# Person-Job Match Among Frontline Staff Working in Residential Treatment Centers: The Impact of Personality and Child Psychopathology on Burnout Experiences

Scott C. Leon, PhD, and Linn Visscher, JD Loyola University Chicago Niwako Sugimura, MS University of Illinois, Champaign

Brittany L. Lakin, MA Loyola University Chicago

Prior research has shown that the personality variables extraversion and neuroticism predict burnout among frontline staff working in residential treatment centers. This study tested the hypothesis that the effect of personality on burnout would be moderated by the psychiatric characteristics of the youth served on the milieu. Two hundred and three frontline staff working in 21 residential treatment centers in Illinois serving troubled youth completed surveys regarding opinions about their jobs, the Big Five Inventory (BFI), a youth presenting problems scale for the entire milieu, and the Maslach Burnout Inventory (MBI). Results indicated that the effect of neuroticism on burnout is moderated by psychosis and posttraumatic stress disorder (PTSD); high and moderate milieu ratings of psychosis and PTSD showed a positive relationship between neurosis and burnout, while low ratings of these conditions showed no relationship. These findings suggest that the optimal work setting is a function of the interaction between specific personality characteristics and specific work environments, with implications for personnel selection and future research on person-environment fit.

Keywords: burnout, person-environment fit, residential treatment, personality

The industrial/organizational literature has now evolved to posit three primary elements of the condition known as burnout: emotional exhaustion, depersonalization, and perceived lack of personal accomplishment; each of these factors can have a significant impact on the individual and his or her productivity in an organization (Maslach, Schaufeli, & Leiter, 2001). One population of workers that is particularly susceptible to burnout is frontline staff working in high-end psychiatric facilities, such as residential treatment centers (RTCs). Lakin, Leon, and Miller (2007) conducted one of the most comprehensive studies to date on burnout among frontline staff at children's RTCs. Their study found that, on average, frontline staff experience more burnout than other professionals, but that a range of variables are associated with either higher relative levels or burnout or a degree of protection from burnout; personality was among the most consistent predictors.

Lakin et al. (2007) found that the Five Factor Theory (FFT, McCrae & Costa, 1999) constructs of neuroticism and extraversion were the only personality variables associated with burnout. However, the effect sizes for neuroticism and extraversion were second only to job satisfaction and worker age in magnitude. The current study extends the work of Lakin et al. (2007) by testing the

overarching hypothesis that the impact of personality on burnout is moderated clinical characteristics of the population of youth served at an RTC. This type of finding would support personnel selection technologies in mental health and research optimizing the match between people and their jobs.

# Residential Treatment

Residential treatment offers 24-hour care within a structured, milieu-based environment and utilizes multiple mental health professionals and treatment modalities. Residential treatment is considered the most intensive long-term treatment modality and is reserved for clients with significant psychiatric and functioning needs (Stroul & Friedman, 1994). The Child Welfare League of America (CWLA) describes one of the main goals of residential care as helping children and families to "accept, reduce, or eliminate the conditions or the behaviors in the parent and/or the child that have been obstacles to successful family life; help children and their families establish improved family relationships, connections, and, whenever possible, family reunification" (CWLA, 2004, p. 20). Achieving these challenging goals requires frontline staff to build strong, empathic mentoring relationships with their residents and to model effective interpersonal skills, even in the face of often unpredictable and disturbing behavior from the youth residents.

Certain qualities and conditions of the job of frontline staff people only complicate their ability to be effective therapeutic agents for youth on the milieu. For example, frontline staff often receives the lowest pay of any mental health workers at the RTC,

Scott C. Leon, PhD, Linn Visscher, JD, and Brittany L. Lakin, MA, Department of Psychology, Loyola University Chicago; Niwako Sugimura, MS, Department of Psychology, University of Illinois, Champaign.

For reprints and correspondence: Scott C. Leon, PhD, Department of Psychology, Loyola University Chicago, 6525 North Sheridan Road, Damen Hall, 653, Chicago, IL 60626. E-mail: sleon@luc.edu

with a median national hourly wage of \$8.48 (U.S. Department of Labor, Bureau of Labor Statistics, 2006). In addition, they often work long hours, including day, evening, or overnight shifts; hold the lowest position within the organization; and often lack control and autonomy in their work (Connor et al., 2003; Decker, Bailey, & Westergaard, 2002; Heron & Chakrabarti, 2002). It is not surprising that the challenging work environment of the RTC and specific characteristics of frontline staff positions make these workers particularly susceptible to negative psychological outcomes such as burnout (Decker et al., 2002; Fong, 2005; Lakin et al., 2007).

#### Burnout

Research examining the incidence of burnout in the social services began in the 1970s. Initial efforts to define burnout (Freudenberger, 1975; Maslach, 1976) described it as occurring in phases that are made up of the following three components: emotional exhaustion, lack of personal accomplishment, and depersonalization. Emotional exhaustion is thought of as the main component of burnout and the one that people most often report (Maslach, Schaufeli, & Leiter, 2001). For Maslach, emotional exhaustion involves a fatiguing decrease in emotional energy and a belief that one does not have adequate emotional coping resources to complete his or her job responsibilities. Depersonalization is the second component of burnout and is defined as the loss of ability to view clients as individuals with feelings and instead begin viewing them as objects (Maslach & Jackson, 1984). Studies have found that while some form of detachment is helpful when working with psychiatric patients or clients with traumatic histories, depersonalization occurs when staff become too detached from their clients and begin to respond to them in "negative, callous, and dehumanized ways" (Maslach et al., 2001). The third component, lack of personal accomplishment, occurs when workers feel they are not competent in their work and cannot reach their work related goals (Maslach & Jackson, 1984). According to Maslach and Jackson's (1986) norms, a worker is considered to have "severe" burnout if he or she scores in the upper third of burnout scores based on the normative population.

