

Effect of Organizational Climate on Youth Outcomes in Residential Treatment

NEIL JORDAN, PhD, SCOTT C. LEON, PhD,
RICHARD A. EPSTEIN, PhD, ELIZABETH DURKIN, PhD,
JENA HELGERSON, BS, and BRITTANY L. LAKIN, MA

QUERY SHEET

This page lists questions we have about your paper. The numbers displayed at left can be found in the text of the paper for reference. In addition, please review your paper as a whole for correctness.

- Q1:** Au: Okay to list first author as corresponding author?
Q2: Au: Please provide name and address for corresponding author.
Q3: Au: Please provide department and institution affiliation for each author.
Q4: Au: Provide full name of journal for Aarons & Sawitzky (2006).
Q5: Au: Please provide full name of journal for Schoenwald et al. (2003) reference.

TABLE OF CONTENTS LISTING

The table of contents for the journal will list your paper exactly as it appears below:

*Effect of Organizational Climate on Youth Outcomes in Residential Treatment
Neil Jordan, Scott C. Leon, Richard A. Epstein, Elizabeth Durkin,
Jena Helgerson, and Brittany L. Lakin*

Effect of Organizational Climate on Youth Outcomes in Residential Treatment

NEIL JORDAN, PhD, SCOTT C. LEON, PhD,
RICHARD A. EPSTEIN, PhD, ELIZABETH DURKIN, PhD,
JENA HELGERSON, BS, and BRITTANY L. LAKIN, MA

5

Q3

This study examined the association between organizational climate and changes in internalizing and externalizing behavior for youth in residential treatment centers (RTCs). The sample included 407 youth and 349 front-line residential treatment staff from 17 RTCs in Illinois. Youth behavior was measured using the Child Functional Assessment Rating Scale. Organizational climate was measured via the Areas of Worklife Survey. Using hierarchical linear modeling, results demonstrated that a higher perception of person-job match on community among front-line staff was associated with more improvement on youth externalizing behaviors. Counter-intuitively, higher person-job match on fairness and workload were each associated with less improvement on internalizing and externalizing behavior. These results offer several potential implications for residential treatment leadership, front line workers, policymakers, youth, and researchers.

10

15

20

KEYWORDS residential treatment, treatment outcomes, organizational climate

Residential treatment outcomes for children and youth have become a subject of growing attention in the literature over the past decade (Bickman, Lambert, Andrade, & Penaloza, 2000; Curry, 1991, 2004). There are at least 25 two trends in mental health service delivery that have renewed focus on this topic. One trend is the rising cost of mental health care for children and

The authors acknowledge Li Zhou's assistance in preparing the data file for analysis and Brice-Bloom-Ellis for helpful comments.

Address correspondence to Neil Jordan. E-mail: Neil-jordan@northwestern.edu

Q1 Q2

youth (Yelton, 1993). Among all types of mental health services, residential 25 treatment is the most expensive form of care because it has a higher episode cost than psychiatric hospitalization due to the extended length of residential treatment stays (LeCroy & Ashford, 1992; Lyons, Libman-Mintzer, Kisiel, & Shallcross, 1998; Whittaker, 2004). A second service delivery trend is the increased use of managed care initiatives in the public sector of 30 mental health services. These initiatives attempt to redistribute funds from expensive services that treat relatively few children (e.g., residential treatment centers) to less expensive community-based programs that are able to treat larger numbers of children (Burns & Friedman, 1990; Leichtman, Leichtman, Barber, & Neese, 2001; Lyons et al., 1998; Lyons, Terry, Martinovich, 35 Peterson, & Bouska, 2001; Yelton).

An additional reason for the recent research focus on residential treatment outcomes is the emergence of the system of care model, which emphasizes treatment in the least restrictive environment (Stroul & Friedman, 1986). Residential treatment centers (RTCs) have traditionally been excluded 40 from system of care initiatives. In fact, residential programs have often been seen as a last resort for children not successfully treated in the community. As a result, children and youth in RTCs have increasingly severe psychopathology and are more difficult to treat than in years past (Lieberman, 2004). Despite the increased emphasis on treating children in the least restrictive 45 environment and the development of system of care initiatives, there is still evidence of a gap between the needs of some children and the services that are available and/or provided in the community (Asarnow, Aoki, & Elson, 1996; Connor, Miller, Cunningham, & Melloni Jr, 2002). Therefore, it seems that there will continue to be children who require residential treatment 50 (Lieberman).

