



Predicting Turnover: The Moderating Effect of Functional Climates on Emotional Exhaustion and Work Attitudes

Christopher R. Dishop^{1,2} · Amy E. Green^{1,3} · Elise Torres^{1,4} · Gregory A. Aarons^{1,3}

Received: 1 February 2018 / Accepted: 13 May 2019 / Published online: 24 May 2019
© Springer Science+Business Media, LLC, part of Springer Nature 2019

Abstract

High levels of emotional exhaustion are frequently reported among clinicians working in community mental health settings. This study draws on social exchange theory and examines the relationships between emotional exhaustion and mental health provider work attitudes and turnover, and the moderating effect of functional psychological climates. Data were analyzed using multilevel structural equation modeling in a sample of 311 mental health providers from 49 community mental health programs. Results revealed that emotional exhaustion was negatively related to work attitudes, and the relationship was moderated by functional climates characterized by high levels of cooperation, growth and advancement opportunities, and role clarity. Specifically, the relationship between emotional exhaustion and work attitudes was attenuated for providers working in programs with a more functional psychological climate. Lower work attitudes significantly predicted higher clinician turnover. Results are discussed as they relate to improving climates and enhancing mental health provider and organizational well-being.

Keywords Psychological climate · Turnover · Emotional exhaustion · Social exchange

Work environments that promote employee well-being are paramount for retaining adept workers (Morgeson and Campion 2003), especially in community mental health settings where emotional exhaustion, a chronic state of emotional depletion and stress related to one's work (Maslach and Jackson 1981), is rampant (Oginska-Bulik 2006) and may

differentially place pressure on more versatile employees to turnover (Green et al. 2016). These factors, in turn, may influence mental healthcare costs and quality for agencies and consumers (Willging et al. 2009; Albizu-García et al. 2004). Thus, as in other industries, reducing turnover in public service systems is a desirable goal.

Recent work has attempted to improve community mental health workplaces by understanding the role of psychological climates, or employee perceptions concerning the influence of the organizational environment on his/her well-being, on employee and organizational outcomes (Glisson et al. 2008a). Yet, few studies examine objective, long-term outcomes such as turnover and instead focus on turnover intentions or attitudes. Moreover, there is a need to examine ways to mitigate emotional exhaustion in systems where it is already prevalent (Wright and Cropanzano 1998). Although antecedents of emotional exhaustion have been outlined (e.g., Stordeur et al. 2001; Grandey 2003), more work is needed to understand how to reduce its impact on employee well-being and turnover.

We draw on social exchange theory to examine relationships between emotional exhaustion, functional psychological climates, work attitudes, and future turnover in community mental health settings. Our intent is to contribute to

✉ Gregory A. Aarons
gaarons@ucsd.edu

Christopher R. Dishop
dishopch@msu.edu

Amy E. Green
a4green@ucsd.edu

Elise Torres
etorre@gmu.edu

¹ Child and Adolescent Services Research Center, San Diego, USA

² Department of Organizational Psychology, Michigan State University, East Lansing, USA

³ Department of Psychiatry, University of California, San Diego, 9500 Gilman Drive (0812), La Jolla, CA 92093-0812, USA

⁴ Department of Industrial/Organizational Psychology, George Mason University, Fairfax, USA

the understanding of social exchange relationships by testing a model that uses objective turnover, and address ways that work characteristics moderate the effects of emotional exhaustion (Shirom et al. 2005).

Emotional Exhaustion

Burnout, a stress-related psychological syndrome characterized by increased depersonalization and emotional exhaustion as well as decreased sense of personal accomplishment (Maslach and Jackson 1981), affects up to 67% of mental health providers (Morse et al. 2012) and is largely produced by job characteristics (Acker 2008). Emotional exhaustion, described as the extent to which an employee lacks the emotional resources needed to handle interpersonal stressors, is theorized as the most important and first component in the burnout process (Leiter and Maslach 1988), and has been found to produce the strongest relationships with negative outcomes (Demerouti et al. 2001; Lee and Ashforth 1993; Wright and Bonett 1997). Emotional exhaustion is particularly salient in mental health, as mental health professionals report higher levels of emotional exhaustion compared to many other work professions, including health professionals, police officers, teachers, managers, and journalists (Ogińska-Bulik 2006).

This tension is largely due to the array of interpersonal, cognitive, and behavioral demands that are required when working with multiple patients and coworkers in public sector settings (De Jonge and Dormann 2003). Evidence suggests that work characteristics such as high workloads, work–family conflict, and role stress also engender emotional exhaustion (Acker 2012; Deery et al. 2002; Karatepe and Tekinkus 2006; Mulki et al. 2006). Emotional exhaustion, in turn, is related to turnover intentions (Lee and Ashforth 1996; Wright and Cropanzano 1998). Given the high rates of emotional exhaustion in community mental health programs, and the high cost of clinician turnover (Hyde 2013), we considered factors that might mitigate the impact of emotional exhaustion on work attitudes and, ultimately, turnover. We employ social exchange theory to understand how functional climates can buffer emotional exhaustion in order to foster satisfaction, commitment, and lower turnover.

Social Exchange Theory

Social exchange theory describes the rules, behaviors, and resource transactions that develop in mutual relationships (Emerson 1976). The rules and styles of exchange are numerous (for a review see Cropanzano and Mitchell 2005), but the focus of the current study is on social exchange relationships in organizations, which involve

tangible or intangible, long-term, personal attachments between two parties (Blau 1964) that entail both employee–organization (e.g., Aryee et al. 2015; Cropanzano and Rupp 2003) and employee–employee relationships (e.g., Lavelle et al. 2009; Tse and Dasborough 2008). Social exchange relationships involve benefits/rewards, such as instrumental services and empowerment, costs, such as punishments or lost rewards, and resources, which embody commodities that are transmitted through behavior (Blau 1964; Colquitt et al. 2014).

