

**Impact of supervisory support on turnover intention: The mediating role of burnout and job satisfaction in a longitudinal study**

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**Acknowledgements and Disclosures:** The study was supported by Patient-Centered Outcomes Research Institute (IH-1304-6597). The content is solely the responsibility of the authors and does not represent the official views of PCORI.

This is the author's manuscript of the article published in final edition form as:

Fukui, S., Wu, W., & Salyers, M. P. (2019). Impact of Supervisory Support on Turnover

Intention: The Mediating Role of Burnout and Job Satisfaction in a Longitudinal

Study. *Administration and Policy in Mental Health and Mental Health Services Research*, 46(4),

488-497.

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### Abstract

High rates of provider turnover are problematic for our mental health system. Research indicates that supervisory support could alleviate some turnover intention by decreasing emotional exhaustion (a key component of burnout) as well as by increasing job satisfaction. However, the potential mediation mechanisms have not been rigorously tested. Longitudinal data collected from 195 direct clinical care providers at two community mental health centers identified positive effects of supervisory support on reduced turnover intention through reduced emotional exhaustion. Job satisfaction was not a significant mediator. Supervisory support may help mitigate turnover intention through work-related stress reduction.

Keywords: Supervision; Turnover Intention; Burnout; Job Satisfaction; Mediation Analysis

### Introduction

Direct service providers have been the backbone of the recovery-oriented mental health care system in the community. In order to provide a high quality of care, organizations must recruit, train, and maintain high quality service providers. This is particularly challenging given that many direct service providers tend to have little relevant professional training or human service experience (Dilonardo, 2011; Hoge et al., 2007). In addition, available resources to support these providers have been shrinking over the years due to significant financial constraints in community mental health organizations. Increased job demands, with more emphasis on work productivity, also contribute to greater strain at work (Luther et al., 2017). This challenge in community mental health care systems is compounded by the high prevalence of provider turnover. Thus, understanding which factors contribute to thoughts about leaving a

## IMPACT OF SUPERVISION

job (i.e., turnover intentions; Aarons, Sommerfeld, Hecht, Silovsky, & Chaffin, 2009; Green, Miller, & Aarons, 2013), may help identify targets for intervening to reduce turnover.

The rate of turnover in mental health is high, varying from 25% to 60% annually depending on the study sites (Aarons & Sawitzky, 2006; Beidas et al., 2016; Bukach, Ejaz, Dawson, & Gitter, 2015). While some turnover may be beneficial for the organization (e.g., new staff bring in new ideas, poorly fitting staff may leave) and the employee (e.g., promotion, better match with values), high rates of turnover are concerning for a number of reasons. First, the costs of turnover are considerable (e.g., recruitment, temporary staffing, productivity loss) (Holtom, Mitchell, Lee, & Eberly, 2008), and are particularly problematic given significant financial constraints in community mental health. Second, turnover may negatively affect the remaining providers (e.g., by increasing demands for productivity and efficiency with an even more limited workforce), accelerating potential subsequent provider turnover (Holtom, Mitchell, Lee, & Inderrieden, 2005; Knight, Becan, & Flynn, 2012; 2013; Knudsen, Ducharme, & Roman, 2008). Most critically, provider turnover may affect the quality of care that clients receive (Bukach et al., 2015; Holtom & Burch, 2016; Knudsen et al., 2008). For example, having open vacancies could lead to disruption of care continuity (Yanchus, Periard, Moore, Carle, & Osatuke, 2015), increase the length of time before providers can see clients, reduce the time providers can spend with clients, and increase stress among remaining providers. In fact, high turnover has been associated with reduced fidelity to evidence-based practices (Rollins, Salyers, Tsai, & Lydick, 2010) and reduced treatment quality (Brandt, Bielitz, & Georgi, 2016). Some studies show that higher performing providers are more likely to leave voluntarily than lower performing providers (Eby, Burk, & Maher, 2010; McEvoy & Cascio, 1987). Therefore, it is imperative for

## IMPACT OF SUPERVISION

organizations to identify the factors that contribute to turnover intention of providers and ways to retain a quality workforce.

