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Delivery System Capacities for Recovery-Oriented System of Care (ROSC) for Substance Abuse Disorders: An Examination of Organizational Readiness

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Delivery System Capacities for Recovery-Oriented System of Care (ROSC) for

Substance Abuse Disorders: An Examination of Organizational Readiness

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Abstract

Adopting and implementing a Recovery-Oriented System of Care (ROSC) (innovation) requires that organizations have recovery-specific systems and features (capacities) in place. Organizations, however, may requires more than specific capacities, they require the motivation to put recovery-based innovations into place. This thesis reviews the literature to examine which capacities have been identified as integral to providing recovery-oriented services within a ROSC. Surveys were distributed electronically to delivery and support staff at organizations that provide substance abuse services under the jurisdiction of the South Carolina Department of Alcohol and Drug Abuse Services. Confirmatory Factor Analysis (CFA) was used to examine how these capacities varied within and between organizations in South Carolina. Due to initial findings of an unexpected negative relationship between capacity and motivation, a secondary analysis looked how different types of motivation were related to capacity. Some implications for how these findings can be used to inform support system activities are discussed.

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Chapter 1: Introduction

Nationwide, the Substance Abuse and Mental Health Services Administration (SAMHSA) has advocated for a shift in how organizations conceptualize and provide substance abuse treatment. Problematic alcohol and drug use are being recognized as progressive and chronic disorders that require ongoing maintenance to sustain remission once initial therapeutic gains are met (McLellan, 2010). Current treatment models that are structured around providing acute care symptom reduction are insufficient given what we know about the nature of substance use disorders (White, 2008). Treatment systems are being reorganized to incorporate a framework that is oriented toward promotion of recovery.

Recovery is more than symptom reduction; it is "a process of change through which individuals work to improve their own health and well being, live a self-directed life, and strive to achieve their full potential (SAMHSA, 2011)." Similar definitions have been offered by White and Kurtz (2008) and McLellan (2010). An organizational initiative to support this process of recovery is the *Recovery-Oriented System of Care* (ROSC, SAMHSA, 2010; White, 2008).

This thesis has a number of goals. First, it will identify the specific organizational components that are necessary when implementing a ROSC. These components will be conceptualized as capacities, or the knowledge, skills, and abilities that are needed to put particular innovations into place. Second, it will demonstrate how the construct of *organizational readiness* can help inform implementation support. Finally, it will

examine organizational readiness as a product of the relationship between capacities and organizational motivation to change. The results of this study can inform ROSC implementation process by demonstrating the relationships between organizational factors in a way that can guide training, technical assistance, and formative evaluation strategies with a focus on achieving positive outcomes.

Conceptualizing and Forming a ROSC

According to SAMHSA (2010), a ROSC is:

> A coordinated network of community-based services and supports that is person-centered and builds on the strengths and resilience of individual, families, and communities to achieve abstinence and improved health, wellness, and quality of life for those with or at risk for alcohol and drug problems (p. 2).

Forming this network, however, may seem an extremely lofty goal for those working in the behavioral health professions. Fully implementing a ROSC requires more than putting certain interventions into place (e.g. targeted aftercare services). The Philadelphia Department of Behavioral Health and Intellectual disAbility [*sic*] Services (DBHIDS) has proposed that a ROSC requires a deeper system transformation, i.e., a complete reevaluation of the policies and procedures that may or may not be oriented to promoting health and well-being from a consumer-oriented perspective (DBHIDS, 2011a). Organizations may lack the knowledge, skills, and abilities to develop and structure programs that access and/or provide multiple resources.

A ROSC recognizes the contextual nature of recovery and uses a community-informed approach to improve treatment services (White, 2010). This approach uses the experiences of the individual person in recovery to inform the services that the organization offers, rather than a traditional research- to-practice model in which an innovation is generalized across persons, treatments, and settings (Flaspohler, Duffy,

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Wandersman, Stillman, & Maras, 2008; Laudet & White, 2009; Shadish, Cook, & Campbell, 2002; Wandersman et al., 2008). This community-centered approach does not necessarily develop any novel services and can help the organizations utilize programming which is a naturalistic fit for the local context (White, 2008).

Given that multiple factors can affect implementation (Fixsen, Nooam, Blasé, Friedman, Wallace, 2005) this system transformation is no easy task. Current substance abuse treatment models present several barriers to ROSC implementation (White, 2006). Additionally, the work that identifies processes by which the specific elements of a ROSC can be implemented is underdeveloped (SAMHSA, 2010.) Funders, organizations, and practitioners may not be clear on what is required for them to reach the deeper level system transformation proposed by SAMHSA and DBHIDS. There is little research consolidating the specific organizational elements that are needed to implement ROSC. Many providers require answers to the questions, "What exactly is this ROSC that I trying to implement?" and "What does my organization need to successfully put a ROSC in place?" Many states and cities have already begun their own process of ROSC development and it is some of this community-level work that informs this thesis.

A Support System for ROSC

Organizations and support staff require methods to bridge the two gaps: 1) between the science and practice of recovery-based treatment, and 2) between community needs and availability of quality services (White, 2008). There are several models which have informed the research-to-practice literature (e.g. Greenhalgh, Robert, MacFarlane, Bate, & Kyriakidou, 2004; Hall & Hord, 2006), including some that have come directly from a substance abuse treatment background (e.g. Simpson, 2002). One model that is

especially suited to examine how a ROSC can be implemented is the Interactive Systems Framework for Dissemination and Implementation (ISF, Wandersman et al., 2008). The ISF conceptualizes that there are a number of bidirectional relationships between providers and support staff within a larger systems climate that informs how innovations are adopted. *Figure 1.1* illustrates the different roles and relationships for implementation for a ROSC.

Within an ISF for ROSC, the role of the provider or organization constitutes the *ROSC Delivery System*. The delivery system provides direct, front-end services to the individuals and families in recovery. ROSC implementation guidelines to date have focused mainly on how providers can change the delivery of services to become more recovery-oriented (DBHIDS, 2011a; SAMHSA, 2010).

However, two additional systems are needed to enhance the implementation of a ROSC. The task of the *ROSC Synthesis and Translation System* is to consolidate both evidence-based practice and practice-based evidence in a form that is usable to those that intend to adopt ROSC innovations. An example of a ROSC *Synthesis and Translation* activity is SAMHSA's ongoing series of Treatment Improvement Protocols. These are best-practice guidelines are designed to be used by practitioners in the field that are available free of charge (e.g., Substance Abuse Treatment for Persons with Co-Occurring Disorders: A Treatment Improvement Protocol: TIP 42, 2005).

Finally, the *ROSC Support System* helps to build delivery system capacities to implement recovery-based innovations with quality. Capacities are the skills, motivations, knowledge, and attitudes necessary to put innovations into place (Wandersman et al., 2008). Furthermore, capacities can be subdivided into two

categories; *general capacities* and *innovation-specific capacities* (Flaspohler et al., 2008b).

General capacities are, "the skills or characteristics (at the individual level) and the overall functioning (at the organizational and community levels) that are associated with the ability to implement or improve any innovation (Flaspohler et al., 2008b)." General capacity is related to the infrastructure, skills, and abilities of a community or organization (or to the skills and abilities of an individual) that are not specific to the use of a particular innovation. General capacities for an organization also include the context, environment, and processes in which the innovation will be introduced.

Innovation-specific capacities are, "the specific motivation and skills (at the individual level) and human, technical, and fiscal conditions (at the organizational level) which are necessary to successfully implement a particular innovation (Flaspohler et al., 2008b)." At the organizational level, innovation-specific capacities refer to the operational realities that allow or prevent programmatic development and implementation. Innovation-specific capacities are the specific elements that are needed in order to put a specific intervention, process, or procedure into place.

A necessary step in building a ROSC is identifying what capacities are needed in order to help the individual reach positive outcomes. Organizational capacities are informed both internally by the needs and resources of the organization, as well as externally from the demands of both the individual person-in-recovery and community. Innovations should address and fill the service gaps specified by the needs and resources of the organizations (Flaspohler et al., 2008b). An understanding of organizational general capacities to deliver and support ROSC informs how able the organization is to

adopt innovation-specific ROSC elements. Organizations can then use this information

to enhance certain organizational structures or processes in order to successfully

implement a ROSC. For example, an organization can assess whether current or

proposed ROSC programming is redundant with services (both in type and quality) with

those that are already found in the community.

This thesis will first identify both the general and innovation-specific capacities

that are part of ROSC delivery systems. The concept of how organizational motivation

relates to these ROSC capacities and can be used to inform implementation of ROSC will

be presented.

Funding

Implementing Innovations – ROSC Delivery System

General ROSC Capacity
- Leadership
- Structure
- Organ. Climate
- Resource Availability
- Staff Capacity
- Cultural Competency

Innovation Specific ROSC Capacity
- Individual Client Care
- Organ. Recovery Identity
- Connections to Recovery Community

Organizational Motivation

Macro Policy

Climate

Supporting the Work– ROSC Support System

General Capacity Building

Innovation-Specific Capacity Building

Distilling the Information – ROSC Synthesis &Translation System

Synthesis

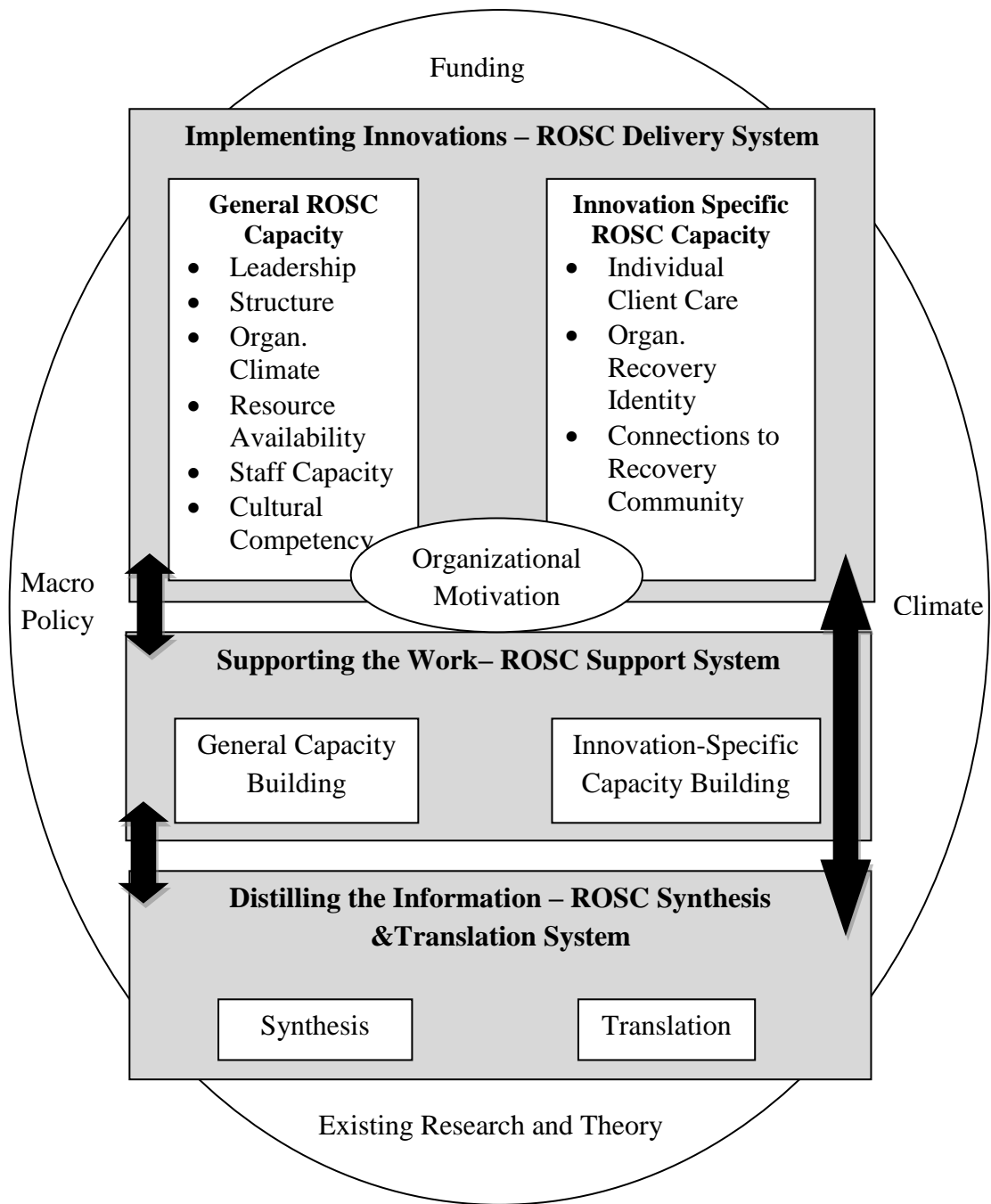Translation

Existing Research and Theory

FIGURE 1.1. The Interactive Systems Framework (ISF) for a ROSC.   Each box is a system that is informed by interactions with the other systems.

