

## **Chapter One**

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### **Implementing and Evaluating Systems of Care**



# Symposium

## **Changing Complex Systems: Leveraging Change in Systems of Care**

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## **Symposium Introduction**

**Sharon Hodges**

The systems of care (SOC) concept has been described as an explicit organizational philosophy that is intended to create and provide access to an expanded and coordinated array of community-based services and supports for children with serious emotional disturbance and their families (Stroul, 1993; Stroul & Friedman, 1986). Although SOCs have been found to positively affect the structure, organization and availability of services (Hoagwood, Burns, Kiser, Ringeisen, & Schoenwald, 2001; Rosenblatt, 1998; Stroul, 1993), the implementation of SOCs is significantly challenged by a lack of understanding regarding the factors that contribute to system implementation and how these factors interact to establish well-functioning systems (Hernandez & Hodges, 2003).

This symposium reported initial findings of a five-year study of SOC implementation that is part of the Research and Training Center for Children's Mental Health, titled *Case Studies of System Implementation*. Drawing on the work of Meadows (1999), a leverage points framework was used to explore how systems of care leverage change. Leverage points can be thought of as places within a complex system where relatively small shifts in one aspect of the system affect big changes across the system. The papers presented in this symposium framed SOCs as complex adaptive systems—complex in that they are made up of multiple interconnected elements, and adaptive in that there is action and reaction among these elements over time. The use of applied ethnographic field methods, identification of key points of leverage in SOC implementation, and specific examples of system implementation strategies used by established SOCs are presented in these summaries.

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## **Systems of Care as Complex Adaptive Systems**

Allison Pinto

### **Introduction**

Studies indicate that even with substantial funding and support, many communities have experienced significant difficulties creating and sustaining systems of care (SOCs) for children's mental health (Brannan, Baughman, Reed & Katz-Levy, 2002; Vinson, Brannan, Baughman, Wilce & Gawron, 2001). The consequences of failed efforts are grave; former Surgeon General David Satcher concluded, "Growing numbers of children are suffering needlessly because their emotional, behavioral and developmental needs are not being met by those very institutions which were explicitly created to take care of them" (U.S. Public Health Service, 2000, p.1). Challenges faced by communities seeking to develop SOCs are similar to challenges experienced by a broad range of organizations, industries and sectors in today's world. Many new frameworks and approaches have been proposed in order to understand and address these challenges more effectively (Stacey, 2003), and the concept of complex adaptive systems has been identified as particularly useful in efforts to make sense of and navigate change efforts in a variety of organizations and systems (Lissack, 1999; Olson & Eoyang, 2001; Plsek, 2003; Schultz, 2002). This concept also proves useful when applied to SOCs for children's mental health.

### **Complex Adaptive Systems (CAS): The Concept**

In the past ten years, the organizational development field has begun to use complexity science to research, consult with, and practice in a variety of organizations, systems and sectors (McKelvey, 1999; Stacey, 2003). Complexity theory is helpful because it provides a coherent framework for making sense of organization and systems development occurring in an ever-changing context. As Vaill noted, "Without a theory or model of the organization that is adequate to the situation the organization is in, planned change is always going to be a kind of random jabbing at the system" (Vaill, 2001, p. xxvi).

Complexity science offers an alternative to the more traditional scientific approach used to study and navigate the development of human systems and organizations. In traditional science, systems and organizations are like machines with a set of parts that fit together to produce the whole, and the environment is assumed to be generally stable and predictable. Much attention is focused on detailing action plans and practice guidelines, ensuring quality, adherence and fidelity to these plans and guidelines, and then evaluating whether predicted outcomes were achieved as evidence of success (Olson & Eoyang, 2001). As Olson and Eoyang (2001) note, "When we are operating in the machine paradigm, overspecification of designs or plans seems natural. We need to think of everything and work things out to the finest detail because the machine cannot think for itself" (p. 2).

Consider instead the complexity approach to understanding systems. Complexity theory posits that a system is more like a living organism than like a machine. The whole is more than the sum of its parts, as structures and processes grow together in order to adapt to an ever-changing environment. Using this approach, attention is focused on strategies to facilitate a system's self-organization, coherence, and goodness-of-fit with the local context rather than focusing on mechanistic adjustments. System properties are dynamic rather than static, so systems change efforts are recognized as an ongoing process of facilitation rather than as a set of strategies implemented according to a predetermined plan.

A particularly useful concept that has emerged out of complexity science is that of complex adaptive systems (CAS). A complex adaptive system is understood in terms of the interactions among the agents that comprise the system. Examples of agents include electrons in an atom, plants and animals in a jungle, and human beings in an organization. As the agents in a system interact with one another across time and space, complex patterns of behavior result. Unlike traditional science, which posits that complex effects result from complex causes, complexity science posits that simple causes result in complex effects (Phelan, 2002). Agar (2005) succinctly outlined this shift in logic by describing a CAS in terms of four key characteristics: networks, interdependence, feedback and emergence.

**Networks.** As agents in a CAS interact, they form connections to one another that result in networks. Networks facilitate the flow of information within the system. Subsystems self-organize and the uniqueness of the system as a whole is reflected in the web of agents and subsystems that exist within it.

**Interdependence.** Agents who are networked and in relationship mutually influence one another. The same is true for the groups and subsystems they form. As such, complexity science emphasizes that change does not only occur “top down” but also “bottom up” and “every which way.” Agents learn from and are changed by one another.

**Feedback.** As networked, interdependent agents respond to one another and their environment, feedback processes occur. Through both naturally occurring and intentional feedback loops, conditions and processes can become amplified or muted. Due to feedback, sensitivity to initial conditions can occur, meaning that small changes in initial conditions might lead to major changes in later outcomes, as the impact of the initial changes moves throughout the network and agents change in response. Because it is never possible to recognize all relevant conditions within a system, feedback processes often lead to unpredictable results. As such, planning specific outcomes is difficult, if not impossible, in complex adaptive systems.

**Emergence.** Evolution occurs within a system as a function of “the dynamic interplay of structure and agency over time” (Agar, 2005). The combined decisions and resulting actions of the various agents, groups and subsystems determine the patterns that form, which in turn affect how agents interact and how future patterns are formed. Through constant, co-evolutionary processes, system coherence is enabled.

## **Systems of Care as Complex Adaptive Systems**

CAS is a useful construct in conceptualizing SOC for children’s mental health. The following examples are presented to illustrate the qualities of CAS as they manifest in SOC.

### **SOCs are Networked**

By definition, a SOC is “a comprehensive spectrum of mental health and other necessary services which are organized into a coordinated network” (Stroul & Friedman, 1994, p. 3). Within a SOC, networks exist at multiple levels. Formal service providers, informal helpers, family members and children are networked in the form of treatment/service planning teams. In community mental health centers professionals from multiple disciplines network to serve families with identified mental health challenges. The SOC as a macro-system is a network of agents from various children-serving sectors such as mental health, child welfare, education, juvenile justice and family advocacy. A SOC network might stretch across a town, a city, a region or a state.

### **Agents in SOC are Interdependent**

In some SOC a panel is set up to review all requests for residential placement before a child is actually removed from his or her home. This is a strategy for reducing the unnecessary institutionalization of children. At review meetings, the SOC panel asks the family to describe their situation and preferences regarding placement options and then facilitates a discussion to brainstorm together and decide upon a plan to address the child and family’s needs. These meetings provide powerful evidence of the interdependence of agents within the SOC. As family members share their personal accounts of the challenges they face, panelists’ responses convey that they recognize and resonate with the difficulties described. The interdependence of the subsystems impacting the family becomes apparent as well: panelists from mental health, education and child welfare describe the ways in which each is constrained in their ability to assist the family due to the expectations and limitations placed upon them by other systems. This process of storytelling facilitates an enriched understanding of the challenges the family and community face, which then leads to the tailoring of an individualized plan for the family as well as the identification of systems-level modifications to prevent other families from experiencing similar challenges in the future. Through this process, families rely upon and elicit support from the community

while the community relies upon and elicits information from families to determine how to expand and refine available services. As such, agents within the SOC are mutually influencing one another.

### **Feedback Processes Influence SOC Development**

In one sense, SOC efforts seek to capitalize on feedback processes inherent in CAS. Communities typically identify several priority populations at the start of the SOC effort and then focus on developing a network of resources and supports for this population. The hope and intention is that as the network grows and the agents who are involved with these children and families mutually influence not only one another but also other agents in the community, then the SOC effort will evolve to meet the needs of all children and families in the community who are experiencing mental health challenges. The hope is that (relatively small) initial changes will ultimately lead to a massive transformation of mental health care in the community.

Sometimes changes have major unanticipated and unintended effects within a SOC. Consider a community in which case managers are introduced in order to ensure that all families receive support in accessing and coordinating services. Once this role is explicitly assigned, therapists and psychiatrists assume that the tasks associated with care coordination are being addressed by the case manager and reduce the emphasis they place on coordinating services when working with families. They decrease contact with one another and assume that the case manager will inform them if there are any issues that need to be addressed. Families begin to perceive their therapists and psychiatrists as less interested in their global well-being and case managers feel frustrated that therapists and psychiatrists do not seem to value domains other than symptom reduction. Case managers and family members develop a pattern of meeting together to discuss psychosocial supports for the family while therapists or psychiatrists and family members develop a pattern of addressing psychosocial skills development and symptom monitoring. Thus, with the addition of case managers, families now receive more fragmented rather than more integrated care. Through naturally occurring feedback processes, a well-intended change within the system has led to an unanticipated negative outcome for families.

### **Processes Emerge in SOCs**

Even if a community has formalized its strategies for SOC development from the start, the SOC will emerge in unpredictable ways. Consider this example: In a community that has been focusing its SOC efforts on the adoption of evidence-based interventions for children with serious emotional disturbance, there is a dramatic increase in the use of methamphetamine. With this increase, more of the child abuse and neglect cases presented before the court relate to parental substance abuse. This increase heightens judges' awareness of the challenges methamphetamine poses for families, so the judges seek resources on the topic at an annual legal system conference. The judges bring these resources back to their community and begin distributing them both to families who come before the court and to professionals in other service sectors with whom they meet in the bi-monthly SOC meeting. These materials prompt a small group of guardian grandparents waiting together in the courthouse lobby to decide to form a local family support group. In the support group caregivers share stories regarding the impact of methamphetamine on their families and the strategies they find useful to cope. Mental health program managers give the materials they received from the judges to clinicians in their agencies, who seek further training on assisting families coping with parental substance abuse, leading to the establishment of a local early intervention program for methamphetamine users. Over time, the rate of methamphetamine use among parents decreases. In this example, families and formal service providers mutually influence one another in response to an emerging substance abuse problem in the community, thereby affecting the evolution of the system.