Lakin et al. (2007) found that among a sample of 330 frontline workers across 21 RTCs in Illinois, 50% experienced severe emotional exhaustion, 53% experienced severe depersonalization, and 35% experienced low personal accomplishment. These rates are all above the average of the normative worker population in the United States (Maslach & Jackson, 1986). Several variables predicted burnout among the workers in the Lakin et al. (2007) study, such as managerial support, job satisfaction, and extraversion and neuroticism. The personality variables were among the most consistent predictors across all three burnout dimensions.

## Personality, Burnout, and Job Fit

Organizational level factors such as adequacy of training, job satisfaction, and coworker and supervisor support have generally predicted the most variability in burnout scores in the literature (Halbesleben, 2006; Kruger, Botman, & Goodenow, 1991; Lee & Ashforth, 1993; McCulloch & O'Brien, 1986; Savicki, 1993). However, a strong relationship has also been found between personality variables such as neuroticism and extraversion and burn-

out. Individuals who have higher levels of neuroticism are described as being "emotionally over responsive and have difficulty returning to a normal state after emotional experiences" (Eysenck & Eysenck, 1968, p. 6), whereas individuals low in neuroticism are described as calm, relaxed, and even-tempered (McCrae & John, 1999). Neuroticism has regularly predicted both emotional exhaustion and depersonalization (Bakker, Van Der Zee, Lewig, & Dollard, 2006; Lakin et al., 2007; Manlove, 1993; Maslach et al., 2001), with more recent studies also finding a relationship between neuroticism and decreased personal accomplishment (Bakker et al., 2006; Lakin, Leon, & Miller, 2005).

Extraversion includes self-confidence, social interaction, leadership, excitement seeking, and positive affect (Costa & McCrae, 1999). Individuals with high levels of extraversion are described as talkative, person-oriented, assertive, and outgoing (Watson & Clark, 1992). In addition, extraverts are seen as more positive and bring a more positive outlook to situations. Research has demonstrated a negative relationship between extraversion and emotional exhaustion (Lakin et al., 2007), depersonalization (Bakker et al., 2006), and lack of personal accomplishment (Bakker et al., 2006; Lakin et al., 2007; Zellars, Hochwarter, Perrewe, Hoffman, & Ford, 2004) in studies of volunteer counselors, RTC center staff, and nurses. It appears that for children's RTC staff, having higher levels of extraversion may act as a buffer against burnout.

It is not surprising that neuroticism and extraversion predict higher and lower levels of burnout, respectively, in the RTC environment when considering that the frontline staff job requires workers to develop consistent, positive interpersonal relationships with their clients as a foundation for therapeutic change. However, residential treatment environments vary in terms of the clients they serve, and it might not be the case that neuroticism and extraversion have their impacts in the same way across residential settings. One of the primary ways in which RTCs differ is in the client populations they serve (Lyons, Libman-Mintzer, Kisiel, & Shallcross, 1998).

The current study examines the hypothesis that the impact of neuroticism and extraversion on burnout found in previous work with this population (Lakin et al., 2007) will be moderated by the types of clients served at the residential treatment facility. In addition to reporting on their burnout experiences and personality, the frontline staff in this study was asked to quantitatively describe the types of clients, in terms of severity of psychopathology, served at their facility. Interactions were created between ratings of client severity across a range of symptom presentations (e.g., depression, psychosis) and neuroticism and extraversion scores. This study tested whether these interactions were significant predictors of burnout scores across the 3 dimensions.

# Method

# Procedure

Twelve hundred surveys were sent to full-time frontline staff at 21 children's RTCs in Illinois. Frontline staff was operationally defined as those staff who work in the milieu with the children through their entire shift. Frontline staff did not include therapists, psychiatrists, nurses, teachers, supervisors, or other management. Before sending surveys, the clinical directors of the facilities were asked to estimate the number of frontline staff working at the RTC.

An additional 15% was added to this number to ensure that the RTCs had enough surveys. On the basis of these calculations, 1,200 surveys were sent to the 21 agencies. A total of 375 were returned. However, 45 of the respondents either worked less than full-time at the RTC or had significant roles at the agency besides being a frontline staff worker (e.g., a licensed clinical social worker and former frontline staff worker who covered shifts). Since our desired study sample was full-time frontline staff, these additional participants were not included in the analyses. Of the remaining participants, 60 were not used due to missing data and 67 were eliminated due to erratic data, leaving a final sample of 203 participants used in the current study.

 $\chi^2$  and t test tests were conducted to determine whether the participants with missing data were statistically different compared with the participants with complete data. Comparisons were made based on age, gender, race/ethnicity, martial status, education, time (months) working in the field of residential care, and time (months) working at the current RTC. The two groups were comparable on all of the variables except age and education. Workers with complete data were younger (mean age = 35.2 vs. 31.6 years) and were more likely to have completed college.

Each RTC staff received a survey accompanied by a one-page cover letter and consent form that explained the purpose of the project, assured confidentiality, explained that participation in the research was voluntary, and included directions for completing the surveys. The survey included a Demographic Information Form, questions from the Maslach Burnout Inventory (MBI; Maslach & Jackson, 1986) and the Big Five Personality Inventory (BFI: John, Donahue, & Kentle, 1991), and a problem presentation scale. After completing the surveys, the participants returned them in the provided envelope to the investigator. Upon return of the surveys, participants were entered into a raffle and three participants' names were drawn to win \$100.

