al., 2007).

While these studies directly addressed mental health systems’ needs, problems, and priorities, there are still other domains to consider. For example, as mentioned above, the
economic recession impacted the level of concern about service funding. Thus, the social and political contexts, which constitute the external environment of a mental health system, further complicate an already complex system. Clearly, the changing demographics of the U.S. should be considered in our view of challenges facing a dysfunctional mental health system. Policy makers should understand that as a population’s racial, cultural, and ethnic diversity increases, the markets of the state mental health system actually change. The Substance Abuse and Mental Health Services Administration has for several years called for cultural competency in mental health systems. The Research and Training Center for Children’s Mental Health at the Louis de la Parte Institute, University of South Florida recently reviewed a collection of assessment protocols for organizational cultural competence. One definition from the tools reviewed might be instructive here. Siegel et al. (2004) defined organizational cultural competence as: “The attribute of a behavioral health care organization that describes the set of congruent behaviors, attitudes, policies and procedure that enable its caregivers to work effectively and efficiently in cross/multi-cultural situation at all of its organizational levels.”

Thus, a wide range of issues, both internal and external to the system, create complexities within layers of interconnected causes and effects. So, too, do transformation processes become complex.

The Implications of Transformation as a Continuous Process

Considering the complex myriad of interconnected problems that must be addressed in order to make mental health services more responsive to children, adolescents, and families, we can appreciate that system-wide transformation is a process that will never be completed. A solution in one priority area (e.g., the development of paid “family partner” positions) leads to
opportunities in another priority area (e.g., new job markets) and challenges in still another priority area (e.g., recovery models for which success depends on the acceptance by medical professionals of peer counselors as essential contributors in the mental health workforce).

These observations that mental health systems are complex and that the transformation process is one of continuous evolution bring us to the question posed at the beginning of this paper: how do we transform a fragmented, ineffective mental health system into one that meets the needs of children, adolescents, and families?

A number of proposals have been made. Leonard Bickman (2008a) suggested the need for improved information systems that provide feedback to the clinician about the appropriateness of the clinical intervention and the effect of the intervention (Bickman, Riemer, Breda, & Kelley, 2006; Chorpita, Bernstein, & Daleiden, 2008; Lambert, Harmon, Slade, Whipple, & Hawkins, 2005). In addition to the importance of feedback to the clinician on the effect of treatment practices, these studies underscore the need for financial structures that provide appropriate support and incentives to providers, while at the same time holding providers accountable for their quality and effectiveness of their care. Effective clinical practices cannot be successfully adopted by providers without essential infrastructures of clinical supervision, information technologies, and financial models that are inclusive of these direct and indirect costs.

There is also great concern that mental health clinicians are not using evidence based practices (EBP) (Baker, McFall, & Shoham, 2009). The adoption of EBPs by clinicians is obviously complicated by the need for adequate resources, fiscal structures, informational systems, and system capacity for on-going monitoring to check for fidelity to the EBP. But, changing demographics and the need for system-wide cultural competence impose yet another
level of challenge for more wide-spread EBP implementation. Evidence about to adapt the quality of evidence-based treatment protocols to meet the needs of clinically and culturally diverse populations is limited (Isett, et al., 2007).

The New Freedom Commission’s Final Report included a recommendation that services and supports be family and consumer driven. This paper suggests that an important component of systems transformation is stakeholder involvement in developing policies and procedures. This would include staff hiring protocols that further the mission of the system to attain cultural competence by developing a workforce that is responsive to and reflective of the community’s population. In addition, a workforce that is more representative of the communities served would assist the systems in improving the quality of care to provide more culturally appropriate services, supports, and EBPs.

Effective clinical practice models cannot be effective when the child or family feel alienated from the provider. Cultural differences between the provider and the individual seeking services can lead to erroneous problem assessments, incorrect diagnosis, inappropriate treatment, and failed treatment alliances (Kirmayer, Groleau, Guzder, Blake, & Jarvis, 2003). The issue of cultural disparities in access to treatment and cultural diversity in response to treatment are discussed in depth by Algeria, et al. (2009), in this issue. The point to be made in this paper is that “culturally competent” services, as a treatment process that is congruent with the cultural worldview of the client, cannot exist in the absence of in system-wide infrastructure of support.

Considering the many components of a well-functioning mental health system that are dependent on infrastructural supports, we will conclude with a description of the core components of a infrastructure for a child-adolescent mental health system.
A Proposal for an Infrastructure Will Bring Stability to the Continuous Transformation of a Child-Adolescent Mental Health System

We have seen that mental health systems are complex entities that must continuously adapt to dynamic environments. As such, system transformation is a continuous process that moves along timescales that can be planned (project-driven change strategies lasting several years) or unplanned (budget reductions that demand significant changes in a matter of weeks). Because dynamic systems are in a constant state of flux, the stability of a system can be found in its infrastructure. That is, every system needs a core set of structures and processes that provide operational stability to the system in times of opportunity or stress. Without the foundation of an infrastructure, a mental health system will be reactive (as noted by Garfield (2009)), pursuing quick-fix solutions that are poorly linked to the root-problems.

The components of an infrastructure for a mental health system should include structures and processes for: stakeholder participation; needs assessment and problem identification; need-driven policy prioritization; alignment of resources with priorities; planning and implementing change strategies; evaluating the effects of implementation through assessment and feedback protocols. It is beyond the scope of this paper to explore each of these components in depth, but a brief overview of each component may prove instructive.

Stakeholder participation, communication, and integration:

- Communicational and operational silos are the quickest road to system fragmentation.