Chapter 2: Delivery System Capacities for Recovery-Oriented System of Care (ROSC)

In the ISF, several factors constitute the environment in which implementation occurs. These factors include macro-policy, climate, the existing research literature, and available funding (Wandersman et al., 2008). Several authors have identified elements of a ROSC that would fall outside the active framework of the ISF. These factors are important to address because although they influence the context in which a ROSC will be implemented, they are not directly controlled by organizations. These are listed in *Table 2.1.*

External mandates from other organizations constitute macro-policy. Although mandates increase the organization's predisposition to adopting an innovation (Hall & Hord, 2006; Flaspohler et al., 2008b) they do not help to build the capacity of an organization (Greenhalgh et al. 2004). Similarly, the current political climate of the community is a crucial source of support for a ROSC transformation (White, 2008). However, different issues rise and fall in prominence with political, budgeting, and media cycles. Being told to implement a ROSC does not help an organization to actually know how to do it.

The overall availability of funding also informs the function of the ROSC systems within the ISF. Generally, funding from grants and other federal programs (e.g., SAMHSA block grant) has declined for substance abuse programming. The overall business model that guides substance abuse treatment may need to be adjusted to support fluctuating levels of funding (White, 2008). The current level of capitalization and extent

to which service funding is diversified represents a challenge for how ROSC initiatives will be implemented. Strategies designed to address funding concerns fall under the category of general capacities.

Organizational General Capacities for ROSC

A major barrier to ROSC implementation is weak organizational infrastructure, or the lack of general organizational capacity (White, 2008). Organizational functioning influences the quality of services (Simpson, 2009). Livet, Courser, and Wandersman (2008) found that overall organizational functioning provides the host organization capacity to implement innovations, highlighting the importance of having general capacities in place *prior* to implementation of a specific innovation. Furthermore, programs with a stable environment report more openness to change, a more growth-oriented outlook, and less stress among employees (Lehman et al., 2002).

A very strong synthesis of general organizational capacities can be found in Flaspholer et al. (2008), who identified six broad categories. These include *leadership, organizational structure/management style, organizational climate, resource availability, and staff capacity*. The intent of this thesis is not to duplicate this work, but rather to identify the general capacities that are identified within the ROSC literature or in articles on addiction treatment science technology transfer (e.g. Simpson, 2002) that are consistent with Flaspohler et al.'s (2008) synthesis. These are listed in *Table 2.2*. Fixsen et al. (2005) refer to building general capacities as system interventions. These are the organizational components that must be in place if the innovation-specific capacities are to be implemented and sustained over the long term (Fixsen et al., 2005).

Program Leadership.

Leadership strength is an important general capacity (Fixsen et al., 2005; Flaspohler et al. 2008). Strong leadership also increases likelihood of innovation adoption (Becan, Knight, & Flynn, 2012). This includes being able to articulate a clear organizational mission that is consistent with the values of a ROSC. It is also beneficial to select a program champion who can advocate for the implementation of a specific innovation (Fixsen et al., 2005; Meyers, Durlak, & Wandersman, 2012). A champion is a process use advocate, or a person who helps rally support for an innovation. Livet et al. (2008) found that having a program champion was most consistently linked to use of program planning steps. When this person is internal to the organization, this helped to increase the use of an innovation (Livet et al., 2008). Of specific concern to ROSC implementation is the aging of current leadership in the substance abuse treatment field which will pose a challenge when considering organizational sustainability (White, 2008).

Organizational Climate.

Organizational climate refers to how employees collectively appraise and feel about their current working environment (Lehman, Greener, & Simpson, 2002; Hall and Hord, 2006). Lehman et al. (2002) identify two components of organizational climate: 1) Clarity of organization mission and goals, and, 2) Perceived stress that comes from the work environment. This perceived stress is an important factor for organizations wishing to implement ROSC as substance abuse treatment is a field plagued with high employee demands, low compensation, and high turnover (White, 2008). These factors can lead to diminished staff capacity, even among employees who stay with an organization for an

appreciable amount of time. The best counselors are often moved into more administrative positions with increased responsibility (White, 2008), and away from the consumers that they once competently served.

Climate also involves the perceived tension for organizational change, or whether or not a current organizational activity is tolerable or desired (Greenhalgh et al., 2004; Flaspohler et al, 2008a). Having an organizational culture with a more stable infrastructure and that is amendable to change increases the likelihood of specific innovations being implemented (Livet et al., 2008). The concept of organizational change within a ROSC will be further developed during the discussion of organizational motivation.

Organizational Structure and Management Style.

Organizational structure and management style include such factors as organizational size, maturity, specialization, and internal decision-making processes that can impact how well an organization functions on a day-to-day basis (Flaspohler et al., 2008a). Lehman et al. (2002) identify important structural elements such as whether staff have sufficient autonomy to assert their own suggestions, how cohesive the staff is in carrying out organizational operations, and whether communication is open along both vertical (from front line to leadership and vice versa) and horizontal (between individuals with similar positions) channels. For many treatment providers, typical structural stressors such as role conflict, ambiguity over tasks and responsibilities, and case overload can interfere with daily program operations and overall quality of care (White, 2009a).

Resource Availability.

As a general capacity, *resource availability* falls into three broad categories: 1) the ability to identify and access diverse funding streams for ROSC programming, 2) the ability to allocate resources efficiently and effectively to ROSC programming, and 3) the general infrastructure and institutional resources that needed for daily operations.

Identification and Accessibility of Funding.

The Interactive Systems Framework (ISF) identifies funding as a contextual factor that influences the implementation process. The fixed dollar amount of funding is not the general capacity. Rather, the general capacity is the ability to seek out and access this funding. Since the majority of substance abuse treatment is funded in some way by governmental agencies (IOM, 2006; White, 2008), these organizations are especially susceptible to downturns in the economic climate. Therefore, the general capacity is the experience and skills that an organization has at seeking alternative and additional streams of funding in order to diversify their incoming resources. Examples of this strategy would be applying for community or federal grants, or expanding the number of insurance providers that an agency works with. White (2008) specifically recommends examining the percentage of funding that comes from various sources to critically assess the extent of diversification. Additionally, organizations can re-examine current or proposed services that may be reimbursable in order to expand resources coming into the organization.

Allocation of Resources to ROSC innovations.

Once resources have been identified, organizations should consider how these resources can be allocated in a manner that is consistent with a ROSC. Prioritizing

financial resources should be driven by examining the needs of the recovery community (Chinman, Imm, & Wandersman, 2004). As recovery representation increases among policy makers and in all levels of organizations, there will be greater accountability in determining whether services are consistent with ROSC values (White, 2008).

General Infrastructure and Institutional Resources.

Physical resources such as adequate office space, equipment, and adequate technological capacity (e.g. computer access and integrated clinical data collection systems) are among the general resources identified in the literature (Simpson, 2002; White, 2008). Additionally, the ability to collect and utilize program data to evaluate outcomes and make mid-course continuous quality improvement (CQI) changes is extremely important (Chinman et al., 2004; Fixsen et al., 2005; Kirk, 2010). *Data-informed decision making* (distinguished from a data-driven approach) views the data as one source of information about the implications and progress of an innovation that should be critically examined and weighed accordingly.

The concept of *time* as a resource was not found in the literature. The amount of work hours available or allotted for organizational systems transformation will no doubt vary from organization to organization, and be influenced by the capacities and motivation of the organization.

Staff Capacity.

Staff capacities are the general skills, education, and expertise that staff possess (Flaspohler et al., 2008b). These include perceived opportunities for growth and professional development, feelings of efficacy in the ability to carry out job duties, the

mutual influence that staff have over each other, and staff adaptability to changing work demands.

The use of best practices is a critical component of staff capacity. DBHIDS (2011a) defines the use of evidence-based practices as "practical and specific clinical interventions and supports that are designed for specific groups or people in a particular setting and that are determined in collaboration with consumers to enhance their recovery." The staff capacity to utilize interventions is directly tied into the ability to assess and recognize *what fits for this consumer in this setting under these conditions* (Kirk, 2010; DBHIDS, 2011a.)

The number of direct practitioners currently working in the field without professional credentials or certifications provides a barrier to the use of evidence-based practice (White, 2008). With an increasing amount of direct peer-to-peer services incorporated into formalized treatment, organizations and credentialing bodies will need to reevaluate what qualifications are needed to perform certain clinical and support tasks (White, 2009b). Individuals who deliver services need to do so within their current capabilities (Fixsen et al., 2005). Such role examination will be especially important given ongoing financial restraints.

Cultural Competency.

Cultural competency refers to the set of academic and interpersonal skills that allow for increased understanding and appreciation of cultural differences within, among, and between groups (Chinman et al., 2004). Organizations should recognize the systemic and cultural variables that act as both risk and protective factors within an overall community of recovery and tailor interventions accordingly (DBHIDS, 2011a).

Gregory, Orden, Joran, Portnoy, Welsh, et al. (2012) proposed that part of being culturally competent is thoroughly assessing organizational culture and climate. Organizational culture defines how an organization or a system functions, while climate is more temporary and transient, responding to various internal and external influences over time (Gregory et al., 2012). Organizational climate can be more readily changed if addressed as a general capacity.

Operational Elements of a ROSC and the Relationship to Innovation-Specific Capacities

Flaspohler et al. (2008) identified five broad categories of innovation-specific capacities. These include *fit*, *support*, *buy-in*, *training and technical assistance*, and *evaluation capacity*. Many authors have tried to further identify what makes an organization *recovery-oriented*. A conceptual caution: each of the elements discussed below could be re-specified as an innovation in and of themselves. However, if ROSC implementation involves a cluster of core components, each of these specific elements will function as capacities. These capacities are the innovative conditions that have to be in place for an organization to consistently operate as a ROSC.

To illustrate this distinction, consider an outpatient center that wishes to make its treatment planning more person-centered. In this case, the identified goal is *implementation of person-centered treatment planning*. The innovation-specific capacities for this goal are the specific human, technical, and fiscal conditions that are needed in order to be more person-centered in treatment planning. A next step would consider the extent to which person-centered treatment fits with an organization's current climate, whether the innovation can be implemented under current levels of staff and

technical capacity, and when this change can be evaluated to see if predicted gains are being met. However, as this thesis concerns practice within a larger system framework, the capacities are the human, technical, and fiscals conditions that are specific to the overall ROSC innovation.

ROSC Innovation-Specific Capacities

ROSC innovation-specific capacities fall into three categories, components that focus on; 1) individualized consumer care, 2) organizational recovery identity, and, 3) connections to the recovery community. The skills and motivation to implement and utilize these components are the innovation-specific capacities in a ROSC. These can be found in *Table 2.3.*

Individualized Consumer Care.

A ROSC redefines the mission and values of the organization so that it is primarily focused on the process of recovery for an *individual*. Specifically, interventions are implemented for what *this* person needs at *this* time given *their* capacities, and how the organization can subsequently promote *their* recovery. This individual-level focus should guide all the continuum of behavioral health, including substance abuse prevention, engagement, treatment, and maintenance interventions (SAMHSA, 2010). There are several components to providing individualized consumer care in a ROSC.

Easing Access to Treatment.

SAMHSA has encouraged a no-wrong-door philosophy by which consumers can enter a continuum of care and be moved between various levels of treatment intensity without burdensome barriers or processes (CSAT, 2005). Consumer access to treatment

and recovery services should be swift and uncomplicated (Davidson et al., 2007). Client choice should be maximized by including a menu of different treatment different options, such as service schedules (SAMHSA, 2005).

Holistic Assessment Perspective.

Consumer needs are assessed holistically on a number of dimensions (e.g., employment, housing, etc.) Needs are varied and subsequently change as time in active recovery increases (Laudet & White, 2010). The assessment process should be designed to address needs, strengths, and resources that individuals bring to the recovery process (Ali, King, & Menkir, 2006; CSAT, 2011; DBHIDS, 2011a). An accurate picture of the consumer is not captured through simple diagnosis, but rather through an ongoing examination of how risk and protective factors contribute to the presenting problems (Maddox, 2005; Masten & Reed, 2005;). How consumers themselves perceive the substance abuse problem can also be addressed (Davidson et al., 2007).

Additionally, the concept of readiness is well established in substance abuse treatment and is part of a holistic assessment (CSAT, 1999; Miller & Rollnick, 2002). There are several frameworks to describe and assess change readiness (e.g. Transtheoretical model (CSAT, 1999; DiClemente, Schlundt, & Gemmel, 2004; DiClemente & Velazquez, 2002). Methods and public-domain tools to assess readiness for specific problems can be found in various SAMHSA publications (e.g. CSAT, 1999).

Person-Centered Treatment Philosophy.

The overall treatment philosophy that guides consumer interactions is person-centered, strength-based, and focused on delivering culturally competent care (Davidson et al., 2007; Kirk, 2010; DBHIDS, 2011a,b). A *person-centered* system of care supports

the individual's own efficacy in managing his or her condition *while* they regain or

establish a more fulfilling life and sense of membership in the community (Kirk, 2010).

Interventions like Motivational Interviewing (MI, Miller & Rollnick, 2002) are consistent

with a ROSC approach due to a strong emphasis on identifying the individual's own

rationale for changing behaviors and working within their current level of capability for

initiating and sustaining that change.