#### **Participants**

The sample was 63.50% female, and the mean age was 31.64 years (SD = 9.41). The majority of the sample (60.30%) was single, followed by 30.10% who were married. Seventy-one percent of the sample was white and 21.40% was African American. Sixty-four percent of the sample had obtained at least their bachelor's degree. The average level of experience in the field was 4.95 years (SD = 5.00); the average time working in the current RTC was 3.30 years (SD = 3.70).

## Measures

# Demographic Informational Form

This form contained demographic information regarding age, gender, race/ethnicity, education, and experience. This form also asked the staff to indicate how many months they had been working at the current facility and as a frontline staff worker; it also asked the staff to indicate how many hours per week they typically worked and what shifts they typically worked (e.g., "day," "evening," or "graveyard" shift).

# Organizational Context

Several organizational context items were created specifically for this study. Staff first completed questions about the details of their training at the current RTC. Staff then completed five-point Likert-type scale items covering job satisfaction (1 = dissatisfied, 5 = satisfied), perceptions of how much appreciation they experience from management ( $1 = not \ at \ all$ ,  $5 = a \ great \ deal$ ), and perceptions of how much support staff experience from other frontline staff ( $1 = not \ at \ all$ ,  $5 = a \ great \ deal$ ).

## The MBI, Second Edition (1986)

The MBI is a self-report questionnaire containing 22 items that are rated on a seven-point rating scale, from 0 = never to 6 = everyday. The items measure the three different aspects of burnout: emotional exhaustion, depersonalization, and a lack of personal accomplishment. High scores on both the emotional exhaustion and depersonalization scales and low scores on the personal accomplishment scales indicate higher levels of burnout.

More psychometric research has been done on the MBI than on any other burnout measure, and its multidimensional conceptualization of burnout has made it particularly appropriate for theory driven research (Maslach & Jackson, 1984). The MBI demonstrates sound reliability and good convergent and discriminant validity (Burke & Richardson, 1993; Cordes & Dougherty, 1997). Demographic and occupational specific norms for the MBI have been well established; scores in the upper third of the normative distribution reflect high levels of burnout, scores in the middle third reflect average levels, and scores in the lower third reflect low levels of burnout (Maslach & Jackson, 1986).

Emotional exhaustion. This subscale contains nine items that assess feelings of being emotionally overextended and exhausted by one's work. The mean score based on the normative sample was 20.99 (SD = 10.75); Cronbach's  $\alpha = .90$ .

Depersonalization. This subscale contains five items that measure the extent of unfeeling and impersonal responses toward recipients of one's service, care, treatment, or instruction. The mean score based on the normative sample was 8.73 (SD = 5.89); Cronbach's  $\alpha = .79$ .

Personal accomplishment. This subscale contains eight items that assess feelings of competence and successful achievement in one's work with people. The mean score based on the normative sample was 34.58 (SD = 7.11); Cronbach's  $\alpha = .71$ .

# **BFI**

The constructs extraversion and neuroticism were measured by using the BFI (John et al., 1991). The BFI is a widely used measure of the five dimensions of personality associated with the Five Factor Theory (FFT; Costa & McCrae, 1999; John & Srivastava, 1999). The BFI has been shown to demonstrate good reliability and validity. BFI scales' alphas have ranged from .75 to .90 in U.S. and Canadian samples. Likewise, the BFI has demonstrated good test–retest reliability and convergent and divergent validity with

<sup>&</sup>lt;sup>1</sup> Data were categorized as erratic based on participant responses to the problem presentation scale. This scale required staff to estimate the percent of their clients that fell into each of the four severity categories (i.e., "no problem," "mild," "moderate," "severe"). Data were categorized as erratic if the percentages in the four severity categories did not add up to 100% (e.g., 50% was put in each of the four categories).

other instruments purporting the measure the FFT (John & Srivastava, 1999).

## **Problem Presentation**

The types and severity of presenting problems were determined from participant responses on a presenting problems form that was adapted from the Child and Adolescent Needs and Strengths, Mental Health Version (Lyons, 1999; CANS-MH). The CANS-MH is completed by staff at intake, discharge, and at several points throughout treatment as an outcome measure for the individual youth in the program. Severity ratings are based on a 0 to 3 scale. Across all dimensions, a score of 0 indicates no need for action, a 1 indicates the need for watchful waiting to see whether action is warranted, a 2 indicates need for action, and a 3 indicates the need for immediate or intensive action (see Appendix). Detailed numerical anchorings are provided for each dimension (Buddin Praed Foundation, 1999).

In the current study, participants were asked to indicate the percentage of children presenting specified problem types, each of which was subdivided into the four levels of problem severity described earlier. The specified problems included the following seven items: psychosis, impulsivity (attention-deficit/hyperactivity disorder; ADHD), oppositional behavior (oppositional defiant disorder; ODD), antisocial behavior (conduct disorder), depression (major depressive disorder), adjustment to trauma (posttraumatic stress disorder; PTSD), and danger to others. For each problem presentation, frontline staff were asked to rate the approximate percentages of youth who demonstrated either a "0", "1", "2", or "3" rating. For example, participants could report that of the children with whom they work, 70% present no psychosis, 15% present mild psychosis, 15% present moderate psychosis, and 0% present severe psychosis. The percentage of each severity level in the same problem type was required to add up to 100% to be used in the study.

To weight the participants' percentage estimates to determine their rating of the severity of symptoms across the milieu, all percentages in the "0" category were multiplied by "0"; all percentages in the "1" category were multiplied by 100; all percentages in the "2" category were multiplied by 200 and; all percentages in the "3" category were multiplied by 300. Therefore, frontline staff ratings ranged from 0 to 300, with increasing scores reflecting increasing estimates of the proportion and severity of psychopathology.