As a result of these trends, RTCs are experiencing pressure to demonstrate that their services are effective (Lieberman, 2004). Existing research in the field has been methodologically limited and, as a result, the literature is inconsistent and at times contradictory (Bates, English, & Koudiou-Giles, 55 1997; Whittaker, 2004). Neither the effectiveness of residential treatment nor the determinants of its effectiveness are well understood. Previous research has primarily focused on child and family level predictors of residential treatment outcomes, yet evidence suggests variation in outcomes across RTCs that cannot be explained by child or family characteristics (Lyons et al., 60 2001). Organizational level factors that may be related to outcomes have yet to be systematically examined.

Background and Significance

Recent calls for research in children's mental health (Glisson, 2002) and child welfare (Courtney, 2000) have highlighted gaps in current knowledge 65 regarding the associations between organizational factors and service

delivery and child and youth outcomes. Previous organizational studies within human services have identified variation in important organizational characteristics such as structure (Schmid, 1992b; Schoenwald, Sheidow, Letourneau, & Liao, 2003), culture (Aarons & Sawitzky, 2006; Glisson & James, 2002), climate (Glisson & James, 2002; Littell & Tajima, 2000), and ownership status (Durkin, 2002; Warner, Pottick, & Bilder, 2005), even across seemingly similar agencies. Yet, less information is known about whether and how these variations shape service delivery decisions and/or outcomes.

Within the arena of children's mental health, the "organizational context" of children's mental health service agencies can be modeled as a complex interaction between factors operating at the organizational level and those operating at the worker level (Glisson, 2002). Because a mental health worker's attitudes (defined as commitment to the organization and job satisfaction) may be shaped in part by this organizational context, the capacity of workers to establish the warm, empathic, and genuine "therapeutic alliance" that is associated with effective treatment (Blanz & Schmidt, 2000; Eltz & Shirk, 1995; Martin, Garske, & Davis, 2000) can be expected to vary across organizations. Prior studies of mental health and other human service agencies have in fact demonstrated a relationship between worker attitudes and behavior and the climate of their organizations (Glisson, 2002).

Often confused with organizational culture (Denison, 1996), organizational climate is a distinct construct concerned with the way organizational members *perceive* the social environment within that organization and its impact on their individual psychological well being (James & James, 1989). When members of an organization or of an organizational unit share similar perceptions of this impact, a distinct organizational climate emerges; this climate can be characterized by the levels of role conflict, sense of fairness, and role clarity (Glisson, Landsverk et al., 2008; Glisson, Schoenwald et al., 2008). Organizational climates that are high on role conflict and low on sense of fairness and role clarity inhibit the development of positive therapeutic alliances between child service workers and youth, and thus contribute to poorer outcomes.

Despite the growing body of evidence regarding organizational climate's role in treatment effectiveness, no studies exist that examine this relationship within RTCs. Yet, evidence suggests that the organizational context of residential treatment programs may differ from non-residential settings and thus merit distinct study. A recent analysis of Israeli residential boarding schools (an organization similar to RTCs here in the United States) found relationships between organizational properties and service effectiveness that differed from those that have generally been found in non-residential human service programs (Schmid & Bar-Nir, 2001). In contrast to evidence drawn from non-residential programs (Hasenfeld &

Schmid, 1989; Schmid, 1992a, 1992b), the residential boarding schools with higher levels of formalization and coordination were found to be *more* effective. In contrast, other organizational properties, such as worker autonomy and worker involvement in decision making, showed the same positive relationships to effectiveness as has been found in most non-residential programs. The Israeli study explained these seemingly contradictory findings by drawing attention to the dual mission of residential mental health service organizations: namely, to provide treatment (social welfare) as well as to isolate severely behaviorally disordered youth from the larger society (social control). This dual nature is reflected in the distinctive roles that are often assigned to organizational members. For example, clinical staff is responsible for providing formal mental health services such as individual, group and family therapy, but front-line staff, usually under the supervision of a clinical staff member, is responsible for establishing and maintaining residential life. The organizational context needed to achieve both goals effectively is likely different than what has been found for mental health services organizations with a unitary focus on clinical goals.

In United States RTCs, the front-line staff has day-to-day responsibility for residential life. These staff members have challenging jobs. They must supervise several children at one time during relatively unstructured times of the day (e.g., after school until bedtime). As a result, they tend to focus their efforts on ensuring the smooth functioning of the residential milieu. Specific types of child behaviors (e.g., internalizing and externalizing) each require front-line staff to use particular intervention techniques that may be differentially promoted or discouraged by aspects of organizational climate. The lack of past research attention on these topics warrants the present study's examination of the relationship between organizational climate as experienced by front line residential staff and youth outcomes for both externalizing and internalizing behavior. The proposed study will attempt to improve the understanding of the effect of organizational climate on residential treatment outcomes for children and youth and help to strengthen the ability of RTCs to better serve their critical function within the system of care.