## Implications

As illustrated in the examples presented above, CAS is a useful concept when applied to understanding and developing SOC, with implications for both research and practice. Regarding research, it is helpful to consider methodologies that conceptualize SOC holistically and accommodate their emergent and self-organizing properties. Ethnography has been noted as one such methodology (Agar, 2004a; Agar, 2004b), and will be detailed in the next paper as a means of better understanding the complex adaptive nature of SOC (see Mazza, this symposium). Methods of evaluation that assess a SOC's networking, communication processes, and goodness-of-fit with its local context could be useful to communities as they seek to navigate change efforts. Regarding practice, SOC leadership could emphasize change strategies that focus on facilitating adaptation, rather than achieving control. This is more likely to release the wisdom and creative potential of all groups and individuals within the SOC (e.g. policy makers, managers, direct service providers, community supporters, families and children) so that a community evolves in a manner that truly meets the mental health needs of its children and families.

Systems transformation is not impossible, but it is complex. Complexity science provides a paradigm that simply makes sense when applied to SOC for children's mental health. Let's begin using it and see what emerges...

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## **Applying Case Study Design to Study System Implementation**

Jessica Mazza

### **Introduction**

This paper describes methods used to study systems of care (SOCs) in Case Studies of System Implementation, a five-year study of the Research and Training Center for Children's Mental Health. The purpose of this study is to identify factors that support system implementation and to understand the relationships among these factors.

### **Research Design**

This study assumes that the processes contributing to system development cannot be adequately understood in terms of linear progress toward a goal. Given the complexity of SOC, the structures, processes, and relationships contributing to system implementation should be studied holistically in order to understand the relationships among factors that support system implementation. To accomplish this, the Case Studies of System Implementation study used a multiple-case embedded case study design (Yin, 1994) to investigate how communities operationalize and implement strategies that contribute to the development of community-based SOC for children with severe emotional disturbance (SED) and their families.

A case study design explores a bounded system over time through detailed and in-depth data collection that makes use of multiple sources of information (Creswell, 2003; Stake, 1995; Yin, 1994). Case studies are particularly useful when phenomena are investigated within their real-life context and when the boundaries between phenomena and context are not clearly evident (Yin, 1994). They can be useful in the investigation of phenomena that are greatly influenced by the overall socio-cultural-geographical context, and in studies that intend to provide information about important processes as they evolve over time.

The unit of analysis in a case study design determines how the study relates to a broader body of knowledge. In this study, the unit of analysis is the community-based SOC at participating sites. Each site is the subject of a separate case study, and this study is covering multiple sites. Specific strategies related to the system implementation factors serve as the embedded units of study within each individual site.

### **Site Selection**

A national nomination process was conducted to identify established SOC. This process included the solicitation of nominations through the Children, Youth and Families Division of the National Association of State Mental Health Program Directors, Center Dissemination Partners, Center Advisory Board, Department of Child and Family Studies staff, and an 18-member panel of national experts on well-functioning SOC. The site selection process yielded 12 formal SOC nominations and 14 systems suggested for future consideration.

Using document review, these nominations were narrowed to six systems to be considered for year 1: (a) Hampton County, Virginia; (b) State of Hawaii; (c) Humboldt County, California; (d) Placer

County, California; (e) Region 3, Nebraska; and (f) Santa Cruz County, California. Detailed document review and telephone interviews were used as the basis for final site selection. Site selection criteria included sites that have identified needs for a local population of children with SED; have a set of goals for this population that were consistent with SOC values and principles; are implementing strategies to achieve progress towards these goals; and have demonstrable outcomes related to achieving those goals. In addition, system stakeholders had to have the ability to reflect on key transitions during system development. Placer County, California (CA) and Region 3, Nebraska (NE) were selected as Year 1 sites, and both sites agreed to participate in the study.

### **Data Collection**

Data collection used a multi-method approach to gain a comprehensive understanding of participating systems. Document review was used to provide organizational-level data about the development and implementation of each system. A brainstorming and rating exercise was conducted with stakeholders (administrations, managers, direct service staff, and families) to identify local factors believed to be critical to the implementation of their SOC. Semi-structured interviews with key stakeholders were conducted to further understand personal perceptions and beliefs about the process of SOC implementation, and the role of identified implementation factors in local system development. Direct observation of service delivery structures and processes allowed the research team to actively observe aspects of system implementation. Aggregate outcome data were used to review progress toward system goals and to better understand linkages between specific strategies and outcomes. Placer County, CA data collection was completed in October 2005, and included interviews with 29 system stakeholders and observations of five naturally occurring meetings. Region 3, NE data collection was completed in November 2005, and included interviews with 27 system stakeholders and observations of five naturally occurring meetings.

### **Data Analysis**

Narrative data, including interviews and direct observation, are being transcribed and analyzed for emergent themes using Atlas.ti qualitative software (Scientific Software Development, 1997). Analysis is in process and will involve independent review and coding of the data by multiple investigators and the identification of themes that are common across sites and specific to individual sites. Initial data analysis related to the identification and definition of local system implementation factors was completed prior to and in preparation for site-based data collection. Analysis of data resulting from document review, interviews, observations and factor ratings continues to be analyzed for cross-site emergent patterns. Triangulation of data was used to build explanations through convergent evidence. Continued iterative analysis seeks to confirm or disconfirm the existence of meaningful patterns in actions, interactions, activities, language, and symbols. The findings presented at this symposium resulted from analysis of the cross-site data and are presented by Ferreira, this symposium.

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## Leveraging Change in Systems of Care

Nathaniel Israel

### Introduction

This paper proposed a framework for understanding how system planners and implementers leverage change for the purpose of developing systems of care (SOCs) for children with serious emotional disturbance. The development of the leverage points framework resulted from the initial analysis of Phase I data for Case Studies of System Implementation, a five-year study that is part of the Research and Training Center for Children's Mental Health. In this study, SOCs are defined as both complex and adaptive in that in that they are made up of multiple interconnected elements and there is action and reaction among these elements over time. The concept of leverage points as it applies specifically to SOCs was proposed by the research team (Hodges, Ferreira, Israel, & Mazza, 2006; Meadows, 1999) as a way to understand the strategies that local system developers identified as most successful in developing their SOCs. This paper focused on the identification and definition of leverage points for SOCs; detail about the study design, methods, and findings can be found in other papers that were presented in this symposium.

### Leverage Points Framework for System of Care Implementation

Leverage points are places within a system where a small shift in one area can produce big changes throughout the system (Meadows, 1999). Persons may choose to expend resources at any, many, or none of these leverage points. Table 1 lists four levels (Structure, Information, Goals, and Values and Beliefs) at which change can be leveraged in SOCs and lists specific points of leverage available within each of these levels. Similar to an actual lever, each ascending level (from Structures up to Values and Beliefs) has greater power to leverage change.

**Table 1**  
**System of Care Leverage Points**

<i>Structures</i> <i>Leverage Points</i>	1. Structure of the SOC 2. SOC Stabilizers 3. Parameters of the SOC
<i>Information</i> <i>Leverage Points</i>	4. Structure of SOC Feedback 5. SOC Feedback
<i>Goals</i> <i>Leverage Points</i>	6. SOC Goals 7. SOC Self Organizing 8. SOC Rules
<i>Values/Beliefs</i> <i>Leverage Points</i>	9. Power to Transcend Paradigms 10. Mindset of the System of Care (SOC)

#### Level 1: Structural Leverage Points

Structural Leverage Points are related to specified roles, responsibilities, and authorities that define system boundaries and enable a system to perform its functions. Within this level, people may choose to act on the Parameters, Stabilizers, and Structures within a system. Parameters refer to constants external to the system that are expected to be relatively fixed over time. These parameters may include federal, state, local and guild parameters for service delivery and are generally outside of the control of individual SOCs. Parameters can change, but such change is rare.

Stabilizers are the structures and processes that maintain the SOC in its current state and act to buffer against change. Stabilizers may act to retain the changes that have been made. For instance, policy and funding put in place to support family organizations are stabilizers. In other instances, stabilizers may have to be disrupted to create systems change. Managed care eligibility guidelines, professional guilds and unions, and Medicaid regulations all can work to create a status quo which works against systems change.

Structures include the physical arrangements, relationships, and decision points within the SOC that determine the breadth of environments in which a child and family can access supports. Examples of structures include points of entry, locations of services, locations of staff, and relationships between sectors allowing services to “port over” across environments, such as from home to school.

The leverage points at the Structures level are notable for: (a) the high difficulty of intervention at these places, and (b) the fact that changes at these leverage points often result in business as usual, only more or less of it. Thus, changes in structures are important and effective only if they kick off change at levels of greater abstraction such as goals, values and beliefs, and ultimately result in new actions and approaches to serving families. (Meadows, 1999).

### **Level 2: Information Leverage Points**

Information leverage points are related to the availability of feedback to system stakeholders. Information leverage points include Positive and Negative Feedback Loops, and the Structure of Feedback. Feedback about the SOC refers to the circulation of information about system performance. Positive feedback loops consist of circulating information that reinforces current system behavior. An example of a positive feedback loop is indicating that out of home placements have been reduced, resulting in cost savings to the system and increased child and family satisfaction, and ultimately, additional workers being hired or additional funds being appropriated to do similar service delivery.

Negative feedback loops are information loops that indicate that the system is failing in some respect, and needs to change. Examples of negative feedback loops could include information about low rates of parent and child satisfaction, or information indicating that the use of restrictive placements is increasing in the system. Each indicates that the system is not functioning as intended and needs to be corrected.

Structure of feedback refers to the structures put in place to deliver information where and when it is needed. Examples include: a process put in place to deliver timely information to judges on the availability of services; processes put in place to deliver outcome data in a timely manner to funders; processes to deliver useful data on the effectiveness of particular services to caseworkers and therapists for clinical decision making.

This set of leverage points may initially be difficult to institutionalize—setting up who collects data, about what, and delivers it to whom, at what intervals. However, systems are more likely to be able to generate and circulate system information than they are able to change policy at the state and federal level.

### **Level 3: Goals Leverage Points**

Goals leverage points are related to the expectations and intended outcomes of system change. Goals leverage points include Rules, Self-Organizing, and Goals. Rules refer to the explicit and implicit rules that define the scope of action and boundaries of the SOC and determine how people act on a day-to-day basis. Examples of rules that can create change include: rules creating interagency policy boards, rules that add family members to key policy councils, and rules that govern the ways funds can be spent. Rules speak to how a system works. For rules to be most effective in creating change, they must be in service of a clear goal.

SOC Self-Organizing is a critical leverage point. SOC Self-Organizing refers to the power of stakeholders to change how the system responds or adapts to its environment. Self-Organizing is about people getting together as a group to reach system goals and to respond to questions confronting the system. Self-Organizing can affect system structure, system information, and system rules. Ongoing SOC development effort can be considered system self-organizing. Similar to rules, self-organizing best facilitates change when in service of a clear goal. System Goals refer to broad level goals that direct the SOC and bring it under the control of a single plan. Broad level goals are agreed-upon targets for action that span across all the partners in the SOC, and which everyone works together to achieve. Systems will always evolve goals. Without clear, consensual broad-level goals, organizations may emphasize system priorities over the priorities of children and families.

