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ORIGINAL PAPER

Therapist Turnover and New Program Sustainability in Mental Health Clinics as a Function of Organizational Culture, Climate, and Service Structure

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Abstract The present study incorporates organizational theory and organizational characteristics in examining issues related to the successful implementation of mental health services. Following the theoretical foundations of socio-technical and cultural models of organizational effectiveness, organizational climate, culture, legal and service structures, and workforce characteristics are examined as correlates of therapist turnover and new program sustainability in a nationwide sample of mental health clinics. Results of General Linear Modeling (GLM) with the organization as the unit of analysis revealed that organizations with the best climates as measured by the Organizational Social Context (OSC) profiling system, had annual turnover rates (10%) that were less than half the rates found in organizations with the worst climates (22%). In addition, organizations with the best culture profiles sustained new treatment or service programs over twice as long (50 vs. 24 months) as organizations with the worst cultures. Finally, clinics with separate children's services units had higher turnover rates than clinics that served adults and children within the same unit. The findings suggest that strategies to support the implementation of new mental health treatments and services should attend to organizational culture and climate, and to the compatibility of organizational service structures with the demand characteristics of treatments.

Keywords Organizational culture · Organizational climate · Organizational social context · OSC · Therapist turnover · Sustainability

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Introduction

As noted in the introduction to this issue, the objectives of the ChildSTEPS Clinic Systems Project (CSP) were to describe a large national sample of mental health organizations in terms of constructs that are hypothesized, on the basis of a synthesis of theory and research, to affect the

implementation of mental health services. Guided by organizational theory, the goal of this paper is to better understand organizational-based phenomena associated with the implementation of services in community-based mental health systems. The focus here is on relations among specific attributes of the provider organization described in the Director's Survey (Schoenwald et al. 2008)—therapist turnover and new program sustainability—and constructs assessed by the Organizational Social Context (OSC) measurement system—climate and culture—on which the organizations in the current sample have been demonstrated to vary (see Glisson et al. 2008) and that have predicted staff turnover (Glisson et al. 2006; Glisson and James 2002), access to mental health services (Glisson and Green 2006) and youth behavioral improvement (Glisson 2007; Glisson and Hemmelgarn 1998) in other children's service sectors. As such, this paper addresses the relatively uncharted territory of the sustainability of treatment and service innovations in child-serving mental health organizations. To the extent that child and family treatments and services with demonstrated effectiveness exist and are transportable to community-based settings, the sustainability of such treatments and services along with a stable workforce able to deliver them are critical to improving the effectiveness of the children's mental health system.

As shown in data from the Director's Survey (Schoenwald et al. 2008) and Organizational Social Context (OSC) survey (Glisson et al. 2008), organizations providing mental health services to children vary in a number of ways, including their legal and service structures, social contexts, and the size and training of their workforce. Although researchers are beginning to study the characteristics of organizations that provide mental health services, there is much more to learn about how these organizations vary and how their characteristics are associated with service delivery. The present study examines two issues likely to be necessary but not sufficient conditions for effective services—low therapist turnover and new program sustainability—and identifies organizational characteristics associated with each. The paper examines specific organizational social context and structural characteristics that could be important to the design of strategies to improve the services provided by mental health service organizations through the introduction of evidence-based practices and other innovations.

There is theoretical as well as empirical support for the idea that organizational characteristics such as culture, climate, and structure are important to the effective functioning of organizations, but almost none of this work has focused on mental health services. In the following section, a brief overview of this organizational literature provides the rationale and background for inclusion of these organizational characteristics in the ChildSTEPS conceptual model and for understanding the role of organizational context in therapist turnover and new program sustainability.