THE STUDY

The purpose of this study is to determine the organizational climate characteristics perceived by front-line residential treatment staff that are associated with improvement in youth internalizing and externalizing behavior. This information can be used by residential treatment administrators to improve organizational structure and practice. These results may also have implications for training and development of front-line staff.

Sample

The study sample includes 407 youth and 349 full-time, front-line staff from 17 RTCs in Illinois. Front line staff was operationally defined as those staff members who work in the milieu with the children through their entire 155 shift. They did not include therapists, psychiatrists, nurses, teachers, supervisors, or other management. These RTCs provided permission for their front-line staff to be surveyed on organizational climate issues.

Data Sources

This study combines survey data of residential treatment staff with administrative data that includes outcomes data for youth in residential treatment. 160 Outcomes data for this study were collected through the Residential Treatment Outcomes System (RTOS), an internet-based system designed for the Illinois Department of Children and Family Services (DCFS) to monitor treatment outcomes for wards of the state in residential care. Quarterly clinical 165 assessments are completed for each ward and uploaded to the secure RTOS website.

Measures

CFARS

The clinical measure used in the present study is the Child Functional 170 Assessment Rating Scale (CFARS) (Ward et al., 2006). The CFARS is a measure of the functional and psychiatric status of children age 7–18 and has been shown to have an adequate interrater reliability of $r > .5$ (Ward et al.). The children are evaluated across 16 domains using both descriptive phrases and severity ratings. In each domain raters are asked to select the phrases 175 that best explain the symptomatology (e.g., the depression domain includes depressed mood, sleep problems, sad, hopeless, lacks energy/interest, irritable, etc.), and then rate the severity of the problem. Severity scores range from 1 (no problem) to 9 (extreme problem). The three weeks leading up to the CFARS assessment are included, so that the results provide a snapshot 180 of functioning that is sensitive to change.

Staff members at RTCs around the state were trained and certified in the use of the CFARS. A score of 85% correct on the CFARS was required for certification. Trainees had a master's degree or a minimum of three years of direct clinical experience. Users upload CFARS assessments to the RTOS 185 website 30 days after admission, and then quarterly thereafter until discharge. Sociodemographic information, including age, gender and race, in addition to the CFARS scores are uploaded as well.

An exploratory factor analysis was conducted on the current sample's Time 1 CFARS data using a principal axis extraction method with direct 190

oblimin rotation (Gorusch, 1997; Preacher & MacCallum, 2003). Items with loadings of .30 or higher were assigned to their related scales. Items were allowed to load on multiple factors if absolute values of their factor loadings were greater than .50 on multiple scales. Two interpretable factors emerged from the data and were labeled internalizing (e.g., depression, anxiety, 195 danger to self) and externalizing (e.g., hyperactivity, socio-legal, danger to others).

AREAS OF WORKLIFE SURVEY (AWLS-4TH EDITION)

The AWLS-4 is a 29-item, self-report measure assessing individual workers' perceptions regarding six core areas of organizational context that affect 200 their relationships with their work. The six areas of worklife are hypothesized to impact an array of job-related variables such as job satisfaction, commitment, and goals (Leiter, 2006). Items are rated on a 5-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). The six areas are: workload, control, reward, community, fairness, and values. For each of 205 the six areas there is a range of person-job match or mismatch, from 1 (extreme mismatch) to 5 (extreme match). In the current study, the values domain was not included in the analyses due to its high correlation with fairness.

The AWLS-4 has been shown to be reliable, with Cronbach's α ranging 210 from .67 to .82 on the five domains included in this study (Leiter, 2006). The workload domain contains 6 items that assess burden associated with the amount of work to be done in a given amount of time (e.g., "I do not have time to do the work that must be done"). The control domain contains 3 items that assess the workers' opportunities to make choices and decisions, 215 solve problems, and contribute to work responsibilities (e.g., "I have control over how I do my work"). The reward domain contains 4 items that assess the workers' perceptions of the financial and social recognition they receive for their work contributions (e.g., "I receive recognition from others for my work"). The community subscale contains 5 items that assess the workers' 220 perceptions of the quality of the social environment at work. These qualities include support, collaboration, and positive feelings (e.g., "People trust one another to fulfill their roles"). The fairness domain contains 6 items that assess extent to which the worker believes the rules are fair and equitable for everyone (e.g., "Resources are allocated fairly here"). 225