Some potential turnover factors that have been suggested in mental health include insufficient salary, increased burnout, decreased job satisfaction, lack of organizational support, and lack of professional development opportunities (Cho & Song, 2017). Positive direct or indirect factors include positive civil workplace climates, fair performance appraisal, job autonomy, and workplace psychological safety (Yanchus, et al., 2015), while negative factors include job demands (Scanlan & Still, 2013), emotional labor, and low organizational trust (Cho & Song, 2017). Because of the nature of human service work (e.g., requiring intensive emotional labor), employees' stress (e.g., emotional exhaustion), job embeddedness (e.g., job satisfaction, organizational commitment), and their support systems (e.g., organizational support, program director leadership; Broome, Knight, Edwards, & Flynn, 2009) have often been researched in recent years (e.g., Yanchus, Periard, & Osatuke, 2017).

Identifying causal links among the factors and mitigating them are important to reducing turnover intentions, yet solutions need to be considered attainable and feasible for organizations. For example, significant increase in wages may reduce some turnover intention (Ben-Dror, 1994); however, given significant financial constraints among mental health organizations (e.g., Bond & Drake, 2017), increased pay may not be perceived as an immediate option for some mental health organizations. Among the identified factors that might be viable targets, burnout and job satisfaction are strong individual-level predictors that can be directly linked to turnover intention (e.g., Yanchus, et al., 2017). Burnout and job satisfaction are also often modeled as mediating factors when linking job resources (e.g., organizational support, supervisory support) to turnover intention (e.g., Aarons & Sawitzky, 2006; Gabel Shemueli, Dolan, Suárez Ceretti, &

## IMPACT OF SUPERVISION

Nuñez del Prado, 2016; Knudsen et al., 2008; Leiter & Maslach, 2009; Scanlan & Still, 2013; Tziner, Rabenu, Radomski, & Belkin, 2015; Yanchus et al., 2015; 2017). However, most studies have tested mediation models in cross-sectional studies. Mediation models can be more rigorously tested in longitudinal studies by directly modeling the relationships among the changes of variables (Cheong, MacKinnon, & Khoo, 2003; MacKinnon, 2008). Below we describe how burnout and job satisfaction can be linked to turnover intention, and how increased supervisory support can mitigate these factors.

Burnout is characterized by high levels of emotional exhaustion, cynical and negative attitudes (depersonalization), and diminished accomplishment at work (Maslach & Jackson, 1984). Burnout is problematic for employees and their organizations (Morse, Salyers, Rollins, Monroe-DeVita, & Pfahler, 2012). For example, burnout may decrease staff morale and job engagement while also increasing staff absenteeism and turnover intention (e.g., Paris & Hoge, 2010; Salyers et al., 2015). Burnout is also linked to poor quality of care (Poghosyan, Clarke, Finlayson, & Aiken, 2010; Salyers et al., 2015). A recent meta-analysis on burnout indicates that burnout is associated with poor client satisfaction and quality of care in healthcare settings (Salyers et al., 2016). Among the identified three domains of burnout, emotional exhaustion is particularly problematic and frequently linked to increased turnover intention (Knudsen et al., 2008; Morazes, Benton, Clark, & Jacquest, 2010; Salyers et al., 2015; Scanlan & Still, 2013; Yanchus et al., 2017).

Job satisfaction is another critical factor that may affect turnover intention. Locke (1969) defines job satisfaction as “the pleasurable emotional state resulting from the appraisal of one’s job as achieving or facilitating the achievement of one’s job values.”(Locke 1969, p.316). The literature indicates that salary, opportunities for promotion, lower work stress, and positive

## IMPACT OF SUPERVISION

feedback about job performance and having a supportive supervisor may impact job satisfaction (Jayaratne & Chess, 1984; Martin & Schinke, 1998; Morazes et al., 2010). Positive feedback from supervisors and promotion opportunities are highly predictive of job satisfaction (Martin & Schinke, 1998). In turn, job satisfaction helps promote organizational commitment (Landsman, 2001), which could lead to reduced turnover intention. Some studies have shown that increased job satisfaction is correlated with decreased turnover intention (Wright & Bonett, 1992; Yanchus et al., 2015; 2017).

One promising remedy to mitigate turnover intention may include reducing burnout and improving job satisfaction by increasing support from direct supervisors. Supervision methods have been developed traditionally for administrative purposes such as ensuring adherence to organizational policy and procedure, assuring managerial efficiency and effectiveness of organizational functions (Kadushin & Harkness, 2014). However, supervision has also evolved to focus on improving providers' skills and needs. Indeed, clinical supervision is a core component of training in a number of healthcare professions (Kilminster & Jolly, 2000). In clinical settings, having a supportive supervisor has been found to be important in reducing burnout and promoting job satisfaction (Hyrkäs, Appelqvist-Schmidlechner, & Haataja, 2006; Kim & Lee, 2009; Martin & Schinke, 1998). Support from supervisors could be a buffer for work stress and could facilitate job satisfaction (Kim & Lee, 2009; O'Donoghue & Tsui, 2013). Supervision has also found to be effective in increasing job retention (Eisenberger, Stinglhamber, Vandenberghe, Sucharski, & Rhoades, 2002; Morazes et al, 2010; Smith, 2005). For mental health service providers, supervisory support is critical given their high work demands in helping clients with complex needs. Mental health providers tend to work more than their official scheduled work hours, which can increase emotional exhaustion and reduce job satisfaction