The treatment planning process is individualized and focuses on identifying tools

that will help build overall recovery capital (CSAT, 2005; Kirk, 2010; Davidson et al.,

2007; Laudet & White, 2010; DBHDIS, 2011b). *Recovery Capital* is the quality and

quantity of resources and supports that the individual can draw upon to initiate and

sustain change (Laudet & White, 2008). Collaboratively, goals are structured to identify,

remove, or alter personal and environmental barriers to recovery (Davidson et al., 2007).

Additional supports and collaterals (such as friends, family, and other important

individuals in the consumer's life) are incorporated to help support the change process

(Sheedy & Whitter, 2009; DBHIDS, 2011a). Finally, Philadelphia DBHIDS (2011)

specifically identified the need to be 1) trauma-informed in the delivery of care, and, 2)

aware of the special needs of children and adolescents.

Organizational Recovery Identity.

There are four innovation-specific elements of an organization's recovery

identity: 1) A Recovery-Values Orientation, 2) Involvement of Persons-In-Recovery, 3)

Holistic and Comprehensive Services, and, 4) Dynamic and Creative Service Innovation

Climate.

Recovery Values Orientation.

An organizational value statement provides a benchmark for all operations to be directed toward and compared against (Hall & Hord, 2006). When developing a ROSC, it important to define organizational values in order to guide the climate under which activities takes place at the organization. Staff require a working knowledge of recovery-based treatment strategies and concepts (CSAT, 2007). This also includes a commitment to recovery as an enduring rather than a short-term, acute process (Sheedy & Whitter, 2009; White, 2008).

Although a recovery vision may be articulated in the organization, this does not actually ensure the organization is actually recovery-oriented. New terms and language may be devoid of any operational meaning and do not help facilitate change (Fixsen et al., 2005). Therefore, processes are needed to prevent innovation drift (an organizational shift away from these recovery values.)

Involvement of Persons-In-Recovery.

The involvement of people in recovery at multiple levels throughout the organization is a critical component of a ROSC. The representation is vertical, found on boards, leadership groups, and among front-line providers to augment the expertise of professionally-trained clinicians (White, 2008). Consumers are expected to participate and provide direction in developing treatment and recovery systems to ensure that these are directly informed by the local recovery community needs (Davidson et al., 2007; NET Consumer Council, Evans, Lamb, Mendelovich, Schulz, et al., 2007).

A ROSC emphasizes peer-directed services supports that are *developed and implemented* by persons-in-recovery (Kirk, 2010). Para-professionals with experiential

knowledge (e.g. Recovery Coach, Peer Specialist, etc.) are used to model and provide guidance for those early in their own recovery. Organizations are encouraged to develop formal and informal environments in which peers can provide supports and services to one another (DBHIDS, 2011a). A diverse recovery representation is encouraged (e.g., younger individuals in recovery; DBHIDS, 2011a). Extensive examples of peer-driven services can be found in White (2009).

Expert knowledge is coupled with the experiences of the local recovery community to inform the treatment programming on individual *and* organizational levels. This includes principles of community ownership over the programming, inclusiveness of all relevant stakeholders, and the utilization of community knowledge (Fetterman & Wandersman, 2005). By incorporating the voice of the local recovery community in decisions regarding programming, there is increased fit between the program and the community culture. Additionally, consumer and recovering person involvement helps increase organizational accountability by ensuring that the organization's mission remains focused.

Holistic and Comprehensive Services.

In a ROSC, services are designed and delivered to promote and enhance along multiple domains. Recovery more fully involves addressing the whole person in an integrated manner (McLellan, 2010; DBHIDS, 2011a; SAMHSA, 2011; White & Kurtz, 2006). These services are not solely clinical case management or improved aftercare. Rather, considerable continuity of care is cultivated so that there is stabilization in provider/consumer relationships across different service domains and treatment episodes. When organizational capacities and resources are lacking to develop broader consumer

services, partnerships are developed with additional stakeholders in the community (see *Connections to the Recovery Community* below).

Dynamic and Creative Innovation Climate.

There is considerable variation in how ROSC innovations can be implemented without sacrificing overall function (Fixsen et al., 2005; White, 2009a.) A potential implementation barrier is how a ROSC's dependency on the local community context prohibits the development of a source (i.e., best-practice) treatment model (Fixsen et al., 2005). Subsequently, organizations are strongly encouraged to learn from one other as they develop recovery-specific interventions, capitalizing on "home-grown" innovations to develop and augment their own organizational treatment planning (Flaspohler et al., 2008b; SAMHSA, 2010).   The form of these innovations is limited only by the creativity of providers and recovery community, though the science of effective practice is incorporated. There are extensive practice guidelines that are available to providers with specific examples of ROSC interventions and programming (Kirk, 2010; DBHIDS, 2011a; White, 2008; 2009).

Connections to the Recovery Community.

The final set of ROSC innovation-specific capacities are the abilities needed to foster collaborative relationships with both formal and informal providers in the community. Treatment is only one small portion of the overall recovery of the individual. One task of the organizations is to help bridge the gap between agencies and the larger community. Flaspohler et al. (2008) define these external relationships as a general organizational capacity. It is included here with innovation-specific capacity because of the explicit emphasis in the ROSC literature on developing and sustaining

these cross-agency collaborations. There are two components to this element; 1) being able to identify naturally-occurring community resources, and, 2) developing strong, beneficial cross-agency relationships

Identification of community resources.

Treatment is the adjunct of community, not vice versa, and naturally-occurring community services should be utilized whenever possible (White, 2009a). The ability to conduct needs and resources mapping is a necessary capacity that can assist in identifying what services and services gaps exist in the community (Davidson et al., 2007). A sophisticated knowledge of the community requires a working knowledge of general community capacities, including community history, values, and social networks (Goodman et al., 1998). There are several resources that can help to develop a comprehensive community assessment (e.g. Chinman et al., 2004).

Developing services that are redundant with those already provided in the community is an inefficient use of resources, *unless* there is a value-added in augmenting or replacing ineffective or underperforming ones. A ROSC taps into these networks like Alcoholics Anonymous as a source of support to help foster ongoing recovery (Kirk, 2010).

Developing strong cross-agency relationships.

Finally, collaboration across organizations when developing recovery programming is an integral part of quality care (DBHIDS, 2011b). An important capacity is the ability to develop reciprocal partnerships that allow for a seamless integration of resources. A ROSC attempts to cultivate a deep level of cooperation. DBHIDS (2011a) notes that relationships between providers in a ROSC are built on

principles of partnership and transparency in which the goals of the consumer takes primacy over the goals of the agencies (e.g., the individual is placed in a situation where recovery stabilization and success is most likely). By examining the needs of the individual-in-recovery, organizations that provide these resources can be targeted for collaborative referrals (Laudet & White, 2009; McKay et al., 2008; White, 2009a). Linkages are developed with both formal and informal providers (e.g. the faith-based community) when appropriate (DBHIDS, 2011a). The referral process should be easily facilitated between organizations (McLellan et al., 1999).

There are four general levels of sharing organizational and community treatment planning; networking, coordinating, cooperating, and collaborating (Chinman et al., 2010; Himmelman, 2002). The simplest level, *networking*, requires mutually beneficial sharing of information. The highest level, *collaboration,* requires sustained, formalized commitment that aims to build capacities of agencies in a way in which responsibility, risks, and rewards are collectively shared. An example of this level of collaboration could be shared staff training between agencies. This work requires the inclusion and participation of all relevant stakeholders who might be involved in the recovery planning (Fetterman & Wandersman, 2005). Encouraging community participation in decision-making processes is an important way to develop meaningful involvement (Durlak & DuPre, 2008).

There are many challenges to developing and coordinating holistic services. Glisson and Hemmelgarn (1998) found that increased service coordination between providers actually decreased overall service quality. An emergent and unresolved ROSC issue is identifying and delegating who is primarily responsible for administering and

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coordinating a consumer's comprehensive treatment and recovery plan. Possible

candidate organizations include local substance abuse treatment organizations, primary

care physicians, social services, legal agencies, etc.

Motivation to Change as a Component of Organization Readiness for ROSC

A third dimension is needed to complete the organizational readiness profile in

addition to general and innovation-specific capacities. Organizations can have a general

climate that varies in how well they promote change in activities or the adoption of

innovations (Hall & Hord, 2006; Livet et al., 2008). Having a certain amount of general

capacity and infrastructure does not automatically predict implementation (Weiner,

Amick, & Lee, 2008). Certain organizational conditions must be met in order for the

dissemination and adoption of an innovation to be successful (Greenhalgh et al., 2004).

It is not sufficient for an organization to have the capacity to adopt an innovation

(Weiner et al., 2008.) There needs to be organizational willing to do so. Thus, a

distinction must be made between organizational capacity and organizational readiness.

Organizational readiness for change involves three dimensions: both the organization's

motivation to implement and the organizational capacities (general and innovation-

specific) to implement intentional change (Flaspholer et al., 2008b; Weiner et al., 2008).

Motivation to change is an often neglected part of organizational capacity, though many

authors have referred to concepts such as buy-in among stakeholders (Flaspohler et al.,

2008b; Greenhalgh et al., 2004; Simpson et al., 2004). The specific innovation must be

deemed as beneficial when comparing it to practice as usual *and* a good fit with the

organizational and community values.

The question for organizations is not just "Can we implement a ROSC?" but also, "Do we want to implement a ROSC?" Furthermore, readiness is not just a static condition or state, but a dynamic and changing variable. This is consistent with an individual-level conceptualization of effective interventions like Motivational Interviewing (Miller & Rollnick, 2002). Staff and stakeholder motivation are critical for ROSC implementation (Fixsen et al., 2005). However, few resources were identified in the literature that would indicate what makes a particular organization fully ready to implement a ROSC. SAMHSA (2010) specifies several core questions that can be used to frame discussion of readiness for ROSC among relevant stakeholders. Specifically:

1. *Can a compelling case be made for change?*

2. *Are the anticipated results compelling enough to initiate and sustain the change process*? and, *Are the potential benefits of change and consequences of business-as-usual sufficient for community stakeholders to support ROSC implementation?*

3. *Are the essential stakeholders willing and able to commit to and champion ROSC over time?*

4. *Are there sufficient systems and resources in the community to support implementation of ROSC?*

Question four concerns capacity assessment, while the other questions involve an assessment of motivation and buy-in; a decisional balance process about whether adoption would be worthwhile.

The Concerns-Based Adoption Model (CBAM, Hall & Hord, 2006) includes measuring behavioral and affective specific concerns that a staff may have about a

particular innovation. The *Stages of Concern*, assesses feelings and perceptions about the worth and utility of the innovation. Hall and Hord (2006) propose four levels of concerns that individuals may have about an innovation, those that; 1) are *unrelated* to the innovation, 2) related to ambivalence toward use of the innovation(*self*), 3) pertain to how an innovation can be used daily (*task*), and 4) focus on the overall outcomes of the innovation (*impact*). This structure is similar to the Transtheoretical Model of Change, with *ambivalence* being indicative of lower readiness (*pre-contemplative* and *contemplative*), and with *intent* and *use* indicative of higher readiness (*preparation*, *action*, and *maintenance*) (DiClemente & Velazquez, 2002).

Components of ROSC Readiness.

Readiness for ROSC is a particular issue, as many organizations and providers may have some reluctance to adopt a ROSC. While the general ideas behind the concept are appealing, a major source of resistance is the scope and extensive restructuring that the system requires (DBHIDS, 2011a). Readiness to change involves more than just the desire to change or adopt an innovation; it involves the expectancy that the organization is capable of making such change. An organization may want to adopt a ROSC, but not have the capacities to do so. This is an example of an organization that would be low on general and innovation-specific capacities for ROSC. Alternatively, an organization may have a strong general infrastructure, but not want to implement a ROSC at this time. This is an example of high general capacities but low motivation. The dimension of organizational readiness can be graphically displayed in a 2 by 2 by 2 cube, as found in *Figure 2.2.*

Organizational readiness is an enhancement the delivery system in the ISF that further develops the relationship between general and innovation-specific capacity (*Figure One.)* For ROSC, this relationship can be defined in the following way:

$$Readiness_{ROSC} = Motivation_{ROSC} \; x \; General \; Capacity \; x \; Innovation\text{-}Specific \; Capacity_{ROSC}$$

An organization's readiness to implement ROSC will be dependent on all three of these variables (general capacity, innovation-specific capacity, and motivation.) A "zero" quantity in any of these variables will indicate that the organization has no readiness to implement. Flaspohler et al. (2008) acknowledge, however, that the distinction between general and innovation specific capacities can overlap. The level of organizational transformation that ROSC requires may indicate a strong association between general and innovation-specific capacities for ROSC, i.e. a deeper level of organizational restructuring (DBHIDS, 2011a).

By breaking down the assessment of ROSC capacities into general and innovation-specific, identified in the first part of this review, as well as organizational ROSC motivation to change, this thesis studied:

1. Are general and innovation-specific capacities separate constructs for a ROSC? In other words, do these three dimensions of readiness hold for ROSC implementation?

2. How do organizations vary on these three dimensions?

By testing this three-factor structure, the ROSC support system can better tailor and specify support activities to increase the likelihood of positive outcomes

(Wandersman, Chien & Katz, 2012). Certain organizations may require deeper, more fundamental general capacity building, while others may already have the conditions needed to begin specific ROSC implementation.