Analytic Methods

A hierarchical linear modeling (HLM) strategy (Raudenbush, Bryk, Cheong, & Congdon, 2004) was used to measure the outcomes trajectories (i.e., changes in outcomes over time) of the youth served by 17 RTCs. Hierarchical models (also known as mixed models) are useful for analyzing data that has a 230

nested structure (e.g., youth within RTCs) and/or multiple observations per person. An HLM strategy was also preferred for these analyses because it allows for the number of assessments and the timing of those assessments to vary from case to case. Each RTC's trajectory of change was modeled as a log-linear function of time since admission (in years). Based on evidence of 235 log-linear "dose-effect" relationships in a diverse range of psychosocial treatments (Howard, Kopta, Krause, & Orlinsky, 1986), a log-linear function was used to describe rates of change. A log-linear math model is both parsimonious (including only one slope and intercept parameter) and well-suited to describing treatment response patterns entailing early response 240 (either negative or positive) followed by gradual stabilization. The present analyses modeled the change in average CFARS score for all children in each facility as a linear function of log (base square root of 3) of time after admission (in years) plus 1: 245

$$\begin{aligned} &\text{CFARS Outcome (change in internalizing or externalizing scores)} \\ &= \text{Intercept} + \text{Slope} * \text{LOG}_{\sqrt{3}}(\text{years} + 1) \end{aligned}$$

This model form results in useful interpretations for intercept and slope terms. Specifically, the "intercept" is the average level at intake of the CFARS and the "slope" is the rate of change of CFARS score during the observation period, which was from admission until 15 months post-admission. Every CFARS administration during the 15-month period was used to calculate 250 slope, so the number of CFARS for each youth ranged from two to four.

Both HLM models include the organizational climate variables (workload, control, rewards, community, fairness), age, gender, and the first CFARS internalizing or externalizing score as predictors. To facilitate interpretation, we reverse coded the change in internalizing and externalizing 255 scale scores so that a positive change indicates improvement in functioning, and a negative change score indicates functioning decline.

RESULTS

Forty one percent of the sample of 408 youth were female with an average age of 14.3 years (SD = 2.16). The mean for the CFARS externalizing scale 260 was 32.47 (SD = 11.22), and the mean for the CFARS internalizing scale was 17.14 (SD = 6.55). Both the externalizing and internalizing means were in the moderate range for a population of youth in residential treatment, based on the normative sample (Ward et al., 2006). The externalizing factor and the internalizing factor of the CFARS were utilized as the outcome measure 265 in separate analyses. Tables 1 and 2 present results of the HLM analyses for

TABLE 1 Fixed Effects for Slope (Rate of Change) of CFARS Internalizing Scores

Fixed effect	Coefficient	se	t Ratio	p value
Intercept	-.31	.42	-.72	.38
First Internalizing Score	.57	.04	13.30	<.001
Workload	-1.32	.37	-3.61	<.01
Control	.47	.48	.98	.35
Community	.11	.27	.41	.67
Fairness	-.51	.16	-3.11	<.05
Age	.10	.12	.85	.40
Gender	-.90	.57	-1.58	.12

TABLE 2 Variance Decompositions from Three-Level Analysis of CFARS Internalizing Scores

Random effect	Var. comp.	df	χ^2	p value
Level 1	15.46			
Level 2	11.17	387	817.27	<.0001
Level 3 (Provider mean slope)	.24	12	18.16	.11

TABLE 3 Fixed Effects for Slope (Rate of Change) of CFARS Externalizing Scores

Fixed effect	Coefficient	se	t Ratio	p value
Intercept	.52	.75	.69	.50
First Externalizing Score	.54	.04	12.25	<.001
Workload	-1.15	.61	-1.90	.08
Control	.71	.84	.85	.42
Community	.90	.45	2.01	.07
Fairness	-.52	.27	-1.89	.08
Age	-.12	.22	-.56	.58
Gender	.22	1.02	.22	.83

TABLE 4 Variance Decompositions from Three-Level Analysis of CFARS Externalizing Scores

Random effect	Var. comp.	df	χ^2	p value
Level 1	37.98			
Level 2	47.22	387	1085.04	<.0001
Level 3 (Provider mean slope)	.30	12	13.86	.31

the internalizing analyses and Tables 3 and 4 present results for the externalizing analyses. For each of the analyses, fixed effects are first presented, followed by conditional random effects.