The CANS demonstrates adequate reliability and validity (Anderson, Lyons, Giles, Price, & Estle, 2003; Lyons, Rawal, Yeh, Leon, &Tracy, 2002). It is a useful tool for predicting the level of care and is correlated with a similar measure of child outcomes (Dilley, 2003), the Child and Adolescent Functional Assessment Scale (CAFAS); Hodges, McKnew, Cytryn, Stern, & Klein, 1982). It has been shown to be sensitive to change and has been used successfully to monitor clinical outcomes (Sieracki, Leon, Miller, & Lyons, 2008).

# Results

Hierarchical ordinary least squares regressions were conducted to test the hypothesis that client population moderated the impact of personality on burnout scores; separate regressions were run for

each personality (e.g., neuroticism) by clinical severity (e.g., psychosis) pair, for a total of 42 regression analyses. In Lakin et al.'s (2008) previous work with the current sample and data, the following variables emerged as significant predictors of all three components of burnout: worker age, job satisfaction, perception of support from management, and perception of adequacy of training for current job. To control for any confounds between these variables and the personality and interactions studied here, these variables were entered as covariates in the first block of the regression analyses using the forward selection technique. In the second block, the personality variables, client severity ratings, and the interactions between both were entered using the enter technique. Personality and severity ratings were centered before the interactions were created. In total, seven variables were entered into the regression analyses; therefore, the 203 participants in the current study provided ample power to detect meaningful effects.

Table 1 presents descriptive statistics. Because of the number of regressions, only analyses that revealed statistically significant interactions are reported here. A total of three regressions revealed a statistically significant interaction effect and are presented in Tables 2-4; only variables that were significant at any of the steps (first block only) are presented in the tables. Of note, the extraversion by clinical severity interactions never significantly predicted any of the three burnout scales, suggesting that extraversion acts as a main effect buffer against burnout across the range of residential case mixes. However, as presented later, neuroticism interacted in several analyses with the clinical variables psychosis and PTSD to predict burnout scores. When a significant interaction effect was found, post hoc probing and simple slopes analysis was conducted based on recommendations from Holmbeck (2002) using the Modgraph program (Jose, 2007). These analyses are presented in Figures 1-3.

Table 2 presents the final regression model testing the effect of the interaction between neuroticism and psychosis on the depersonalization burnout dimension. Overall, the model predicted 21% of the variance in depersonalization scores. Consistent with prior research with this sample, frontline staff who were older, more satisfied with their jobs, and rated themselves as less emotionally stable (neuroticism) experienced more depersonalization. Worker ratings of more severe psychotic symptoms among the youth on the milieu did not predict depersonalization scores. However, the interaction between neuroticism and psychosis did predict depersonalization scores. Post hoc probing of the interaction is presented in Figure 1. Based on these analyses, workers who rated their client populations as high on psychosis experienced more burnout as they endorsed more items on the neuroticism scale of the BFI. The line for the high psychosis line increased at a slope significantly greater than zero as neuroticism scores increased ( $\beta = .52$ , t(199) = 4.95, p < .001). However, the line for the low psychosis ratings was not significantly greater than zero ( $\beta = .20$ , t(199) =1.83, p > .05).

Table 3 presents the final regression model testing the effect of the interaction between neuroticism and PTSD on the burnout dimension of emotional exhaustion. Overall, the model predicted 36% of the variance in emotional exhaustion scores. Job satisfaction, age, and support from management were all controlled for in the first block. And similar to the psychosis findings, neuroticism predicted emotional exhaustion, PTSD by itself did not predict this

Table 1 Intercorrelations Between Burnout Scales, Neuroticism, Extraversion, and Problem Presentations (N = 203)

Variable	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Emotional exhaustion	20.96	9.11	_															
2. Depersonalization	9.18	6.18	.53**	_														
3. Personal accomplishment	30.54	6.73	28 <b>**</b>	29**	_													
4. Age	32.90	10.03	23**	21**	.09	_												
5. Job satisfaction	3.46	.96	49 <b>**</b>	27**	.36**	.046	_											
6. Management support	2.93	1.23	27 <b>**</b>	15**	.15**	01	.33**	_										
7. Training	.77	.42	20**	05	.06	.20	.23**	.15**	_									
8. Neuroticism	17.92	5.35	.38**	.38**	31**	13	24 <b>**</b>	13*	14 <b>*</b>	_								
9. Extraversion	23.87	5.20	18**	14*	.30**	.07	.09	.02	00	30**								
10. Psychosis	109.52	82.18	.12	.11	07	.06	24 <b>**</b>	19**	06	.08	.01	_						
11. ADHD	168.40	82.32	.06	.08	08	.04	11	13 <b>*</b>	10	.17*	01	.37**	_					
12. Oppositional	206.97	73.36	.14*	.02	16*	.01	14 <b>*</b>	21**	09	.12								
13. Antisocial	129.16	85.50	.12	.16	17*	.07	15*	12	04	.11	03	.54**	.34**	.43**	-			
14. Depression	192.59	73.19	.07	.00	06	14*	12	13 <b>*</b>	06	.15*	.02	.48**	.51**	.55**	.41**			
15. PTSD	161.27	85.11	.10	.09	.00	.01	07	20**	07	.12		.50**	.41**	.47**	.43**	.67**	_	
16. Danger	150.95	84.10	.11	.11	.00	04	134*	28**	11	.14*	04	.60**	.43**	.46**	.47**	.60**	.69**	

*Note.* ADHD = attention-deficit/hyperactivity disorder; PTSD = posttraumatic stress disorder.

burnout scale; the neuroticism by PTSD interaction did predict emotional exhaustion.