Social exchange theory states that agents attempt to keep benefits/rewards above costs and will remove resources from the relationship if this threshold is violated (Blau 1964). In community mental health settings, costs such as high caseloads, competing demands, and interpersonal stressors (Willging et al. 2009; De Jonge and Dormann 2003) may lead to emotional exhaustion. Social exchange theory would then propose that levels of emotional exhaustion that outweigh perceived rewards would foster reduced personal and interpersonal resources from employees. We view turnover as a resource that employees may “exchange” when costs outweigh benefits in the organization. Although meta-analytic (Lee and Ashforth 1996) studies have shown that emotional exhaustion can lead to turnover intentions, tests of objective turnover in light of social exchange are much less common.

Research has also demonstrated that attitudinal changes precede behavioral resource exchanges. For example, organizational commitment (Cropanzano et al. 2003) and job satisfaction are attenuated in response to emotional exhaustion (Green et al. 2013; Bovier et al. 2009) or work stress (Crede et al. 2007) and are likely to result in turnover intentions (Cropanzano et al. 2003; Crede et al. 2007). Moreover, organizational commitment and job satisfaction have been documented as key components of behavioral workplace outcomes, such as turnover (Sonnentag and Frese 2012; Cotton and Tuttle 1986; Smith et al. 1983). In the current study, therefore, emotional exhaustion is viewed as a “cost” that results in attitude changes and corresponding resource exchanges (i.e., turnover) if it exceeds the benefits provided by the organization.

Despite the negative effects of emotional exhaustion on work attitudes, social exchange theory predicts that there are benefits organizations can provide to mitigate the costs of the job, such as social approval, empowerment, and instrumental services (e.g., extrinsic rewards) (Blau 1964). Such organizational attributes can be viewed as part of psychological climates, which refer to an individual’s perception of their work environment (James and Jones 1974). In mental health services, understanding climates is of high value because it helps identify organizational characteristics that influence provider attitudes and behavior (Glisson 2002; Glisson and James 2002). Moreover, perceptions of the work environment,

rather than the work environment itself, are thought to mold subsequent behaviors (Brown and Leigh 1996).

Glisson et al.'s conceptualization of functional climates in community mental health service is characterized by role clarity, cooperation, and growth and advancement opportunities (Glisson et al. 2008a). That is, functional climates describe work employees' perceptions of opportunities for personal advancement (Growth and Advancement), support from other co-workers to do a good job (Cooperation), and "understanding of their fit and function within a given context" (Role Clarity; Foote et al. 2005, p. 207; Glisson et al. 2008a, b). Glisson describes an individual's assessment of his or her work environment as *psychological* climate; whereas, shared perceptions of the work environment across employees defines an *organizational* climate (Glisson 2015). In terms of positive benefits, cooperation provides social support and approval for an individual employee (Holländer 1990) while growth and advancement opportunities and role clarity can be seen as instrumental factors that engender feelings of empowerment (Maton and Salem 1995). Previous research found positive outcomes among mental health workforce employees reporting more functional climates, including enhanced program morale, job satisfaction, and commitment (Patterson-Silver Wolf et al. 2013; Glisson et al. 2014; Hemmelgarn et al. 2006). We suggest, therefore, that a functional psychological climate may be crucial for mitigating high emotional exhaustion in employees of community mental health settings, leading to a work relationship where the "benefits" outweigh the "costs." These relationships are displayed in Fig. 1.

Overview of the Current Study

The community mental health service field has significant challenges in regard to workforce emotional exhaustion and turnover. This study explores, through the lens of social exchange theory, whether a functional psychological climate moderates the negative consequences of high emotional exhaustion on work attitudes and ultimately turnover in community mental health service settings. As shown in the model outlined in Fig. 1, we hypothesize that: (1) increased emotional exhaustion will be significantly associated with lower work attitudes, (2) functional psychological climates will moderate the relationship between emotional exhaustion and work attitudes, and (3) more negative work attitudes will predict higher provider turnover 1 year later.

Methods

Participants

Participants were service providers working in community mental-health programs for children and their families in a

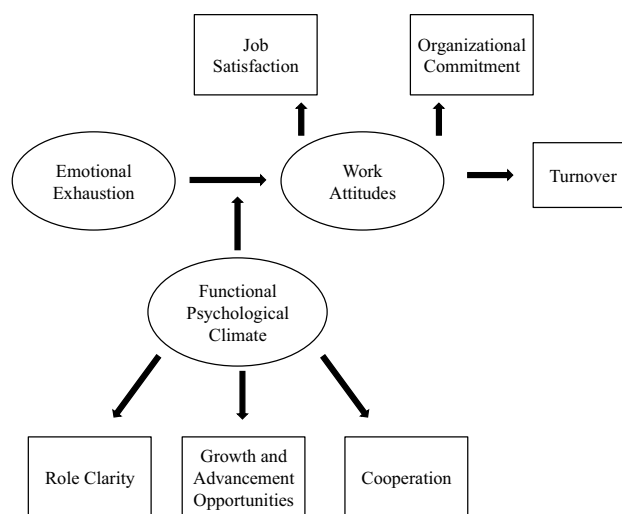


Fig. 1 Theoretical model of social exchange theory among mental health clinicians