From the fixed effect analyses for the internalizing scale, several variables emerged as statistically significant (Table 1). The youth's first internalizing score predicted slope; higher time 1 scores predicted more change ($\gamma = .57, t = 13.30, p < .001$). With regard to organizational climate, higher

mean agency scores reflecting a greater person-job match on workload were associated with lower slopes ($\gamma = -1.32, t = -3.61, p < .01$). Similarly, 275 higher mean agency scores reflecting a greater person-job match on fairness were also associated with lower slopes ($\gamma = .51, t = -3.11, p < .05$). Neither age nor gender predicted improvement slopes. The random effects analyses (Table 2) indicate that, after controlling for the study variables, significant variability still existed at the youth level of analysis (Level 2). No significant 280 variability remained at Level 3; however, this is likely due to lower power based on the limited number of providers in the sample.

From the fixed effect analyses for the externalizing scale, only the youth's first externalizing score predicted slope ($\gamma = .54, t = 12.25, p < .001$) using traditional alpha levels (Table 3). However, due to the small number 285 of providers, limited power prevented rejection of the null hypothesis across three climate variables, all of which had p values of less than .10. First, and consistent with the internalizing results, mean agency scores reflecting a greater person-job match on workload were associated with lower slopes ($\gamma = -1.15, t = -1.90, p = .08$); similarly, higher mean agency 290 scores reflecting a greater person-job match on fairness were also associated with lower slopes ($\gamma = -.52, t = -1.89, p = .08$). However, unique to the externalizing analyses, higher mean agency scores reflecting a greater person-job match on community were associated with higher improvement slopes ($\gamma = .90, t = 2.01, p = .07$). 295

The random effects analyses (Table 4) indicate that for externalizing behavior, after controlling for the study variables, significant variability still existed at the youth level of analysis (level 2). No significant variability remained at level 3; however, this is again likely due to lower power based 300 on the limited number of providers in the sample.

DISCUSSION

This study applied hierarchical linear modeling to two levels of data (youth and residential treatment center) to predict internalizing and externalizing scores on the CFARS. The analyses produced several interesting results involving the impact of organizational climate on the youths' CFARS scores. 305 Specifically, a greater person-job match on perceived workload and fairness among front-line RTC staff was associated with less improvement on youth internalizing and externalizing behavior. The only organizational result that emerged in the expected direction involved front-line staff perceptions of community and externalizing behavior scores: a greater person-job match 310 on community was associated with greater improvement on the CFARS externalizing behaviors scale.

The workload and fairness findings were clearly counter-intuitive. For example, the perception of fairness is a commonly studied variable in the

industrial/organizational (I/O) psychology literature and is often associated 315 with positive outcomes (Dailey & Kirk, 1992). Employees who believe they are being treated fairly are better able to cope with and perform under increased job pressure (Janssen, 2001), demonstrate lower turnover rates (Dailey & Kirk), and demonstrate a greater sense of self-efficacy in their work, known in the I/O literature as instrumentality (Walker, Churchill, & 320 Ford, 1977). In addition, over 50% of the stresses reported by human service workers are related to work overload (Weinberg, Edwards, & Garove, 1983). Work-related fatigue and exhaustion, a consequence of a high workload, has been associated with greater absenteeism and high rates of turnover (Lee & Ashforth, 1996). Additionally, poorer workload match has been 325 associated with higher levels of emotional exhaustion and depersonalization among children's RTC staff (B. Lakin, 2008).

One way to begin conceptualizing the results may be to recognize that residential treatment frontline staff members work in a uniquely complicated and stressful setting. As a result, it is possible that high workload 330 stress and perceptions of unfairness are the "default" experience of many frontline workers. Supporting this idea, normative data from the AWLS suggests that the two jobs surveyed with the highest rates of workload and fairness mismatch were workers employed at nursing homes and hospitals, two settings with institutional characteristics similar to RTCs (Leiter, 2006). It 335 is possible that, in the high pressure residential care work setting, staff that are more emotionally invested and engaged in the youths' progress are also more vulnerable to experiencing the normal and expected heavy burdens of the job. Regarding the fairness finding, it may be that staff who are more invested in their work and more open to its stresses are also more acutely 340 aware of the discrepancies between their status in the organization and the relatively large burdens of their jobs. Also, many RTC frontline staff members are relatively young, so their concept of fairness may reflect a naïve perspective about workload expectations. Alternatively, an RTC's organizational climate may be influenced by low organizational expecta- 345 tions (e.g., little or no programming), so that workload may not be that heavy nor is fairness an issue.

Naturally, any interpretations of the results are speculative and await further investigation. However, the counter-intuitive results in this study may have broader implications for how we understand and study work 350 environments. For example, it is noteworthy that very little research in the broader I/O literature has attempted to explore whether organizational constructs such as fairness and community have the same meaning to people in different work settings. Surveys of organizational characteristics (e.g., culture and climate) may not be "one size fits all," and the I/O 355 literature may need to explore the possibility that some work environments require instruments designed specifically for unique settings and workers.