Post hoc probing of the interaction is presented in Figure 2. Based on these analyses, workers who rated their client populations as high on PTSD experienced more burnout as they endorsed more items on the BFI indicating high neuroticism. The line for the high psychosis line increased at a slope significantly greater than zero as neuroticism scores increased ( $\beta = .70$ , t = 6.23, p < .001). However, once again, the line for the low psychosis ratings was not significantly greater than zero ( $\beta = .18$ , t = 1.84, p > .05).

Table 4 presents the final regression model testing the effect of the interaction between neuroticism and PTSD on the burnout dimension of depersonalization. Overall, the model predicted 21% of the variance in emotional exhaustion scores. Once again, age and job satisfaction predicted lower depersonalization scores and neuroticism predicted higher depersonalization scores; worker ratings of severity of PTSD across the residential population once again did not predict burnout as a main effect; however, the interaction between neuroticism and PTSD was significant. Post hoc probing of the interaction is presented in Figure 3. Based on these analyses, workers who rated their client populations as high on PTSD experienced more depersonalization as they endorsed

Table 2 Summary of Regression Analysis Predicting Depersonalization Burnout Dimension (N = 203): Neuroticism  $\times$  Psychosis Interaction

Variable	В	SE B	t	β	p
Age	10	.04	-2.69	17	.008
Job satisfaction	-1.11	.42	-2.65	17	.009
Neuroticism	.36	.07	4.89	.31	<.001
Psychosis	.006	.005	1.16	.08	.25
Neuroticism × Psychosis	.002	.001	2.71	.17	.007

Note. Adjusted  $R^2 = .21$ .

more items indicating high neuroticism. The line for the high PTSD line increased at a slope significantly greater than zero ( $\beta = .55$ , t = 4.29, p < .001). However, the slope line relating neuroticism and depersonalization for frontline workers who rated their clients as low on the PTSD scale was not significant ( $\beta = .21$ , t = 1.77, p < .05).

# Discussion

Prior research has shown that neuroticism and extraversion are robust predictors of burnout among frontline staff working in RTCs (Lakin et al., 2007). The current study tested the hypothesis that the effect of personality on burnout is moderated by the frontline worker's ratings of the client population served in terms of type and severity of psychopathology. The results supported this hypothesis for neuroticism but not extraversion. Staff who rated the youth populations as more severe on psychosis and also rated themselves as less emotionally stable (neurotic) had the highest levels of depersonalization. Similarly, staff who rated the youth populations as more severe on PTSD and also rated themselves as

Table 3
Summary of Regression Analysis Predicting Emotional
Exhaustion Burnout Dimension (N = 203): Neuroticism ×
Posttraumatic Stress Disorder (PTSD) Interaction

Variable	В	SE B	t	β	p
Age	15	.05	-2.85	16	.005
Job satisfaction	-3.60	.58	-6.42	39	<.001
Management support	72	.45	-1.59	10	.11
Neuroticism	.44	.10	4.40	.26	<.001
PTSD	.001	.006	.11	.006	.92
Neuroticism × PTSD	.003	.001	2.75	.17	.007

*Note.* Adjusted  $R^2 = .36$ .

<sup>\*</sup> Correlation is significant at the .05 level (two-tailed). \*\* Correlation is significant at the .01 level (two-tailed).

Table 4
Summary of Regression Analysis Predicting Depersonalization
Burnout Dimension (N = 203): Neuroticism × Posttraumatic
Stress Disorder (PTSD) Interaction

Variable	В	SE B	t	β	p
Age	09	.04	-2.22	14	.03
Job satisfaction	-1.17	.41	-2.84	18	.005
Neuroticism	.38	.08	4.99	.33	<.001
PTSD	.002	.005	.45	.03	.65
Neuroticism × PTSD	.002	.001	2.30	.15	.02

*Note.* Adjusted  $R^2 = .21$ .

less emotionally stable (neurotic) had the highest levels of both emotional exhaustion and depersonalization.

Substantial progress has been made over the last 15 years demonstrating a link between personality and performance across a range of jobs (Barrick & Mount, 1991). However, most of this research has focused on jobs outside of mental health. Limited research exists on the relationship between personality and burnout among mental health providers, and we are not aware of any research that has attempted to explore whether the impact of personality on burnout is moderated by client presenting problems among mental health professionals.

The finding that neuroticism interacts with client presenting problem to predict burnout might be considered counterintuitive when reviewing prior research demonstrating that people high on neuroticism tend to express distress and dissatisfaction regardless of life circumstance (Costa, McCrae, & Zonderman, 1987), including the type of job they have (Perone, DeWaard, & Baron, 1979). This research would suggest that neuroticism is a main effect in predicting higher burnout across client case mix. However, in the current study, no relationship was found between neuroticism and burnout at lower frontline staff ratings of client psychosis and PTSD across the milieu.

Efforts to explain this effect might start by reviewing the symptom presentations of youth experiencing psychosis and PTSD and the characteristics of the personality that is high on neuroticism. We can then speculate about how these child and worker attributes might interact negatively to predict specific burnout components. For example, it is noteworthy that the neuroticism by psychosis

interaction predicted depersonalization and the PTSD interaction predicted both depersonalization and emotional exhaustion, given the typical symptom presentations of these psychiatric conditions. Youth who experience psychosis, such as childhood-onset schizophrenia, frequently manifest disorganized symptoms and social functioning deficits (American Psychiatric Association, 2000). This symptom presentation often makes it difficult for mental health professionals to develop alliances. Therefore, staff who experience heightened sensitivity to and insecurity in their environments, such as those high on neuroticism, might be prone to more negative reactions, such as "taking it personally," when clients have a difficult time building attachments. Over time, these insecure, negative reactions might become punitive and lead these frontline staff to treat the youth in more callous and impersonal ways, hallmark characteristics of the depersonalization scale of the MBI.