#### **Level 4: Values and Beliefs Leverage Points**

Values and Beliefs Leverage Points refer to the mental models and attendant assumptions that drive our decision-making. In a SOC, these mental models refer to the intrinsic philosophy (e.g., the value of collaborative relationships with families, youth, formal supports, and informal supports; the belief that the whole of the person and system are unique and cannot be reduced to merely their parts, etc) that is fundamental to the SOC. As one moves from Structures to Values and Beliefs, the leverage points become increasingly internal to persons within the local SOC. The final leverage points are the most internally-driven of all the leverage points.

Within the category of Values and Beliefs are two distinct leverage points. Mindset refers to the shared understanding from which the SOC is developed. These are the commonly held values and beliefs about what is important for children, youth and families. Examples of possible commonly held values and beliefs include: the belief that supports should be culturally competent, the belief that home based supports are more appropriate than institutional care, and cross-agency commitment to the idea that the needs of the family and child come before the needs of the agency.

The other leverage point refers to how people approach system problem-solving in an ever changing environment. The Power to Transcend SOC Paradigms includes the ability to reflect on system assumptions, tolerate discomfort, and be open to new ways of thinking and acting.

Examples of this approach include the ideas that there is always room for new growth and system development; no one discipline, philosophy, or person has all of the answers; and that no matter how committed a system has become to a goal or course of action, the system may need to reconsider its direction.

The Values and Beliefs Leverage Points have great power for change because they potentially determine all other actions taken by persons and systems. When SOC Values and Beliefs align with actions, the result is a system that is oriented to doing whatever it takes to make the system work for families.

#### **Conclusion**

The ten leverage points proposed for SOCs represent the possible places in a system in which system planners and implementers may choose to intervene for change. Often, people think that systems change begins with structural change; and yet the leverage points most under our control typically start at the level of values and beliefs and work down (Meadows, 1999). For instance, systems may expend enormous energy on improving the physical infrastructure of services, changing written standards of practice, or similar Structure change efforts. These types of efforts may prove ineffective if they are not generated in a context in which people value change and desire to use such changes to create a more effective way of supporting families and children. Data from our initial sites indicate that systems concentrated their efforts on actions taken at the level of Values and Beliefs, which, in turn, kicked off change at other levels of the system. These data are explored more fully in the following paper.

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## **Leveraging Implementation in Established Systems**

**Kathleen Ferreira**

### **Introduction**

This paper examined stakeholder identified factors affecting implementation of systems of care (SOCs) and described how system planners and implementers in two established systems used specific points of leverage to maximize their system change efforts. Local system implementation factors, defined as “structures, processes, and relationships” that are used strategically by local system planners and implementers to build a SOC (Hodges, Ferreira, Israel, & Mazza, 2006), were identified as part of data collection for Phase I of Case Studies of System Implementation, a five-year study through the Research and Training Center for Children’s Mental Health. The purpose of this study is to understand how stakeholders facilitate SOC development and what factors, conditions, and strategies contribute to the development of SOCs for children with serious emotional disturbance.

Building upon the leverage points concept proposed by Meadows (1999), the research team developed a leverage points framework unique to SOCs (Hodges, Ferreira, Israel, Mazza, 2006) that was introduced in Israel, this symposium. Within a SOC, leverage points are defined as “places of influence” where system planners and implementers intervene strategically in their existing system context in order to affect the development of their SOC (Hodges et al., 2006).

Initial analysis of data from the Phase I sites of Placer County, CA and Region 3 Behavioral Health Services, NE indicated that stakeholder-identified system implementation factors have served as points of leverage in creating system change and that each site actively made an effort to create change within the system. Further data analysis revealed several instances of parallel characteristics across the stakeholder-identified factors of the Phase I sites. This paper highlights specific examples of factors identified by local stakeholders as critical to SOC implementation and discusses the local implementation factors within the broader leverage points framework. However, due to space limitation, only a few examples will be discussed. Details about the overall study design, methods, and the leverage points framework are described in other papers presented in this symposium.

### **Method**

Local SOC implementation factors were initially identified by a core group of stakeholders from each of the Phase I sites through a brainstorming exercise. These factors and definitions were then validated by a broader group of stakeholders via interviews and a factor ratings exercise. For further detail on this study’s research methods, see Mazza, this symposium.

### **Findings: Local Strategies for Leveraging Change**

Phase I sites of this study illustrate the development of SOC within remarkably different contexts. Placer County, California is a small county 20 miles north of Sacramento. Conversely, Region 3 Behavioral Health Services in Nebraska is a 22 county region in south central NE that includes a significant amount of rural and frontier area. Each of these systems, concerned with the fragmentation of services and supports and their inability to serve children and families in their communities, committed themselves to changing their systems to better meet the needs of children with serious emotional disturbance and their families.

A total of 10 points of leverage for creating change were identified in these SOCs and organized into four levels: Values and Beliefs Leverage Points, Goals Leverage Points, Information Leverage Points, and Structures Leverage Points. Definitions of each leverage point as it relates to SOCs were presented in Israel, this symposium. As indicated in Israel’s discussion, the power to leverage change is greatest at the Values and Beliefs Level, and least at the Structures Level. As a result, in this paper, these leverage points will be discussed in order of greatest to least impact. Table 1 describes Phase I sites’ System Implementation Factors, organized by level.

**Table 1**  
**Use of Leverage Points for Systems Change: Cross-site Findings**

<i>System of Care Leverage Points Levels</i>	<i>Stakeholder Identified System Implementation Factors</i>	
	<i>Placer County, CA</i>	<i>Behavioral Region 3, NE</i>
Values and Beliefs Leverage Points	Vision and mission	Shared vision
	Family voice	Family & youth participation
	Leadership	Leadership
	Commitment to change	Responsiveness to change Collaboration
Goals Leverage Points	Relationship with State	State-level support
	Strategic planning	Resource commitment
	Delegation of power & authority	
	Cross system training & educ.	
Information Leverage Points	Outcome data	Evaluation
Structures Leverage Points	Integrated infrastructure	

**Values and Beliefs Leverage Points** relate to using the intrinsic philosophy that is fundamental to the SOC as a strategy for creating systems change. Phase I sites identified the importance of a *Vision* and *Family* participation as critical to system implementation. Although each site’s vision and mission are shared and widely held, implementers within each site could identify times when system partners did not share the same vision, and they identified strategies used to work around these obstacles. Each site has clearly adopted the values and principles of an SOC. As stated by one stakeholder within the Placer County System of Care, “It’s an attitude... They’re all our kids.”

The deeply engrained values and beliefs related to their vision of serving children with serious emotional disorders and their families are core to the goals and subsequent actions of each of the Phase I sites. This was also true regarding the core belief that family members should be active participants in all aspects of the system. These beliefs are exemplified by actions within each of the systems. For example, in Region 3, families and youth are very active partners within the system. Family members have meaningful roles on most (if not all) boards, including state-level boards. In addition, there is a successful youth-run organization. The Placer County Children’s System of Care includes family voice; however, implementers have identified more thorough engagement of families as an area for improvement. Both sites feel that a SOC is more complicated for staff but easier for families, and that services should appear seamless to families. Furthermore, there is shared responsibility for children and families across each system. These examples are noteworthy, because a system can engage in the above behaviors, but without these core values, the role of family members within the system will not be meaningful and may be viewed as “token.” Thus, it is vital that the actions are aligned with the values and beliefs of the system.

Also associated with Values and Beliefs Leverage Points are the implementation factors of Leadership and Commitment/Responsiveness to Change. These are structures or processes that support the vision and family participation. Stakeholders in both systems referenced leadership and a perceived capacity to change as critical factors in their SOC development. At both sites the definitions for Leadership included the idea that there are better ways to do things and that they have the power to make a change. Leaders at each site embraced a vision for change and recognized that for successful change, sharing the vision with other stakeholders within the system was vital.

**Goals Leverage Points** relate to the expectations and intended outcomes of system change, and include the system’s goals, self-organizing behaviors, and rules.

Both Phase I sites identified the involvement of the state as important to their system development. Placer County identified their Relationship with the State as necessary but challenging at times. During system development, Placer County received support from the state against SOC opponents, and county

leaders worked closely with state lobbyists to pass SOC legislation. However, barriers such as multiple state reporting requirements create inefficiencies within the system. Region 3 stakeholders perceived State Level Support as a critical factor and a positive aspect of their system, as they receive needed resources and support from the state.

Both Placer County and Region 3 have clear goals that are strongly linked to the vision and mission of their systems. Although only Placer County identified Strategic Planning as a critical implementation factor, each site has regular, strategic planning that is an integrated process of re-evaluating the system and making needed changes.

Although Placer County stakeholders discussed resource and emotional commitment to the system, Region 3 actually identified Resource Commitment as an implementation factor that was critical to their system's development. Region 3 demonstrated its ability to pool funding between different agencies and gave examples of other resources that were shared across agencies, such as training to all agency partners and assistance in grant writing.

**Information Leverage Points** address the availability and receipt of feedback to system stakeholders. This type of feedback includes formal and informal, and written and verbal feedback. This often includes formal structures such as management team meetings, client staffings, and outcome/evaluation data as well as informal feedback. In Placer County and Region 3, these feedback loops did not occur in a hierarchy, but were cross-agency and across levels of personnel. Placer County identified Outcome Data as a critical implementation factor, and Region 3 identified Evaluation as a critical factor. Although the factors are similar, Placer County stakeholders acknowledged the need to develop strategies to more effectively utilize the collected data. Evaluation data in Region 3 is comprehensive and used strategically to make decisions within the SOC. The evaluation staff educates clinical staff about the data and is able to create needed reports.

Finally, **Structure Leverage Points**, relate to specified roles, responsibilities, and authorities that define system boundaries and enable a system to perform its functions. This includes structures, stabilizers, and parameters of the SOC. Placer County identified an *Integrated Infrastructure* as a critical factor in their system's development. The importance of an integrated system was evident in Region 3's day-to-day operations. Both sites felt that co-location of staff was vital to the success of their systems. Placer County's SOC had one location that housed mental health, child welfare, and juvenile justice staff, with education staff located nearby. Because Region 3 is quite rural, child welfare and mental health personnel were co-located in offices and within a few schools throughout the region.

Within the Structure level are parameters, such as current laws or the political climate. Both Placer County and Region 3 felt that it was important to attempt to change these parameters, and their attempts were met with some success. Placer County was successful in getting SOC legislation passed, and Region 3 became an active partner with the state in implementing a SOC grant and working throughout the state to expand SOC programs and services. When discussing the importance of being proactive in a constantly changing political climate, one stakeholder stated, "We make sure we educate [politicians] so they don't get educated the wrong way."

