

**The Mediating Role of Emotional Exhaustion in the Relationship of Mindfulness with
Turnover Intentions and Job Performance**

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Abstract

The role of mindfulness in the workplace has emerged as a legitimate and growing area of organizational scholarship. The present research examined the role of employee emotional exhaustion in mediating the relationship of mindfulness with turnover intentions and task performance. Drawing on theory and empirical research on both organizational behavior and mindfulness, we predicted that more mindful employees would show lower turnover intentions and higher task performance and that these relationships would be mediated by emotional exhaustion. We tested these hypotheses in two field studies in an Indian context. Study 1 was a field study of call center employees of a multinational organization, an industry in which turnover rates are very high. This study found that mindfulness was associated with lower turnover intentions and less emotional exhaustion, and that emotional exhaustion mediated the relationship between mindfulness and turnover intentions. Study 2 replicated these results in a sample of employees based in major Indian cities and drawn from different industries. In addition, it showed that mindfulness was positively related to supervisor-rated task performance, with emotional exhaustion again playing a mediating role. We discuss theoretical and practical implications of our findings, as well as future research directions.

Keywords: Emotional Exhaustion; Job Performance; Mindfulness; Turnover Intentions

Introduction

Organizations are increasingly turning to mindfulness to help their employees cope with stress, increase emotional intelligence, and develop their leadership potential. At the same time research on the role of mindfulness in the workplace has emerged as a legitimate and growing area of organizational scholarship (Good et al., 2016; Reb & Atkins, 2015). Employee mindfulness has, for example, been associated with lower turnover intentions (Dane & Brummel, 2014) and higher job performance (Reb, Narayanan, & Ho, 2015). However, current understanding of the mediating mechanisms of these relationships is limited.

Improving job performance and reducing turnover intentions is important to enhance organizational effectiveness. The performance of their employees obviously matters a great deal to organizations. The importance of turnover intentions may perhaps be less obvious. Retaining qualified employees presents a major challenge for many organizations, and losing skilled employees due to voluntary exit involves not only the loss of human capital, but also disrupts ongoing activities and implies the need to identify, recruit, and train replacements (Cascio, 1991). Turnover intentions are among the most important predictors (Griffeth, Hom, & Gaertner, 2000) of voluntary exit, which is estimated to cost organizations billions of dollars in the US alone (Rosch, 2001). Moreover, in addition to predicting voluntary exit, turnover intentions also relate to other important withdrawal behaviors such as lateness (Holtom, Mitchell, Lee, & Eberly, 2008). Thus, both employee task performance and turnover intentions serve as important predictors of organizational performance.

These two variables, in turn, may be predicted by employees' mindfulness. Within secular research, mindfulness has been defined as self-regulated present-centred attention and awareness with an open, curious, non-judging orientation to experience (Bishop et al., 2004;

Brown & Ryan, 2003; Kabat-Zinn, 1990). While mindfulness has state-like characteristics, substantial evidence supports the notion that people exhibit reliable individual differences in the frequency of being in a mindful state (e.g., Brown & Ryan, 2003). Thus, consistent with others (e.g., Hülshager, Alberts, Feinholdt, & Lang, 2013; Reb, Narayanan & Chaturvedi, 2014), we treat mindfulness as a dispositional construct that can be assessed through self-report.

Emerging research suggest that mindfulness plays an important role in the work domain (Good et al., 2016; Reb & Atkins, 2015). A limited amount of work has examined the link between mindfulness and turnover intentions. Dane and Brummel (2014) found in a sample of service workers in the American restaurant industry that mindfulness was negatively related to employee intentions to leave the organization and this relationship was significant after controlling for employee engagement. While they argued that mindful employees' ability to cope better with workplace stressors was a key reason, they did not empirically examine any mediating mechanisms. Andrews, Kacmar, and Kacmar (2014) argued that mindfulness would be negatively related to turnover intentions through regulatory focus (prevention and promotion focus) and job satisfaction. Their field study found that mindfulness indeed had a negative total effect on turnover intentions. Interestingly, they found that the indirect path through promotion focus was positive, that is, mindfulness was positively related to a promotion focus, which in turn was positively related to turnover intentions. However, this indirect effect was more than compensated by the positive relationship between mindfulness and job satisfaction, which in turn was negatively related to turnover intentions.