Methods

Participants

South Carolina's substance abuse prevention, intervention and treatment delivery and support systems consists of the S.C. Department of Alcohol and Other Drug Abuse Services (DAODAS), which is the state's Single State Authority. The 33 Single County Authorities in South Carolina have offices in each of the 46 counties of the state and thus ensure the availability of core substance abuse services that include crisis counseling, outpatient, prevention, intervention, ADSAP (DUI programming), and gambling addiction services. These county organizations are the focus on this thesis.

Organizations vary greatly in total staff ($M = 38$; $SD = 36.8$; min = 9; 25% quartile = 13, 75% quartile = 45; max = 160; $Mdn = 26$). The sample for this thesis included representatives from *clinical staff,* those who provide direct services to consumers in treatment ($M = 11.8$, $SD = 11.5$; min= 1; 25% quartile = 4, 75% quartile = 16; max = 56; $Mdn = 8$)., *prevention staff,* who coordinate educational and outreach activities in the local counties ($M = 2.1$, $SD = 1.6$, min = 0; 25% quartile = 1, 75% quartile = 3; max = 8; $Mdn = 2$) and either the agency or treatment *director* (the individual who oversees all service delivery operations at the organization).

Surveys were distributed directly to program leadership (either the agency or treatment director) in each of the 33 provider organizations via email. This was accompanied by a cover letter signed by the director of DAODAS and the current chair

of the program director's associated requesting that the survey be completed and distributed among the clinical and prevention staff. These surveys were distributed via an online survey collection program, with reminder emails to program leadership occurring on a weekly basis for three weeks following initial distribution or until an agency met an 80% response rate, whichever came first. All responses to each of the individual items within the survey were voluntary.

Institutional Review Board (IRB) approval was obtained for this project prior to distribution of surveys. Informed consent was obtained from respondents prior to completion of the surveys. Although no identifying information was collected as part of the survey process, some organizations have very few staff members. Consequently, all responses were de-identified and kept confidential.

Surveys were expected to take approximately 15 minutes to complete based on pilot trials. In order to encourage responsiveness to the survey, organizations who met an 80% response rate or had the highest overall number of respondents qualified for a opportunity to receive a short (approximately one hour) training in ROSC concepts, informed by the organization's responses to the survey, and conducted onsite with no cost to the qualifying organization. All organizations that met an 80% response rate were entered into a pool, of which three organizations were chosen at random. The organization with the highest number of respondents also received the individualized training on site at no cost.

Measurement

Readiness to implement includes three dimensions of readiness, the motivation to change and the types of perceived capabilities to change (Weiner et al., 2008; Flaspohler

et al., 2008b). Therefore, three measures were given to providers to assess each of these three organizational dimensions; 1) general capacity, 2) ROSC innovation-specific capacities, and 3) ROSC motivation. Two surveys were developed to measure general capacities and ROSC innovation-capacities. This was done by translating the content from the literature review into a series of items measured on a five-point Likert scale. These can be found in Appendix A. Item order was randomized for each respondent.

Motivation was assessed via a previously developed and validated measure, Hall and Hord's (2006) *Stages of Concern* questionnaire. Alpha coefficients range from 0.64 to 0.86, though the data set for these statistics were not reported (Hall & Hord, 2006). The *Stages of Concern* questionnaire was modified for this analysis to make the content specific to ROSC. This can be found in Appendix B. Item order was also randomized for each respondent.

Data Management.

Responses for the Stages of Concern were sorted and coded into two categories of motivation for ROSC; low (*unrelated* and *self*) and high (*task* and *impact*), consistent with Hall and Hord's (2006) classification methods.

The item *I would like to revise the approach of ROSC* was removed from the analysis, as there were few endorsements for this item (N=14). Examination of bivariate tables suggested that these individuals were better discriminated through combinations of items *I would like to know what resources are available if we decide to adopt ROSC*, *I am concerned with evaluating my impact on clients* and *I would like to use feedback from staff/clients to change how we use ROSC*.

Data Analysis Plan

To answer the first research question, clustered confirmatory factor analysis (CFA) was used to determine whether the measurement model of the three components of ROSC readiness is appropriate for informing support system activities on an individual level. Clustered CFA was used in order to account for variance contributed between organizations. Model fit was determined by using a two-index presentation strategy to reduce rates of Type I error (incorrectly rejecting the null model and Type II error (failing to reject an incorrect null model) (Hu & Bentler, 1999). As sample size was small ($\leq$ 250), model fit was specified by a Comparative Fit Index (CFI) with a cutoff score $\geq$ 0.96, along with a root mean square error of approximation (RMSEA) of < 0.06 (Hu & Bentler, 1999).

Should the proposed three factor model not meet the specified fit criteria, two alternative models were proposed to be test: 1) a simplified two-factor model (capacity and motivation), and 2) an exploratory four-factor model.

To answer the second research question, two-level confirmatory factor analysis (CFA) was used to compare variance in general capacity, ROSC innovation-specific capacity, and motivation between organizations. This method allowed for the examination of the proposed factor structure for ROSC readiness at individual and organizational level, and tested whether the variance on these factors between organizations was non-zero.

All analysis was conducted in Mplus, v. 6.12. Statistics were estimated by a weighted least squares: mean and variance adjusted (WLSMV) method. Individuals are nested within organization and are providing ratings on the organization. Therefore, we expected the errors to be correlated, which violate the assumption of independence in

traditional analysis. Alternative analytic strategies that accounted for this nested design were utilized.

Results

A total of 214 respondents representing 30 organizations were collected. This represented 39.9% of all targeted respondents and 91% of all organizations. The mean number of respondents per organization was 11.55 (sd = 8.43, range = 1 - 26). The most frequently occurring job description was *clinician* (N =86, 41.7% of sample), followed by *prevention specialists* (N = 30, 15.6% of sample), *clinical supervisors* (N = 29, 14.1 % of sample), *directors* (N = 26, 12.6% of the sample), *administrative support* (N = 25, 12.1% of the sample), and other, including *peer support* and care management (N = 10, 4.9% of the sample).

Thirty four point one percent % of respondents had been at their organization >10 years (N = 70), 33.7% has been at their organization 1-5 years (N = 69), 20.5% had been at their organization for 5-10 years (N = 42), and only 11.7% had been at their organization < 5 years (N=24).

Some respondents chose not to answer all of the questions. This missing data was considered *Missing at Random (MAR),* that is, we assumed that observed data does not depend on data which is not observed. Of these initial 214 respondents, 28 respondents answered no items other than the demographics and were not included in the analysis (N = 186). Consequently, this left 26 organizations in the final analysis.

In the clustered CFA, the three-factor model *Motivation x General Capacity x Innovation-Specific Capacity* was tested and fit the model well (CFI = 0.96; RMSEA = 0.02, 90% CI [0.015, 0.026], (χ^2(4091, *N* = 186) = 4422.71 *p* < 0.001). However, the

measurement model indicated that general capacity and ROSC innovation-specific capacity were highly correlated at $r = 0.96$ (SE = 0.01, $p < 0.001$). Motivation was negatively correlated with general capacity ($r = -0.27$, SE = 0.06, $p < 0.001$) and innovation-specific capacity ($r = -0.28$, SE = 0.07, $p < 0.001$).

Although the three-factor model fit well, a two-factor clustered CFA, *Motivation* x *Capacity*, was run due to the high correlation between general and innovation-specific capacity. The two-factor model also fit well (CFI = 0.96; RMSEA = 0.02; 90% CI [0.015, 0.026]), ($\chi^2(4093, N = 186) = 4428.39$, $p < 0.001$). Motivation and capacity were negatively correlated at ($r = -0.28$, SE = 0.07, $p < 0.001$). Item factor loadings for the two-factor model can be found in tables 2.*4* and 2.*5*. Since both the three and two-factor model fit well, the exploratory CFA four-factor model was not run. Comparison of the two measurement models can be found in *Figure 2.2*.

For the second research question, two-level CFA was used to compare variance in *Readiness$_{ROSC}$*, with organization being the second level. Given the more parsimonious fit of the *Motivation* and *Capacity* model, this two-factor solution was used to examine the variances between organizations. Due to the number of parameters in the measurement model (the items) and the relative lack of organizations (N = 26), the model was tested with; 1) montecarlo integration to reduce processing time, and 2) the statistical assumption that the measurement loadings on capacity and motivation was constant at the organizational level. This was done to stabilize the estimation parameters.

Since the variances were bounded at zero, the sampling distribution was not symmetric which impacting estimation of the standard errors. Therefore, to determine whether the between-organization capacity and motivation was non-zero, a two-degree of

freedom chi-square (i.e. Wald test) was used. In a Wald test, the second degree of freedom is the covariance. There was not sufficient evidence to conclude that motivation significantly differed between organizations (χ^2(2, $N = 26$) = 0.43, $p = .80$). Capacity varied significantly between organizations ($\sigma^2 = 0.362$, SE = 0.06; $p <0.001$). However, due to the asymmetry in the distribution of the standard error in this parameter (which is likely to be underestimated), a one degree of freedom Wald test was used constraining the variance and covariance of motivation to zero. Capacity was found to vary significantly between organizations (χ^2(1, $N = 26$) = 17.433, $p <0.001$).

At the individual level in the two-level analysis, motivation was again negatively correlated with capacity (r=-0.26; SE=0.06; p<0.001). To the extent that motivation did vary between organizations, it was strongly negatively correlated with capacity (r=-0.89; SE = 0.37, p<0.05). However, since motivation did not significantly vary at the organizational level (and therefore cannot covary), this SE is likely underestimated.

Discussion

Although the three-factor of model of $Readiness_{ROSC}$ fit well, the extremely high correlation between capacities indicated that general capacity and innovation-specific capacity may not be separate constructs in this measurement model. The use of the more parsimonious two-factor model is somewhat consistent with descriptive work published by DBHIDS (2011) and Tondora et al. (2008) suggesting that ROSC implementation requires a thorough examination of organizational processes that fundamentally alters the service delivery model General capacities may have to be addressed in order to successfully have ROSC-specific capacities. This is also similar to commentary by Flaspohler et al. (2008) that indicates the distinction between general and innovation-

specific capacities can overlap depending on the innovation. Future work should

examine the distinctiveness of these two types of capacities using alternative

measurement to see if the results of the two or three-factor solutions hold in others

context (e.g. ROSC for mental health treatment services).

The second notable finding was the negative correlation between motivation and

capacities, i.e., individuals who perceive organizations as having lower capacities had a

higher motivation for change. Greenhalgh et al. (2004) note that perceived tension

whether or not a current organizational activity is tolerable or desired, can increase

motivation for changing the organization. It is plausible that when individuals in

organizations perceived deficits in their ability to function well and successfully serves

clients, thus increasing the motivation to adopt different innovations.

For the second research question, differences in capacity between organizations

were expected, given the wide range of organizational sizes and resources distributed

throughout the state. What was less expected was the lack of variation in organizational

motivation to adopt ROSC. Although the ROSC initiative in this state is in its early

stages (i.e. year 2), this finding suggests that current leadership and champions have not

clearly articulated the benefits of ROSC transformation to front line providers in the state.

Knowing that organizations are generally in the early adoption stages of ROSC, the

information from this thesis will have utility in informing future training and technical

assistance activities (Hall & Hord, 2006; Wandersman et al., 2012).

Acknowledging and working with this resistance/reluctance (Hall & Hord, 2006)

crystallizes the need to be explicit about: 1) the specifics of ROSC implementation, 2) the

role of the *ROSC Support System* in assisting in the system transformation, and, 3) the

readiness of organizations to begin change. After identifying the components of readiness, the use of an Evidence-Based System for Innovation Support (EBSIS) can help put ROSC innovations into practice. The elements of EBSIS include tools, training, technical assistance and quality improvement/quality assurance processes (Wandersman et al., 2012). As an example, Gregory et al (2012) discussed a process for incorporating readiness into technical assistance (TA) with an organization. They recommend that TA be tailored to an organization's culture and that interventions like MI be used in the TA process to build general and innovation-specific capacity.

There are multiple limitations to this study. First, the measurement of general and innovation-specific capacities created a number of estimation problems. The survey was created for this study by examining the capacities identified in the literature. Consequently, a large number of items were generated to assess these capacities. There were a high number of degrees of freedom in the analysis. Because there were a relatively small number of organizations with a small number of respondents, the high number of parameters created several estimation problems for the statistical model. When examining between-level variances in capacity and motivation, the use of montecarlo integration and the assumption of constant between-level item loading likely decreased the variance. Therefore, the true values in the between-organization model are likely to be lower than those reported above. Future versions of this research should attempt to reduce the number of items in the assessment and better refine the constructs that make up ROSC capacities.

Secondly, other sources of error include the possibility of positive presentation bias (i.e., worries about evaluation). As this study was first distributed to directors (to

ease dissemination), it is possible that there was bias in how individuals responded to the items. Many organizations were very small, and although responses were confidential this may have affected the quality of responses. They may have reported higher ratings of capacities than were actually present, which would have increased the correlation between general and innovation-specific capacities in the three-factor model.