Youth who experience symptoms of PTSD often manifest a mix of both extreme emotional responses (e.g., exaggerated startle responses, irritability or outbursts of anger) and depersonalization experiences (e.g., feeling of detachment or estrangement from others, American Psychiatric Association, 2000). The symptoms of extreme emotional experiences associated with PTSD might be interacting negatively with the heightened stress reaction component of neuroticism (Costa & McCrae, 1995). Therefore, frontline staff working with youth experiencing extreme emotions such as those associated with PTSD might be more likely to experience consistently heightened levels of arousal, which over time might lead to the experience of depletion, a hallmark symptom of emotional exhaustion on the MBI. And similar to the psychosis discussion above, the depersonalization symptoms commonly experienced among youth with PTSD might be expected to have a more negative impact on frontline staff high on neuroticism, leading them to depersonalize the clients under their care.

The pattern of findings found in this study are congruent with McCrae and Costa's temperamental perspective (McCrae & Costa, 1991). The temperamental perspective suggests that individuals high on neuroticism and negative affect react more strongly to negative events on the job. In the current study, the negative events on the job may be characteristics and manifestations of the youths' presenting problems, which are interacting with the insecurity, vulnerability, and stress reaction components of neuroticism (Costa & McCrae, 1995) to create negative psychological out-

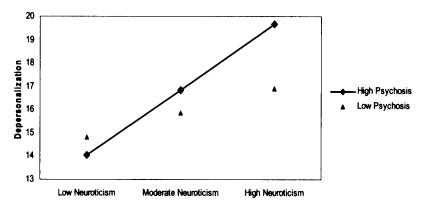


Figure 1. Post hoc probing of the effect of neuroticism × psychosis interaction on depersonalization.

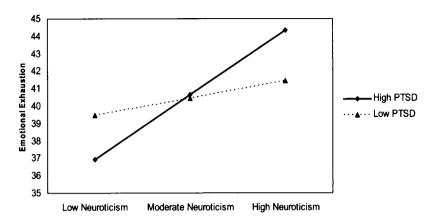


Figure 2. Post hoc probing of the effect of neuroticism  $\times$  posttraumatic stress disorder (PTSD) interaction on emotional exhaustion.

comes (burnout). To further test this hypothesis, future research might explore whether client severity symptoms such as depression make staff high on neuroticism vulnerable to depression and client severity symptoms of anger toward others make them vulnerable to higher levels of anger and hostility, both of which are also attributes of the neurotic personality (Costa & McCrae, 1995).

#### Limitations

Missing data, most often involving the presenting problems scales, compromises our ability to generalize the findings and represents the biggest limitation in the current study. However,  $\chi^2$  and t test comparisons indicated that the missing data participant group, and the full data participant group were comparable regarding gender, race/ethnicity, marital status, time in the field, and time at the current RTC. However, the two groups differed on age and education. The participant sample that had fully complete presenting problems data was younger and was more likely to have a college degree. These differences may be explained by the content of the presenting problems scales. All of the anchorings (see Appendix) for the presenting problems scales were clinically descriptive and incorporated terms from the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV;

American Psychiatric Association, 2000). Frontline staff who do not have a college degree may have had limited exposure to the terms and descriptions and may therefore have felt less confident completing this portion of the survey. However, even though this sample may not be representative of the entire frontline staff population, it is unlikely that the participants with more education were less accurate in estimating the psychopathology of the youth served in their milieus. Nonetheless, it is possible that this study's moderation findings will not generalize to other samples of front-line staff and therefore warrant replication.

An additional limitation of the presenting problems scales is that they were adapted from a measure of individual client needs (CANS-MH) and have never been used to measure percentages of symptom severity across a milieu. Therefore, although the staff were familiar with the measure and used it to measure clinical outcomes for the youth, reliability and validity of this unique application of the tool has yet to be determined; however, it is important to note that while this was a unique application of the tool, the content of the tool was unchanged. And even though the presenting problem scales have demonstrated reliability and validity as single item measures, future research might seek to replicate these findings with longer scales that measure more refined symp-

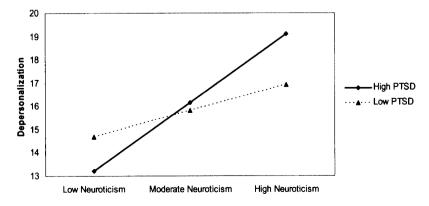


Figure 3. Post hoc probing of the effect of neuroticism  $\times$  posttraumatic stress disorder (PTSD) interaction on depersonalization.

tom constructs. The same limitation holds for the use of single items to measure job satisfaction, perception of training adequacy, and management support.

The presenting problems scales were completed by the same frontline staff who completed the BFI, raising the possibility of a common method variance confound. However, the correlations between client presenting problems and personality (see Table 1) were low, suggesting that common method variance did not confound the results. Future research should nonetheless attempt to replicate these findings using multisource data.

Finally, this study did not explore specific job characteristics unique to RTCs that might be associated with the client presentations measured. For example, it might be that the specific job responsibilities and characteristics associated with working on a milieu that has relatively more youth with psychotic disorders or PSTD (e.g., relatively more structured milieu environments) are mediating the relationship between personality and burnout. A job characteristics analysis, guided by person-environment fit theory (e.g., Caplan, 1983; French, Rogers, & Cobb, 1974) was not conducted here and should be employed in future research in this area.