Although they did not investigate this matter empirically, central to the arguments of both Dane and Brummel (2014) and, to a lesser extent, Andrews et al. (2014) was that turnover intentions of mindful employees are lower because these employees are better able to self-

regulate their emotions and behaviors. These self-regulatory capabilities may lead to lower emotional exhaustion, which then leads to lower turnover intentions. Emotional exhaustion, the central aspect of job burnout, has been defined as depletion in emotional energy to an extent that people fail to meet job demands (Maslach, Schaufeli, & Leiter, 2001). Emotional exhaustion manifests itself as reluctance to go to work and, in extreme cases, a total dreading of work itself. As a result, emotionally exhausted employees desire to remove themselves from the depleting work environment, manifesting in higher turnover intentions and other signs of withdrawal. Empirically, emotional exhaustion has been supported as an important predictor of several important outcome variables including turnover intentions; Lee and Ashforth (1996) report a meta-analytic correlation of .44 between emotional exhaustion and turnover intentions.

Emotional exhaustion has been thought of to occur primarily as a depletion of personal resources in meeting the demands of “strong situations” that involve role overload, role ambiguity, and lack of autonomy, among others (Maslach et al., 2001). However, other researchers have suggested that it is also important to consider the person-situation interaction and identify individual factors affecting exhaustion (Cordes & Dougherty 1993). In this regard, Hülshager et al. (2013) argued, and found, that mindfulness would be negatively related to emotional exhaustion. Mindfulness may be associated with lower emotional exhaustion because it facilitates more adaptive emotional reactions to potentially stressful working conditions such as high work load or role ambiguity (Weinstein, Brown & Ryan, 2009). Mindful individuals tend to observe potentially stressful events and conditions in a more open, non-judgmental way, through processes of de-centering and de-automatization (Brown, Ryan, & Creswell, 2007). This leads to mindfulness being associated with reduced reactivity to emotional and stressful stimuli (Arch & Craske, 2010). Mindfulness has also been shown to shorten the lifecycle of emotional

reactions, leading to a quicker recovery from the experience of negative emotions (e.g., Keng, Robins, Smoski, Dagenbach, & Leary, 2013). These differences in appraising and reacting to potentially stressful events help individuals avoid emotional exhaustion (Hülshager et al., 2013).

In addition to mindfulness being related to lower turnover intentions, research suggests that more mindful employees also show greater task performance (Dane & Brummel, 2014; Reb et al., 2015; Shao & Skarlicki, 2009). Beal, Weiss, Barros, and MacDermid (2005) argue that affective processes, such as rumination, arousal, or emotional exhaustion take attentional resources away from the task at hand, thus negatively influencing performance. In addition to lower attentional resources, emotionally exhausted employees also have less energy at their disposal to perform their work. Empirically, emotional exhaustion has indeed been found to negatively relate to job performance (Wright & Bonett, 1997).

The aim of the present research was to examine employee turnover intentions and job performance through the lens of mindfulness. To achieve our aim, we conducted two field studies within an Indian context. This context is timely because turnover intentions and voluntary exit are not only a problem for countries with mature labor markets. A recent study suggests that India, despite a large pool of young and educated workers, is about to have the highest attrition rate globally and that India is “in the eye of an employee turnover storm” (Hay Group, 2013, p. 5). Study 1 focused on turnover intentions as dependent variable. We expected that employees’ mindfulness would be negatively related to emotional exhaustion and turnover intentions, and that the relationship between mindfulness and turnover intentions would be mediated by emotional exhaustion. Study 2 attempted to replicate the findings of Study 1 and also included supervisor-rated task performance as an additional dependent variable. We expected that employees’ mindfulness would positively relate to their task performance and that emotional

exhaustion would act as a mediator of this relationship as well.