large California County who were recruited to participate in a study of workforce and organizational factors in child and adolescent mental health (Aarons 2006; Green et al. 2014). The county provided the research team with a list of all county-operated and county-contracted mental health programs providing services to children and families ($n=54$). Forty-nine of the 54 programs (91%) agreed to participate in this study and provided time during work hours for their clinicians and case managers to complete the survey. Program types included outpatient (42%), day treatment (21%), wraparound (19%), case management (17%) and inpatient (2%). A total of 335 clinicians and case managers worked within the 49 programs that agreed to participate, and 96% ($n=322$), consented and participated in the current study. Complete data on all variables included in the current study was available for 311 (97%) of the 322 participating clinicians and case managers from participating programs. Chi square and t test analyses comparing providers with missing data for at least one variable to those with complete data revealed no significant differences in demographic variables, work characteristics, or variables examined in our primary analysis. The number of mental health providers at each program ranged from one to 72 full time service providers ($M=14.6 \pm 16.2$).

Measures

Provider Demographics

Demographic data regarding the service providers was collected as part of a survey on work and organizational factors. Demographic data included provider age, sex, education level, job tenure, and professional status (intern vs.

professional). Provider education level was assessed with the ordered categories (from low to high) of attainment of some college, college graduate, some graduate work, master's degree, and doctoral degree (Ph.D., M.D. or equivalent).

Emotional Exhaustion

Emotional exhaustion was assessed using six of the nine items (current sample $\alpha = .90$) from the Maslach Burnout Inventory–Human Services Survey's (MBI–HSS) emotional exhaustion subscale. The MBI–HSS was designed for professionals in the human services industry and demonstrates excellent reliability and validity (Maslach et al. 1996). The MBI–HSS emotional exhaustion subscale measures providers' feelings of being emotionally overextended and exhausted by their work in human services. Examples of scale items include: "I feel emotionally drained from my work," "I feel fatigued when I get up in the morning and have to face another day on the job," and "I feel used up at the end of the workday." Participants indicated their level of agreement with each statement on a five-point Likert-type scale from 0 "Not at all," to 4 "To a very great extent", with higher scores representing increased levels of emotional exhaustion.

Functional Psychological Climate

Three subscales from the Organizational Social Context (OSC) measure; growth and advancement, role clarity, and cooperation; were used to assess Functional Psychological Climates (Glisson et al. 2008a). The factor structure and psychometrics of the OSC have been confirmed in a large national sample (Glisson et al. 2008a). The growth and advancement subscale examines the degree to which employees feel their work environment provides opportunities for personal and professional growth in the organization (e.g., "this agency provides numerous opportunities to advance if you work for it," five items, current sample $\alpha = .86$). The role clarity subscale measures the extent to which employees feel their job responsibilities are clear and understandable (e.g., "my job responsibilities are clearly defined," six items, current sample $\alpha = .87$). The cooperation subscale examines employee perceptions that they receive support and assistance from their co-workers to do a good job (e.g., "there is a feeling of cooperation among my co-workers," five items, current sample $\alpha = .78$). Each item was rated on a five-point scale ranging from 0 "Not at all," to 4 "To a very great extent."

Work Attitudes

Work attitudes were assessed with the job satisfaction and organizational commitment subscales of the OSC (Glisson

et al. 2008a). Job satisfaction measures the extent to which respondents are satisfied with various aspects of their job (e.g., "how satisfied are you with your working conditions?" nine items, current sample $\alpha = .85$). Organizational commitment measures the extent to which respondents are committed to staying in their current program (e.g., "I am proud to tell others that I am a part of this program," eight items, current sample $\alpha = .91$). These scales have excellent psychometric properties and were designed for use with children's mental health and social service providers (Aarons and Sawitzky 2006; Glisson 2002; Glisson and James 2002). Each item was rated on a five-point scale ranging from 0 "Not at all," to 4 "To a very great extent."

Turnover

One year after the completion of the survey described above, each program manager was contacted to determine which participants from the original sample had either quit or been terminated during that year. The annual turnover rate in the present study was 28%. Participants who obtained another position within the same program or at the same agency were not counted in the turnover rate.

Procedures

Using a county provided list of all county-operated and county-contracted mental health programs serving children and families, a program manager at each program was contacted and provided with a detailed description of the study. In the 49 (91%) of programs that agreed, surveys were administered to direct service providers at a time designated by the program manager. The project coordinator and a trained research assistant administered the surveys to direct service providers without supervisors present. The research staff ensured participants of confidentiality and the need to answer honestly and were available during the survey session to answer participant questions. Participants received both a verbal and written description of the study. The study and procedures were approved by the appropriate institutional review boards and informed consent was obtained prior to the survey administration.

Analyses

As shown in Fig. 2, two parcels, each containing the mean of three highly correlated emotional exhaustion items, were used as indicators for the Emotional Exhaustion latent variable. Three OSC subscales, growth and advancement, cooperation, and role clarity were used as indicators for the Functional Climate latent variable. The two OSC organizational commitment and job satisfaction subscales were used as indicators of the Work Attitudes latent variable.

The interaction term was created using the mean centered Functional Climate and mean centered Emotional Exhaustion variables. In the proposed model, Work Attitudes was regressed on Functional Climate, Emotional Exhaustion, and their interaction, and Turnover was regressed on Work Attitudes. Multilevel Structural Equation Modeling analyses were conducted in Mplus version 7.1 software (Muthén and Muthén 1998–2016) using maximum likelihood estimation with robust standard errors to control for the effects of the nested data structure, with providers nested within mental health programs (Hedeker et al. 1991; Raudenbush and Bryk 2002; Snijders and Bosker 2012). Goodness of fit of the model was evaluated through multiple fit indicators (Hu and Bentler 1999; McDonald and Ho 2002) including the Comparative Fit Index (CFI; good fit indicated by scores greater than 0.95), and the Standardized Root Mean Squared Residual (SRMR; values less than 0.08 indicated good model fit).