## Discussion

The examples noted within this paper illustrate actions within each of the Phase I sites that stem from an evolving sense of how to operationalize the values and beliefs within their SOC. In addition, each site used a variety of leverage points and made strategic choices about how and where to invest their resources to have the most impact on system change. Each site invested most of their resources in the Values and Beliefs Leverage Points and the stakeholder identified factors that corresponded with these leverage points. Finally, it is important to note that there is no linear formula for creating an ideal system. Instead, these systems were opportunistic in their actions and took a long-term perspective in developing and implementing their strategies for change, realizing that deep change takes time.

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## Symposium Discussion

### Sharon Hodges

The papers in this symposium reported initial findings from a five-year study of system of care (SOC) implementation. The paper presented by Nathaniel Israel proposed a framework for understanding how system planners and implementers leverage change for the purpose of developing SOC for children with serious emotional disturbance. These included the levels of Structures Leverage Points, Information Leverage Points, Goals Leverage Points, and Values and Beliefs Leverage Points. An important note regarding leverage points is that they represent potential places of action, and system implementers may or may not use them in their change efforts. For example, a system may have well established information structures; however, reporting evaluation results to system funders or governance boards should be distinguished from actively using information as a strategy to leverage system change. The systems that participated in this study used many components of normal organizational functioning as strategies to bring about change. In contrast to the potential places for creating change that were discussed in the leverage points framework, the paper presented by Kathleen Ferreira reported findings related to the tangible action taken by systems in their efforts to create system change. These locally identified system implementation factors represent strategies that local system planners and implementers believed were critical to their system development efforts. Analysis of the data indicate that the leverage points framework provides a useful tool in understanding how the local implementation factors relate to one another and are used together to create system change.

An important finding with regard to leveraging change is that the impact of change efforts are a result of actions related to values and beliefs. Implementation efforts related to values and beliefs use the intrinsic philosophy of the SOC to create systems change. Data confirm that values and beliefs factors were critical contributors to system change through shifts in the fundamental beliefs of system stakeholders. These factors are closely associated with stakeholder belief that change is possible and that it is possible to transcend the initial conditions of the system. Moving beyond the initial conditions of the system requires the ability to reflect on system assumptions, tolerate discomfort, and be open to new ways of thinking and acting.

This is not to suggest that changes in system structure did not contribute to system change. Data suggest that participating systems accomplished important change through shifts in structures and rules. However, structures- and rules-generated actions are only effective in initiating system change when they are in service of clearly articulated and widely held values, beliefs, and goals. In addition, the data suggest that sequence is critical and that important work must be done around values and beliefs before undertaking structural change. This finding could help explain, for example, why statewide SOC initiatives that structure blended funding mechanisms or regional structures for interagency collaboration see variable results. In the absence of widely held local values and beliefs that support such changes, they are not likely to be implemented fully or with consistency.

Another preliminary theme suggested by the data is that leverage points related to values and beliefs seem more generative than those related to structure. Regulative processes can be understood as those that rely on power for decision making authority, employ standardization of work practices, filter out information that would provide feedback, and treat actions as final rather than conditional. Generative

processes are those that rely on information for decision making authority, allow for idiosyncratic or contextual design, incorporate information that will provide feedback, and treat actions as experimental and open to adaptation when necessary.

Although both may be necessary in a system, the systems participating in this study were very grounded in generative processes. This generative quality allowed system planners and implementers to recognize and accept ambiguity and change as a given in their local contexts. As a result, they demonstrated the ability to be very adaptive, flexible, and responsive as conditions within their systems changed.

The sites participating in this study can be described as opportunistic in how their systems developed. Both took advantage of opportunities to leverage system change when and where they could find them. The actions of planners and implementers were strategic and proactive, but they did not use a linear or stepwise approach to change. Each clearly tried a variety of strategies, some of which worked, some did not, regrouped and tried again. What they shared was a commitment to the idea that things really could be done differently and better, and that they had the power to make the change. In addition, the system implementation efforts of both systems were grounded in widely shared SOC values and principles. This commitment was a constant, regardless of the challenges faced.

Finally, there is a tendency to frame SOC implementation in terms of discrete stages—there is the process of establishing a SOC and then there is the process of sustaining a SOC. We identified the systems participating in our study as “sustained” because each had been established for more than 10 years and were able to clearly articulate their identified populations of concern, their service delivery strategies, and their ability to tie these strategies to documented results over time. The data indicate that although stakeholders acknowledged themselves as established systems and discussed their strategies to sustain the progress they had made, they believed there was still much to accomplish in terms of improving and expanding their systems. Our initial distinction between the process of establishing and sustaining a SOC was far less clear-cut and discrete as we expected it would be. In this sense, SOC development can be considered a process of emergence. The data indicate that system development is iterative, responsive to local needs and conditions, and occurs within the parameters created by the values and principles of systems of care.

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# **Using Change Theories to Assess System of Care Development**

Vicki Sprague Effland  
Janet S. McIntyre  
Shannon Van Deman

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## **Introduction**

Over forty-five counties in Indiana have begun developing or have implemented a local system of care. This development is supported financially through small (i.e., under \$50,000) grants provided by Indiana's Family and Social Services Administration, Division of Mental Health and Addiction (DMHA) and through coaching, training and assistance by Indiana's Technical Assistance Center for Systems of Care and Evidence Based Practices for Children and Families (TA Center). As systems of care continue to emerge throughout the state, it is important to understand the level of development these systems of care are able to achieve and the rate at which they develop.

Change theories (e.g., Prochaska, Norcross, & DiClemente, 1994; Rogers, 2003) provide a framework for measuring system of care development. Prochaska, et al. (1994) proposed five stages of change (i.e., precontemplation, contemplation, preparation, action, and maintenance) which individuals move through as they contemplate and prepare for change. Rogers (2003) identified five similar stages for both individuals (i.e., knowledge, persuasion, decision, implementation, and confirmation) and organizations (i.e., agenda-setting, matching, redefining/restructuring, clarifying and routinizing) as they decide whether to adopt a new innovation. The communities, child-serving systems, and individuals that make up systems of care move through similar stages of change. By identifying the characteristics of systems of care within each of these stages, the level of system of care development can be assessed. Specifically, the elements of systems of care proposed by Pires (2002) as requiring structure (e.g., system management, benefit design/service array, system entry/access, decision making and oversight at the policy and service delivery levels, care coordination, crisis management, staffing structure, financing, evaluation and system exit) were used to identify the knowledge, attitude, behavior and activities that systems of care at each of the stages proposed by Prochaska, et al. (1994) and Rogers (2003) exhibit. This article summarizes the development and application of these tools and presents results based on three years of data collected on system of care development in Indiana.

## **Method**

The Strengths-Based Site Assessment (Sprague Effland, 2004) was originally developed by the TA Center in 2002 based on the work of Pires (2002) and later revised to incorporate the work of other authors (i.e., Walker, Koroloff, & Schutte, 2003) and improve the usefulness of the tool for providing ongoing technical assistance, training, coaching, and support to system of care communities throughout the state. The site assessment collects qualitative and quantitative data on several system of care elements, which address community resources, representation (e.g., involvement by child-serving agencies, families, advocacy groups and other community members in the system of care), system of care structure (e.g., the structure of the system of care's coordinating committee, project staff, fiscal issues, and outcomes), and service-delivery processes.

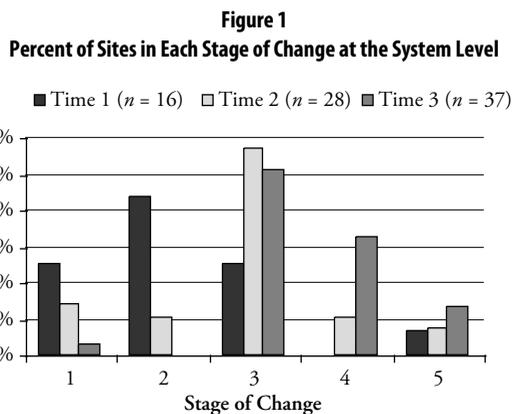
The site assessment is completed annually by TA Center staff and local system of care representatives. Assessments were completed for 16 communities in 2002, 28 communities in 2003 and 37 communities in 2004. A coding template based on the stages of change proposed by Prochaska, Norcross, & DiClemente (1994) and Rogers (2003) was used to identify the level of system of care development of each community after each administration of the site assessment. A team of raters assigned stage of change scores (i.e., 1 to 5 consistent with the five stages of change) at the system and service-delivery levels to each site. These scores were used to assess the stages of change at Time 1 (Fall 2002), Time 2 (January, 2004) and Time 3 (March, 2005).

Analyses of the stage of change scores were conducted using SPSS Statistical Software (1999). Paired-sample *t*-tests were conducted to compare the mean stage of change scores between Time 1 and Time 2 and between Time 2 and Time 3 at both the system and service-delivery levels. Only communities that had completed site assessment and stage of change ratings available at each time period being compared were included in the analyses.

## Results

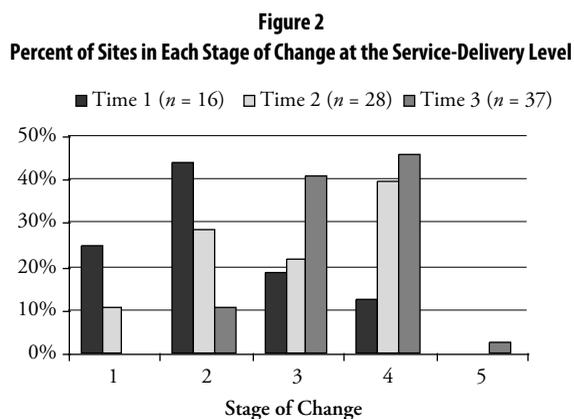
### System level

The average stage of change ratings for sites at the system level were significantly different,  $t(16) = -4.038, p < .05$ , between Time 1 ( $M = 2.19, SD = 1.05$ ) and Time 2 ( $M = 3.13, SD = 1.15$ ). Stage of change ratings were also significantly different between Time 2 ( $M = 2.86, SD = 1.04$ ) and Time 3 ( $M = 3.61, SD = 0.88$ ),  $t(28) = -3.473, p < .05$ . Figure 1 presents the percent of sites that were assigned each of the five stage of change ratings for the system level during Time 1, Time 2 and Time 3.



### Service level

System of care sites showed significant improvement between Time 1 ( $M = 2.19, SD = 0.98$ ) and Time 2 ( $M = 3.56, SD = 0.81$ ),  $t(16) = -5.745, p < .05$ , and between Time 2 ( $M = 2.89, SD = 1.07$ ) and Time 3 ( $M = 3.54, SD = 0.74$ ),  $t(28) = -3.576, p < .05$ . Figure 2 presents the percent of sites that were assigned each of the five stages of change ratings for the service-delivery level during Time 1, Time 2 and Time 3.