The results pertaining to perception of community in the current study are consistent with prior organizational research. Early organizational group theory suggested that “cooperation and cohesiveness” are important in a successful organization, especially between members in different hierarchical positions (Blum & Naylor, 1968). A strong sense of community is also likely related to coworker support, which has been found to be an effective coping strategy in stressful work environments. Several studies found that mental health workers often cope with job stress by talking to coworkers or supervisors (Halbesleben, 2006; Kruger, Botman, & Goodenow, 1991; Reid et al., 1999), which in turn protects against burnout (Halbesleben; Kruger et al., 1991; B. L. Lakin, Leon, & Miller, 2008; Lee & Ashforth, 1996; McCulloch & O’Brien, 1986). It is noteworthy that in the current study, perceived community was associated with better outcomes on youth externalizing behaviors. Externalizing behaviors, such as dangerousness and oppositionality, are likely experienced as more of a personal, psychological threat to the worker, a threat which can be mitigated by a sense of community and support from other workers. This may, in turn, allow the workers to better manage the difficult behavior, leading to relatively more positive outcomes.

Baseline severity was also an important predictor of outcome. Youth with more severe internalizing behaviors at Time 1 experienced more improvement in internalizing behaviors at Time 2 than youth with lower Time 1 internalizing behaviors. Similarly, youth with greater externalizing behaviors at Time 1 experienced more improvement in externalizing behaviors at Time 2 than youth with lower Time 1 externalizing behaviors. Existing literature on the impact of baseline symptom severity on mental health treatment outcomes broadly considered suggests that youth who show more signs of dysfunction at baseline are less likely to improve (Phillips et al., 1999). We speculate that our finding that dysfunction was associated with greater improvement may reflect regression to the mean and the reality that individuals with higher Time 1 clinical scores have more potential for improvement.

Study findings are limited by the small sample of residential treatment providers. It is important to note here that in all the HLM analyses, the fixed effects were estimated with non-robust standard errors because the number of providers was less than 50 (Liang & Zeger, 1986). If robust standard errors had been used, then the relationships between externalizing behavior and community and externalizing behavior and workload would have achieved conventional levels of statistical significance.

In spite of these limitations, these results offer several potential implications for residential treatment leadership, front line workers, policymakers, youth, and researchers. The association between workload imbalance and improved functioning suggests that new front line staff should be made aware not only of the demands of the job but also the potentially favorable impact the rigor will have on the youth with whom they work. Similarly,

given the negative association between fairness and functioning improvement, supervisors may want to caution front-line staff that certain features of the work environment in RTCs may seem unfair but are effective for the youth for whom they are caring. Residential treatment leadership should support activities that build a strong sense of community for front-line staff. Future studies should include qualitative data collection in order to explore more fully the relationships between organizational climate and youth outcomes identified in this study.

REFERENCES

- Aarons, G. A., & Sawitzky, A. C. (2006). Organizational culture and climate and mental health provider attitudes toward evidence-based practice. *Psychol Serv*, 3(1), 61–72. Q4
- Asarnow, J. R., Aoki, W., & Elson, S. (1996). Children in residential treatment: A follow-up study. *Journal of Clinical Child Psychology*, 25(2), 209–214. 415
- Bates, B. C., English, D. J., & Koudiou-Giles, S. (1997). Residential treatment and its alternatives: A review of the literature. *Child and Youth Care Forum*, 26(1), 7–51.
- Bickman, L., Lambert, E. W., Andrade, A. R., & Penaloza, R. V. (2000). The Fort Bragg continuum of care for children and adolescents: Mental health outcomes over 5 years. *Journal of Consulting and Clinical Psychology*, 68(4), 710–716. 420
- Blanz, B., & Schmidt, M. H. (2000). Practitioner review: Preconditions and outcome of inpatient treatment in child and adolescent psychiatry. *Journal of Child Psychology and Psychiatry and Allied Disciplines*, 41(6), 703–712. 425
- Blum, M. L., & Naylor, J. C. (1968). *Industrial Psychology: Its Theoretical and Social Foundations*. New York: Harper & Row.
- Burns, B. J., & Friedman, R. M. (1990). Examining the research base for child mental health services and policy. *Journal of Mental Health Administration*, 17, 87–97.
- Connor, D. F., Miller, K. P., Cunningham, J. A., & Melloni, Jr., R. H. (2002). What does getting better mean? Child improvement and measure of outcome in residential treatment. *American Journal of Orthopsychiatry*, 72(1), 110–117. 430
- Courtney, M. E. (2000). Managed care and child welfare services: What are the issues? *Children and Youth Services Review*, 22(2), 87–91. 435
- Curry, J. F. (1991). Outcome research on residential treatment: Implications and suggested directions. *American Journal of Orthopsychiatry*, 61(3), 348–357.
- Curry, J. F. (2004). Future directions in residential treatment outcome research. *Child and Adolescent Psychiatric Clinics of North America*, 13(2), 429–440. 440
- Dailey, R. C., & Kirk, D. J. (1992). Distributive and Procedural Justice as Antecedents of Job Dissatisfaction and Intent to Turnover. *Human Relations*, 45(3), 305–317.
- Denison, D. R. (1996). What is the difference between organizational culture and organizational climate? A native's point of view on a decade of paradigm wars. *Academy of Management Review*, 21(3), 619–654. 445