As the sample size for this study was highly targeted (substance-abuse providers in South Carolina), and as the overall population for this sample is fairly small, it is unclear the extent to which these findings would generalize to other providers in other states. Further assessment on a regional/national level could better address how $Readiness_{ROSC}$ varies between organizations.

Given these limitations, this study represents an attempt of looking at distinguishing the components of organizational readiness for ROSC. In future studies, more methodologically and statistically refined techniques can better test the ways in which organization readiness can be assessed and utilized as a method of improving delivery of services to a substance-abusing population. By better looking at organizational factors, we can better facilitate implementation of quality innovations for substance use disorders.

Table 2.1: ROSC Factors Outside the Active Interactive System Framework:

ISF Factor	ROSC elements	Authors
Funding	What funds are available?	White (2006)
Macro-Policy	SAMHSA guidelines	Hall and Hord (2006)
	Local mandates	Flaspholer et al. (2008)
		Greenhalgh et al. (2004)
		DBHIDS (2011)
Climate	Culture/Political Status	White (2006)
Existing Science and Research	e.g., a lack of science-based understanding of long term recovery	White (2006)

Table 2.2: Organizational-Level General Capacities

Organizational General Capacity	Capacity	Authors
Leadership	-	Fixsen et al. (2005)
		Flaspohler et al. (2008)
		Becan, Knight, & Flynn (2012)
		Meyers, Durlak, & Wandersman (2012)
		Livet et al. (2008)
		White (2008)
		Meyers, Durlak,& Wandersman (2012)
Organizational Structure Management Style	-	Lehman, Greener, & Simpson (2002)
		Hall and Hord 2006
		Flaspohler et al. (2008a)
		Livet et al., 2008
		White (2008)
		Lehman et al. (2002)
Organizational Climate	-	Lehman et al. (2002)
		Hall and Hord (2006)
		White (2008)
		Flaspohler et al. (2008a)
Resource Availability	Identification and Access	IOM (2006)
		White (2008)
	Allocation Strategies	Chinman et al. (2004)
		White (2008)
	General Infrastructure	Simpson (2002)
		White (2008)
		Chinman et al. (2004)
		Fixsen et al. (2005)
		Kirk (2010)
Staff Capacity	-	Flaspohler et al (2008)
		Kirk (2010)
		DBHIDS (2011)
		White (2009)
		Fixsen et al. (2005)
Cultural Competency	-	Chinman et al. (2004)
		DBHIDS (2011)
		Gregory et al. (2012)

*derived from Flaspohler et al. (2008)

Table 2.3: Organization-level Innovation Specific Capacities within a ROSC

Innovation-Specific Capacity	Elements	Authors
Individualized Consumer-Care	Easing Access to Treatment	CSAT (2005) Davidson et al. (2007) SAMHSA (2010)
	Holistic Assessment Perspective	Laudet & White (2010) CSAT (1999; 2011) Ali, King, & Menkir (2006 Masten & Reed (2005) Maddox (2005) Davidson et al. (2007) Miller & Rollnick (2002) DiClemente & Velazaquez (2002) DiClemente, Schlundt, & Gemmel (2004)
	Person-Centered Treatment Philosophy	Davidson et al. (2007) Kirk (2010) DBHIDS (2011a, b) Miller & Rollnick (2002) CSAT (2005) Laudet & White (2008) Sheedy & Whitter (2009)
Organizational Recovery Identity	Recovery-Orientation	Hall &Hord (2006) CSAT (2007) Sheedy & Whitter (2009) White (2008) Fixsen et al. (2005)
	Involvement of Recovering Persons	White (2008, 2009) Davidson et al. (2007) NET Consumer Counsel et al. (2007) Kirk (2010) DBHIDS (2011a) Fetterman & Wandersman (2003) DBHIDS (2011a)
	Holistic and Comprehensive Services	McLellan (2010) White (2009) DBHIDS (2011a) SAMHSA (2011) White & Kurtz (2006)

Table 2.3: (Continued)

Innovation-Specific Capacity	Elements	Authors
Organizational Recovery Identity	Dynamic and Creative Service Innovation	Fixsen et al. (2005) White (2008, 2009) SAMHSA (2010) Flaspohler et al. (2008) DBHIDS (2011a) Kirk (2010)
Connections to the Recovery-Community	Identification of Community Resources	White (2009) Davidson et al. (2007) Goodman (1998) Chinman et al. (2004) Kirk (2010)
	Developing cross-agency relationship	DBHIDS (2011a,b) Chinman et al. (2011) Laudet & White (2009) McKay et al. (2008) McLellan et al. (1999) Fetterman & Wandersman (2005) Durlak & Dupre (2008) White (2009) Glisson & Hemmelgam (1998)

Table 2.4: Standardized Factors Loadings on Capacity in Two-Factor Model

Item	Estimate	SE
We have leadership that advocates the benefits of recovery	0.752	0.053
We have staff members that often talk about benefits of recovery-based treatment	0.747	0.031
We have staff members that champion recovery-based treatment	0.753	0.046
We have a clear organizational mission statement	0.800	0.026
We all follow our organizational mission statement	0.683	0.047
We are a stress-free workplace	0.428	0.048
Our organization supports the staff's autonomy when making decisions involving in client-care	0.623	0.046
We have clear job roles for each staff member	0.713	0.042
There is open communication among staff members	0.686	0.047
We try to identify multiple sources of funding for our treatment programs	0.672	0.034
We try to access diverse sources of funding for treatment programs	0.709	0.031
We use a portion of our financial resources to fund recovery-based programs	0.612	0.046
We prioritize funding for programs that promote recovery	0.665	0.042
Our organization provides adequate equipment staff in order to do their jobs	0.601	0.045
We collect data on client indicators	0.658	0.041
We make changes to treatment programs based on data	0.735	0.032
We have a well-trained staff	0.775	0.036
We have a staff that utilizes best practices in service delivery	0.868	0.029
We have a staff that is familiar with concepts of recovery	0.811	0.036
We adjust services to respect a client's cultural needs	0.795	0.031
We try to help clients quickly enter treatment	0.810	0.032
Our organization facilitates uncomplicated access to treatment	0.708	0.033
We try to remove barriers that prevent people from entering treatment	0.827	0.025
We allow clients to choose among different treatment levels	0.527	0.082
Our organization allows clients to choose among different treatment schedules	0.638	0.047
We are able to facilitate swift client movement between different levels of care	0.695	0.028
We assess multiple life needs that a client might have	0.812	0.038
We gather information about client needs and resources	0.786	0.030
We address a client's motivation as part of their treatment	0.788	0.026
We determine how ready a client is to enter recovery	0.599	0.036
We support a client's efficacy at meeting their recovery goals	0.799	0.034

Table 2.4: (Continued)

Item	Estimate	SE
We believe that clients are able to reach their goals	0.739	0.053
We individualize treatment based on the client's unique goals	0.786	0.027
We incorporate a client recovery capital into the recovery plan	0.770	0.020
We help to build an client's recovery capital	0.780	0.028
We set a diverse range of client goals in recovery planning	0.791	0.035
We are trauma-informed when we develop recovery plans	0.634	0.044
We involve family or significant social supports	0.678	0.046
We have family participate in the recovery planning process	0.746	0.022
We have an organizational commitment to recovery as an ongoing process	0.791	0.041
We articulate a supportive, chronic-care model for substance abuse disorders	0.738	0.019
Our organization communicates clear recovery values throughout the organization	0.866	0.022
We have clients participate in developing treatment programming	0.611	0.052
We have clients participate in developing recovery support activities	0.692	0.031
Our organization uses peer-based support for recovery services	0.547	0.040
We use client input in decisions that impact the organization	0.713	0.040
We use the input of persons-in-recovery in decisions that impact the organization	0.743	0.049
We support client advocacy groups within the organization	0.642	0.037
We provide additional client services that address multiple needs	0.779	0.026
We treat the whole person's recovery needs	0.846	0.025
We develop creative methods to promote client recovery	0.801	0.041
We learn from other agencies' results when designing programming	0.608	0.046
We conduct community needs assessments of recovery services in our county	0.759	0.034
We map the availability of recovery services in the community	0.707	0.028
We use outreach activities to promote recovery in the community	0.708	0.039
We incorporate community resources into treatment activities	0.751	0.037
We have good communication with other agencies that serve our clients	0.696	0.050
We coordinate with other agencies when developing a client's recovery plan	0.737	0.030

*all parameters had $p < 0.001$

Table 2.5: Standardized Factors Loadings on Motivation in Two-Factor Model

Item	Estimate	Standard Error	Two-tailed P-value
I am concerned about the staff's attitudes towards ROSC.	0.578	0.057	< 0.001
I now know of some other approaches that might work better.	0.392	0.100	< 0.001
I am more concerned about another organizational change	0.698	0.082	< 0.001
I am concerned about not having enough time to organize myself each day.	0.481	0.085	< 0.001
I would like to help other staff members to learn about adopt ROSC	0.492	0.082	< 0.001
I have a very limited knowledge of ROSC.	0.229	0.096	0.017
I would like to know the effect of re-organization on my professional status.	0.632	0.044	< 0.001
I am concerned about conflict between my interests and my responsibilities.	0.674	0.124	< 0.001
I am concerned about revising my use of ROSC guidelines.	0.722	0.064	< 0.001
I would like to develop working relationships with both our staff and outside staff using ROSC.	0.654	0.050	< 0.001
I am concerned about how ROSC affects staff members.	0.643	0.074	< 0.001
I am not concerned about ROSC at this time.	0.083	0.069	0.231
I would like to know who will make the decisions in the new system.	0.701	0.058	< 0.001
I would like to discuss the possibility of using a ROSC approach.	0.744	0.066	< 0.001
I would like to know what resources are available if we decide to adopt ROSC.	0.967	0.036	< 0.001
I am concerned about my inability to manage all that ROSC requires.	0.567	0.077	< 0.001
I would like to know how my work is supposed to change.	0.817	0.057	< 0.001
I would like to familiarize other departments or staff with progress of this new approach.	0.769	0.042	< 0.001
I am concerned with evaluating my impact on clients	0.542	0.070	< 0.001
I am preoccupied with things other tha ROSC.	0.650	0.101	< 0.001
I would like to modify our use of ROSC based on the experiences of our staff.	0.573	0.095	< 0.001
I spend little time thinking about ROSC.	0.587	0.084	< 0.001

Table 2.5: (Continued)

Item	Estimate	Standard Error	Two-tailed P-value
I would like to excite my staff/colleagues about their part in this approach.	0.330	0.084	< 0.001
I am concerned about time spent working with non-treatment problems related to ROSC.	0.797	0.032	< 0.001
I would like to know what the use of ROSC will require in the immediate future.	0.648	0.072	< 0.001
I would like to coordinate my efforts with others to maximize the effectiveness of ROSC innovations.	0.811	0.038	< 0.001
I would like to have more information on time and energy commitments required by ROSC.	0.760	0.036	< 0.001
I would like to know what other staff members are doing in this area.	0.772	0.036	< 0.001
Currently, other priorities prevent me from focusing my attention on ROSC.	0.805	0.040	< 0.001
I would like to determine how to supplement, enhance, or replace ROSC.	0.541	0.058	< 0.001
I would like to use feedback from staff/clients to change how we use ROSC.	0.418	0.048	< 0.001
I would like to know how my role will change when I am working in a ROSC.	0.568	0.087	< 0.001
Coordination of tasks and people is taking too much of my time.	0.866	0.058	< 0.001
I would like to know how ROSC is better than what we have now.	0.367	0.091	< 0.001
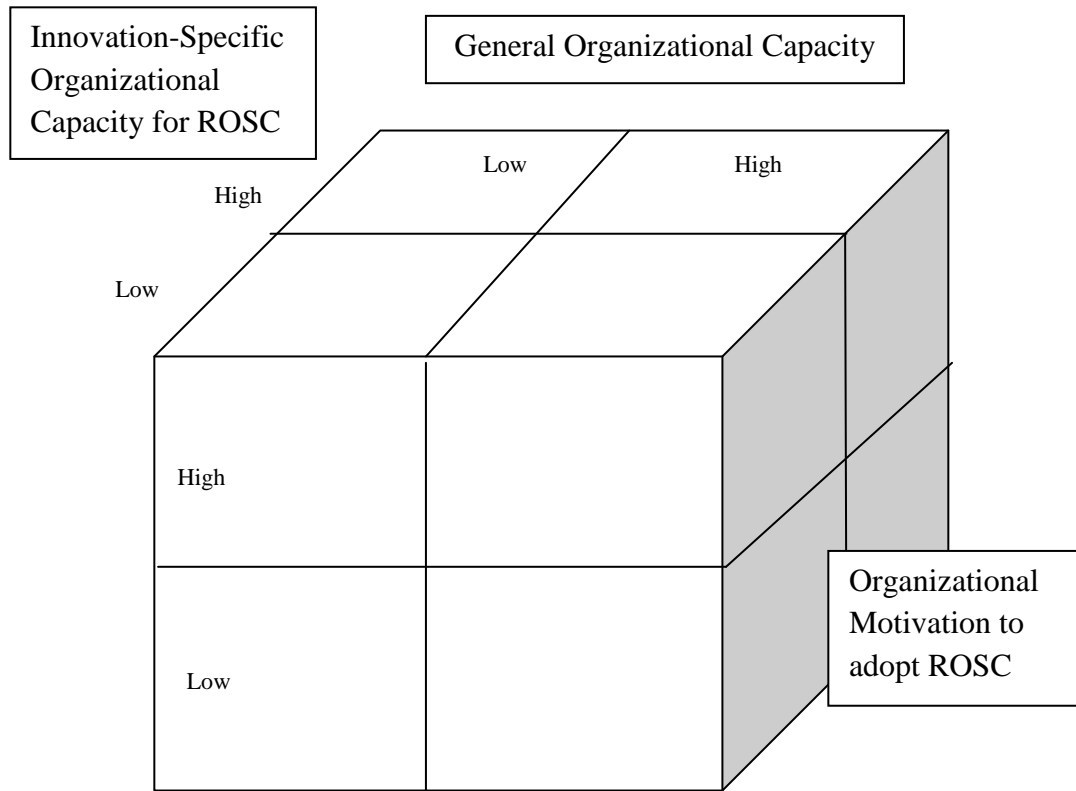
Figure 2.1: Dimension of Delivery System Readiness for Recovery-Oriented Systems of Care for Substance Abuse Disorders