## IMPACT OF SUPERVISION

(Luther et al., 2017). Mental health providers may also experience associative stigma of mental illness, which may also increase emotional exhaustion and reduce job satisfaction (Verhaeghe & Bracke, 2012; Yanos, Vayshenker, DeLuca, & O'Connor, 2017). Reducing work-related stress is highly relevant to this occupation, and supervision practice may be a critical factor.

Several researchers suggest that the quality of supervisory support could alleviate some provider turnover intention by decreasing burnout as well as by increasing job satisfaction (Coomber & Barriball 2007; Kadushin & Harkness, 2014; Zhang & Feng, 2011). However, most mediation analyses use cross-sectional data, which can generate substantially biased estimates of the causal processes (Maxwell & Cole, 2007). The mediation mechanisms, whether reduced burnout and improved job satisfaction facilitated by supervisory support can lead to reduced turnover intention, need to be tested using longitudinal study designs. In addition, incorporating dynamic and systematic changes of the key provider job variables beyond their static status is important when understanding provider turnover intention over time (e.g., Garner & Hunter, 2014).

Our objective was to determine whether supervisory support could reduce turnover intention via reduced emotional exhaustion (a key component of burnout and often linked to turnover intentions) and increased job satisfaction over time among direct care providers in community mental health organizations. We focus on turnover intention in this study instead of actual turnover for several reasons. Turnover intention is an important outcome in itself, as the intention and plan are the last sequence towards actual turnover (Yanchus et al., 2015; 2017). Turnover intention is known as a strong predictor of actual turnover (Coomber & Barriball, 2007; Knudsen et al., 2008). However, research also indicates distinct characteristics of turnover intention and actual turnover. For example, the variance in actual turnover that can be explained

## IMPACT OF SUPERVISION

by intention varies between 5-15% (Cohen et al., 2016; Tett & Meyers, 1993), and actual turnover may be more influenced by external factors, such as job availability, family needs, and organizational stability (Cohen, Blake, & Goodman, 2016; Zhang & Feng, 2011). For this reason, intention to turnover (rather than actual turnover) may be more amenable to intervention.

As job demands continue to increase, especially under the demands of providing high quality of care with limited support systems (Aarons et al., 2009; Beidas et al., 2016), increased emotional exhaustion and reduced job satisfaction are reasonable targets for supervisory support. We hypothesize both to be pathways by which supervisory support may help reduce turnover intention. Understanding the mechanisms of turnover intention affected by supervisory support addressing emotional exhaustion and job satisfaction is a critical step to reduce turnover intention. We use longitudinal data to model how change in supervisory support impacts the change in job well-being (i.e., emotional exhaustion, job satisfaction), which in turn affects the change in turnover intention over 12 months. The current study extends the existing literature by accounting for time-varying factors of key job variables in testing their mediation effects on turnover intention.

## Methods

### Participants and Setting

We conducted secondary analyses from data collected as part of a randomized, controlled trial comparing BREATHE, a burnout-reduction focused intervention (Rollins et al., 2016; Salyers et al., 2011) to Motivational Interviewing training (Miller & Rollnick, 2002). The data were collected from 195 direct clinical care providers at two Midwestern (rural and urban locations) community mental health centers longitudinally at four time points (baseline assessment [prior to any intervention], 3 mo., 6 mo., and 12 mo.). The rural location was a



## IMPACT OF SUPERVISION

public, non-profit organization that employed approximately 230 staff at the time of the study, providing community-based substance abuse and mental health services to nearly 6000 clients annually. The urban location was also a public, non-profit organization that employed approximately 260 staff serving nearly 4000 clients annually. Both organizations were providing case management, home-based and school-based services, supported employment, medication management, and outpatient individual and group services.

Participants answered online surveys, and received a \$10 gift card for the completion of each survey. Study participation rates after the baseline entry were 79% (3 mo), 74% (6 mo), and 65% (12 mo). The majority of participants were white (85%) and female (80%), and the average age was 40 ( $\pm 12$ ) years old. The average length in the current position was 3.3 ( $\pm 4.7$ ) years.