The Importance of Organizational Theory to Mental Health Services

The design and administration of contemporary organizations have a long developmental history that has implications for understanding how mental health service organizations affect their members and their work. This history can be especially useful in establishing a theoretical basis for an implementation science in mental health services that includes organizational issues. Perhaps most important to understanding why contemporary organizations function the way they do is that the evolution of modern administrative and management practices is closely linked to the industrial boom of the mid-18th Century. It was during this period that agrarian economies began to fade in response to the proliferation of large urban factories that used mechanized production and assembly lines to produce textiles and other goods more efficiently (but not necessarily with greater quality) than those produced by families and small groups of artisans (Yafa 2004). As a result of these roots, early modern organizational theory and design focused on the efficiency of industrial production processes, creating an orientation to administration that continues to influence organizational practices today.

One of the most important and basic assumptions of "classical organizational theory" was that human beings would not give their best effort, work efficiently, or be fair and even-handed in their work unless they were tightly controlled and directed (Taylor 1911; Weber 1922). In addition, the organization was viewed as a human machine of interchangeable parts (i.e. workers) that could be assembled and "driven" by the leader, much as one would construct and operate a machine, to reach the organization's goals. Both assumptions of classical theory were based on the premise that controlling and limiting the discretion and flexibility of individual workers were essential to efficiency and effectiveness. These ideas began to be questioned in the first half of the 20th century with the development of more complex views of organizations (Selznick 1949a, 1949b; Simon 1946). However, the simple, basic assumptions of classical theory continue to influence the design and management of a variety of public and private organizations in a way that often appears to achieve the opposite of what was intended. Schorr (1997) succinctly described that effect within a variety of public social service institutions: "We are so eager, as a body politic, to eliminate the possibility that public servants will

do anything wrong that we make it virtually impossible for them to do anything right" (p. 65).

Human Relations Theory

The assumptions of classical theory were questioned empirically in studies conducted in the Hawthorne plant (where the well-known Hawthorne effect was documented) of the Western Electric Company (Roethlisberger and Dixon 1939). In direct opposition to the assumptions of classical theory that workers are not self-motivated and that work must be tightly controlled with work tasks broken down to the smallest denominator, McGregor (1957) summarized what was learned from the Hawthorne studies by arguing that workers are capable of contributing much more to the success of the organization when their work responsibilities are expanded, challenging, and meaningful to the worker. Human relations theory and associated strategies for improving organizational performance provided a counter-balance to the assumptions of classical theory and informed the organizational theories that followed. In addition to providing a new view of human behavior within organizations, human relations theory was coupled with efforts to establish the basis for the empirical study of human behavior within organizations. Although this provided the foundation for the science-based study of organizations, the early human-relations emphasis was narrowly focused on the behavior of individuals within their immediate workgroups.

Structural and Socio-technical Theory

Structural theory and an important variation, socio-technical theory, broadened the empirical focus on organizations to include the characteristics of its social context. The socio-technical model developed by the Tavistock Institute in London represented one of the first attempts to view organizations as creating a social context within which the technical work of the organization could be performed (Burns and Stalker 1961; Trist et al. 1963). Based on this model, it was argued that mechanistic structures characterized by highly formalized divisions of labor and centralized hierarchies of authority (as described in classical theory) could be appropriate for "routinized" technologies such as those found on production assembly lines, but more organic social structures characterized by less rigid and more flexible structures are required for the effective implementation of "nonroutinized" technologies used in less determinate work environments requiring teamwork, adjustments in procedures, the continued development of new technical knowledge, and inconsistent outcomes. The socio-technical approach argued that the most effective organizations achieve a fit between their social contexts and their core technologies, with the assumption that the social context must support and complement the core technology for work to be completed effectively and efficiently (Rousseau 1977; Woodward 1958, 1965).

It is particularly important that structural theorists began to examine *informal* social contexts to gain a more complete view of how social norms and values that evolve within an organization influence members' behaviors as much as, or more than, the formal structure described in the organizational chart (Blau and Scott 1962). For example, one of the first studies of the influence of informal organizational norms and values was conducted in a social service organization (Blau 1960). The study documented that the perceptions and attitudes of social workers' toward their clients and their work were heavily influenced by the organization's social context, even when the social norms that characterized that context included negative views of clients. The early research on informal social context in an organization compared its effects on workers to the socialization effects of societal cultures, and thus anticipated the emphasis on organizational culture that emerged over a decade later.