This figure identifies the different types of capacities with the ISF ROSC delivery system. General Organizational Capacity refers to the overall functioning and characteristics of an organization that make adoption of any innovation possible. Innovation-Specific Capacity refers to the specific elements that are needed in order to put a ROSC into place. Organizational Motivation refers to the willingness of an organization to adopt and implement a ROSC. All organizations can vary along these three dimensions.
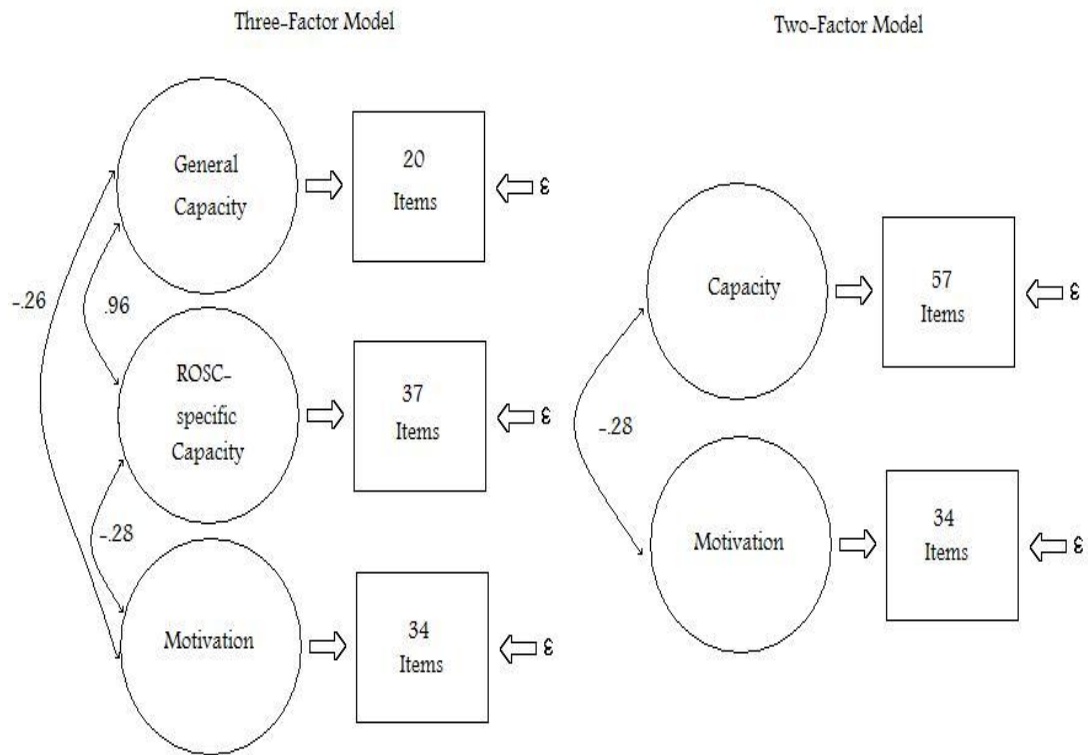
Figure 2.2: Three-Factor vs. Two-Factor Clustered CFA Model Comparison

*Due to the number of items, the specific item loading are not including in this figure.
All coefficients are p < 0.001

Chapter 3: Unpacking the Relationship between Motivation and Capacity

As discussed in part one, the two-factored model of *motivation* and *capacity* fit the measurement model more parsimoniously than the three factor model with capacity sub-divided into *general* and *innovation-specific* capacities. The two-factor model was not entirely unexpected, as the extent of system transformation that is required for a Recovery-Oriented System of Care (ROSC, DBHIDS, 2011; Tondora et al., 2008) encompasses both general and innovation-specific elements.

More unexpected was the negative relationship between motivation and capacity. When accounting for the influence of organization, the correlation between these variables was $r(184) = -.68$, SE $= 0.07$, p $< .001$. This suggests that 1) individuals with lower motivation for ROSC perceived high capacity to implement ROSC with their organization, and 2) individuals who perceive lower capacity for ROSC had a higher motivation to adopt it. There are several possible explanations for this statistic.

First, this may be a valid reflection of the relation between the constructs in the population. When there is perceived tension toward whether a current organizational activity is tolerable or desired, this can increase motivation for changing the organization (Greenhalgh et al., 2004). It is plausible that when individuals in organizations perceived deficits in their ability to function well and successfully serve clients, this increases motivation to adopt a different approach or innovation (e.g. ROSC).

Secondly, it is possible that the relationship between motivation and capacity holds differently depending on the job- level that an individual has in an organization.

Greenhalgh et al (2004) note that if a project is unappealing (e.g. lacking in clarity of goals, structure, and resources), it will not attract the support of individuals in the organization. Because of the extremely high correlation between general and innovation specific capacities, $r(184) = 0.96$, SE = 0.01, $p < 0.001$, there may not be sufficient clarity about what the ROSC transformation entails. Therefore, those with a better working knowledge of a ROSC may be more sophisticated in what the precise organizational needs may be. These individual may more accurately reflect the relationship of motivation and capacity.

Thirdly, there may have been construct issues related to how motivation was measured. In this thesis, motivation was defined as the affective component of readiness. This is how an individual feels about an innovation; whether or not they want to implement it. Motivation was assessed through Hall and Hord's Concerns Based Adoption Model (CBAM, 2006). Broadly, Hall and Hord (2006) describe *concerns* as "feelings, preoccupations, thoughts, and considerations given to a particular issue or task." There are seven specific types of concerns that Hall and Hord sort into four broad categories. These categories and specific concerns are described in more detail below.

1. *Unrelated concerns* are not focused on innovation-related issues. The relevant stage of concern is *Awareness,* in which an individual or group have no thoughts or feelings about the innovation in either a positive or negative manner.

2. *Self concerns* pertain to how an innovation will affect an individual. There are two stages within this concern; *Informational*, when an individual learns more about the innovation (such as the characteristics and effects of the innovation), and *Personal*,

when an individual is uncertain about what the demands of the innovation are for them.

3. *Task concerns* are about the specifics and mechanical application of using the innovation. The specific stage for this concern is *Management*.

4. *Impact concerns* deal with the outcomes of the innovation. There are three stages of concern in this category. *Consequence* focuses on how the innovation will impact clients. *Collaboration* deals with how resources between individuals in an organization can be collective utilized to make the innovation better. Finally, *Refocusing* happens when the concerns are focused on the universal benefits of the innovation, including if another, better approach/innovation is warranted.

As described in the methods section of part one, the concerns were measured via Hall and Hord's Stages of Concerns questionnaire. Responses for the Stages of Concern were sorted and coded into two categories of motivation; low (*unrelated* and *self*) and high (*task* and *impact*). However, there may have underlying qualitative distinctions between the categories that prevent a proper interpretation between capacity and motivation.

Finally, the unexpected relationship between motivation and capacity may have been due to demand characteristics in the thesis design. As the survey was first distributed to program directors in order to ease dissemination, it is possible that there was bias in how individuals at these organizations responded to the items. Many organizations were very small, and although responses were confidential (and with IRB approval) this may have affected the quality of responses. McGovern, Urada, Lambert-Harris, Sullivan, and Mazade (2012) report that providers tend to inflate self-assessments

of organizational capacity. If organizations over-reported a higher level of capacity than was actually present, this could have influenced the directionality of the relationship between motivation and capacity. However, this is a difficult hypothesis to test within the current dataset as the demand characteristic are constant across all responses, and a second round of data collection with a different study design would be required.

Given the above possibilities, this supplementary analysis focuses on testing two of the above explanations.

1. Are all types of concerns for ROSC negatively associated with capacity or are there qualitative differences in how different concerns relate to capacity measurements?

2. Does this negative relationship change given an individual's position in their organization?

If differences in the relationship between motivation and capacity are not found after further clarifying the differences between the types of concerns, then this provides some evidence that the relationship between motivation and capacity in this study may be a true result, the result of demand characteristics of the study design, or due to some other, unexplained variable.

Methods

The method and data collection section can be found in Chapter I of this thesis

Data Management

For the first research question, a single index score was created for capacity. This was done by summing all of the capacity items in the survey to create an absolute value of capacity.   Concerns were measured by summing up the scores for each concern, consistent with methods described by Hall and Hord (2006). All variables were centered

to reduce non-essential collinearity between the items (Cohen, Cohen, West, & Aiken, 2005)

For the second research question, several adjustments were needed in order to analyze the data. First, many of the items had no variation in the responses (i.e., everyone responded identically.) These could not be included in the analysis because of the categorical nature of the variables would prevent between-respondent comparisons. These ten items were removed from the analysis, and can be found in *Table 3.1*. Secondly, another group of ten items were removed because there were inconsistent categorical responses (i.e. one group might have responded 0/1/2, but in another group only 0/1.) Because of the threshold differences between 1 and 2, these items could not be tested between groups. An alternative strategy could have been to collapse the 0/1/2 categories by consolidating two of the response categories into one response category. This decision was not chosen and affected the analysis in that the full variation between categories could not be addressed. These items can also be found in *Table 2.1*. Thirdly, in order to stabilize the estimation model, the concerns were again sorted into *Low* and *High* categories (as described in chapter 1).

Finally, the category of position was then collapsed into two groups. Having larger sized groups increased the power of the analysis. This grouping was done with models of innovation implementation and dissemination proposed by Wandersman et al (2008). Group one was *Service Support*, which included directors, administrative support, and case management. These are individuals involved in supporting how services are provided. Group two was *Service Delivery,* which included clinical

supervisors, clinicians, peer specialists, and prevention specialists. These are individuals who are involved in direct service provision.

Data Analysis Plan

Linear regression was used to test the first research question whereby each type of concern was regressed against capacity while taking into account variation between organizations. Two overall models were used: 1) a multivariate model with all of the concerns regressed on the index score of capacity, and 2) the seven individual univariate models, with each type of concern regressed against capacity. A Wald test was also used to test whether differences in parameter estimates between each type of concern were significant in the multivariate model. Many individuals did not complete all of the items in the survey, therefore a complete index score could not be computed for these individuals. Because of these missing response patterns, the total number of respondents was reduced from (N=186) reported in chapter 1 (N = 142) through listwise deletion. Listwise deletion, while simplifying the analysis, may introduce bias into the parameters.

The second question was answered by clustered confirmatory factor analysis (CFA). This was used to determine whether there were different parameter estimates for the *Support* and *Delivery* groups when accounting for variance contributed between these two position-types. A Wald test was also used to test whether the differences between each position type were significant. The full sample was used for this analysis (N=186).

All analyses were conducted in Mplus, v. 6.12. Statistics were estimated by a weighted least squares: mean and variance adjusted (WLSMV) method. Individuals were nested within organization and provided ratings on the organization. Therefore, we expected the errors to be correlated, which violate the assumption of independence in

traditional analysis. To account for this nested design, this analysis used Mplus' capacity

for complex analyses.

Results

For the first research question, *Are all types of concerns for ROSC negatively*

associated with capacity or are there qualitative differences in how different concerns

relate to capacity measurements?, the multivariate model showed that two types of

concerns positively predicted capacity; *Personal* ($B = 0.878$, SE $= 0.076$, p < 0.001) and

Consequence ($B = 0.331$, $SE = 0.105$, $p < 0.01$). *Collaboration* concerns negatively

predicted capacity ($B = -0.459$, $SE = 0.107$, $p < 0.001$). The correlation matrix for the

multivariate predictors can be found in *Table 3.2*. The Wald Test indicated that

predictive differences among the different types of concerns were significant and non-

zero, (χ^2 (6, $N = 142$) $= 116.378$, $p < 0.001$).

In the univariate models, five of the concerns were significant and positively

associated with capacity (*Table 3.3*). Awareness concerns ($B = 0.045$, $SE = 0.105$, p

$=0.664$) and Collaboration concerns ($B = 0.247$, $SE = 0.081$, $p =0.055$) were not

significant in the univariate model. None of the concerns flipped from significant in one

direction to significant in the other direction.