Study 1

Method

Participants. Out of 300 contacted employees, we received a total of 251 responses (response rate 83%). Of the participants who responded, 38% were female and the average age of the participants was 24.7 years. Average organizational tenure was 11 months, with the longest tenure reported at 3.5 years. Almost 82% of the sample had at least a 3-year college degree. All respondents worked as service representatives focused on improving the experience of users of the company's e-business. The service representatives engaged in customer acquisition and retention, technical support, and account services.

Procedure. We collected data from call center employees in a larger contact center for an American multinational company in India. The survey was part of a large study on human resource management practices in Indian contact centers. Following extensive site visits, a survey was developed, piloted, and edited for clarity. At the time of the study, the total number of employees in this center was 600. The organization randomly identified 50% of these (300) for participation in this study. Management gave employees time off their daily work shift duties to participate in this study. Employees completed the survey online and were ensured anonymity.

Measures.

Mindfulness. Mindfulness was measured with the commonly used Mindfulness Attention and Awareness Scale (MAAS; Brown & Ryan, 2003). Sample items from the 15-item scale include "I find it difficult to stay focused on what's happening in the present", "It seems I am 'running on automatic' without much awareness of what I'm doing" and "I find myself preoccupied with the future or the past". The scale uses a 6-point response format (1 = *almost*

always, 6 = *almost never*). Responses were reverse-scored such that higher values indicate higher mindfulness. The Cronbach alpha (α) for this scale was .90.

Emotional exhaustion. Emotional exhaustion was measured using the 8-item Maslach Burnout Inventory for service occupations (Maslach, Jackson, & Leiter, 1996). This measure has been developed to measure emotional exhaustion specifically in a service context. Sample items are “I feel emotionally drained from my work”, “I feel used up at the end of the workday”, and “I feel fatigued when I get up in the morning and have to face another day on the job.” Responses were made on a 5-point (1 = *strongly disagree*, 5 = *strongly agree*) scale ($\alpha = .91$).

Turnover intentions. Turnover intentions were measured with the widely used 3-item scale developed by Wayne, Shore, and Liden (1997). Items are “I am seriously thinking about quitting my job”, “I am actively looking for a job outside this company”, and “As soon as I can find a better job, I’ll leave this company.” Responses were made on a 5-point (1 = *strongly disagree*, 5 = *strongly agree*) scale. The Cronbach alpha of this scale was .92.

Control variables. Following past researchers’ emphasis on controlling for demographics (e.g., Wright & Bonett, 1997), we controlled for age, gender and job tenure (e.g., Halbesleben & Bowler, 2007). We also controlled for call volume in our analyses as this is a measure of work overload which might lead to emotional exhaustion. We note that all significance test results reported below were replicated without the control variables.

Data analyses. We tested our hypotheses through a direct structural equation model (SEM) using AMOS version 5.0. To test the mediation hypothesis, we followed the procedures described in MacKinnon, Lockwood, and Williams (2004). We examined both full (i.e., no path between mindfulness and turnover intentions) and partial mediation models. We drew on Hu and Bentler (1999) for criteria to evaluate model fit.

Results

Descriptive statistics, correlations, and scale reliabilities are shown in Table 1. Relevant correlations were in the hypothesized direction and significant. As predicted, after controlling for our control variables, mindfulness showed a negative association with turnover intentions ($\beta = -.37, p < .001$) such that the more mindful the employees, the lower their turnover intentions. Moreover, in the full mediation model, mindfulness was negatively related to emotional exhaustion ($\beta = -.43, p < .001$); and emotional exhaustion was positively related to turnover intentions ($\beta = .60, p < .001$). The overall fit statistics of the full mediation model were good ($\chi^2 = 650.63, df = 392; RMSEA = .05; CFI = .93; TLI = .92; GFI = .86$). In the partial mediation model (Figure 1) ($\chi^2 = 645.92, df = 391; RMSEA = .05; CFI = .93; TLI = .93; GFI = .87$), mindfulness was negatively related to emotional exhaustion ($\beta = -.42, p < .001$) and negatively related to turnover intentions ($\beta = -.15, p < .05$). Also, in the same model, emotional exhaustion was positively related to turnover intentions ($\beta = .53, p < .001$). The chi square difference test shows that the partial mediation model fit statistically better ($\Delta\chi^2 = 4.71, p < .05$) than the full mediation model.