- Durkin, E. M. (2002). An organizational analysis of psychosocial and medical services in outpatient drug abuse treatment programs. *Social Service Review*, 76(3), 406–429.
- Eltz, M. J., & Shirk, S. R. (1995). Alliance Formation and Treatment Outcome among Maltreated Adolescents. *Child Abuse & Neglect*, 19(4), 419–431. 450
- Glisson, C. (2002). The organizational context of children's mental health services. *Clinical Child and Family Psychology Review*, 5(4), 233–253.
- Glisson, C., & James, L. R. (2002). The cross-level effects of culture and climate in human service teams. *Journal of Organizational Behavior*, 23(6), 767–794. 455
- Glisson, C., Landsverk, J., Schoenwald, S., Kelleher, K., Hoagwood, K. E., Mayberg, S., et al. (2008). Assessing the Organizational Social Context (OSC) of mental health services: Implications for research and practice. *Administration and Policy in Mental Health and Mental Health Services Research*, 35(1–2), 98–113. 460
- Glisson, C., Schoenwald, S. K., Kelleher, K., Landsverk, J., Hoagwood, K. E., Mayberg, S., et al. (2008). Therapist turnover and new program sustainability in mental health clinics as a function of organizational culture, climate, and service structure. *Administration and Policy in Mental Health and Mental Health Services Research*, 35(1–2), 124–133. 465
- Gorusch, R. (1997). Exploratory factor analysis: Its role in item analysis. *Journal of Personality Assessment*, 68(3), 532–560.
- Halbesleben, J. R. B. (2006). Sources of social support and burnout: A meta-analytic test of the conservation of resources model. *Journal of Applied Psychology*, 91(5), 1134–1145. 470
- Hasenfeld, Y., & Schmid, H. (1989). The community center as a human service organization: The Israeli case. *Nonprofit and Voluntary Sector Quarterly*, 18(1), 47–61.
- Howard, K. I., Kopta, S. M., Krause, M. S., & Orlinsky, D. E. (1986). The dose effect relationship in psychotherapy. *American Psychologist*, 41(159–164). 475
- James, L. A., & James, L. R. (1989). Integrating work environment perceptions: Explorations into the measurement of meaning. [Journal; Peer Reviewed Journal]. *Journal of Applied Psychology*, 74(5), 739–751.
- Janssen, O. (2001). Fairness perceptions as a moderator in the curvilinear relationships between job demands, and job performance and job satisfaction. 480
Academy of Management Journal, 44(5), 1039–1050.
- Kruger, L. J., Botman, H. I., & Goodenow, C. (1991). An Investigation of Social Support and Burnout among Residential Counselors. *Child & Youth Care Forum*, 20(5), 335–352.
- Lakin, B. (2008). Burnout in children's residential treatment center staff: A look at 485
the organizational context using a person-job fit model. Unpublished doctoral dissertation. Loyola University Chicago.
- Lakin, B. L., Leon, S. C., & Miller, S. (2008). Predictors of burnout in children's residential treatment center staff. *Residential Treatment for Children & Youth*, 25(3), 249–270. 490
- LeCroy, C. W., & Ashford, J. B. (1992). Children's mental health: Current findings and research directions. *Soc Work Res Abstr*, 28(1), 13–20.