Open Systems Theory

Katz and Kahn (1966) widened the empirical lens even further by applying general systems theory to the study of organizations to emphasize (1) the systemic character of social behavior within organizations such that a change in one part affects change throughout, (2) the input, throughput, output, and feedback processes of organizations as open social systems, and (3) the multiple levels of individual, organization and environment included in the open systems model. Katz and Kahn's (1966) open systems approach represented an ambitious attempt to integrate and advance previous organizational theories while avoiding the mechanistic model of organization presented by classical theory, the narrow focus on the individual within small groups presented by human relations theory, and the rational assumption of early structural theory that structure necessarily follows function. As reflected in the Child-STEPS model shown in the introduction to this issue, the open systems approach emphasized the dynamic quality of organizations as social systems that are constantly adjusting to changes inside and outside the organization. Their work and related systems work by other significant authors (e.g., Scott and Mitchell 1967; Thompson 1967) heavily influenced organizational theory in the second half of the twentieth century and informed the evolution of culture and organizational change theories that followed.

Organizational Power and Conflict Theory

There was an implicit assumption in the early work on power and conflict that conflict within organizations represents a failure in the organization's power structure to control resources and people (Kahn and Boulding 1964; Wieland and Ullrich 1976). This assumption reflected an underlying rational, mechanistic notion that was influenced by classical theory, but this assumption waned in subsequent work on organizational power and conflict. Pfeffer's (1981) contributions to discussions of power and conflict within organizations distinguish between the exercise of power and formal authority. His description of the beliefs, practices and values associated with power are congruent with both structural theory and organizational culture theory, and move beyond the strictly rational and mechanistic notions of classical theory. Pfeffer retains the idea found in earlier work that the exercise of legitimate power is expected, desirable and indeed, required, but he frames the exercise of power in terms that are familiar to proponents of culture theory. Similar to the differences outlined between informal and formal social structures, he argues that norms and expectations develop within formal organizations in a way that makes the exercise of power possible, but that those norms and expectations do not necessarily coincide with the hierarchy of positions and divisions of labor specified in the organization's formal organizational chart. Moreover, authority is maintained not merely through one's formal position in the hierarchy, but also through the social pressures and social norms that sanction a particular distribution of power and define that distribution of power as normal and acceptable. This is particularly important to understanding the resistance to change within an organization, a key issue in the development of implementation science in mental health services.

Organizational Culture Theory

The organizational theories briefly summarized above contributed in various degrees to the development of organizational culture theory and to some extent, explain the broad literature and differences of opinion encompassed by culture theory. These disagreements extend to key constructs, the methods used to study culture, and the nature of organizational culture itself. The differences have been exacerbated by the simultaneous use of two terms, organizational culture and organizational climate, that began in the last decade (Ashkanasy et al. 2000; Denison 1996; Rentsch 1990; Schein 2000; Schneider 1990, 2000). The older term, organizational climate, is rooted in the quantitative psychological research associated with the human relations school (Argyris 1958, Fleishman 1953), and the newer term, organizational culture, is rooted in qualitative, anthropological research on societal culture that was first applied to the study of organizations in the seventies (Handy 1976; Pettigrew 1979). Despite these differences, there is general agreement that culture and climate affect work performance and organizational effectiveness by influencing how people go about their work, the priorities they emphasize in their work, and the psychological impact and meaning of that work for the individual workers. Moreover, organizational culture theorists are in general agreement that social norms, expectations, meaning, and perceptions are the keys to understanding individual behavior in organizations and organizational effectiveness. Therefore, the basic assumption of organizational intervention models based on culture theory is that assessing and addressing norms, expectations, meaning, and perceptions are necessary components in strategies for implementing innovative technologies and improving organizational effectiveness (Glisson et al. 2006; Glisson and Schoenwald 2005).