 Insert Table 1 and Figure 1 about here

Discussion

In this study we found support for the hypothesized relationship between mindfulness, emotional exhaustion and turnover intentions. This significant relationship held when controlling for age, gender, job tenure and call volume. Mediation analyses suggest that the relationship between mindfulness and turnover intentions was partially mediated through emotional exhaustion, based on the partial mediation model providing better fit to the data than the full

mediation model. In Study 2, to support the generalizability of the above findings, we attempted to replicate the tests of the hypotheses concerning turnover intentions in a sample coming from a variety of different organizations and industries in India. Further, we included task performance as an additional dependent variable.

Study 2

Method

Participants. Of 740 survey instruments distributed (370 subordinate-supervisor dyads), 620 subordinate and supervisor questionnaires were returned. After deleting records with unmatched supervisor-subordinate dyads, the final sample consisted of a total of 286 supervisor-subordinate dyads for a total of 572 surveys constituting for a response rate of 77% (572 out of 740). Participants spoke fluent English, the working language in their organization. The subordinate sample was 73 % male and the mean age was 35.4 years. The majority (70%) had obtained a postgraduate degree and the rest had at least had some undergraduate education.

Procedure. We collected data of respondents drawn from multiple organizations from various sectors located in four major Indian cities. Based on the Standard Industrial Classification (SIC) system, we classified these organizations into ten different industrial sectors (such as banking, education, engineering, hospitality, information technology, media, oil and gas, retail and service). We approached human resource managers enrolled in a satellite based management course offered by one of the top business schools in India. We requested HR managers to assist the researchers with the distribution of questionnaires in their respective organizations. Separate survey packages were prepared for supervisors and subordinates and these managers were instructed to randomly distribute the packages to subordinates and their immediate supervisors.

A cover letter attached to the survey instrument for supervisors noted that the objective of the study was to learn about subordinates' experience of work and how it impacts on their job performance. Supervisors were then requested to rate the task performance of their subordinates who participated in the survey. (We also collected supervisor ratings of emotional exhaustion. For brevity, we only report the findings from self-rated emotional exhaustion. The results for supervisor-rated emotional exhaustion essentially replicate those for self-rated emotional exhaustion suggesting the robustness of the findings.) A similar cover letter was attached to the survey instrument for subordinates that assessed their mindfulness, emotional exhaustion, and turnover intentions. Completed survey instruments were directly returned to one of the authors which ensured confidentiality of responses. A code written at the top right hand corner of the survey instrument was used to match supervisor-subordinate responses.

Measures.

Mindfulness. As in Study 1, we used the MAAS (Brown & Ryan 2003) to assess dispositional mindfulness. The Cronbach alpha was .87.

Emotional exhaustion. To take into account the difference in where the sample was drawn from, unlike in Study 1, we assessed emotional exhaustion using the 5-point (1-5) Maslach Burnout Inventory - General (Schaufeli, Leiter, Maslach, Jackson, 1996), which has been validated for non-service managerial organizations. The Cronbach alpha was .87. Sample items include "I feel emotionally drained from my work" and "I feel tired when I get up in the morning and have to face another day on the job".

Turnover intentions. As in Study 1, we used Wayne et al.'s (1997) three-item (1-5) scale to measure turnover intentions. The Cronbach alpha was .84.

Task performance. Task performance was assessed by immediate supervisors using a 7-

item, 5-point (1-5) scale developed by Williams and Anderson (1991). Sample items include “Adequately completes assigned duties”, “Fulfils responsibilities specified in job description” and “Performs tasks that are expected of him/ her”. The Cronbach alpha was .87.