Participants had at least a bachelor's degree (81%), and about half (47%) obtained their degrees in either social work or psychology. The original study did not show any significant intervention effects (either BREATHE or Motivational Interviewing) on outcomes (the Authors, in press).

The original study was approved by [the university's] Institutional Review Board.

### Measures

Supervisory support was measured by the Perception of Supervisory Support (PSS) Scale (Fukui, Rapp, Goscha, Marty, & Ezell, 2014). The PSS Scale was designed to measure perceived supervisory support specifically for direct service providers, including emotional support (e.g., leave supervision feeling energized), support for client goal attainment (e.g., achieve better alignment between client's goal and your goal for client), and support for professional development (e.g., get feedback on your performance). The scale consists of 19 items, with a 6-point Likert scale ranging from 1 (never) to 6 (always). The scale has good content validity and reliability (Fukui et al., 2014). We calculated overall supervisory support mean scores after

## IMPACT OF SUPERVISION

confirming high correlations among subscales and internal consistency (Cronbach's alpha for the total scale in our sample was 0.97 at baseline). The participants were asked to rate the level of perceived supervisory support from their direct supervisors. Higher scores indicate better perceived support from supervisors.

Emotional exhaustion, a key component of burnout, was measured by the 9-item Emotional Exhaustion subscale of the Human Service Provider version of the Maslach Burnout Inventory (MBI-HSS; Maslach, Jackson, & Leiter, 1996). Participants were asked to report how often they felt each of the 9 items on a 7-point scale (0 = *Never* to 6 = *Every day*). The scale has previously demonstrated good convergent validity and internal consistency (Maslach et al., 1996). In the current sample, Cronbach's alpha was 0.92 at baseline.

Job satisfaction was assessed with a single self-reported item: "Overall, I am satisfied with my job." Participants were asked to rate this item on a 1 (*Strongly disagree*) to 7 (*Strongly agree*) scale. Such an approach can be used to evaluate overall attitudes/feelings about the job (Coomber & Barriball, 2007), and single-item measures have been found to be an efficient and valid approach to assessing overall job satisfaction (Evans et al., 2006; Nagy, 2002; Wanous, Reichers, & Hudy, 1997).

Turnover intentions were assessed by two self-reported items. The first item, "How often have you seriously considered leaving your job in the past six months?" was rated on a 6-point scale from 1 (*Never*) to 6 (*Several times a week*). The second item asked "How likely are you to leave your job in the next six months?" on a 4-point scale ranging from 1 (*Not likely at all*) to 4 (*Very likely*). These items have been used in several studies with community mental health clinicians and have been found to correlate with burnout and job satisfaction (e.g., Salyers et al., 2015). In the current sample, the two items were strongly correlated ( $r = 0.70$ ), so we computed

## IMPACT OF SUPERVISION

one turnover intention score by rescaling the second item to a 6-point scale and taking the mean of the two items.

Covariates included self-report age, gender, race, years in the current position, site (organization), and intervention condition. The participants were asked to indicate their date of birth, gender (male =1 or female=0), race (American Indian or Alaska Native, Asian, Native Hawaiian or Pacific Islander, Black or African American, or White), and years in the current position (i.e., “How long have you been in your current position?”). Because 85% identified their race as white, we recorded race as either white (=1) or non-white (=0). We also controlled for the site (organization A vs B) as well as intervention condition (BREATHE=1 vs MI=0).

### Analyses

We used growth curve modeling (GCM) to test our hypothesis. GCM is a popular method for analyzing change. GCM allows the intercept and slope (i.e., change rate) parameters for each target outcome to vary across individuals, which accounts for the intraclass correlation due to repeated measures (Wu, Selig, & Little, 2013). Figure 1 shows the specification of the GCM for supervisory support. The GCMs for the other outcomes were specified in the same way. These models were combined into a parallel GCM in which the change processes of the target outcomes were analyzed simultaneously (see Figure 2). The parallel GCM (Selig & Preacher, 2009) allows us to examine the longitudinal mediation effect -- whether the change rate (i.e., slope) of supervisory support indirectly predicted the change rate of turnover intention through the change rate of emotional exhaustion or through the change rate of job satisfaction over 12 months.