Applying Organizational Theory to Mental Health Services

The application of organizational theory to human services is relatively recent in the history of organizational research and a number of the first studies of "human service organizations" examined social and mental health service organizations as elements within broader samples of "health and welfare," "people changing," or "treatment" organizations (e.g., Blau 1960; Hage and Aiken 1969; Litwak and Hylton 1962; Vintner 1963). There are similarities and differences among these human services that are important to understanding the organizations that provide the services, but they are linked by the common denominator of providing services that are intended to improve the well-being or functioning of the people they serve.

Guided by the evolution of socio-technical and cultural theories as described above, we propose that the social contexts of organizations that provide mental health services establish expectations and priorities (organizational culture) as well as shared perceptions among members of the psychological impact of their work environments (climate). We argue that these expectations and perceptions affect therapist behavior, attitudes, and service activities, and that individual mental health clinics create distinct organizational culture and climate profiles that reflect these expectations and perceptions. The ChildSTEPS model conceptualizes the association of culture and climate with therapist behavior and attitudes as integral to understanding

the organizational barriers to the implementation of new service and practice models, and to delivering effective services in community-based mental health systems. The present study is the first to examine the association of organizational culture and climate profiles in a national sample of mental health clinics with factors that are likely to affect the implementation of effective services in these mental health systems: therapist turnover and the sustainability of new programs.

Methodology

Sample

As described in Glisson et al. (2008) and Schoenwald et al. (2008), the ChildSTEPS national survey began with a sampling frame of counties that were selected for the National Survey of Child and Adolescent Wellbeing (NSCAW) (Dowd et al. 2004; NSCAW 2002) and identified mental health clinics in each county that served children. Two hundred directors of the identified mental health clinics agreed to be interviewed by phone about their organization, and 100 of those directors allowed ChildSTEPS researchers to conduct an on-site survey of the therapists in their mental health clinics during staff meetings using the complete Organizational Social Context (OSC) measurement system. The OSC was administered to 100 clinics located in 75 cities in 26 states in the Midwest (31 clinics), South (28 clinics), Northeast (22 clinics), and West (19 clinics). Several characteristics of the organizations that did and did not participate in the OSC survey are shown in Table 1. With one exception, i.e., the proportion of bachelor-level social workers (13% vs. 8%), the clinics that did and did not participate in the OSC survey were statistically similar in the size and training of its workforce, therapist turnover, and the months that a new program had been sustained. However, participating clinics were more likely to be private, non-profit agencies (78% vs. 62%), less likely to serve children and adults together (29% vs. 50%), and more likely to serve only children (26% vs. 10%).

Table 1 Director's survey clinics that did and did not participate in OSC therapist survey

Continuous variables—means (SD)	OSC survey		
	Yes	No	*t*
Number of therapists in clinic	37.48 (46.25)	27.66 (30.16)	1.75
Proportion of therapists in clinic (%)			
Psychiatrists	10.40 (9.51)	10.07 (11.16)	.23
Ph.D. psychologists	5.75 (10.93)	5.75 (9.79)	.00
MSW social workers	25.14 (19.39)	29.77 (24.81)	1.45
BSW social workers	13.11 (19.38)	8.02 (15.71)	2.04*
Previous year therapist turnover rate	14.01 (11.34)	12.63 (12.34)	.79
Months new program sustained	32.41 (17.52)	31.38 (28.18)	.20

Categorical variables—frequencies	OSC survey		
	Yes	No	χ^2
Clinic legal structure			8.66*
Public	19	24	
Profit	3	13	
Non-profit	78	62	
Clinic service structure			12.99*
Child & adult together	29	50	
Separate child division	45	40	
Child only	26	10	

* $P < .05$

Measurement

The directors' who were interviewed in the survey described in Schoenwald et al. (2008) provided a variety of service system information, including therapist turnover and the sustainability of new programs. The interviews were scheduled in advance and directors were advised of the content and nature of the questions to be included in the interview. Directors were provided the opportunity to obtain any information that was not immediately available and if the directors were not able to provide information about a question, the response was coded as missing. The therapist turnover rate provided by directors for the past year in the organizations that participated in the OSC survey varied between no turnover and 51% turnover with an average of 14% (see Table 1), and with 5% of the directors indicating that they did not have access to turnover data. Because turnover was positively skewed, turnover was transformed as the natural log of the annual turnover rate in subsequent GLM analyses.