In the second research question, motivation and capacity were negatively

correlated at ($r= -0.47$, $SE = 0.08$, $p <0.001$) in the *Support* Group. For the *Delivery*

group, motivation and capacity were also negatively correlated at ($r= -0.27$, $SE = 0.08$, p

<0.001). However, the Wald test indicated that the differences in the parameter estimates

between the *Support* and *Delivery* groups were non-significant, (χ^2(1, $N = 186$) $=$

0.502, $p = 0.48$).

Table 3.1: Items Removed from Capacity by Motivation by Position in Organizational
Analysis

Rationale for Removal	Item
Items Without Variability in Reponses	
-Capacity	We have a clear organizational mission statement
	We have a well-trained staff
	We address a client's motivation as part of their treatment
-Motivation	I am concerned about the staff's attitudes towards ROSC
	I am concerned about revising my use of ROSC guidelines.
	I am concerned about how ROSC affects staff members.
	I am concerned about my inability to manage all that ROSC requires.
	I am preoccupied with things other than ROSC.
	I would like to know how my role will change when I am working in a ROSC.
	I would like to know how ROSC is better than what we have now
Items with Unequal Levels of Categorical Responses	
-Capacity	We have staff members that champion recovery-based treatment
	We are a stress-free workplace
	There is open communication among staff members
	We try to access diverse sources of funding for treatment programs
	We adjust services to respect a client's cultural needs
	We incorporate a client recovery capital into the recovery plan
	We have family participate in the recovery planning process
	We articulate a supportive, chronic-care model for substance abuse disorders
	We learn from other agencies' results when designing programming
Motivation	I would like to know what other staff members are doing in this area.

Table 3.2: Correlations between Types of Concerns in Multivariate Regression

	Aware-ness	Infor-mation	Personal	Manage-ment	Conse-quence	Colla-boration	Refo-cusing
Awareness	1.00						
Informational	-0.122	1.00					
Personal	-0.057	0.407	1.00				
Management	-0.193	0.474	0.588	1.00			
Consequence	0.022	0.275	0.720	0.515	1.00		
Collaboration	0.108	0.153	0.618	0.188	0.727	1.00	
Refocusing	-0.172	0.734	0.509	0.851	0.443	0.169	1.00

Table 3.3: Correlations between Types of Concerns in Multivariate Regression

Concern	Multivariate Model			Univariate Model		
	B	SE	P-value	B	SE	P-value
Awareness	0.138	0.073	0.06	0.045	0.105	0.664
Informational	0.110	0.122	0.37	0.316	0.074	<.001
Personal	0.878	0.076	<.001	0.104	0.005	<.001
Management	-0.092	0.169	0.585	0.405	0.101	<.001
Consequence	0.331	0.105	0.002	0.513	0.071	<.001
Collaboration	-0.459	0.107	<.001	0.247	0.129	0.055
Refocusing	-0.157	0.181	0.385	0.330	0.081	<.001

Chapter 4: Conclusion

In the multivariate model, three of the concerns (*Personal*, *Consequence,* and *Collaboration*) had a significant relationship with capacity. *Personal* and *Consequence* had a positive relationship with capacity and *Collaboration* had a negative relationship. In the univariate models, five of the concerns were significant and positive contributors. However, *Collaboration* was not a significant contributor in the univariate model. This finding in combination with the correlation matrix (*Table 2*) suggests extensive collinearity between the predictors and thus the relationships should be interpreted with caution. The coefficients are likely to be larger than they "actually" are, since they are carrying information supplied by the other variables (Cohen et al., 2003).

The Wald test indicates quantitative differences between the types of concerns. Practically, what this means is that those concerned about how a ROSC will affect their own work (*Personal*) and their work with clients (*Consequence*) are more likely to perceive higher levels of capacities that are needed to implement a ROSC. This is distinct from the original finding of a negative relationship between a global assessment of motivation and capacity. However, the non-significant relationships between capacities and other type of concerns in the multivariate model suggest that these other variables in the Hall and Hord CBAM model (2006) may not be useful constructs to help unpackage how provider's perceptions on an innovation relate to capacity.

It is extremely difficult to reconcile this finding against the original negative relationship between capacity and motivation that was found in Part I. So while there are

different quantitative relationships between the types of concerns, there appears to be problems in the global measurement model, as indicated by these variations in signs.

The second finding should also be interpreted with caution. Given the number of items that had to be removed to stabilize the analysis model, the underlying differences between the *Support* and *Delivery* systems may not have been fully extracted. However, for this sample group (organizations in South Carolina) there seems to be some preliminary evidence that groups have similar underlying perceptions of how ready they are to implement a ROSC.

Future research examining the relationships between capacity and motivation for ROSC should focus on resolving two of the other possible explanation for this negative relationship. First, the underlying constructs of general capacity, innovation-specific capacity, and motivation need to be better explicated and measured to better approximate differences between these concepts. Given 1) the lack of significant parameter estimates in the multivariate regression due to the high intercorrelations, and 2) the variation in how the different types of concerns relate to capacity in the univariate versus multivariate models, the Hall and Hord (2006) Stages of Concern model (or at least the way the concerns are scored) seems to be ill-suited for measuring motivation. Other ways of conceptualizing motivation are needed in order to better examine this construct and its relation to readiness.

Second, other evaluation models that minimize demand characteristics (e.g. McGovern et al, 2012; Flaspohler, Meehan, Maras, & Keller, 2012) should be utilized in order to better assess how organization rate their readiness to implement innovations. This could help to gather more accurate information about the readiness of organizations.

This information could then be used to inform more targeted, higher impact

implementation support (Wandersman, Chien, & Katz, 2012), and ultimately improve the

quality of outcomes.

References

Ali, S., King, J., & Menkir, S. (2006). Tools for Transformation Series: Person First
Assessment and Person Directed Planning. Philadelphia Department of
Behavioral Health and Intellectual disAbility Services [sic]. Retrieved
from:http://dbhids.org/assets/Forms--Documents/personFirst.pdf.

Becan, J., Knight, D., & Flynn, P. (2012). Innovation Adoption as Facilitated by a
Change Oriented Workplace. *Journal of Substance Abuse Treatment, 42*. 179-
190.

Center for Substance Abuse Treatment. (1999). Enhancing Motivation for Change in
Substance Abuse Treatment: A Treatment Improvement Protocol:TIP 35. (DHHS
Publication No. (SMA) 05-4081) Rockville, MD.

Center for Substance Abuse Treatment. (2005). Substance Abuse Treatment for Persons
with Co-Occurring Disorders: A Treatment Improvement Protocol:TIP 42.
(DHHS Publication No. (SMA) 05-3992) Rockville, MD.

Center for Substance Abuse Treatment (2007). Addiction Counseling Competencies: The
Knowledge, Skills, and Attitudes of Professional Practice. TAP 21. (DHHS
Publication No. (SMA) 08-4171) Rockville, MD.

Chinman, M., Imm, P., & Wandersman, A. (2004). Getting To Outcomes™ 2004:
Promoting Accountability Through Methods and Tools for Planning,
Implementation, and Evaluation. Santa Monica, CA: RAND Corporation.

Cohen, J., Cohen, P., West, S., & Aiken, L. (2003). Applied Multiple
Regression/Correlation Analysis for the Behavioral Science. Third Edition.
Mahwah, NJ. Lawrence Erlbaum Associates.

Davidson, L., Tondora, J., O'Connell, M., Kirk, T., Rockholz, P., & Evans, A. (2007).
Creating a Recovery-Oriented System of Behavioral Health Care: Moving From
Concept to Reality. *Psychiatric Rehabilitation Journal. 31(1),* 23-31.

DiClemente, C., Schlundt, D., & Gemmel, L. (2004). Readiness and Stages of Change in
Addiction Treatment. *The American Journal of Addictions. 13,* 103-119.

DiClemente, C., & Velasquez, M. (2002). Motivational Interviewing and the Stages of
Change. In. Motivational Interviewing. 2nd ed. Miller, W. and Rollnick, R.
Guilford Press. New York.

Durlak, J., & DuPre, E. (2008). Implementation Matters: A review of research on the influence of implementation on program outcomes and the factors affecting implementation. *American Journal of Community Psychology. 41,* 327–350.

Goodman, R. M., Speers, M. A., McLeroy, K., Fawcett, S., Kegler, M., Parker, E., et al.. (1998). Identifying and defining the dimensions of community capacity to provide a basis for measurement. Health Education & Behavior, 25(3), 258–278.

Greenhalgh, T., Robert, G., MacFarlane, F., Bate, P., & Kyriakidou, O. (2004). Diffusion of Innovations in Service Organizations: Systematic Review and Recommendations. *The Milbank Quarterly. 82(4),* 581-629.

Gregory, W., Orden, O., Jordan, L.,Portnoy, G., Welsh, E., Betkowski, J., Charles, J.,& DiClemente, C. (2012). New Directions in Capacity Building: Incorporating Culture Competency into the Interactive Systems Framework. *American Journal of Community Psychology. 50,* 321-333.

Fetterman, D., & Wandersman, A. (Eds) (2005). Empowerment Evaluation: Principles in Practice. Guilford Press. New York

Fixsen, D., Nooam, S., Blasé, K., Friedman, R., & Wallace, F. (2005). Implementation Research: A Synthesis of the Literature. Tampa, FL: University of South Florida, Louis de la Parte Florida Mental Health Institute, The National Implementation Research Network (FMHI Publication #231).

Flaspohler, P., Anderson-Butcher, D., Bean, J., Burke, R., & Paternite, C. (2008a). Readiness and School Improvement: Strategies for Enhancing Dissemination and Implementation of Expanded School Mental Health Practices. *Advances in School Mental Health Promotion. 1(1)*), 16-26.

Flaspohler, P., Duffy, J., Wandersman, A., Stillman, L., Maras, M. (2008b). Unpacking Prevention Capacity: An Intersection of Research to Practice Models and Community-centered Models. *American Journal of Community Psychology. 41,* 182-196.

Flaspohler, P.D., Meehan, C., Maras, M., & Keller, K.E. (2012). Ready, Willing and Able. Developing a Support System to Promote Implementation of a School-Based Prevention Program. *American Journal of Community Psychology. 50,* 428-444.

Hall, G., & Hord, S. (2006). Implementing Change: Patterns, Principles, and Potholes. 2nd ed. Pearson. Boston.

Himmelmann, A. T. (2002). Collaboration for a Change: Definitions, Models, Roles and a Guide to the Collaboration Process, Minneapolis, MN: Himmelman Consulting Group. Retrieved from http://depts.washington.edu/ccph/pdf_files/4achange.pdf

Hu, L., & Bentler, P. (1999). Cutoff Criteria for Fit Indexes in Covariance Structure Analysis: Conventional Criteria Versus New Alternatives. *Structural Equation Modeling 6(1),* 1-55.

Institute of Medicine (IOM) (2006). Improving the Quality of Health Care for Mental and Substance-Use Conditions. National Academy Press. Washington, D.C.

Kirk, T. (2010). Technical Assistance: Recovery-Oriented Systems of Care. [powerpoint slides]. Presented at South Carolina Department of Alcohol and Drug Addiction Services. 12.7.10.

Laudet, A., & White, W. (2008). Recovery Capital as Prospective Predictor of Sustained Recovery, Life Satisfaction, and Stress Among Former Poly-substance users. *Substance Use and Misuse. 43*, 27-54.

Laudet, A., & White, W. (2010). What are your priorities right now? Identifying service needs across recovery stages to inform service development. *Journal of Substance Abuse Treatment. 38,* 51-59.

Lehman, W., Greener, J., & Simpson, D. (2002) Assessing organizational readiness to for change. *Journal of Substance Abuse Treatment. 22*, 197-209.

Livet, M., Courser, M., & Wandersman, A., (2008). The Prevention Delivery System: Organizational Context and Use of Comprehensive Programming Frameworks. *American Journal of Community Psychology. 41,* 361-378.

Maddux, J.E. (2005) Stopping the "Madness." Positive Psychology and the Deconstruction of the Illness Ideology and the DSM. In Snyder, C. R. & Lopez, S. Ed. Handbook of Positive Psychology. pp. 13-25. New York, NY: Oxford Press.

Masten, A, & Reed, M. (2005) Resilience in Development. In Snyder, C. R. & Lopez, S. Ed. Handbook of Positive Psychology. New York, NY: Oxford Press.

McKay, J. (2009) Continuing Care Research. What we have learned and where we are going. *Journal of Substance Abuse Treatment. 36,* 131-145.

McGovern, M. P., Urada, D., Lambert-Harris, C., Sullivan, S.T., Mazade, N.A. (2012). Development and initial feasibility of an organization measure of behavioral health integration in medical care settings. *Journal of Substance Abuse Treatment. 43*, 402-409.

McLellan, A.T. (2010). Correspondence. What is recovery? Revisiting the Better Ford Institute Consensus Panel Definition. *Journal of Substance Abuse Treatment. 38,* 200-201.

Meyers, D., Durlak, J., & Wandersman, A. (2012). The quality implementation
framework: a synthesis of critical steps in the implementation process. American
Journal of Community Psychology. 50(3-4), 462-80.