## Conclusion

The results of this study reflect a significant level of development at both the system and service-delivery levels in systems of care throughout Indiana in just three years. These results have been used to:

- Help individual system of care communities understand how they compare to other Indiana communities
- Create plans for ongoing training, coaching, and support from the TA Center
- Provide information to DMHA and other child-serving systems on the effectiveness of local systems of care
- Identify system and service-delivery level issues that are common across communities that need to be addressed

Additionally, this study demonstrates the usefulness of applying change theories to assess the level of system of care development. Several tools were developed for use in this study and have provided a wealth of information to inform ongoing system of care development efforts in Indiana. Further refinements to the tools are needed to maximize their utility in assessing the level of system of care development both across sites and over time.

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## **Symposium**

# **Multi-Level Systems Evaluation: Selected Projects from Hawaii**

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### **Symposium Introduction**

Charles W. Mueller, Eric L. Daleiden, & Brad J. Nakamura

The State of Hawaii Child and Adolescent Mental Health Division's (CAMHD) strategic plan describes five broad goals: (a) shared ownership of vision, mission, initiatives, and outcomes; (b) consistent adherence to the Hawaii Child and Adolescent Service System Program (CASSP) principles; (c) application of evidence-based services knowledge in the development of individualized plans; (d) routine evaluation of performance data and the application of findings to guide management decisions and practice development; and (e) the implementation of business principles that insure high quality and accountability.

As part of an effort for continuously striving toward these goals, CAMHD has established an ongoing commitment toward developing and applying valid, feasible, and useful evaluation strategies throughout its system. Countless individuals at all levels of the organization, be they information management personnel, office staff, case managers, providers, students, youth and families, supervisors, or administrators, help drive and actualize our commitment toward research and evaluation.

The three selected papers composing this symposium reflect our focus on research and evaluation across the system, be that at the specific client level (such as our first paper on validating a new measure of client improvement), the mid-level of the system (such as the second paper on client outcomes in intensive in-home services), or the large system-level (such as our third paper that looks at cost-efficiencies across community centers).

### **Validity of Treatment Target Progress Ratings as Indicators of Youth Improvement**

Brad J. Nakamura, Eric L. Daleiden, & Charles W. Mueller

#### **Introduction**

Practitioners are increasingly required to demonstrate and document intervention outcomes (Callaghan, 2001; Ottenbacher & Cusick, 1990). This demand frequently is tempered by the idiographic nature of treatment and meaningful treatment outcomes. As such, some researchers have suggested individualized outcome measures for use in clinical settings (Mintz & Kiesler, 1982), such as goal attainment scaling (Kiresuk, Smith, & Cardillo, 1994) and target complaint methods (Battle, Imber, Hoehn-Sario, Nash, & Frank, 1966). Hawaii's Child and Adolescent Mental Health Division (CAMHD) currently utilizes a clinician-report measure, the Monthly Treatment and Progress Summary form (MTPS; Child and Adolescent Mental Health Division, 2003), that lends itself to the target complaints measurement strategy.

The purpose of the present investigation was to examine the relationship between MTPS scores (i.e., therapist ratings of improvement on idiographic treatment targets) and a standardized measure of functional impairment, the Child and Adolescent Functional Assessment Scale (CAFAS; Hodges, 1998). To make this initial validity assessment we examined the degree of change over the course of treatment as assessed by both measures and compared changes in mean MTPS scores to changes in CAFAS scores over this same period of time.

#### **Chair**

Charles Mueller

#### **Discussants**

Charles Mueller et al.

#### **Authors**

Brad J. Nakamura et al.

Deborah Roberts et al.

T. Orvin Fillman

## Method

### Participants

Participants included 74 youth registered for mental health treatment services with CAMHD between June 30, 2003 and September 30, 2005 with completed CAFAS and MTPS scores at both intake and six months after receiving CAMHD treatment services.

The mean age of the sample was 13.82 years ( $SD = 2.99$ ; range = 4.40 to 18.19), with 42 males (56.8%) and 32 females (43.2%). Most participants were classified as multiethnic (44.6%). Principle diagnoses included mood/anxiety (37.8%), disruptive behavior (24.3%), attentional (23.0%), and other disorders (14.9%). The sample was comparable to non-selected CAMHD youth on the variables of age, intake CAFAS score, gender, ethnicity, and principle diagnoses.

### Measures

The CAFAS is a 200-item scale that measures youth's level of functional impairment. The MTPS is a locally constructed clinician report form designed to measure the service format, service setting, treatment targets, clinical progress, intervention practice elements, and provider outcomes on a monthly basis. Regarding treatment targets, clinicians select up to 10 target competencies or concerns (from a longer list) that were the focus of treatment during the reporting month. Clinicians then provide a progress rating comparing the youth's current status to his/her baseline status using a (0-6) 7-point scale with the anchors of *Deterioration* < 0%; *No Significant changes* = 0 – 10%; *Minimal Improvement* = 10 – 30%; *Some Improvement* = 31 – 50%; *Moderate Improvement* = 51 – 70%; *Significant Improvement* = 71 – 90%; and *Complete Improvement* = 91 – 100%.

### Procedure

Data on youth with CAFAS scores within 45 days of system entry, CAFAS scores within 45 days of their six-month follow-up (or 180 post-intake date), MTPS progress ratings within 30 days of the CAFAS intake date, and MTPS progress ratings within 30 days of the six-month follow-up CAFAS were pulled from CAMHD's management information system.

Intake and six-month MTPS mean progress rating scores were derived by averaging the progress rating scores for all *stable* targets (i.e., targets reported at both intake and six-month follow-up)<sup>1</sup>.

## Results

As can be seen in Table 1, mean intake CAFAS scores (109.9) indicated significant levels of impairment, comparable to those generally seen in CAMHD. On average, 6.39 ( $SD = 2.51$ ) treatment targets were identified for each youth at intake, and 4.15 ( $SD = 2.16$ ) of these targets remained stable (i.e., selected both at intake and six-month assessments). The five most common stable targets were Positive Family Functioning, Anger, Oppositional/Non-Compliant Behavior, Depressed Mood, and Academic Achievement.

Table 1 also shows that both CAFAS and MTPS scores indicated improvement over the course of treatment. CAFAS scores decreased significantly (indicative of improved global functioning),  $t(73) = -5.06$ ,  $p < .001$ , and MTPS ratings rose significantly (indicative of greater improvement on idiographic treatment targets),  $t(73) = 4.77$ ,  $p < .001$ .

Figure 1 depicts the cross-lag panel correlations between measures and time. As can be seen, there was little to no relationship between the two measures at intake; MTPS scores at intake did not predict later scores and the cross-lag correlations were small and non-significant. As expected, CAFAS intake scores were correlated with CAFAS scores at six-months. Most importantly for the present paper, the six-month

<sup>1</sup>Parallel analyses to those reported below were run on mean MTPS scores for all targets (stable and unstable) and the results were nearly identical.

**Table 1**  
**Mean Scores at Intake and Six-Month Follow-Up for CAFAS and MTPS Measures**

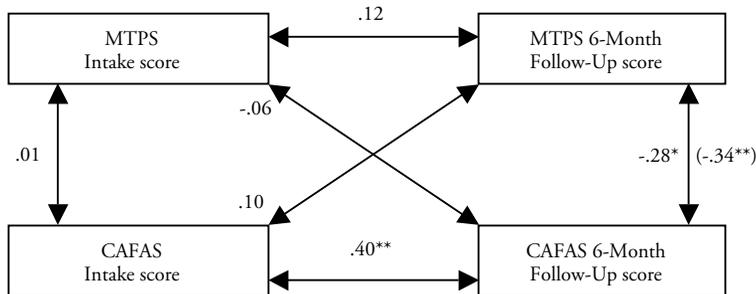
	Intake		6-Month Follow Up	
	M	SD	M	SD
CAFAS	109.90	30.90	88.00	36.60
MTPS	2.02	1.22	3.08	1.62

Note. CAFAS = Child and Adolescent Functional Assessment Scale score, MTPS = Monthly Treatment Provider Summary score.

MTPS scores were correlated with the six-month CAFAS scores in the predicted direction. Youth judged by the MTPS to be making greater improvements were rated as functioning better (on CAFAS) than those with smaller MTPS improvement ratings.

In order to isolate any influence of intake scores on six-month correlations, a partial correlation was calculated between the six-month CAFAS and MTPS scores, controlling for intake scores on both measures. As can be seen in the far right side of Figure 1, this correlation remains significant ( $r = -.34$ ).

**Figure 1**  
**Zero-Order and Partial-Correlations for CAFAS and MTPS Scores on Stable Targets at Intake and 6-Month Follow-Up**



Note: Score in parenthesis indicates partial correlation controlling for intake scores. CAFAS = Child and Adolescent Functional Assessment Scale, CAFAS Intake score = CAFAS score within 45 days of intake into CAMHD, CAFAS 6-Month Follow-Up = CAFAS score approximately 6 months after the date of a youth's CAFAS intake score, MTPS Intake score = MTPS score within 30 days of the date of a youth's CAFAS intake score, MTPS 6-Month Follow-Up = MTPS score within 30 days of the date of a youth's CAFAS 6-month score.

\* $p < 0.05$  (2-tailed). \*\* $p < 0.01$  (2-tailed).

## Conclusions

The present findings suggest that nomothetically calculated change scores for youths' improvements on idiographic treatment targets (i.e., MTPS scores) may serve as valid measures of client change. Improvement ratings at six-months were correlated with global functioning scores at the same time, directly and when the influence of intake scores was controlled. Additionally, the magnitude of this relationship ( $r = -.34$ ) suggests some level of specificity for both the CAFAS and MTPS measures; they do not seem to be capturing identical constructs.

Despite promising results, further work is indicated. This investigation was limited to a sample of 74 CAMHD-registered youth for which both CAFAS and MTPS data were available at two separate times. While not appearing to bias the sample (see earlier comments), we have yet to study all factors that might

influence data completion and we do not yet know much about which targets are more or less likely to be stable, to be quickly addressed, or to be dropped for other reasons.

Another limitation surrounds the notion that this study examines the MTPS/CAFAS relationship only at six-month follow-up. Ongoing CAMHD analyses indicate partial MTPS/CAFAS correlations (controlling for intake scores) similar in magnitude and significance at three- ( $r = -.29, p < .001$ ) and nine-month ( $r = -.43, p < .001$ ) follow-up to the partial correlation reported above at six-month follow-up. Collectively, these results indicate that youth judged to make more improvements on idiographic treatment targets at three-, six-, and nine-month follow-up were rated as functioning better than those with smaller improvement ratings.