The directors were asked whether their clinic had begun a new clinical program, service or treatment model in the past 5 years. Individual directors named up to five new programs, service or treatment models, and provided the length of time each was sustained with 12% of the directors of clinics participating in the OSC survey indicating that they had not implemented a new program during that time. Among the clinics that participated in the OSC survey described below, the longest length of time that any new program, service or treatment model was sustained in a clinic varied between 4 and 72 months, with an average of 32 months (see Table 1) and with one director being unable to provide this information.

The directors provided information about how the services provided by their organization were structured. The

clinics are grouped under three categories of service structures, including whether or not their organization provided services to both adults and children, and if they served both, whether there was a separate division or unit for children's services. As shown in Table 1, among the organizations that participated in the OSC survey, 29% served both children and adults, 45% had a special children's services division or unit, and 26% served only children.

The directors were also asked about the legal structure of their organization. The categories included public agencies, private for profit organizations, and private non-profit organizations. As shown in Table 1, 19% of those organizations that participated in the OSC survey were public, 3% were private for profit, and 78% were private non-profit organizations.

The directors provided information about the number of therapists in their clinic and about the training of the therapists. The number of therapists in the clinics (total of professional and clinical staff in all units and divisions) varied from 8 to 372 with an average of 37. The proportions of the therapists in each participating clinic who are psychiatrists varied from 0% to 54% per clinic with an average of 10%, MSW social workers varied from 0% to 77% with an average of 25%, BSW social workers varied from 0% to 73% with an average of 13%, and PhD clinical psychologists varied from 0% to 89% with an average of 6%.

The OSC was administered in one clinic site of each organization to therapists who provided treatment to children (including therapists who treated both children and adults). The survey was administered to 76% of the therapists (from 30% to 100% per site) who met this criterion in the participating sites. The companion article in this issue describes the OSC survey, confirms the OSC measurement model, and establishes the first national norms for describing the climate and culture profiles of mental health clinics (Glisson et al. 2008). The present study examines the association of the three types of culture and climate profiles (best, worst, and those in-between) described in that article with staff turnover and new program sustainability.

The OSC profiling system assesses culture on three second-order dimensions: rigidity, proficiency and resistance. *Rigid cultures* are characterized by service providers having little discretion or flexibility, providing limited input into key management decisions, and being controlled by many bureaucratic rules, regulations and red tape. *Proficient organizational cultures* are characterized by expectations that service providers will place the wellbeing of each client first and by expectations that individual service providers will be competent and have up-to-date knowledge. *Resistant cultures* are characterized by expectations that service providers will show little interest in innovation or in new ways of providing service, and that service providers will suppress any change effort with criticism and apathy. As illustrated in Glisson et al. (2008), a clinic's standardized T-scores on these three dimensions are used to create profiles of organizational culture that can be arranged in three groups ranging from worst to best. The best culture profiles have proficiency scores that are two or more standard deviations above their rigidity and resistance scores (10% of the clinics met this criterion) and the worst culture profiles have proficiency scores that are two or more standard deviations below their rigidity and resistance scores (9% of the clinics met this criterion).