## Implications and Future Directions

These results have implications for both personnel selection and research on personality in the mental health field. In terms of personnel selection, these results suggest that extraversion should be among the worker attributes to look for when hiring staff for frontline staff positions across all client case mixes if a goal is to limit the risk of burnout. Furthermore, if the goal of the organization is to mitigate burnout, then the personality attribute of neuroticism may be warranted as a variable in personnel selection for specific client populations in which staff work, such as milieus with moderate to high levels of youth psychosis and PTSD, by may not play need to play a role in when these client populations are not a significant part of the milieu case mix.

Furthermore, this study argues for more research seeking to understand the ways in which workers interact with their environments to predict a broad range of outcomes, from negative psychological outcomes such as burnout, to organizational variables and client clinical outcomes. The findings of this study hold promise for a nuanced perspective on how to optimize work environments for different types of mental health workers on the basis of the specific types of clients they serve. This is particularly important for the frontline staff at RTCs for youth, given the both the opportunities and vulnerabilities in their work experiences.

#### References

- American Psychiatric Association. (2000). Diagnostic and statistical manual of mental disorders, 4th ed., text revision (*DSM-IV-TR*). Washington, DC: American Psychiatric Press, Inc.
- Anderson, R., Lyons, J., Giles, D., Price, J., & Estle, G. (2003). Reliability of the child and Adolescent Needs and Strengths-Mental Health (CANS-MH) Scale. Journal of Child and Family Studies, 12, 279-289.
- Bakker, A. B., Van Der Zee, K. I., Lewig, K. A., & Dollard, M. F. (2006). The relationship between the big five personality factors and burnout: A study among volunteer counselors. *Journal of Social Psychology*, 146, 31-50.
- Barrick, M. R., & Mount, M. K. (1991). The Big Five personality dimen-

- sions and job performance: A meta-analysis. Personnel Psychology, 44, 1\_26
- Buddin Praed Foundation. (1999). Child and adolescent needs and strengths training manual. Illinois Department of Children and Family Services Version. Chicago: Northwestern University and Buddin Foundation.
- Burke, R., & Richardson, A. (1993). Psychological burnout in organizations. In R. Golembieski (Ed.), Handbook of organizational behavior (pp. 263-298). New York: Marcel Dekker.
- Caplan, R. D. (1983). Person-environment fit: Past, present and future. In C. Cooper (Ed.), Stress research (pp. 35-78). London: Wiley.
- Connor, D. F., McIntyre, E. K., Miller, K., Brown, C., Blusetone, H., Daunais, D., et al. (2003). Staff retention and turnover in a residential treatment center. Residential Treatment for Children and Youth, 20, 43-53.
- Cordes, C. L., & Dougherty, T. W. (1993). A review and an integration of research on job burnout. Academy of Management Review, 18, 621-656.
- Costa, P. T., Jr., & McCrae, R. R. (1995). Domains and facets: Hierarchical personality assessment using the revised NEO Personality Inventory. *Journal of Personality Assessment*, 64, 21-50.
- Costa, R. R. & McCrae (1999). A five factor theory of personality. In: Handbook of Personality: Theory and Research (Pervin & John, Eds.). New York: Guilford.
- Costa, P. T. Jr., McCrae, R. R., & Zonderman, A. B. (1987). Environmental and dispositional influences on well-being: Longitudinal follow-up of an American sample. *British Journal of Psychology*, 78, 299-306.
- Child Welfare League of America (CWLA). (2004). Standards of excellence for residential services. Washington, DC: CWLA Press.
- Decker, J. T., Bailey, T. L., & Westergaard, N. (2002). Burnout among childcare workers. Residential Treatment for Children and Youth, 19, 61-77.
- Dilley, J. (2003, August). A comparison of the Child and Adolescent Needs and Strengths with the CAFAS. Paper presented at the annual meeting of the American Psychological Association, Toronto.
- Eysenck, H. J., & Eysenck, S. B. G. (1968). Manual for the Eysenck Personality Inventory. San Diego, CA: EdITS.
- Fong, T. L. (2005). Burnout and psychological health in residential childcare workers of emotionally disturbed children. Dissertation Abstracts International: Section B: The Sciences and Engineering, 66(3-B).
- French, J. R. P., Jr., Rogers, W., & Cobb, S. (1974). Adjustment as a person- environment fit. In G. V. Coelho, D. A. Hamburg, & I. F. Adams (Eds.), Coping and adaptation: Interdisciplinary perspectives (pp. 316–333). New York: Basic Books.
- Freudenberger, H. J. (1975). The staff burn-out syndrome in alternative institutions. *Psychotherapy: Theory, Research & Practice, 12,* 73–82.
- 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, 1134-1145.
- Heron, G., & Chakrabarti, M. (2002). Examining the perceptions and attitudes of staff working in community based children's homes: Are their needs being met? *Qualitative Social Work*, 4, 341-358.
- Hodges, K., McKnew, D., Cytryn, L., Stern, L., & Klein, J. (1982). The Child Assessment Schedule (CAS) diagnostic interview: A report on reliability and validity. *Journal of the American Academy of Child and Adolescent Psychiatry*, 21, 468-473.
- Holmbeck, G. N. (2002). Post-hoc probing of significant moderational and mediational effects in studies of pediatric populations. *Journal of Pediatric Psychology*, 27, 87–96.
- John, O. P., Donahue, E. M., & Kentle, R. L. (1991). The Big Five Inventory-Versions 4a and 54. Berkeley, CA: University of California, Berkeley, Institute of Personality and Social Research.
- John, O. P., & Srivastava, S. (1999). The Big Five Trait taxonomy: History, measurement, and theoretical perspectives. In L. A. Pervin & O. P. John