- Lee, R. T., & Ashforth, B. E. (1996). A meta-analytic examination of the correlates of the three dimensions of job burnout. *Journal of Applied Psychology, 81*(2), 123–133.
- Leichtman, M., Leichtman, M. L., Barber, C. C., & Neese, D. T. (2001). Effectiveness 495 of intensive short-term residential treatment with severely disturbed adolescents. *American Journal of Orthopsychiatry, 71*(2), 227–235.
- Leiter, M. P. (2006). *Areas of worklife survey manual* (4th ed.). Wolfville, Nova Scotia, Canada: Center for Organizational Research & Development.
- Liang, K. Y., & Zeger, S. L. (1986). Longitudinal data analysis using general linear 500 models. *Biometrika, 73*(1), 13–22.
- Lieberman, R. E. (2004). Future directions in residential treatment. *Child and Adolescent Psychiatric Clinics of North America, 13*, 279–294.
- Littell, J. H., & Tajima, E. A. (2000). A multilevel model of client participation in intensive family preservation services. *Social Service Review, 74*(3), 405–435. 505
- Lyons, J. S., Libman-Mintzer, L. N., Kisiel, C. L., & Shallcross, H. (1998). Understanding the mental health needs of children and adolescents in residential treatment. *Professional Psychology-Research and Practice, 29*(6), 582–587.
- Lyons, J. S., Terry, P., Martinovich, Z., Peterson, J., & Bouska, B. (2001). Outcome trajectories for adolescents in residential treatment: A statewide evaluation. 510 *Journal of Child and Family Studies, 10*(3), 333–345.
- Martin, D. J., Garske, J. P., & Davis, M. K. (2000). Relation of the therapeutic alliance with outcome and other variables: A meta-analytic review. *Journal of Consulting and Clinical Psychology, 68*(3), 438–450.
- McCulloch, A., & O'Brien, L. (1986). The Organizational Determinants of Worker 515 Burnout. *Children and Youth Services Review, 8*(2), 175–190.
- Phillips, S. D., Hargis, M. B., Kramer, T. L., Lensing, S. Y., Taylor, J. L., Burns, B. J., et al. (1999). Toward a level playing field: predictive factors for the outcomes of mental health treatment for adolescents. *Journal of the American Academy of Child and Adolescent Psychiatry, 12*, 1485–1495. 520
- Preacher, K. J., & MacCallum, R. C. (2003). Repairing Tom Swift's electric factor analytic machine. *Understanding Statistics, 2*(1), 13–32.
- Raudenbush, S. W., Bryk, A. S., Cheong, Y. F., & Congdon, R. T. (2004). *HLM 6: Hierarchical Linear and Nonlinear Modeling*. Lincolnwood, IL: Scientific Software International, Inc. 525
- Reid, Y., Johnson, S., Morant, N., Kuipers, E., Szmukler, G., Bebbington, P., et al. (1999). Improving support for mental health staff: a qualitative study. *Social Psychiatry and Psychiatric Epidemiology, 34*(6), 309–315.
- Schmid, H. (1992a). Executive leadership in human service organizations. In Y. Hasenfeld (Ed.), *Human services as complex organizations* (pp. 98–117). 530
- Schmid, H. (1992b). Relationships between decentralized authority and other structural properties in human service organizations: implications for service effectiveness. *Administration in Social Work, 16*(1), 25–39.
- Schmid, H., & Bar-Nir, D. (2001). The relationship between organizational properties and service effectiveness in residential boarding schools. *Children and Youth 535 Services Review, 23*(3), 243–271.
- Schoenwald, S. K., Sheidow, A. J., Letourneau, E. J., & Liao, J. G. (2003). Transportability of multisystemic therapy: Evidence for multilevel influences. *Ment Health Serv Res, 5*(4), 223–239.

- Stroul, B. A., & Friedman, R. M. (1986). *A system of care for children and youth with severe emotional disorders*. Washington, DC: Georgetown University Child Development Center, CASSP Technical Assistance Center. 540
- Walker, O. C., Churchill, G. A., & Ford, N. M. (1977). Motivation and Performance in Industrial Selling—Present Knowledge and Needed Research. *Journal of Marketing Research*, 14(2), 156–168.
- Ward, J. C., Dow, M. G., Saunders, T. L., Halls, S. C., Penner, K. F., Musante, K. A., et al. (2006). *Children's Functional Assessment Rating Scale (CFARS)*. Tampa, FL: Department of Mental Health Law and Policy, Florida Mental Health Institute, University of South Florida. 545
- Warner, L. A., Pottick, K. J., & Bilder, S. M. (2005). Clinical and organizational correlates of medication for youths in U.S. mental health services. *Social Service Review*, 79(3), 454–481. 550
- Weinberg, S., Edwards, G., & Garove, W. E. (1983). Burnout among employees of state residential facilities serving developmentally disabled persons. *Children and Youth Services Review*, 5(3), 239–253.
- Whittaker, J. K. (2004). The re-invention of residential treatment: An agenda for research and practice. *Child and Adolescent Psychiatric Clinics of North America*, 13(2), 267–278. 555
- Yelton, S. (1993). Children in Residential-Treatment—Policies for the 90s. *Children and Youth Services Review*, 15(3), 173–193.