Results

Descriptive Statistics

Seventy-six percent of the sample was female. The race/ethnicity of the sample was non-Hispanic Caucasian (65%), Hispanic (15%), African American (7%), Asian American (6%), American Indian (1%), and “other” (7%). The mean age for the sample was 35.93 years ($SD = 10.68$) and the mean job tenure was 23.4 months ($SD = 37.6$). Provider education for the sample was Master’s degree (57%), college graduate (19%), some graduate work (11%), Doctoral degree (10%), or some college (3%). Thirty-three percent reported their primary discipline as marriage and family therapy, 32%

social work, 22% psychology, and 13% other (e.g. drug/alcohol counseling, psychiatry).

Structural Equation Modeling

As shown in Fig. 2, all indicators loaded significantly on their designated latent variable and the model showed good fit [$X^2(24) = 65.47$, $p < .001$; CFI = .96, and SRMR = .06]. Emotional exhaustion was significantly negatively related to work attitudes ($B = -.11$, $p < .001$), providing support for the first hypothesis. In line with the second hypothesis, the relationship between emotional exhaustion and work attitudes was significantly moderated by functional psychological climate ($B = 0.11$, $p < .001$). In order to interpret the significant interaction effect, a median split was conducted on functional psychological climate to categorize providers as working in programs with low versus high functional psychological climates (see Fig. 3). Graphing of the moderation effect revealed that although higher emotional exhaustion predicted lower work attitudes, this effect was significantly less extreme among providers in programs with more functional psychological climates. Supporting the third hypothesis, work attitudes significantly predicted turnover ($B = -.13$, $p = .04$) such that lower work attitudes were associated with higher turnover.

Discussion

Based on the principle of social exchange theory, this study proposed a model to expand our understanding of functional psychological climates and their relation to emotional exhaustion, work attitudes, and turnover among public

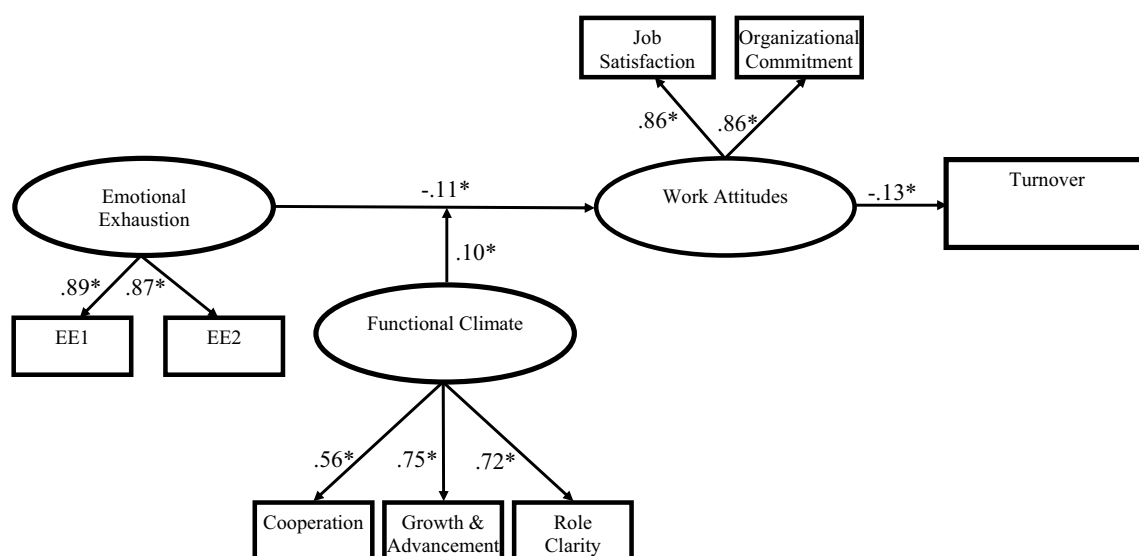


Fig. 2 Structural equation model of the moderating effect of functional climate on emotional exhaustion and work attitudes predicting turnover