Regarding future research directions, benefit may be accrued from examining the relationship between the MTPS and other standardized measures of symptoms and/or impairment (e.g., the Child Behavior Checklist; Achenbach & Rescorla, 2001). Again, without time and space for review, ongoing CAMHD analyses are currently examining the relationship between the MTPS and another standardized measure, the Child and Adolescent Level of Care Utilization System (CALOCUS; American Academy of Child and Adolescent Psychiatry, 1999), a measure used to inform youth level of care decisions. Preliminary results indicate a significant inverse MTPS/CALOCUS relationship at three-month follow-up (i.e., youth judged as making more idiographic improvements are rated as requiring higher levels of care than those with smaller improvements at three-month follow-up, but no relationship at six- or nine-month follow-up. Subsequent research may usefully focus on factor or cluster analytic strategies of targets and diagnostic-specific relations for elucidating common patterns of treatment and change.

Despite the limitations and directions for future research indicated above, the present findings point to the potential utility and validity of the monthly treatment progress summary approach to tracking client treatment outcomes.

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## **Intensive Home and Community Services within Hawaii's System of Care for Youth**

Deborah Roberts, Eric L. Daleiden, Lesley Slavin, Dawn Pang, S. Peter Kim, & Alfred Arensdorf

### **Introduction**

The State of Hawaii Child and Adolescent Mental Health Division has developed a range of service options within its system of care for youth and their families. Intensive Home Based Services (IHBS) are frequently provided upon referral to CAMHD with the goal of meeting the needs of youth and families in the community and avoiding the disruption of an out-of-home placement. This study examined data collected over a period of three years for all youth in the State of Hawaii system who received IHBS as their first CAMHD service. These youth were followed for a year to see whether this level of care (LOC) prevented out-of-home placement, and whether it was effective in reducing the use of other services. The study also compared the characteristics of those youth who were successful with IHBS to those who received out-of-home placement or other types of services during their first year.

The needs of the youth served by CAMHD vary in intensity, and the services offered include an array ranging from traditional outpatient care to hospital based residential services. While out-of-home services are available if needed, CAMHD is guided by Child and Adolescent Service System Program (CASSP) principles. CASSP principles state that services need to be child and family centered, strengthen and build upon the natural strengths of the youth, family, and community, promote healthy functioning, and be provided within the least restrictive and most natural environment that is appropriate, with removal from home used only when other options have been exhausted.

In concert with CASSP principles, CAMHD designed its IHBS with the intention of providing family centered treatment in the most natural setting with the goal of stabilizing and preserving the child's functioning in his or her family environment (Interagency Performance Standards and Practice Guidelines; Child and Adolescent Mental Health Division, 2002). IHBS is a time-limited approach incorporating evidence-based interventions. The services include crisis management, links to other supports, evidence-based treatment interventions, training in self-help and living skills for the youth, parenting skills training, and development of behavioral support plans for the home. The youth and family can be seen initially up to four hours a day or 20 hours a week as needed. As the family utilizes these supports and skills, service hours are decreased, with the goal of transitioning either to traditional outpatient services or out of mental health services completely.

This type of service (i.e., more intensive outpatient services designed to support youth and families and avoid the need for out-of-home placements) can be compared to programs developed in the context of other child-serving systems such as juvenile justice, child welfare, and other mental health systems. In addition, similar services have been applied in a variety of other human service settings including special education and developmental disabilities.

### **Method**

#### **Participants**

The study utilized the Child and Adolescent Mental Health Management Information System (CAMHMIS) database to identify all youth ( $N = 163$ ) who were admitted to CAMHD for the first time between July 1, 2001 and June 30, 2003, whose first recorded service was through IHBS, and who began receiving IHBS within 60 days of registration. All changes in services were tracked through the system for one year following each admission. Within this period, all service transitions were coded as progressing to (a) higher LOCs (therapeutic foster home, therapeutic group home, community based residential, hospital based residential), (b) lower LOCs (Multisystemic Therapy, intensive day stabilization, partial hospitalization), or (c) discharge from CAMHD either for school based services or no services.

## Measures

The Child and Adolescent Functional Assessment Scale (CAFAS; Hodges, 1998) and the Child and Adolescent Level of Care Utilization System (CALOCUS; American Academy of Child and Adolescent Psychiatry, 1999) were administered periodically to all CAMHD youth as additional outcome measures. Demographic information about the sample such as age, gender, ethnicity, educational status, and diagnosis were also retrieved from CAMHMIS.

## Results

### Who Received IHBS?

The mean age of the sample was 11.1 years ( $SD = 4.7$ ), including 90 males (55.2%) and 73 females (44.8%). Ethnicity information was available for 88% of the sample. For those youth, 33% were reported as White, 23% as Native Hawaiian or Pacific Islander, 22% as Multiethnic, 17% as Asian, 5% as Black or African-American, and 1% as American Indian or Alaskan Native. These CAMHD youth experienced high rates of co-morbidity (55%) and primary diagnoses for this sample included mood/anxiety disorders (35%), disruptive behavior disorders (15%); pervasive developmental disorders (12%), attention disorders (10%), adjustment disorders (9%), miscellaneous (7%), psychotic disorders (5%), and substance-related disorders (2%). The average CAFAS 8-scale Total scores at intake were 98.3 ( $SD = 39.7$ ). This reflects functioning in the range of moderate psychosocial impairment, well above the clinical cutoff of 40. The average CALOCUS scores at intake were 3.7 ( $SD = 1.3$ ). A CALOCUS score of 2 describes outpatient service needs, while 3 and 4 move up the level of care ladder from intensive services to an array of coordinated intensive services.

### Services at 12 months

Analyses of youth status at 12 months post admission indicated that 32% ( $n = 52$ ) remained active within the CAMHD system (i.e., received intensive case management, IHBS, or a higher LOC), 20% ( $n = 32$ ) were discharged for Department of Education school-based services, and 49% ( $n = 79$ ) were discharged altogether. Of the total 69% ( $n = 111$ ) who were discharged from CAMHD services, 56% left due to treatment success and/or achieved treatment goals. Other reasons for discharge included refusal or withdrawal (16%), moved (14%), graduated or aged out (5%), or received private services (3%), etc.

During the 12-month study period, 18.0% ( $n = 29$ ) of the sample required a higher LOC than IHBS at some point in time. Youth who moved into a higher LOC differed significantly from youth who did not move to a higher LOC on several key variables (see Table 1). Of significant note, those youth who entered higher LOCs displayed higher CAFAS and CALOCUS scores at time of IHBS intake, were older, and were more likely to have a primary diagnosis of a disruptive behavior disorder than those youth not moving to higher LOCs. The following additional variables did not significantly differ across groups: geographic region, ethnicity, presence of co-morbid diagnosis, and primary diagnosis in the categories of adjustment disorder, anxiety disorder, attention disorder, mood disorder, and psychotic spectrum disorder.

## Conclusion

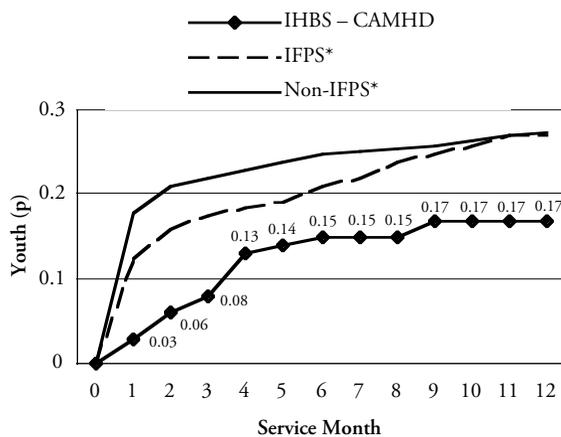
CAMHD's IHBS were successful overall in keeping youth in their home communities. Only a minority of youth (29 of 163) initially served with IHBS progressed to higher LOC's within the CAMHD system. Youth who utilized a higher LOC during their first year displayed higher CAFAS and CALOCUS intake scores, were older, and were more likely to have a disruptive behavior disorder as a primary diagnosis than those youth not utilizing a higher LOC. Even those youth who were placed in a residential care setting at some point following initial assignment to IHBS generally did not remain in these placements at the end of the first year. At the 12-month mark, only 3.6% of youth were in out-of-home placements.

**Table 1**  
**Significant Differences ( $p < .05$ ) between Youth who Received a Higher Level of Care within 12 Months of Admission to Intensive Home-Based Services Compared to Youth who Did Not Receive a Higher Level of Care within 12 Months**

Variable	Higher Level of Care	No Higher Level of Care	Test	$p$
Age in Years ( $SD$ )	14.2 (2.7)	10.4 (4.8)	$F(1, 161) = 16.59$	.0001
Primary Disruptive Behavior Disorder	28%	13%	$\chi^2(1, N = 163) = 4.08$	.043
Primary Pervasive Developmental Disorder	0%	15%	$\chi^2(1, N = 163) = 4.93$	.026
Primary Substance Use Disorder	0.7%	7%	$\chi^2(1, N = 163) = 4.99$	.025
CAFAS 8-Scale Total at Intake ( $SD$ )	122.1 (31.1)	91.7 (39.3)	$F(1, 161) = 14.28$	.0002
CALOCUS Level of Care at Intake ( $SD$ )	4.3 (1.2)	3.5 (1.3)	$F(1, 161) = 8.58$	.004

These findings provide clues for system assessment and management. First, although tentative, the fact that 18% of youth initially receiving IHBS services went on to a higher LOC may serve as a comparison benchmark for the Hawaii system of care, or for other state systems. As an example, Figure 1 shows a survival curve for youth remaining in their homes, and compares our current data to data presented by Kirk and Griffith (2004). Our finding that about 18% of youth in IHBS were placed out of home during the first year compares favorably with the Kirk and Griffith (2004) figure of about 27% of youth in their large state child welfare system being placed out of home at some point during their first year in services.

**Figure 1**  
**Proportion of Youth Receiving More Intensive Service than IHBS by Month**



\*Kirk & Griffin (2004)  
 Note: IHBS - CAMHD = Intensive Home Based Services; State of Hawaii Child and Adolescent Mental Health Division; IFBS = Intensive Family Preservation Services (Kirk and Griffin 2004)

Second, based on our findings that there are significant demographic and diagnostic differences between those youth who subsequently utilized and those who did not utilize higher LOCs, youth beginning treatment at the IHBS level may receive additional benefit by having treatment service teams assess for these key variables systematically and treat them as potential risk factors. For example, youth with high risk factors might be offered more intensive wraparound services on intake to IHBS, or the system might require referral for Multisystemic Therapy instead of generic IHBS for youth with a particular profile of risk factors.

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## **Cost-Quality Efficiencies: An Illustration of Data Envelopment Analysis for Mental Health Delivery**

T. Orvin Fillman

### **Introduction**

This presentation introduced an application of the Data Envelopment Analysis (DEA; Steering Committee for the Review of Commonwealth/State Service Provision, 1997) methodology for evaluating and managing mental health systems with multiple decision-making units sharing similar functions. The DEA provides a methodology for examining the relative efficiency with which various work units leverage their multiple resource inputs (e.g., operating expenses, staffing patterns, etc.) into multiple quality outputs (e.g., youth outcomes, quantity of services, etc.). The DEA converts multiple and disparate input and output measures into a single comprehensive measure of efficiency (Andes, Metzger, Krlewski, & Gans, 2002). The DEA methodology is an adaptation of the standard input/output ratio while incorporating and differentially weighting a variety of variables for evaluating relative efficiency. The DEA uses a linear programming technique that compares the extreme outputs and inputs of a sample. These extreme points have been called best practices and represent the management and work practices which result in the highest potential, quality, or combination of outputs for a given quantity and combination of inputs. The DEA may be an important decision support tool for administration of an evidence-based mental health delivery system.