As shown in Figure 2, the two mediators were entered into the model simultaneously, which allows one to examine the effect of one mediator controlling for the other. Following

## IMPACT OF SUPERVISION

MacKinnon, Lockwood, & Williams (2004), we tested the significance of mediation effects using nonparametric bootstrapping with bias corrected confidence interval (CI). This method offers the highest power to detect a mediating effect while keeping the type I error rate within a robust region (MacKinnon, Lockwood, & Williams, 2004; Wu & Jia, 2013). Overall model fit was evaluated using the multi-index approach (Hu & Bentler, 1999), based on the root mean square error of approximation (RMSEA; values < 0.08 are acceptable), the standardized root mean residual (SRMR; values < 0.08 are acceptable) and the comparative fit index (CFI; values > 0.90 are acceptable). Self-report age, gender, race, years in the current position, site (organization), and intervention condition (see Table 1) were controlled for the effects on all endogenous outcomes (i.e., change rates of emotional exhaustion, job satisfaction, and turnover intention) in the model.

The original study had 35% incomplete cases, which included 32% actual turnover from the organizations at 12 months. We compared the participants with complete observations and the participants with missing observations due to dropout in terms of their baseline outcome measures. We did not find any significant difference between the two groups except for baseline turnover intention. The incomplete cases had a higher turnover intention than the complete cases on average (mean difference = 0.38,  $p = 0.06$ ). In other words, missingness could be dependent on baseline turnover intention. We used full information maximum likelihood estimation method (FIML), a comparable method to multiple imputation, to estimate the model (Enders, 2010). FIML accommodates missing data by incorporating missing data patterns in the model estimation process without deleting any incomplete cases. Well-executed FIML can borrow information from the baseline turnover intention to reduce some of the bias (Enders, 2010). Analyses were conducted using Mplus 8 (Muthén & Muthén, 1998-2017).

## IMPACT OF SUPERVISION

Testing a mediation effect requires a decent sample size (e.g., Fritz & MacKinnon, 2007). Parallel GCM involves more parameters than traditional methods, which typically requires larger samples than we had access to. We recognize that setting significance levels requires a consideration of the trade-off between Type I and Type II errors (e.g., Schumm et al, 2013) and that interpretations of statistical significance using cut-off values may be controversial (see Pritschet et al., 2016). Given the consideration of potential type II error due to our relatively small sample size, we interpret  $p < 0.10$  as significant. Similar rationale has been applied in the literature (e.g., Hawkins, Amato, & Kinghorn, 2013).

### Results

Overall, turnover intention increased over time ( $B^1 = 0.16, p < 0.01$ ), and supervisory support decreased over time ( $B = -0.04, p = 0.06$ ). The average change rate of emotional exhaustion was close to zero; however, individuals varied ( $p = 0.02$ ), indicating that emotional exhaustion increased for some of the participants, but decreased for others. Job satisfaction decreased over time on average ( $B = -0.05, p = 0.08$ ).

Concurrent correlations among the baseline measures are presented in Table 1 and were in the expected direction. Baseline supervisory support was associated with the lower baseline emotional exhaustion ( $r = -0.45, p < 0.01$ ), higher baseline job satisfaction ( $r = 0.51, p < 0.01$ ), and lower baseline turnover intention ( $r = -0.49, p < 0.01$ ). In addition, baseline turnover intention was associated with higher baseline emotional exhaustion ( $r = 0.65, p < 0.01$ ), and lower baseline job satisfaction ( $r = -0.71, p < 0.01$ ). Table 1 also shows the correlations between the covariates and the baseline outcome measures.

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<sup>1</sup> B is used to denote unstandardized coefficients and  $\beta$  is used to denote standardized coefficients.

## IMPACT OF SUPERVISION

The parallel GCM testing emotional exhaustion and job satisfaction as mediators provided an adequate fit to the data (CFI = 0.90, RMSEA = 0.08, SRMR = 0.07). The result from the model (see Figure 2) suggests that the change rate (i.e., slope) of supervisory support negatively predicted the change rate of emotional exhaustion ( $B = -2.08$ ,  $\beta = -1.33$ ,  $p = 0.04$ ), and the change rate of emotional exhaustion positively predicted the change rate of turnover intention ( $B = 0.67$ ,  $\beta = 0.62$ ,  $p = 0.04$ ), controlling for job satisfaction and all of the covariates. Thus, an increase in supervisory support was associated with a decrease in emotional exhaustion, which in turn was associated with a decrease in turnover intention over time. The indirect effect was significant at  $p < 0.10$  with  $B = -1.39$  and 90% bias corrected bootstrap CI = [-6.35, -0.06].