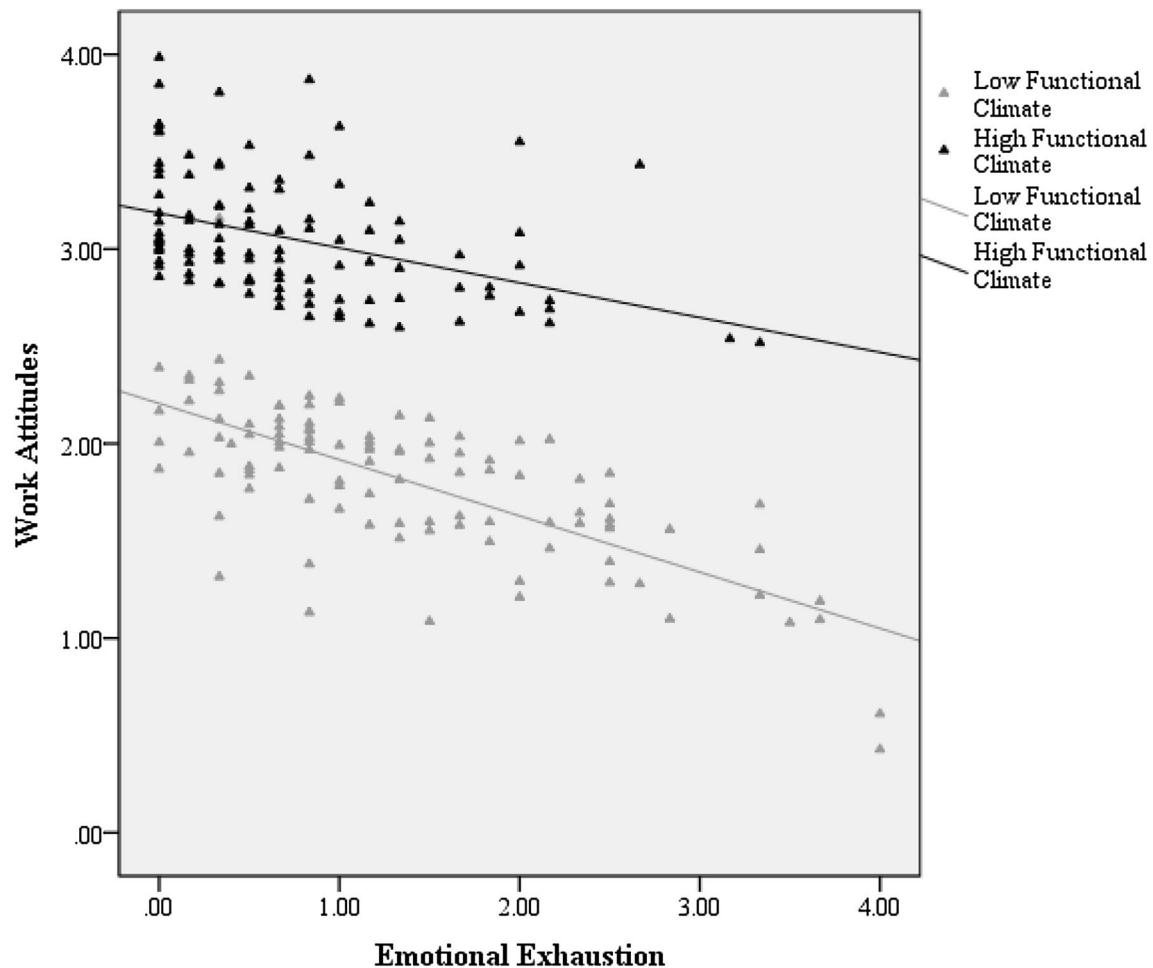


Fig. 3 Functional climate moderates the relationship between emotional exhaustion and work attitudes

mental health services. The results of the analyses supported our hypotheses and, therefore, underscore the importance of work environment perceptions in an allied health care setting with a high degree of burden related to employee emotional exhaustion and turnover. The present study found that greater provider-reported emotional exhaustion was associated with lower work attitudes, and that this association was moderated by functional psychological climates such that the impact of emotional exhaustion was less drastic among providers reporting more functional psychological climates. Finally, lower work attitudes predicted higher future turnover.

Implications for Research

Our findings contribute to the understanding of workplace context and behavior in a number of ways. First, our study was able to examine these relationships to assess *objective* turnover. Turnover research has focused heavily on intentions rather than actual turnover (Cohen et al. 2016), with

past findings suggesting that emotional exhaustion relates more strongly to attitudes than outcome behaviors (Babakus et al. 1999). The current study helps to expand research in this area by extending findings to actual turnover, an objective variable with high costs to clients and organizations (e.g., recruitment, training, continuity of care). Our findings suggest that emotional exhaustion negatively affects work attitudes, particularly for those working in less functional climates, which in turn relates to actual provider turnover. As such, the present study adds to the dearth of research considering actual turnover and its presumed antecedents.

Second, our model characterized social exchange relationships through the interplay of emotional exhaustion, functional climates, work attitudes (i.e., organizational commitment and job satisfaction), and turnover. Colquitt et al. (2014) noted that using only perceived organizational support (e.g., “My organization values my contributions”) does not adequately cover the content of social exchange relationships. By including aspects of employee–employee

relationships, organizational characteristics, attitudes, and behaviors, the current study captures appropriate aspects of social exchanges.

Finally, our results identify new research streams for reducing emotional exhaustion despite its high prevalence in certain communities. Numerous examples document emotional exhaustion antecedents (Stordeur et al. 2001; Grandey 2003). The current study, on the other hand, acknowledges that functional climates moderate its relationship with outcomes. Unfortunately, the extent of what we can say given our non-experimental design is that there are relationships among functional climates, emotional exhaustion, work attitudes, and turnover. A next step for research is to employ prospective and experimental designs to assess functional climate interventions and extend the inference from “relationships” to “reductions” or “changes” in outcomes.

Implications for Practice

These findings suggest that providing clear tasks for employees, fostering functional cooperation among co-workers, and providing advancement opportunities may help mitigate the deleterious effects of emotional exhaustion among mental health care providers. We argue that efforts should be made to increase functional climates in mental health organizations. Presenting clear standards of performance (Whitaker et al. 2007) and detailed information on how employees will be evaluated (Donnelly and Ivancevich 1975) can increase role clarity. Brown et al. (2001) found that, consistent with previous research, feedback-seeking behavior increased role clarity. Whitaker et al. (2007) showed that clear, structured, and cooperative feedback mechanisms can help employees understand what types of behaviors are valued by the organization, leading to improved role clarity. Cooperation can be increased by creating a clear organizational expectation of cooperation that distinguishes between team and clinical roles (Gavin et al. 1998). It may be worthwhile, therefore, to focus efforts on leadership and team processes to improve cooperation among members of a mental health team. Leaders can also enhance growth and advancement opportunities for staff by rewarding success and hard work, increasing training opportunities, and providing opportunities for promotions to more advanced positions and roles. In addition, training and coaching in leadership and organizational change strategies can be used to improve leader behaviors in mental health programs (Aarons et al. 2014).