The OSC measures climate on three second-order factors: engagement, functionality and stress. *Engaged climates* are characterized by employee perceptions that they are able to personally accomplish many worthwhile things and remain personally involved in their work and concerned about their clients. *Functional climates* are characterized by employee perceptions that they receive the cooperation and help they need from coworkers and administrators to do a good job, and have a clear understanding of how they fit in and can work successfully within the organization. *Stressful climates* are characterized by employee perceptions that they are emotionally exhausted from their work and are overloaded in their work and unable to get the necessary things done. As shown in Glisson et al. (2008), a clinic's standardized T-scores on these three dimensions are used to create organizational climate profiles and as with culture, the climate profiles can be arranged in three groups ranging from worst to best. The best climate profiles have functionality and engagement scores that are two or more standard deviations above their stress scores (8% of the clinics met this criterion) and the worst climate profiles have stress scores that are two or more standard deviations above their functionality and engagement scores (7% of the clinics met this criterion).

Results

GLM analyses of the association of organizational culture, climate, legal structure, service structure, and workforce characteristics with new program sustainability and therapist turnover are shown in Tables 2 and 3, respectively. The legal structure of the organizations (public, private for profit and private non-profit), the service structure (both children and adults, separate children's division, and children only), the number of therapists in the clinic, and the training of the therapists in the clinic were included along with the organization's culture and climate profiles as covariates in the analyses. Among these constructs, the results indicate that organizational culture is the only variable associated with new program sustainability and that

Table 2 GLM analysis of months new program sustained

Source	*b*	SE	SS	df	MS	*F*	Sig.
Intercept	27.555	9.136	1,526.439	1	1,526.439	5.190	.026
Public/Profit/Nonprofit			517.189	2	258.594	.879	.419
Public—Nonprofit	4.674	4.809				.945	.334
Profit—Nonprofit	−13.781	15.592				.781	.380
ChAd/ChDiv/ChOnly			450.633	2	225.317	.766	.469
ChAd—ChOnly	−6.288	5.598				1.261	.265
ChDiv—ChOnly	−.846	5.075				.023	.868
Number of therapists	−.006	.042	6.333	1	6.333	.022	.884
MD (proportion)	7.868	26.331	26.256	1	26.256	.089	.766
MSW (proportion)	7.795	10.661	157.230	1	157.230	.535	.467
BSW (proportion)	.862	11.273	1.720	1	1.720	.006	.939
PhD (proportion)	−.998	22.235	.592	1	.592	.002	.964
Climate	−7.494	5.621	522.680	1	522.680	1.777	.187
Culture	11.754	5.038	1,600.954	1	1,600.954	5.444	.022
Error			21,174.239	72	294.087		
Total			11,3375.250	84			
Corrected total			25,201.890	83			

$R^2 = .16$

organizational climate and service structure are the only variables associated with therapist turnover rates.

As shown in Table 2, the culture profiles of the clinics explained the most variation in the length of time that a new program, service or treatment model had been sustained in the clinics in the last five years. As illustrated in Fig. 1, the clinics with the best culture profiles sustained a new program, service or treatment model for over 50 months, almost twice as long as clinics with average profiles (27 months), and over twice as long as clinics with the worst culture profiles (under 24 months).

As shown in Table 3, organizational climate and service structure explained significant proportions of variation in therapist turnover. As illustrated in Fig. 2, the findings

Table 3 GLM analysis of therapist turnover (ln)

Source	*b*	SE	SS	df	MS	*F*	Sig.
Intercept	3.091	.534	33.742	1	33.742	31.339	.000
Public/Profit/Nonprofit			1.000	2	.500	.464	.630
Public—Nonprofit	−.272	.285				.910	.343
Profit—Nonprofit	.064	.708				.008	.928
ChAd/ChDiv/ChOnly			11.175	2	5.587	5.189	.008
ChAd—ChOnly	−.722	.302				5.726	.019
ChDiv—ChOnly	.151	.282				.284	.595
Number of therapists	.002	.003	.635	1	.635	.590	.445
MD (proportion)	−1.608	1.278	1.704	1	1.704	1.583	.212
MSW (proportion)	−.381	.612	.417	1	.417	.387	.535
BSW (proportion)	.210	.664	.108	1	.108	.100	.752
PhD (proportion)	−.699	1.177	.379	1	.379	.352	.555
Climate	−.682	.332	4.535	1	4.535	4.212	.043
Culture	.193	.282	.505	1	.505	.469	.495
Error			89.366	83	1.077		
Total			575.375	95			
Corrected total			120.187	94			