In comparison, the change rate of job satisfaction was positively predicted by the change rate of supervisory support ( $B = 2.13$ ,  $\beta = 1.96$ ,  $p = 0.03$ ), indicating that an increase in supervisory support was associated with an increase in job satisfaction. The change rate of job satisfaction negatively predicted the change rate of turnover intention ( $B = -0.40$ ,  $\beta = -0.26$ ,  $p = 0.07$ ), holding emotional exhaustion and all of the covariates constant. The indirect effect was not significant at  $p < 0.10$  level. Thus, our hypothesis that job satisfaction mediates the longitudinal relationship between supervisory support and turnover intention was not supported by the data.

The result from the model also shows that the direct effect of the change rate of supervisory support on the change rate of turnover intention was not significant, controlling for the two mediating variables. However, the baseline status of supervisory support (i.e., intercept) had a positive direct effect on the change rate of turnover intention ( $B = 0.12$ ,  $\beta = 0.43$ ,  $p = 0.04$ ), indicating that a higher level of baseline supervisory support was associated with a higher change rate of turnover intention. The correlation between the slope of emotional exhaustion and the

## IMPACT OF SUPERVISION

slope of job satisfaction was not significant in the longitudinal model. Finally, although it was not the focus of the current study, we also examined the effects of the covariates on the outcomes. While some of the covariates were associated with the baseline status of the outcome measures (see Table 1), none of the covariates predicted the slope of the outcomes in the longitudinal model.

**Please insert Table 1, and Figures 1 & 2 around here**

## Discussion

The goal of the current study was to examine whether supervisory support is a potential key factor in reducing turnover intention, and to test the mediating role of emotional exhaustion (a critical component of burnout) and job satisfaction among mental health providers. Specifically, we tested whether changes in perceived supervisory support predict changes in turnover intention, by way of changing emotional exhaustion or job satisfaction over 12 months. To our knowledge, this is the first study that tested these mediation effects by accounting for each effect longitudinally. Our finding revealed that as hypothesized, increased supervisory support was related to reduced turnover intention through reduced exhaustion over time. Although supervisory support was a significant indicator of job satisfaction, job satisfaction did not mediate the longitudinal relationship between supervisory support and turnover intention.

Our findings regarding the concurrent correlations at baseline are consistent with previous studies showing correlations among organizational support, emotional exhaustion, and turnover intention (e.g., Coomber & Barriball, 2007; Kadushin & Harkness, 2014; Zhang & Feng, 2011). We further extended previous research by using a longitudinal study to directly test the theoretical linkages. This is an important advancement as cross-sectional mediation analyses can produce substantially biased estimates (Maxwell & Cole, 2007). Although we cannot claim

## IMPACT OF SUPERVISION

true causal effects without manipulating supervisory support, our findings are consistent with a conceptual model in which supervisory support can decrease exhaustion, thereby reducing turnover.

Because the direct path between the change rate of supervisory support and the change rate of turnover intention was not significant, the mediating role of emotional exhaustion becomes particularly important. The finding that baseline status of supervisory support (i.e., intercept) positively predicted increased change of turnover intention was unexpected. However, given that supervisory support decreased over time in our sample, those who received relatively more support to start with may be more greatly influenced by the reduced support, which could directly impact the increased turnover intention over time. Based on our findings, alleviating emotional exhaustion to reduce turnover intention is important, and this might be achieved by increasing supervisory support. Given the high prevalence of burnout among mental health professionals (ranging from 21 to 67%; Morse et al., 2012), our findings suggest an important role for supervisors. By attending to work-related stress reduction needs of supervisees, supervisors might be able to mitigate the impact of emotional exhaustion on turnover intention.

On the other hand, the mediation effect of job satisfaction was absent in the longitudinal model. Supervisory support was positively related to job satisfaction, and job satisfaction was negatively related to turnover intention. However, with the longitudinal analysis, job satisfaction was not a significant mediator in the relationship between supervisory support and turnover intention. Although our finding contradicts some previous research showing supervisory relationships predicted job satisfaction and turnover intention among mental health professionals (e.g., Yanchus et al., 2017), the prior research was based on cross-sectional data.