Limitations

Some limitations of the present study should be considered. First, only correlational inferences among the latent variables can be made due to the non-experimental

design. Second, with the exception of objective turnover data, variables were based on respondent self-reports, and therefore common method variance and self-report bias may have influenced the results presented here (Podsakoff et al. 2003). As recommended by Podsakoff et al. (2003) we worked to minimize potential bias by increasing procedural control and promoting accurate and unbiased responses. Surveys were administered in groups without the presence of supervisors, respondents were ensured that they would be identified by a researcher-generated number, and research staff reinforced the importance of honest responding and asking questions. Finally, this study took place in one county mental health service system and therefore may not generalize to other service sectors. However, to the extent that organizational factors are common across multiple types of service systems, these results may inform studies in other settings.

Conclusion

There is increasing awareness that organizational factors are critical in mental health service contexts for both the workforce and for client outcomes. High levels of emotional exhaustion and stress are frequently reported among clinicians working in such settings. Moreover, strain from administrative job demands and stress engendered from working as human service professionals are aspects of community mental health care that are unlikely to change. Given the moderating effect of functional climates on the relationship between emotional exhaustion and work attitudes, leaders of mental health programs should assess and understand their psychological climate and intervene when necessary to create more functional climates. In addition to improving cooperation among mental health teams, providing increased opportunities for growth and advancement, and developing clear guidelines and feedback processes to enhance role clarity, organizations may also want to consider implementing evidenced-based organizational interventions. One specific example designed for human service organizations, the ARC (availability, responsiveness, continuity) intervention, has been shown to improve climates, resulting in improved staff retention and client outcomes (Glisson and Green 2011; Glisson et al. 2012).

Retaining providers and promoting their effectiveness can bolster the organizational dynamics needed to provide adequate mental health treatment to service recipients. In addition, reduced turnover can result in cost savings in regard to recruitment and training of providers. Finally, retaining well-trained providers who can engage clients and patients can help to improve the process and outcomes of mental health services, resulting in higher public health impact.

Acknowledgement This research was supported by National Institute of Mental Health Grants R01MH072961 and K01MH001695 (PI: Aarons) and National Institute on Drug Abuse Grant R01DA038466 (PI: Aarons). We thank the organizations, supervisors, and service providers that participated in the study and made this work possible. Each author has contributed significantly to the work and agrees to the submission of this manuscript for publication. None of the authors involved with the writing of this manuscript have a relevant conflict of interest that warrants disclosure at this time.