$R^2 = .26$

show that therapist turnover in the clinics with the worst organizational climate profiles (22%) was significantly higher than turnover in clinics with average climate profiles (13%), and over twice as high as turnover in clinics with the best climate profiles (10%). Structurally, the only variable with significant relationships was the integration of adult and children's services in an agency. Turnover was twice as high in clinics with separate children service divisions (16%) as in clinics that served both children and adults without a separate children's division (8%), and only slightly higher than in clinics that served only children (14%).

These findings indicate organizational culture and climate have distinct roles in mental health service systems that are important to the implementation of successful services. The cultural norms and expectations for therapists' behavior in a mental health clinic (as defined by proficiency, rigidity and resistance) was the only variable to explain a significant amount of variation in new program sustainability, while the therapists' perceptions of the psychological impact of their work environment (as defined by functionality, engagement and stress) was one of two variables to explain a significant amount of variation in therapist turnover. Emanating from the first nationwide organizational social context survey of mental health clinics, these findings underscore the roles of organizational culture and climate in sustaining new treatments and services as well as in maintaining a stable workforce, two elements that are likely to be necessary if not sufficient for effective children's mental health services. As such, aspects of organizational social context such as culture and climate, as well as organizational service structures, warrant attention in the design of organizational strategies that are intended to support the large scale implementation of effective treatments and services.