- (Eds.), Handbook of personality: Theory and research (2nd ed., pp. 102-138). New York: Guilford Press.
- Jose, P. E. (2007). Modgraph: A computer programme to graphically display moderation [Computer software]. Retrieved from http:// www.vuw.ac.nz/psych/staff/paul-jose/files/modgraph/modgraph.php
- Kruger, L. J., Botman, H. I., & Goodenow, C. (1991). An investigation of social support and burnout among residential counselors. *Child and Youth Forum*, 20, 35-352.
- Lakin, B., Leon, S. C., & Miller, S. A. (2007). Predictors of burnout in children's residential treatment center staff. Manuscript submitted for publication.
- Lakin, B., Leon, S. C., & Miller, S. (in press). Burnout among frontline staff working in residential treatment centers. Residential Treatment for Children and Youth.
- Lee, R. T., & Ashforth, B. E. (1993). A longitudinal study of burnout among supervisors and managers: Comparisons between the Leiter and Maslach (1988) and Golembiewski et al. (1986) models. Organizational Behavior & Human Decision Processes, 54, 369-398.
- Lyons, J. S. (1999). The Child and Adolescent Needs and Strengths for children with mental health challenges. Winnetka, IL: Buddin Praed Foundation.
- 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, 582-587.
- Lyons, J. S., Rawal, P., Yeh, I., Leon, S. C., & Tracy, P. (2002). Use of audits in outcomes management. *Journal of Behavioral Health Services* Research, 29, 75-80.
- Manlove, E. E. (1993). Multiple correlates of burnout in child care workers. Early Childhood Research Quarterly, 8, 499-518.
- Maslach, C. (1976). Burned-out. Humanistic Behavior, 5, 16-22.
- Maslach, C., & Jackson, S. E. (1984). Burnout in organizational settings. Applied Social Psychology Annual, 5, 133-153.
- Maslach, C., & Jackson, S. E. (1986). Maslach Burnout Inventory Manual (2nd ed.). Palo Alto, CA: Consulting Psychologists Press.

- Maslach, C., Schaufeli, W. B., & Leiter, M. P. (2001). Job burnout. Annual Review of Psychology, 52, 397-422.
- McCrae, R. R., & Costa, P. T. (1991). Adding liebe and arbeit: The full five factor model and well-being, Bulletin of Personality and Social Psychology, 17, 227-232.
- McCrae, R. R., & Costa, P. T., Jr. (1999). A Five-Factor Theory of personality. In L. A. Pervin & O. P. John (Eds.), Handbook of personality: Theory and research (2nd ed., pp. 139-153). New York: Guilford Press.
- McCulloch, A., & O'Brien, L. (1986). The organizational determinants of worker burnout. Children and Youth Services Review, 8, 175-190.
- Perone, M., DeWaard, R. J., & Baron, A. (1979). Satisfaction with real and simulated jobs in relation to personality variables and drug use. *Journal of Applied Psychology*, 64, 660-668.
- Savicki, V. (1993). Clarification of child and youth care identity through an analysis of work environment and burnout. Child and Youth Care Forum. 22, 441-457.
- Sieracki, J. H., Leon, S. C., Miller, S. A., & Lyons, J. S. (2008). Individual and provider effects on mental health outcomes in child welfare: A three level growth curve approach. *Children and Youth Services Review*, 30, 800-808.
- Stroul, B. A., & Friedman, R. M. (1994). A system of care for children and youth with severe emotional disturbances (revised ed.). Washington, DC: Georgetown University Child Development Center, CASSP Technical Assistance Center.
- U.S. Department of Labor. (2006). May 2006 National Occupational Employment and Wage Statistics. Retrieved November 1, 2007, from www.bls.gov
- Watson, D., & Clark, L. (1992). On traits and temperament: General and specific factors of emotional experience and their relation to the fivefactor model. *Journal of Personality*, 60, 441-476.
- Zellars, K. L., Hochwarter, W. A., Perrewe, P. L., Hoffman, N., & Ford, E. W. (2004). Experiencing job burnout: The roles of positive and negative traits and states. *Journal of Applied Social Psychology*, 34, 887-911.

## Appendix

## **Psychotic Symptoms**

This rating is used to describe symptoms of psychiatric disorders with a known neurological base. DSM-IV disorders included on this dimension are Schizophrenia and Psychotic Disorders (unipolar, bipolar, NOS). The common symptoms of these disorders include hallucinations, delusions, unusual thought processes, strange speech, and bizarre/idiosyncratic behavior.

- 0 This rating indicates a child with no evidence of thought disturbances. Both thought processes and content are within normal range.
- 1 This rating indicates a child with evidence of mild disruption in thought processes or content. The child may be somewhat tangential in speech or evidence somewhat illogical thinking (age inappropriate). This also includes children with a history of hallucinations but none currently. The category would be used for children who are below the threshold for one of the DSM IV diagnoses listed above.
- 2 This rating indicates a child with evidence of moderate disturbance in thought process or content. The child may be somewhat delusional or have brief intermittent hallucinations. The child's speech may be at times quite tangential or illogical. This level would be used for children who meet the diagnostic criteria for one of the disorders listed above.
- 3 This rating indicates a child with a severe psychotic disorder. Symptoms are dangerous to the child or others.
- *Note.* Retrieved September 4, 2008, from http://buddinpraed.org/pdf/CANSMHManual.pdf.

Received November 7, 2007
Revision received November 7, 2007
Accepted September 7, 2008