References

- Aarons, G. A. (2006). Transformational and transactional leadership: Association with attitudes toward evidence-based practice in mental health services. *Psychiatric Services*, 57(8), 1162–1169.
- Aarons, G. A., & Sawitzky, A. C. (2006). Organizational climate partially mediates the effect of culture on work attitudes and staff turnover in mental health services. *Administration and Policy in Mental Health and Mental Health Services Research*, 33(3), 289–301.
- Aarons, G. A., Farahnak, L. R., Ehrhart, M. G., & Sklar, M. (2014). Aligning leadership across systems and organizations to develop strategic climate to for evidence-based practice implementation. *Annual Review of Public Health*, 35, 255–274.
- Acker, G. M. (2008). An examination of the relationships between workers and agencies characteristics and three outcome variables: Burnout, role stress, and intent to quit. *American Journal of Psychiatric Rehabilitation*, 11(4), 295–309.
- Acker, G. M. (2012). Burnout among mental health care providers. *Journal of Social Work*, 12(5), 475–490.
- Albizu-García, C. E., Ríos, R., Juarbe, D., & Alegría, M. (2004). Provider turnover in public sector managed mental health care. *The Journal of Behavioral Health Services & Research*, 31(3), 255–265.
- Aryee, S., Walumbwa, F. O., Mondejar, R., & Chu, C. W. (2015). Accounting for the influence of overall justice on job performance: Integrating self-determination and social exchange theories. *Journal of Management Studies*, 52(2), 231–252.
- Babakus, E., Cravens, D. W., Johnston, M., & Moncrief, W. C. (1999). The role of emotional exhaustion in sales force attitude and behavior relationships. *Journal of the Academy of Marketing Science*, 27(1), 58–70.
- Blau, P. M. (1964). *Exchange and power in social life*. New York: Transaction Publishers.
- Bovier, P. A., Arigoni, F., Schneider, M., & Gallacchi, M. B. (2009). Relationships between work satisfaction, emotional exhaustion and mental health among Swiss primary care physicians. *The European Journal of Public Health*, 19(6), ckp056.
- Brown, S. P., & Leigh, T. W. (1996). A new look at psychological climate and its relationship to job involvement, effort, and performance. *Journal of Applied Psychology*, 81(4), 358.
- Brown, S. P., Ganesan, S., & Challagalla, G. (2001). Self-efficacy as a moderator of information-seeking effectiveness. *Journal of Applied Psychology*, 86(5), 1043–1051.
- Cohen, G., Blake, R. S., & Goodman, D. (2016). Does turnover intention matter? Evaluating the usefulness of turnover intention rate as a predictor of actual turnover rate. *Review of Public Personnel Administration*, 36(3), 240–263.
- Colquitt, J. A., Baer, M. D., Long, D. M., & Halvorsen-Ganepola, M. D. (2014). Scale indicators of social exchange relationships: A comparison of relative content validity. *Journal of Applied Psychology*, 99(4), 599.
- Cotton, J. L., & Tuttle, J. M. (1986). Employee turnover: A meta-analysis and review with implications for research. *Academy of Management Review*, 11(1), 55–70.
- Crede, M., Chernyshenko, O. S., Stark, S., Dalal, R. S., & Bashshur, M. (2007). Job satisfaction as mediator: An assessment of job satisfaction's position within the nomological network. *Journal of Occupational and Organizational Psychology*, 80(3), 515–538.
- Cropanzano, R., & Mitchell, M. S. (2005). Social exchange theory: An interdisciplinary review. *Journal of management*, 31(6), 874–900.
- Cropanzano, R., & Rupp, D. E. (2003). An overview of organizational justice: Implications for work motivation. *Motivation and work behavior*, 7, 82–95.
- Cropanzano, R., Rupp, D. E., & Byrne, Z. S. (2003). The relationship of emotional exhaustion to work attitudes, job performance, and organizational citizenship behaviors. *Journal of Applied Psychology*, 88(1), 160–169.
- De Jonge, J., & Dormann, C. (2003). The disc model: Demand-induced strain compensation mechanisms in job stress. In M. F. Dollard, H. R. Winefield, & A. H. Winefield (Eds.), *Occupational Stress in the Service Professions* (pp. 43–74). London: Taylor & Francis.
- Deery, S., Iverson, R., & Walsh, J. (2002). Work relationships in telephone call centres: Understanding emotional exhaustion and employee withdrawal. *Journal of Management Studies*, 39(4), 471–496.
- Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The job demands-resources model of burnout. *Journal of Applied Psychology*, 86(3), 499–512.
- Donnelly, J. H., Jr., & Ivancevich, J. M. (1975). Role clarity and the salesman. *The Journal of Marketing*, 39(1), 71–74.
- Emerson, R. M. (1976). Social exchange theory. *Annual Review of Sociology*, 2(1), 335–362.
- Foote, D. A., Seipel, S. J., Johnson, N. B., & Duffy, M. K. (2005). Employee commitment and organizational policies. *Management Decision*, 43(2), 203–219.
- Gavin, L. A., Wagers, T. P., Leslie, B., Price, D. W., Thorland, W., & deGroot, C. S. (1998). Medical and mental healthcare providers' attitudes about collaboration. *Families, Systems, & Health*, 16(1–2), 139–146.
- Glisson, C. (2002). The organizational context of children's mental health services. *Clinical Child and Family Psychology Review*, 5(4), 233–253.
- Glisson, C. (2015). The role of organizational culture and climate in innovation and effectiveness. *Human Service Organizations: Management, Leadership & Governance*, 39(4), 245–250.
- Glisson, C., & Green, P. (2011). Organizational climate, services, and outcomes in child welfare systems. *Child Abuse Neglect*, 35(8), 582–591. <https://doi.org/10.1016/j.chiabu.2011.04.009>.
- 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.
- Glisson, C., Landsverk, J., Schoenwald, S., Kelleher, K., Hoagwood, K. E., Mayberg, S., et al. (2008a). 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.
- Glisson, C., Schoenwald, S. K., Kelleher, K., Landsverk, J., Hoagwood, K. E., Mayberg, S., et al. (2008b). 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.
- Glisson, C., Hemmelgarn, A., Green, P., Dukes, D., Atkinson, S., & Williams, N. J. (2012). Randomized trial of the availability, responsiveness, and continuity (arc) organizational intervention with community-based mental health programs and clinicians serving