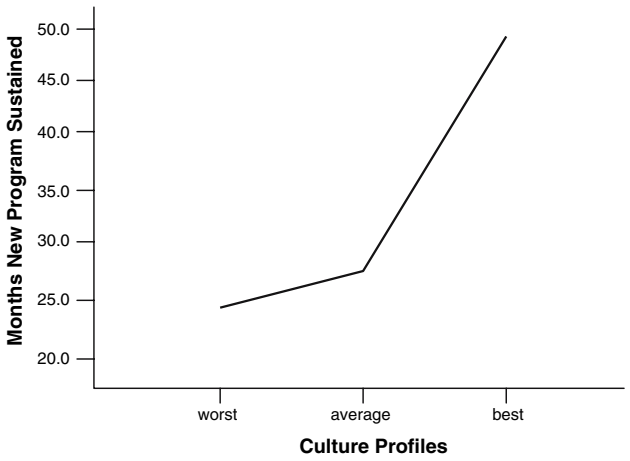

Fig. 1 New program sustainability as a function of culture

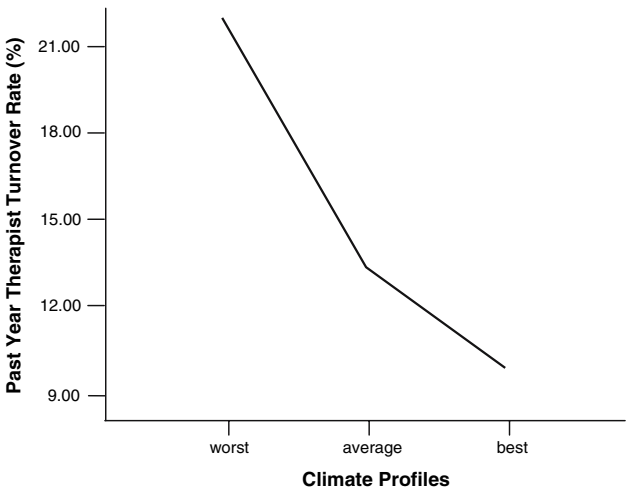

Fig. 2 Past year therapist turnover rate as a function of climate

Discussion

In the organizational-level analyses of the characteristics of a large nationwide sample of mental health clinics that included social context, structural and workforce characteristics, therapist retention was associated with organizational climate, while new program sustainability was associated only with organizational culture. Organizational theory provides important conceptual and empirical bases for understanding the social context of mental health service organizations; explaining differences in the array, quality, and outcomes of services provided; guiding organizational assessment and change strategies that can be used to improve services in general; and, potentially, to cultivate the compatibility between the social context of organizations and the demand characteristics of evidence-based practices needed to support effective services. Recent studies informed by sociotechnical and organizational culture theory indicate that social service and mental health service organizations vary in key dimensions of social context such as culture and climate; that social context is related to service provider morale, staff turnover, service quality and service outcomes; and that social context can be improved with planned organizational intervention strategies. We argue that these and subsequent studies of organizational social context in mental health service systems are therefore central to the development of a science of implementation effectiveness that can address the gap between what we know about effective practices and the quality and outcomes of services that are provided in actual community-based service systems.

Although the turnover and program sustainability data provided by the directors could include reporting error, it is important to note that the relationships described here between organizational culture and climate on the one

hand, and new program sustainability and therapist turnover on the other, cannot be explained by common method error variance. That is, the culture and climate profiles were based on therapists' responses to the OSC administered in person at the participating clinic sites by CSP research assistants, while the data on therapist turnover, sustainability, workforce characteristics, and legal and service structures were provided by the directors. The relationships that link these data indicate that culture and climate each play distinct roles in mental health clinics and that the culture of an organization is more closely related to its success in sustaining new programs, while the climate of an organization is more closely associated with its success in retaining therapists in its workforce. Such distinctions are important to organizational intervention strategies in community-based settings and suggest that further work is needed to understand how contextual characteristics such as culture and climate can be marshaled in support of implementing evidence-based treatments and other service improvement efforts.

The present finding underscores the importance of organizational climate in maintaining a stable workforce. This study provides evidence that high functionality and engagement relative to low stress (the best climate) characterizes an organizational social context that is associated with significantly lower turnover. The organizations with the best climates had annual turnover rates (10%) that were less than half the rates found in organizations with the worst climates characterized by high stress relative to low functionality and engagement (22%), after controlling for the legal (public, private for profit, private non-profit) and service (children and adults combined, separate children's division, children only) structures of the organization, and the size and training of the workforce.

The additional finding that higher turnover characterizes clinics with service structures that differentiate children's service units from adult service units, can be interpreted in several ways that are consistent with socio-technical theory. To the extent that a differentiated organizational service structure supports the capacity of therapists to effectively implement children's services, one might anticipate lower turnover rates in organizations with dedicated children's service units. To the extent that such differentiation compromises the capacity of therapists to effectively implement services, one might anticipate higher turnover as found here.

The finding that climate was associated with annual turnover while culture was associated with the sustainability of new treatment and service programs suggests that the distinctive attributes of organizational social context are correlates of service system characteristics. Organizations with norms and expectations that emphasized high levels of proficiency and low levels of rigidity and resistance (the best cultures) had sustained a new treatment or service over twice as long (50 months) as organizations with norms and expectations that emphasized high levels of rigidity and resistance and low levels of proficiency (the worst cultures). This suggests that efforts to implement evidence-based practices and other new programs and services are more likely to be supported in organizational cultures that emphasize proficiency and deemphasize rigidity and resistance, providing further evidence that the implementation of new technologies within a mental health service system is as much a social process as technical one. Therefore, we conclude that the development of a science of implementation effectiveness must include strategies for building organizational social contexts that seek, support, and sustain new treatment models and programs, as well as for technical training in the new models that are adopted.

Informed by these and other findings, the next phase of ChildSTEPS includes testing an organizational intervention strategy for building positive cultures and climates, coupled with training in evidence-based practices, and the installation of an innovative clinical information system. Our expectation is that the implementation of both evidence-based practices and the clinical information system can be supported by an organizational intervention strategy focused on social context. By building a positive culture that emphasizes proficiency over resistance and rigidity, and a positive climate that reflects a functional, engaged and less stressful service environment, we expect to improve the therapists' levels of participation in the implementation effort and the sustainability of the new treatment and assessment technologies.

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