### **Method**

#### **Participants**

The population of study included youth served through CAMHD mental health centers statewide. The period of study was for the two-quarter period from October 2004 through December 2004, and January 2005 through March 2005. The numbers of youth served for each quarter were 1,265 and 1,314, respectively. The mean age of the entire CAMHD population at that time was around 14 (range 3 to 20), with about two-thirds male and one third female. Additionally, approximately 64% self-reported as Multiracial, 17% as White, 10% as Native Hawaiian or Pacific Islander, 6-8% as Asian, 2% as Black and 1% as Other. Taken as a whole, these CAMHD youth experienced high rates of comorbidity (71-73%), with major diagnostic categories including Disruptive Behavior (44-45%), Attentional (44-45%), Mood (36%), Anxiety (19%), Substance Related (15-16%), and Adjustment (12%) (State of Hawaii, Department of Education and Department of Health, 2005).

#### **Procedure**

The DEA computations followed the methodology described by Taylor (2002), using the Solver tool in Microsoft Excel 2003. Indicators of quality outputs were compiled from CAMHD's usual performance monitoring reports (State of Hawaii, Department of Education and Department of Health, 2005). Input indicators were taken from CAMHD's routine staffing and financial summary reports. The constraints for the DEA calculations were as follows: the input and output weights were  $\leq 1.0$ ; the input and output weights were maximized; the sum of the input products equaled 1.0; the sum of the output products was less than or equal to the sum of the inputs; and all maximized weights were constrained to be  $\geq 0$ . Also, the input and output products were defined as the product of the measured inputs and outputs times the maximized input and output weights, respectively; and the outputs were constrained to be less than or equal to the inputs.

### **Results**

Table 1 displays data reflecting resource input and quality output for each of the six mental health centers used in the analysis. Following Taylor's (2002) DEA methodological calculations, five of the six mental health centers were rated as efficient. Mental health center D was rated as relatively inefficient,

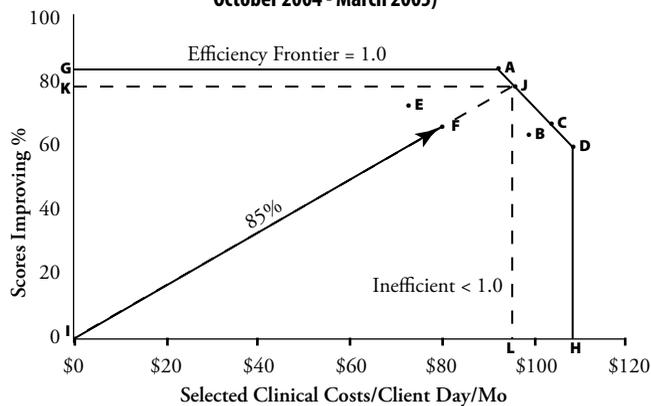
with a score of 83.8%. This result quantified the observation that while mental health center D had the *lowest* percentage of clients showing improvement by the Child and Adolescent Functional Assessment Scale (CAFAS; Hodges, 1998) or Achenbach System for Empirically Based Assessment (ASEBA; Achenbach & Rescorla, 2001), it had the *highest* input of resources/client day for three of the five resource inputs. For illustrative purposes, Figure 1 provides a visual representation of the six centers' relative efficiencies based on only two variables (i.e., selected summary costs of therapeutic services per average client day per month, and percentage of youth showing CAFAS or ASEBA improvement).

**Table 1**  
**Indicators of Resource Input and Quality Output**

	Resource Input Indicators					Quality Output Indicators				
	Office	Salary	MHCC FTE	Clinical Services	OOH Services	IIH	CSP	CAFAS / ASEBA	Complaint	DEA Score
MHC A	\$0.64	\$34.40	0.05	\$91.88	\$76.52	67.1	94.6	84.0	100.0	1.0
MHC B	\$0.71	\$51.65	0.06	\$100.01	\$76.37	70.3	87.3	64.3	100.0	1.0
MHC C	\$0.90	\$37.39	0.05	\$106.36	\$93.73	56.0	92.8	67.0	98.5	1.0
MHC D	\$0.99	\$57.09	0.06	\$109.50	\$86.23	65.3	91.8	63.4	99.7	83.8
MHC E	\$1.64	\$46.72	0.05	\$72.35	\$53.98	69.3	85.0	72.9	98.4	1.0
MHC F	\$1.18	\$36.85	0.05	\$81.53	\$69.35	58.8	80.7	66.7	99.8	1.0

*Note.* CAFAS/ASEBA = percentage of youth showing improvement per the Child and Adolescent Functional Assessment Scale or Achenbach System for Empirically Based Assessment reports, **Clinical Services** = selected summary costs of therapeutic services per average client day per month, **Complaint** = percentage of youth with no documented complaint or grievance, **CSP** = percentage of youth with Coordinated Service Plans meeting quality standards, **DEA Score** = Data Envelope Analysis percentage score, **IIH** = percentage of youth receiving Intensive In-Home Treatment (i.e., not removed from their home setting), **MHC** = Mental Health Center, **MHCC FTE** = number of full-time equivalents of care coordinators per average client day per month, **Office** = office expenses per average client day per month, **OOH Services** = selected costs of Out-of-Home treatment services per average client day per month, **Salary** = salary expenses per average client day per month.

**Figure 1**  
**Efficiency Frontier and Individual Clinic Performance**  
**for CAFAS/ASEBA Improvement and Selected Summary Costs**  
**of Therapeutic Services**  
**(CAMHD DEA Analysis Using Two Variables:**  
**October 2004 - March 2005)**



## Conclusion

The application of the DEA to operations management within CAMHD elicited three noteworthy process observations. First, it was novel for managers to compare themselves to those with the lowest costs and highest outputs rather than evaluating against means or minimum benchmarks. Second, when the DEA efficiency frontier was described as “best practice” (State of Hawaii, Department of Education and Department of Health, 2005), this term was confusing and emotionally charged to managers. For example, a center with a high vacancy rate would have a resulting high efficiency in the staffing indicator. Although this center would represent a best practice as the low-cost leader in staffing as long as outputs were maintained, understaffing is not a management best practice over the long term. Therefore, the term “efficiency frontier” was preferred for referring to the extreme boundaries of inputs and outputs. Third, when a conscientious management team was deemed inefficient, this elicited further data and operational evaluations. Finally, in the context of a multilevel evaluation, the DEA provides important information about both overall system functioning and specific program functioning within the system. The efficiency frontier is defined as a composite of the best functioning across programs in the system; therefore improved system functioning is reflected by an expanding efficiency frontier.

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## **Symposium Discussion—Multi-Level Systems Evaluation: Hawaii’s Commitment to Informed and Applied Research**

**Charles W. Mueller, Brad J. Nakamura, & Eric L. Daleiden**

Together the papers in this symposium reflect the State of Hawaii Child and Adolescent Mental Health Division’s (CAMHD) strong and ongoing commitment to develop and apply valid and useful evaluation strategies. At the client level, we see significant progress made toward validating an idiographic client-tailored measure against two standardized measures. At the program level, the second paper linked client characteristics of youth receiving intensive in-home services with differential outcomes. Finally, at the system-level, data envelopment analyses were used for investigating cost-quality efficiencies of six case management centers. These papers nicely reflect the tension between practice and research in systems settings and the empirical and conceptual gains that can be had when empirical science is brought to bear on clinical planning and delivery. Each paper found its own way to balance rigor and relevance while contributing new insights about the system of care.

Although only a handful of authors are listed on these papers, many more individuals helped actualize these investigations. Moving forward, CAMHD and its stakeholders are committed to continued development of informed and applied research and evaluation, effectively working toward CAMHD's ultimate vision statement: "Happy Children, Healthy Families, Helpful Communities."

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## Topical Discussion

# Translation in Systems of Care: Methods and Issues

Sylvia Fisher  
Anika Keens-Douglas  
Michelle Schurig

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### Background

According to the U.S. Census Bureau, the Hispanic population reached 41.3 million as of July 1, 2004. The Hispanic growth rate between July 1, 2003, and July 1, 2004, of 3.6% was more than three times that of the total population (1.0%; U.S. Census Bureau, 2005). Hispanics represent a diverse array of cultures and, although they share a common language, there are substantial variations in their written and spoken Spanish.

Effective oral and written translation is increasingly important throughout systems of care, particularly with regard to programs and evaluation. When a translation fails to convey the intended information, clients do not understand what their healthcare providers are telling them and quality of health care can be compromised (Anderson et al., 2003). From a programmatic perspective, ensuring that diverse populations have access to services requires communities to think creatively to develop effective outreach and recruitment strategies. It is also important to address linguistic barriers to ensure reliable and valid data collection for the national evaluation of the systems of care program.

A fundamental principle of systems of care is the importance of cultural and linguistic competence, which is essential to the delivery of quality care and program services. The National Center for Cultural Competence defines linguistic competence as:

*“...the capacity of an organization and its personnel to communicate effectively, and convey information in a manner that is easily understood by diverse audiences including persons of limited English proficiency, those who have low literacy skills or are not literate, and individuals with disabilities” (Goode & Jones, 2004).*

The need for effective oral and written translation is becoming increasingly common throughout systems of care, as more communities report the need for culturally sensitive and linguistically appropriate translations to guide their local efforts. In response, the system of care national evaluation program has demonstrated a significant commitment to the importance of translation by providing guidance for local efforts and planning processes, especially in the translation of materials and documents into Spanish. The national evaluation team recognizes the vital role translation plays in the success of evaluation activities, particularly data collection.

### Translation Methods

Translation is a complex process laden with numerous challenges, including (a) preserving the integrity and semantic equivalence between the original written or oral text and the translated text; and (b) maintaining a culturally sensitive translation that ensures that cultural traditions and typical language idioms are addressed in a respectful manner. In addition, successful oral and written translations reduce the potential for statistical and other forms of bias whenever possible, somewhat minimizing the potential for error in data collection activities (Fisher & Gerber, 2002).

Several translation approaches are available, including back translation, expert groups (such as a translation advisory committee), cognitive interviews, focus groups, item response theory, respondent and interviewer debriefings, certified translators, use of the decentering method, and behavior coding. Marín and Marín (1991) especially favor translation-by-committee approaches for Spanish translations because Spanish is spoken in nearly 25 nations and, accordingly, is subject to many idioms and variations both in meaning and pronunciation. These variations and cultural idioms and differences can result in translations that have radically different meanings. Additionally, if a translation is not well-designed from its inception, formidable efforts often become necessary to disentangle the roots of the translation problem, which is difficult once a translation is completed.