- At the state level, problem identification and policy prioritization is most effective when advocates, providers, managed care entities, state policy makers, and other stakeholders participate in problem assessments and proposals for solutions. All states have formal and informal advisory panels and discussion groups that often operate in isolation of one another. Policy planning and problem solving can be facilitated through leadership and technology that allows communication and collaboration vertically and horizontally throughout the system.
System fragmentation exists when mental health providers, substance abuse providers, pediatric medicine, schools, community organizations, child welfare, youth corrections, police, homeless shelters, and other youth-serving entities operate in isolation from one another. There are many cultural divides that demarcate disciplinary fiefdoms, which create barriers to care coordination and treatment integration. Deliberate strategies must be developed to overcome these disciplinary barriers to service integration.

The reduction of mental health stigma, which is a barrier to service access, depends on children and adolescents with mental disorders, and their families, becoming true participants and decision-makers in their own treatment planning. Individuals who seek mental health services must be granted the respect that comes from shared decision-making (Drake & Deegan, 2009).

**Needs assessment and problem identification:**

- In a complex system, solutions should never be proposed without an in-depth understanding of the problem that requires a solution. A standard tool in quality management is root cause analysis – finding the key elements that are the greatest contributors to the problem (Jacobs, 2008). This should be a routine tool used in policy planning.

- James Prochaska has established an evidence-based, self-change model that begins with the self-recognition of the need for change (Norcross & Prochaska, 2002; Prochaska, Norcross, & Diclemente, 1994). Without such self-recognition of need, change is unlikely to occur. Prochaska’s model is central to an EBP known as “motivational interviewing (MI).” A core principle of MI is that when change is imposed on people, resistance to change will often occur (Miller & Rollnick, 2002).

- At all levels of the system, from treatment planning to policy planning, needs assessments and solution proposals should always include those who will participate in, or will be recipients of, the solution. Resistance to change can be expected if the participants/recipients see no need for the change.

**Alignment of resources with priorities:**

- The field of mental health desperately needs service-payment financial models that reward effective treatment and equitably distribute the financial risk associated with treatment. Nothing transforms a mental health system as rapidly as the re-distribution of funding.

- Frank and Glied (2006) noted that over the past twenty years, the shift in financing of mental health services has led to a change in the system from centrally planned, state-owned and operated services to a decentralized system dominated by market forces. “These primary financing changes – not technological breakthroughs or demographic
shifts – have transformed the lives of people with mental illness…Financing policies have been the principle driver of system change…(Frank & Glied, 2006, pp. 48-49).

- The solution to the financial ills of the system is not to put more money into the system. Granted, many mental health providers teeter on the brink of financial insolvency and this problem is only be made worse in an economic recession. However, the money that is in the system has to be aligned with policy priorities that address clinical effectiveness and operational efficiencies. It is interesting to note that, at least in primary medicine, the National Commission for Quality Assurance (NCQA) finds no link between quality and spending: “…new evidence indicates that health plan spending on key conditions bears little correlation with the quality of care delivered (The State of Health Care Quality, 2009, p. 10). One would anticipate that these NCQA findings related to primary care find parallels in mental health care.

- Research is needed not only on effective clinical treatment models, but also on effective financial models that align service payment protocols with treatment protocols.

Planning and implementing change strategies:

- Solutions should never be attempted without a data-informed analysis of the problem and the context of the problem. The field of mental health needs more intervention planning tools, such as the State Health Authority Yardstick ((Finnerty, Rapp, Lynde, & Goldman, 2005), which measures a wide range of factors that will affect the implementation of EBPs.

- When planning specific transformational strategies that affect the entire mental health system, models of the proposed intervention should be implemented on small scales. For example, for a new service model or a new role within the workforce (such as peer counselors), it is always advised to pilot the model in a few provider sites, with a particular emphasis on evaluating the model and soliciting the feedback from the participants in the model – including both providers and clients.

Evaluating the effects of implementation though assessment and feedback protocols:

- Systems become disoriented and fail when they are cut off from information about their environment. Experiments in sensory deprivation have demonstrated this effect on human subjects (Grassian, 1997). And yet, clinicians, provider organizations, and policy makers often operate under conditions of virtual sensory deprivation relative to their jobs. Stakeholders cannot participate in problem assessments solution formulation without feedback about the effectiveness of actions taken. Raw data and aggregated information derived from clinical treatment and systems interventions is vital to the infrastructure of a mental health system.
Seidman, et al., (2009, in this issue) have addressed the importance of feedback and reporting for the multiple levels of a mental health system. The important point here is that an infrastructure will fail without information that is relevant to the problem in question. Such information must be communicated in understandable terms to the participants in the problem solving process.

Transforming a mental health system is not rocket science; it is beyond rocket science. Paul Plsek wryly observed that baking a cake is a simple problem, sending a person to the moon is a complicated problem, and raising a child is a complex problem (Plsek, 2003). Managing the transformation of a mental health system is a complex problem. There are no singular solutions. Transforming a mental health system is more than implementing evidence-based practices, promoting a public health model for mental health, or training a workforce. Each of these solutions is important, but not one of them is sufficient by itself to effect fundamental system transformation. The whole system must be the target of change, and all entities within the system must be participants in the process of change. Mental health researchers need to lift their vision from the development of disease-specific treatment models to discover system-wide transformational models that will increase participation, improve planning, and evaluate treatment and system performance in ways can be productively fed back to participants and clients.

Without the guidance of perspectives from many stakeholder regarding values, vision, problem solving, solution formulation, and corrective feedback, a mental health system is at risk of failing to meet the complex needs of the children, adolescents, and families it serves. A mental health system will always be at risk of fragmentation due to the exigencies of political and economic environments. However, the argument has been made here that a sound infrastructure will mitigate those risks, thereby improving the system’s resilience and the likelihood of sustaining its benefits under adverse circumstances.
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