- youth. *Journal of the American Academy of Child and Adolescent Psychiatry*, 51(8), 780–787.
- Glisson, C., Williams, N. J., Green, P., Hemmelgarn, A., & Hoagwood, K. (2014). The organizational social context of mental health Medicaid waiver programs with family support services: Implications for research and practice. *Administration and policy in mental health and mental health services research*, 41(1), 32–42.
- Grandey, A. A. (2003). When “the show must go on”: Surface acting and deep acting as determinants of emotional exhaustion and peer-rated service delivery. *Academy of Management Journal*, 46(1), 86–96.
- Green, A. E., Miller, E. A., & Aarons, G. A. (2013). Transformational leadership moderates the relationship between emotional exhaustion and turnover intention among community mental health providers. *Community Mental Health Journal*, 49(4), 373–379.
- Green, A. E., Albanese, B. J., Shapiro, N. M., & Aarons, G. A. (2014). The roles of individual and organizational factors in burnout among community-based mental health service providers. *Psychological Services*, 11(1), 41–49.
- Green, A. E., Dishop, C. R., & Aarons, G. A. (2016). Organizational stress as moderator of relationship between mental health provider adaptability and organizational commitment. *Psychiatric Services*, 67(10), 1103–1108.
- Hedeker, D. R., Gibbons, R. D., & Davis, J. M. (1991). Random regression models for multicenter clinical trials data. *Psychopharmacology Bulletin*, 27(1), 73–77.
- Hemmelgarn, A. L., Glisson, C., & James, L. R. (2006). Organizational culture and climate: Implications for services and interventions research. *Clinical Psychology: Science and Practice*, 13(1), 73–89.
- Holländer, H. (1990). A social exchange approach to voluntary cooperation. *The American Economic Review*, 80, 1157–1167.
- Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, 6(1), 1–55.
- Hyde, P. S. (2013). Report to Congress on the Nation’s Substance Abuse and Mental Health Workforce Issues. *US Department for Health and Human Service, Substance Abuse and Mental Health Serv.* (Jan 2013), p. 10.
- James, L. R., & Jones, A. P. (1974). Organizational climate: A review of theory and research. *Psychological Bulletin*, 81(12), 1096.
- Karatepe, O. M., & Tekinkus, M. (2006). The effects of work-family conflict, emotional exhaustion, and intrinsic motivation on job outcomes of front-line employees. *International Journal of Bank Marketing*, 24(3), 173–193.
- Lavelle, J. J., Brockner, J., Konovsky, M. A., Price, K. H., Henley, A. B., Taneja, A., et al. (2009). Commitment, procedural fairness, and organizational citizenship behavior: A multifoci analysis. *Journal of Organizational Behavior*, 30(3), 337–357.
- Lee, R. T., & Ashforth, B. E. (1993). A further examination of managerial burnout: Toward an integrated model. *Journal of Organizational Behavior*, 14(1), 3–20.
- 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.
- Leiter, M. P., & Maslach, C. (1988). The impact of interpersonal environment on burnout and organizational commitment. *Journal of Organizational Behavior*, 9(4), 297–308.
- Maslach, C., & Jackson, S. E. (1981). The measurement of experienced burnout. *Journal of Organizational Behavior*, 2(2), 99–113.
- Maslach, C., Jackson, S. E., & Leiter, M. P. (1996). *Maslach burnout inventory manual* (Vol. 4). Palo Alto, CA: Consulting psychologists press.
- Maton, K. I., & Salem, D. A. (1995). Organizational characteristics of empowering community settings: A multiple case study approach. *American Journal of Community Psychology*, 23(5), 631–656.
- McDonald, R. P., & Ho, M. H. R. (2002). Principles and practice in reporting structural equation analyses. *Psychological Methods*, 7(1), 64–82. <https://doi.org/10.1037/1082-989X.7.1.64>.
- Morgeson, F. P., & Campion, M. A. (2003). Work design. In W. C. Borman, et al. (Eds.), *Handbook of psychology*. New York: Wiley.
- Morse, G., Salyers, M. P., Rollins, A. L., Monroe-DeVita, M., & Pfahler, C. (2012). Burnout in mental health services: A review of the problem and its remediation. *Administration and Policy in Mental Health*, 39(5), 341–352. <https://doi.org/10.1007/s10488-011-0352-1>.
- Mulki, J. P., Jaramillo, F., & Locander, W. B. (2006). Emotional exhaustion and organizational deviance: Can the right job and a leader’s style make a difference? *Journal of Business Research*, 59(12), 1222–1230.
- Muthén, L. K., & Muthén, B. O. (1998). *Mplus user’s guide* (7th ed.). Muthén and Muthén: Los Angeles.
- Ogińska-Bulik, N. (2006). Occupational stress and its consequences in healthcare professionals: The role of type d personality. *International Journal of Occupational Medicine and Environmental Health*, 19(2), 113–122.
- Patterson-Silver Wolf, D. A., Dulmus, C. N., Maguin, E., & Cristalli, M. (2013). Factors influencing worker morale: Evaluating provider demographics, workplace environment and using ESTs. *Research on Social Work Practice*, 23(3), 304–310.
- Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common Method Biases in Behavioral Research: A Critical Review of the Literature and Recommended Remedies. *Journal of Applied Psychology*, 88(5), 879–903.
- Raudenbush, S. W., & Bryk, A. S. (2002). *Hierarchical linear models: Applications and data analysis methods* (Vol. 1). Thousand Oaks: Sage.
- Shirom, A., Melamed, S., Toker, S., Berliner, S., & Shapira, I. (2005). Burnout and health review: Current knowledge and future research directions. *International Review of Industrial and Organizational Psychology*, 20, 269–308.
- Smith, C. A., Organ, D. W., & Near, J. P. (1983). Organizational citizenship behavior: Its nature and antecedents. *Journal of Applied Psychology*, 68(4), 653.
- Snijders, T. A. B., & Bosker, R. J. (2012). *Multilevel modeling: An introduction to basic and advanced multilevel modeling* (2nd ed.). London: Sage.
- Sonnentag, S., & Frese, M. (2012). Dynamic performance. *The Oxford handbook of organizational psychology*, 1, 548–575.
- Stordeur, S., D’hoore, W., & Vandenberghe, C. (2001). Leadership, organizational stress, and emotional exhaustion among hospital nursing staff. *Journal of Advanced Nursing*, 35(4), 533–542.
- Tse, H. H., & Dasborough, M. T. (2008). A study of exchange and emotions in team member relationships. *Group & Organization Management*, 33(2), 194–215.
- Whitaker, B. G., Dahling, J. J., & Levy, P. (2007). The development of a feedback environment and role clarity model of job performance. *Journal of Management*, 33(4), 570–591.
- Willging, C. E., Waitzkin, H., & Lamphere, L. (2009). Transforming administrative and clinical practice in a public behavioral health system: an ethnographic assessment of the context of change. *Journal of Health Care for the Poor and Underserved*, 20(3), 866.
- Wright, T. A., & Bonett, D. G. (1997). The contribution of burnout to work performance. *Journal of Organizational Behavior*, 18, 491–499.
- Wright, T. A., & Cropanzano, R. (1998). Emotional exhaustion as a predictor of job performance and voluntary turnover. *Journal of Applied Psychology*, 83(3), 486–493.