The literature on translation helped justify a decision for the national evaluation to develop an iterative process of review and feedback, through the establishment of a translation committee with strong links to the audience for translated evaluation products. The processes undertaken by the translation committee served as the early steps in translating evaluation training manuals and materials into Spanish.

### **Development and Use of National Evaluation Glossary of Spanish Terms: Translation-by-Committee**

Marín and Marín have specified at least four groups of native Spanish speakers that should be represented on any Spanish-language translation committee: (a) Mexican, (b) Caribbean, (c) Central American, and (d) South American. The inclusion of participants from these four groups will help secure a more culturally appropriate Spanish language translation.

A translation-by-committee process was deemed a credible choice for translation activities and feasible to implement within the timeframe and resources available. Although there was potential for wider Hispanic and Latino representation, audiences from system of care communities were identified as majority Mexican, Puerto Rican, and Cuban. Accordingly, native Spanish speakers of similar backgrounds, experts in child mental health and systems of care, and individuals who would be interacting with the final translated products were invited to be part of the translation committee. Their main objective was to review an English–Spanish glossary of important terms used in national evaluation materials and to offer feedback in an effort to generate the most culturally appropriate, yet semantically accurate, translation of the English terms.

A survey was developed that asked reviewers to rate their opinions of glossary terms as 1, *no opinion*, 2, *translation needs improvement*, or 3, *in complete agreement with translation*. Responses were scored accordingly. They also provided text responses to explain their selection additions, and to provide alternate vocabulary for terms used. Members of the translation committee were later invited to join a conference call to go over the more controversial terms, and to provide additions they felt were important.

Members of the translation committee used the scheduled conference call to further discuss terms that had received a lower score. This activity resulted in consensus for nearly all of the glossary terms and for the ongoing development of the glossary, and, most significantly, resulted in increased consistency across translated materials. This promising approach permits consumers to be directly involved in shaping and developing the glossary of terms.

### **Putting It in Perspective: Discussion Topics Identified by Participants**

The following topics were identified and discussed by participants as important themes during the Translation in Systems of Care: Methods and Issues roundtable session.

#### **Translation, in general:**

- The role of culture—as it extends to understanding family, literacy levels, socioeconomic factors, and other differences—in translating products for particular audiences.
- The importance of building collaborative relationships between stakeholders, gatekeepers (e.g., visible community leaders, potential interviewers/translators, and data collectors), and the audience to better assess cultural and linguistic needs. This would include bringing stakeholders and community gatekeepers together early in the evaluation and service planning phase to begin preparing a culturally appropriate translation.

#### **For evaluation:**

- The importance of considering translation costs and resources as part of the evaluation budget and initial local evaluation planning.
- The need to raise awareness about the benefits of having a translation process toward increasing

stakeholder input, maintaining community response, and ensuring quality data collection.

- The value of working toward common criteria for both local and national evaluation efforts in order to build a broader network and consensus on translation in evaluation.
- The value of creating and maintaining a central, common glossary for system of care terms to ensure cross-site, cross-project, and cross-agency consistency.
- The importance of developing a regular process for continuous quality monitoring of translated materials since culture and language can continually evolve.

## **Resulting Recommendations**

The following recommendations can be considered next steps to improve the quality of translations in systems of care and the national evaluation. Participants set the following priorities for continued focus later:

1. Emphasize the importance of culture as a basis to start and build collaborative relationships with audiences of national and local evaluation efforts. In order to know the audience, involve community gatekeepers and members early in evaluation planning.
2. Promote the message of working toward establishing common criteria at the evaluation planning table in order to achieve translation consistency throughout systems of care.
3. Establish a centralized “location” for ongoing discussion about terminology. Include program partners and utilize existing networks. These system-wide efforts would contribute to a central glossary of terms for systems of care.
4. Work to consolidate existing Spanish-language glossaries. Use the centralized network to incorporate existing networks focused on linguistic issues.
5. Incorporate continuous quality monitoring (QM) procedures for keeping a dynamic and relevant glossary. This will identify the most culturally and linguistically appropriate translations for system of care concepts. Also, build in a communication feedback loop for newer concepts. Educate communities on this terminology in both English (the source language) and Spanish (the target language).
6. Locate dissemination avenues (through national partner efforts, social marketing, and other existing networks) to raise awareness of the importance and benefits of a translation process for evaluation instruments and materials used in service delivery.
7. Encourage the allocation of funds and sharing of resources by sites and the system of care program for coordinated translation activities and use of translation services.<sup>9</sup>

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## **Topical Discussion**

# **Applying Empowerment Evaluation and Getting to Outcomes to Systems of Care**

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### **Introduction**

This discussion addressed the potential benefits of utilizing empowerment evaluation and the Getting to Outcomes evaluation approach within systems of care. Dr. Osher is a Managing Director at American Institutes of Research. Lindsey Stillman, MA and Jennifer Duffy are doctoral students in the University of South Carolina Clinical-Community Psychology graduate program. They have worked extensively with Dr. Wandersman, an expert in empowerment evaluation and the developer of Getting to Outcomes (Fisher, Imm, Chinman & Wandersman, 2005).

Researchers and practitioners have cited numerous challenges to evaluating and implementing systems of care (SOC). Despite the clearly articulated system of care principles, each SOC is unique to the needs and resources of the community in which it is being implemented. SOC is a complex, multidimensional, and comprehensive change strategy rather than a single “prepackaged” intervention (Hernandez & Hodges, 2003). In addition, SOCs are implemented within service delivery environments that are complex and continually changing (Hernandez, 2002).

The complexity and variability of SOCs has made large-scale effectiveness evaluation daunting. Although the Center for Mental Health Studies has conducted national evaluation efforts and various other researchers have evaluated the effectiveness of the approach, the results are mixed. Reasons suggested for these mixed findings include too much focus on individual level outcomes, lack of attention to community factors, variability due to local decision-making, and lack of adaptation of evaluation methodology to local needs and resources (Cook & Kilmer, 2004; Friedman & Hernandez, 2002, Hernandez & Hodges, 2003). This mixed evidence is not necessarily an indication that the approach is not effective, but that new models for implementation and evaluation need to be explored in order to increase and document their effectiveness.

### **Empowerment Evaluation with GTO: A Good Fit for SOCs**

A number of authors suggest the importance of building planning and evaluation capacity and processes within SOCs. Friedman (2005) and Friedman and Drews (2005) suggest that SOCs need to develop “ongoing internal evaluation procedures” and strong performance measurement procedures that focus both on process and outcome data to inform decision making. All of these challenges and suggested solutions lead to the conclusion that developing local planning and evaluation capacity can increase the effectiveness of SOCs. Two approaches that appear ideal for building this capacity are empowerment evaluation and Getting to Outcomes. Although use of these approaches with SOCs has not been documented, they could address the identified gaps in current SOC practice.

Empowerment evaluation has been defined as, “an evaluation approach that aims to increase the likelihood that programs will achieve results by increasing the capacity of program stakeholders to plan, implement, and evaluate their own programs” (Wandersman et al., 2005, p. 27). Empowerment evaluation is based on the idea that evaluation should not be owned by a professional evaluator/researcher, but should be a collaborative process whereby an organization or community learns to evaluate its own work. Evaluation is focused on providing information for program improvement. The evaluator’s role is as a coach or facilitator, with stakeholders taking ownership of the evaluation process.

While the empowerment evaluation approach is still new, there is some evidence that it can be effective in building capacity to evaluate and improve programs. A number of case studies have described the successful use of this approach in practice (Wandersman et al., 2005). In addition, one empirical

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study showed that the empowerment evaluation approach was successful in helping state funded sexual assault prevention programs and victims' services programs to develop and carry out their own program evaluations (Campbell et al., 2004).

The empowerment evaluation process can be facilitated by the use of Getting To Outcomes (GTO), which provides practitioners with the information and tools necessary for evaluation in an accessible way (Fisher, Imm, Chinman & Wandersman, 2006). GTO provides a practical guide for planning, implementing, evaluating, and sustaining programs or strategies. The process is based on 10 accountability questions (Table 1). Each question involves a number of self-assessment steps. With careful consideration of each question, an organization should significantly increase the likelihood that it will achieve desired outcomes. Recent research has examined the effect of using GTO with substance abuse prevention coalitions (Fisher, et al. 2006). While more research is needed, these findings suggest that GTO is a promising approach for making planning and evaluation accessible to practitioners.

**Table 1**  
**The 10 Accountability Questions of GTO**

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*The Accountability Questions*

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1. What are the needs and resources in your initiative?
2. What are the goals, target population, and desired outcomes (objectives) for your initiative?
3. How does the intervention incorporate knowledge of science and best practice in this area?
4. How does the intervention fit with other programs already being offered?
5. What capacities do you need to put this intervention into place with quality?
6. How will this intervention be carried out?
7. How will the quality of implementation be assessed?
8. How well did the intervention work?
9. How will continuous quality improvement strategies be incorporated?
10. If the intervention (or component) is successful, how will the intervention be sustained?

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The principles and processes of empowerment evaluation and Getting to Outcomes fit well with the stated needs in current implementation of systems of care. Friedman (2005) describes the aspects of creating an effective SOC as: (a) defining and understanding the population of concern, (b) achieving agreement on values and principles, (c) establishing a theory of change, (d) developing an implementation plan and (e) developing a performance measurement plan. Getting to Outcomes provides stakeholders with a systematic way to complete these tasks including definition of the target population (Question 1), definition of the goals (Question 2), creating a connection between goals, strategies, and outcomes (Question 3), how the program will be carried out (Question 6), and how well the program works (Question 8).

The Research and Training Center for Children's Mental Health articulates fourteen implementation factors that lead to effective systems of care. Many of these are congruent with the steps of GTO and the principles of empowerment evaluation. For example, they emphasize the need to define and describe the population, clearly state the theory of change, develop an implementation plan, and implement performance measurement. In addition, they emphasize provider accountability and transformational leadership, both of which fit well with the goals of empowerment evaluation (Research and Training Center for Children's Mental Health, 2005).

Empowerment evaluation which utilizes the Getting to Outcomes process seems a natural fit with the systems of care approach because of its focus on developing local capacity, strategic planning, and performance measurement. Building the capacity of SOC to systematically plan, implement, and evaluate their initiative using the ten GTO steps may be an ideal way to improve the implementation of SOC and collect evidence of their effectiveness. Utilizing GTO and empowerment evaluation can increase the capacity of stakeholders to plan and modify their SOC to maximize effectiveness.

## Discussion

In order to illustrate the potential applicability of empowerment evaluation and GTO to SOC, we described how these two approaches could be implemented within a system of care. During the discussion portion of the session, we solicited input from participants regarding the perceived utility of these approaches as well as their experiences with evaluation.

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