Miller, W., & Rollnick, S. (2002). Motivational Interviewing; 2nd ed. Guilford Press. New
York.

Miller, W., & Rose, G. (2009) Toward a Theory of Motivational Interviewing. American
Psychologist. Vol 64(6), 527-537.

The NET Consumer Council, Evans, A., Lamb, R., Mendelovich, S., Schulz, J., and
White, W. (2007). The Role of Clients in a Recovery-Oriented System of
Addiction Treatment. The Birth and Evolution of the NET Consumer Council.
Retrieved on 9.15.11

O'Connell, M., Tondora, J., Croog, G., Evans, A., & Davidson, L. (2005). From
Rhetoric to Routine: Assessing Self Perceptions of Recovery Oriented Practices in
a State Mental Health and Addiction System. *Psychiatric Rehabilitation Journal.
Vol 28(4),* 378-386.

Philadelphia Department of Behavioral Health and Intellectual disability Services
(2011a). Philadelphia Behavioral Health Services Transformation Practice
Guidelines for Recovery and Resilience Oriented Treatment. Version 1.0.

Philadelphia Department of Behavioral Health and Intellectual disability Services
(2011b). Enhancing treatment Quality. http://www.dbhmrs.org/enhancing-
treatment-quality. Retrieved on 3.7.11

Rossi, P., Lipsey, M., & Freeman, H. (2004). Evaluation: A Systematic Approach.
Seventh Edition. Sage Publications, Thousand Oaks, CA.

Shadish, W., Cook, T., & Campbell, D. (2002) Experimental and Quasi-experimental
Designs for Generalized Causal Inference. Houghton Mifflin Company.

Sheedy, C., & Whitter, M. (2009). Guiding Principles and Elements of Recovery-
Oriented Systems of Care: What do We Know From The Research? HHS
Publication No. (SMA) 09-4439. Rockville, MD: Center for Substance Abuse
Treatment, Substance Abuse and Mental Health Services Administration

Simpson, D. (2004) A conceptual framework for drug treatment process and outcomes.
Journal of Substance Abuse Treatment. 27, 99-121.

Simpson, D. (2009). Organizational Readiness for Stage-Based Dynamics of Innovation
Implementation. *Research on Social Work Practice. 19(5),* 541-550.

Substance Abuse and Mental Health Services Administration. (2010). Recovery-Oriented
        Systems of Care (ROSC) Resource Guide. Working Draft.
        http://pfr.samhsa.gov/docs/ROSC_Resource_Guide_Book.pdf

Substance Abuse and Mental Health Services Administration. (2011). Recovery Defined.
        http://blog.samhsa.gov/2011/08/12/recovery-defined-%E2%80%93-give-us-your-
        feedback/. Retrieved on 9.2.11

Tondora, L., Heerema, Delphin, Andre-Hyman, O'Connell, & Davidson, J. (2008).
        Practice Guidelines for Recovery-Oriented Behavioral Health Care. Second
        Edition. Connecticut Department of Mental Health and Addiction Services.
        Retrieved from
        http://www.ct.gov/dmhas/lib/dmhas/recovery/practiceguidelines2.pdf.

Wandersman, A., Duffy, J., Flaspohler, P., Noonan, R., Lubell, K., Stillman, L., . . . &
        Saul, J. (2008). Bridging the Gap between Prevention Research and Practice: The
        Interactive Systems Framework for Dissemination and Implementation. *American
        Journal of Community Psychology. 41*, 171-181.

Wandersman, A., Chien, V., & Katz, J. (2012) Toward an Evidence-Based System for
        Innovation Support for Implementing Innovations With Quality to Achieve
        Desired Outcomes: Tools, Training, Technical Assistance, and Quality
        Improvement/Quality Assurance. *American Journal of Community Psychology*

Weiner, B., Amick, H., & Lee, S. (2008). Conceptualization and Measurement of
        Organizational Readiness for Change: A Review of the Literature in Health
        Services Research and Other Fields. *Medical Care Research and Review. 65(4),*
        379-436.

White, W. (2006). Recovery Management. What if we really believed that addiction was
        a chronic disorder? Recovery Management. Great Lakes Addiction Technology
        Transfer Center. Chicago, IL

White, W. (2008). Recovery Management and Recovery-Oriented Systems of Care:
        Scientific Rationale and Promising Practices: Northeast Addiction Technology
        Transfer Center, Great Lakes Addiction Technology Transfer Center, Philadelphia
        Department of Behavioral Health/Mental Retardation Services.

White, W. (2009a). The mobilization of community resources to support long-term
        recovery addiction recovery. *Journal of Substance Abuse Treatment. 36*, 146-
        158.

White, W. (2009b). Peer-Based Addiction Recovery Support. History, Theory, Practice,
        and Scientific Evaluation. Great Lakes Addiction Technology Transfer Center.
        Chicago, IL

White, W., & Kurtz, E. (2006). The Varieties of Recovery Experience: A primer of
Addiction Treatment Professionals and Recovery Advocates. Recovery
Management. Great Lakes Addiction Technology Transfer Center. Chicago, IL

Appendix A:

Capacity Assessment Measure for ROSC General and Innovation-Specific Capacities

We are interested in learning more about how organizations to treat substance abuse disorders vary on their ability to implement a Recovery-Oriented Systems of Care (ROSC). For all of the below items, consider if the following statements describe your organization. Try not to think about yourself, but rather your organization as a whole. This information will help to us to better determine what different type of strategies and supports organizations need in order to become more recovery-oriented.

[General capacity items]

	G. Capacity	Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree
We have leadership that advocates the benefits of recovery	Leadership					
We have staff members that often talk about benefits of recovery-based treatment						
We have staff members that champion recovery-based treatment	-					
We have a clear organizational mission statement	Org Climate					
We all follow our organizational mission statement						
We are a stress-free workplace	-					
Our organization supports the staff's autonomy when making decisions	Structure/ Management					

	G. Capacity	Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree
involving in client-care						
We have clear job roles for each staff member	-					
There is open communication among staff members	-					
We try to identify multiple sources of funding for our treatment programs	Resource: I&A					
We try to access diverse sources of funding for treatment programs	-					
We use a portion of our financial resources to fund recovery-based programs	Resource: A					
We prioritize funding for programs that promote recovery	-					
Our organization provides adequate equipment staff in order to do their jobs	Resource: Infrastructure					
We collect data on client indicators	-					
We make changes to treatment programs based on data	-					
We have a well-trained staff	Staff capacity					
We have a staff that utilizes best practices in service delivery	-					
We have a staff that is familiar with						

	G. Capacity	Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree
concepts of recovery						
We adjust services to respect a client's cultural needs	Cultural					

[Innovation-specific items]

	I. Capacity	Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree
We try to help clients quickly enter treatment	ICC: Access					
Our organization facilitates uncomplicated access to treatment	-					
We try to remove barriers that prevent people from entering treatment	-					
We allow clients to choose among different treatment levels	-					
Our organization allows clients to choose among different treatment schedules						
We are able to facilitate swift client movement between different levels of care	-					
We assess multiple life needs that a client might have	ICC: Holistic					
We gather information about client needs and resources	-					
We address a client's						

	I. Capacity	Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree
motivation as part of their treatment						
We determine how ready a client is to enter recovery	-					
We support a client's efficacy at meeting their recovery goals	ICC: PCP					
We believe that clients are able to reach their goals						
We individual treatment based on the client's unique goals	-					
We incorporate a client recovery capital into the recovery plan						
We help to build an client's recovery capital	-					
We set a diverse range of client goals in recovery planning	-					
We are trauma-informed when we develop recovery plans	-					
We involve family or significant social supports	-					
We have family participate in the recovery planning process						
We have an organizational commitment to recovery as an ongoing process	ORI: RV					
We articulate a supportive, chronic-	-					

	I. Capacity	Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree
care model for substance abuse disorders						
Our organization communicates clear recovery values throughout the organization	-					
We have clients participate in developing treatment programming	ORI:PIR					
We have clients participate in developing recovery support activities						
Our organization uses peer-based support for recovery services	-					
We use client input in decisions that impact the organization	-					
We use the input of persons-in-recovery in decisions that impact the organization						
We support client advocacy groups within the organization	-					
We provide additional client services that address multiple needs	ORI: Holistic					
We treat the whole person's recovery needs	-					
We develop creative methods to promote client recovery	DSI					

	I. Capacity	Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree
We learn from other agencies' results when designing programming	-					
We conduct community needs assessments of recovery services in our county	CTRC: ID					
We map the availability of recovery services in the community	-					
We use outreach activities to promote recovery in the community	-					
We incorporate community resources into treatment activities	-					
We have good communication with other agencies that serve our clients	CTCR: Relationship					
We coordinate with other agencies when developing a client's recovery plan	-					

Stages of Concern for Recovery-Oriented System of Care

Stages of Concern Questionnaire
Instructions

   The purpose of this questionnaire is to determine what people who are using or thinking about using various programs are concerned about at various times during innovation adoption.

   The items were developed from typical responses of people who ranged from no knowledge about various programs to many years' experience using them. Therefore, many of the items on this questionnaire may appear to be of little relevance or irrelevant to you at this time. For completely irrelevant items, please circle "0" on the scale. Other items will represent those concerns you do have, in varying degrees of intensity, and should be marked higher on the scale.

   Please respond to the items in terms of your present concerns, or how you feel about your involvement with ROSC. We do not hold any one definition of ROSC so please think of it in terms of your own perception of what it involves. Phrases such as "this approach" and "the new system" all refer to ROSC. Remember to respond to each item in terms of your present concerns about your involvement or potential involvement with ROSC.

   Thank you for taking the time to complete this questionnaire.

Circle one number for each item:

0	1	2	3	4	5	6	7
Irrelevant	Not true of me now		Somewhat true of me now			Very true of me now	

1.	I am concerned about staff's attitudes toward ROSC.	0 1 2 3 4 5 6 7
2.	I now know of some other approaches that might work better.	0 1 2 3 4 5 6 7
3.	I am more concerned about another organizational change	0 1 2 3 4 5 6 7
4.	I am concerned about not having enough time to organize myself each day.	0 1 2 3 4 5 6 7
5.	I would like to help other staff members to learn about adopt ROSC	0 1 2 3 4 5 6 7
6.	I have a very limited knowledge of ROSC.	0 1 2 3 4 5 6 7

7.	I would like to know the effect of re-organization on my professional status.	0 1 2 3 4 5 6 7
8.	I am concerned about conflict between my interests and my responsibilities.	0 1 2 3 4 5 6 7
9.	I am concerned about revising my use of ROSC guidelines.	0 1 2 3 4 5 6 7
10.	I would like to develop working relationships with both our staff and outside staff using ROSC.	0 1 2 3 4 5 6 7
11.	I am concerned about how ROSC affects staff members.	0 1 2 3 4 5 6 7
12.	I am not concerned about ROSC at this time.	0 1 2 3 4 5 6 7
13.	I would like to know who will make the decisions in the new system.	0 1 2 3 4 5 6 7
14.	I would like to discuss the possibility of using a ROSC approach.	0 1 2 3 4 5 6 7
15.	I would like to know what resources are available if we decide to adopt ROSC.	0 1 2 3 4 5 6 7
16.	I am concerned about my inability to manage all that ROSC requires.	0 1 2 3 4 5 6 7
17.	I'd like to know how work is supposed to change.	0 1 2 3 4 5 6 7
18.	I would like to familiarize other departments or staff with progress of this new approach.	0 1 2 3 4 5 6 7
19.	I am concerned with evaluating my impact on clients	0 1 2 3 4 5 6 7
20.	I would like to revise the approach of ROSC.	0 1 2 3 4 5 6 7
21.	I am preoccupied with things other than ROSC.	0 1 2 3 4 5 6 7
22.	I would like to modify our use of ROSC based on the experiences of our staff.	0 1 2 3 4 5 6 7
23.	I spend little time thinking about ROSC.	0 1 2 3 4 5 6 7
24.	I would like to excite my staff/colleagues about their part in this approach.	0 1 2 3 4 5 6 7
25.	I am concerned about time spent working with non-treatment problems related to ROSC.	0 1 2 3 4 5 6 7
26.	I would like to know what the use of ROSC will require in the immediate future.	0 1 2 3 4 5 6 7
27.	I would like to coordinate my efforts with others to maximize the effectiveness of ROSC innovations.	0 1 2 3 4 5 6 7
28.	I would like to have more information on time and energy commitments required by ROSC.	0 1 2 3 4 5 6 7
29.	I would like to know what other staff members are doing in this area.	0 1 2 3 4 5 6 7
30.	Currently, other priorities prevent me from focusing my attention on ROSC.	0 1 2 3 4 5 6 7
31.	I would like to determine how to supplement, enhance, or replace ROSC.	0 1 2 3 4 5 6 7

32.	I would like to use feedback from staff/clients to change how we use ROSC.	0 1 2 3 4 5 6 7
33.	I would like to know how my role will change when I am working in a ROSC.	0 1 2 3 4 5 6 7
34.	Coordination of tasks and people is taking too much of my time.	0 1 2 3 4 5 6 7
35.	I would like to know how ROSC is better than what we have now.	0 1 2 3 4 5 6 7