## IMPACT OF SUPERVISION

Several potential factors could explain the non-significant mediation effect over time. First, despite the supervisors' support to improve job satisfaction, providers may intend to leave their positions due to other factors. In particular, our findings suggest a more important role for emotional exhaustion than satisfaction in predicting turnover intention. In fact, another study also found that turnover was associated with emotional exhaustion but not job satisfaction (Wright & Cropanzano, 1998). Further, some studies show that workers seek new employment opportunities regardless of the level of job satisfaction (Jayaratne & Chess, 1984), and workers with reasonably high job satisfaction still express turnover intention (Martin & Schinke, 1998). Another study further indicated that workers could be highly engaged but burned-out at the same time, and they tend to express high turnover intention due to exhaustion (Moeller, Ivcevic, White, Menges, & Brackett, 2018). An alternative explanation may have to do with how supervisory support was measured. The Supervisory Support Scale (Fukui et al., 2014) emphasizes emotional support aspects, which might be more sensitively linking the effect to turnover intention through reduced emotional exhaustion than job satisfaction. That is, perceptions of supervisory support measured in our study may become more relevant to turnover intention when addressing the situation where people are feeling drained and overwhelmed than when people report feeling dissatisfied.

Some limitations of the current study need to be acknowledged. First, the participants were recruited from two organizations. Although the organizations reflect one urban and one rural location in the Midwest and provide services typical of community mental health centers, most participants were white females, which restricts generalizability. Second, although the use of a sophisticated statistical method is a strength in this study, complex models with convenience samples may limit the reproducibility of the finding. Parallel growth curve modeling involves

## IMPACT OF SUPERVISION

more parameters than traditional mediation analyses, which typically requires larger samples than we had access to. The non-significant mediation effect of job satisfaction could be a result of a relatively small sample size in our study. Third, given that team approach is often used in mental health service settings, the ratings of supervisory support can be nested within supervisors, and we did not have the ability to sort out employees with the same supervisors to control for this. Given that such intraclass correlations could affect job variables (e.g., Broome et al., 2009), it may be important to control for the nested structures in the future studies. Fourth, because the Perception of Supervisory Support scale was developed for human service professions, the findings may not be generalizable to non-service occupations. Fifth, job satisfaction was measured by a single overall job satisfaction item. Although prior research suggests single-item satisfaction measures can be valid, a more nuanced measure may be able to better capture different facets of satisfaction in the context of turnover intention. Sixth, like most longitudinal studies, we had a substantial amount of missing data due to dropout. Although the estimation method we used (i.e., FIML) could reduce some of the bias (e.g., Enders, 2010), we cannot know whether the bias was completely removed. Given that we are more likely to encounter missing information for those who turnover in longitudinal studies, it may be important to examine whether the conclusion from this study will hold by using more complex missing data methods such as selection and pattern-mixture models (Little, 2009) when larger samples are available. Finally and most importantly, although a longitudinal model is used, our model cannot prove causality. To gain stronger evidence for causal effects, experimental manipulations of the independent variable are necessary, such as providing specific supervision interventions, to more rigorously test the impact on emotional exhaustion, job satisfaction, and turnover intention. Despite these limitations, a strength of our study is the ability to

## IMPACT OF SUPERVISION

prospectively test the relationships among the changes of the key job variables over time.

Longitudinal data are critical for establishing mediational effects (Maxwell & Cole, 2007; Ogresta, Rusac, & Zorec, 2008).

This study has several significant implications for the community mental health practice and future research. First, given that supervision tends to be infrequent in routine practice in community mental health (Hoge, Migdole, Cannata, & Powell, 2014), the current study empirically highlights the importance of supervision. Because improving job well-being is important in itself among mental health providers (e.g., Morse, et al., 2012), the current evidence of the supervisory support effect on improved job well-being (i.e., emotional exhaustion, job satisfaction) in a longitudinal study brings attention to the important role of effectively providing supervisory support in routine practice. Second, reducing turnover intention is important, not only because it is a strong indicator for actual turnover (Hom, Lee, Shaw, & Hausknecht, 2017), but also it can reflect a commitment to the work that is critical for high quality of care. Finally, by reducing turnover intention, we might be able to reduce actual turnover, which is a critical concern at wider system levels (e.g., organization, providers, clients). This is an important hypothesis to test in future studies.

### Conclusion

High turnover rates among mental health providers are problematic for high quality services. Research emphasizes the roles of supervisors as critical determinants of quality practices (Carlson, Rapp, & Eichler, 2012); however, formal supervision tends to be infrequent, and in standard practice, the attention to supervision varies. Using longitudinal mediation analyses, our study identified the effect of supervisory support on reduced turnover intention through reduced exhaustion. Thus, the current study demonstrates the importance of supervision

## IMPACT OF SUPERVISION

for employees by potentially alleviating burnout and turnover intentions. Given that provider burnout and turnover could negatively impact the quality of work, our study not only addresses the organizational management need for the well-being of employees, but also indicate an important future direction that could improve the quality of mental health care, benefiting clients (Glisson & Durick, 1988).

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## IMPACT OF SUPERVISION

Table 1

The correlation coefficients among the baseline outcomes and covariates.

	SUP0	EE0	JOB0	TURN0
Age (in years)	-0.01	-0.03	0.05	-0.01
Gender (male=1; female=0)	0.05	-0.18*	0.14	-0.15*
Race (white=1; non-white=0)	-0.15*	0.31**	-0.17*	0.11
Years in the current position	-0.11	0.07	-0.03	0.07
Site (organization A vs. B)	-0.20**	0.09	-0.24**	0.10
Intervention condition (BREATHE=1, MI=0)	0.06	-0.14	0.16*	-0.22**
SUP0		-0.45**	0.51**	-0.49**
EE0			-0.54**	0.65**
JOB0				-0.71**

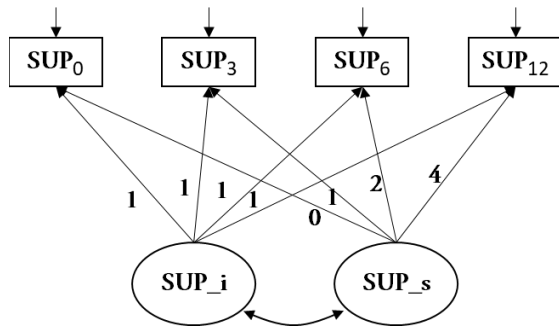
SUP0 = baseline supervisory support; EE0= baseline emotional exhaustion; JOB0 = baseline job satisfaction; TURN0= baseline turnover intention. \*  $p < 0.05$ ; \*\*  $p < 0.01$ .



## IMPACT OF SUPERVISION

Figure 1

The growth curve model for supervisory support

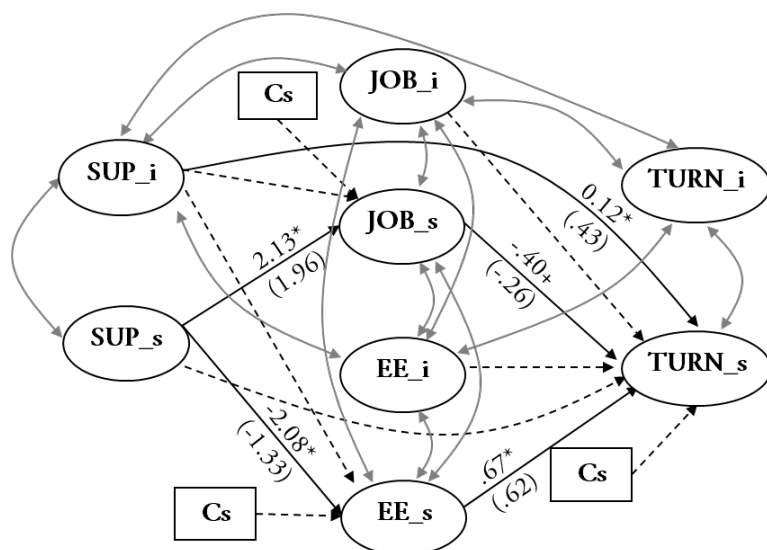


Note.  $SUP_0$ ,  $SUP_3$ ,  $SUP_6$  and  $SUP_{12}$  represent supervisory support at baseline, 3rd month, 6th month, and 12th month, respectively.  $SUP_i$  and  $SUP_s$  represent the intercept (i.e., baseline status) and slope (i.e., change rate per 3 months) for supervisory support.

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Figure 2

## Parallel Growth Curve Model



Note. SUP = supervisory support; EE=emotional exhaustion; JOB = job satisfaction; TURN= turnover intention. i and s stand for intercept (i.e., baseline status) and change rate per 3 months, respectively. The coefficients in and outside the parentheses are standardized and unstandardized regression coefficients, respectively. Solid single-arrowed paths are significant paths. Dashed single-arrowed paths are non-significant paths. Double-arrowed paths represent covariances/correlations. Cs stands for the set of covariates. The covariates are allowed to correlate with one another and with the exogenous latent variables in the model, but these correlations are omitted in the Figure for the sake of clarity.

\* indicates  $p < 0.05$  and + indicates  $p < 0.10$ .