Control variables. We controlled for age, gender, and industry (dummy coded) in the analyses. All significance test results were replicated without these control variables.

Data analyses. We again used SEM as our data analytic approach. Given that we had two dependent variables, to test the mediation hypotheses, we used the two-step method proposed by Anderson and Gerbing (1988). In the first step, we analyzed the measurement model to test the adequacy of the hypothesized factor structure for all variables. In the second step, we analyzed several structural models of the hypothesized relationships between the latent variables.

Results

Table 2 presents descriptive statistics, correlations, and scale reliabilities. Relevant correlations all were in the hypothesized direction and significant, providing initial support for our hypotheses. The fit indices of a structural model with mindfulness as independent variable and task performance and turnover intentions as dependent variables were good overall ($\chi^2=827.46$, $df=532$; RMSEA=.04; CFI=.92; TLI=.90; GFI=.87). The analysis revealed that mindfulness was negatively associated with turnover intentions ($\beta= -.14$, $p<.05$) and positively related to task performance ($\beta=.34$, $p<.001$), after controlling for age, gender, and industry. Thus, the more mindful an employee, the higher this person’s task performance and the lower this person’s turnover intentions.

 Insert Table 2 about here

For the first step of the mediation analyses, the global fit indices of the measurement model ($\chi^2=721.83$, $df=398$; $RMSEA=.05$; $CFI=.92$; $TLI=.91$; $GFI=.85$) indicate that the hypothesized factor structure fit the data well. All factor loadings for the measurement model were significant, confirming the hypothesized factor structure. For the second step, we ran several structural models. We first tested a full mediation model in which emotional exhaustion fully mediates the relationship between mindfulness and both turnover intentions and task performance (i.e., no direct paths between mindfulness and the dependent variables). As expected, mindfulness was negatively related to emotional exhaustion ($\beta = -.58$, $p<.001$), which was negatively associated with task performance ($\beta = -.34$, $p<.001$) and positively associated ($\beta = .29$, $p<.001$) with turnover intentions. Overall, the fit indices of this full mediation model were acceptable ($\chi^2 = 1094.00$, $d_f = 720$; $RMSEA=.04$; $CFI=.91$; $TLI=.90$; $GFI=.85$).

Next, we examined an alternative partial mediation model. The global fit indices of this model ($\chi^2 = 1085.90$, $df = 718$; $RMSEA=.04$; $CFI=.92$; $TLI=.90$; $GFI=.85$) were slightly better than for the full mediation model and a chi-square difference test ($\Delta\chi^2 = 8.10$, $p<.05$) reveals that the partial mediation model fit the data better. As the path between mindfulness and turnover intentions was not significant in the partial mediation model, we also tested another model that omitted the direct path from mindfulness to turnover intentions (Figure 2). The fit of this model was acceptable ($\chi^2=1086.11$, $d_f=719$; $RMSEA=.04$; $CFI=.92$; $TLI=.90$; $GFI=.85$) and significantly better than the full mediation model as assessed by a chi-square difference test ($\Delta\chi^2 = 7.89$, $p<.01$) but not significantly different from the partial mediation model ($\Delta\chi^2 = 0.21$, ns). Given a preference for more parsimonious models, therefore, this model was considered to be the overall best model in Study 2.

Insert Figure 2 about here

Discussion

The findings of Study 2 suggest that the relationship between mindfulness and turnover intentions was fully mediated through emotional exhaustion, as the direct relationship dropped to non-significance when the mediator was included in the relationship. Further, the relationship between mindfulness and task performance was partially mediated via emotional exhaustion as the direct path between mindfulness and task performance was still significant ($\beta = .23, p < .001$). Overall, Study 2 provided support for all main effects and mediation hypotheses. Unlike in Study 1, the relationship between mindfulness and turnover intentions was best modeled as full, rather than partial mediation. We can only speculate about the reasons for this difference. Most trivially, the difference could simply be due to random variation between the two studies. More substantively, in the call center context of Study 1, it could be that mindfulness was related to turnover intentions through additional mediators. For example, mindful employees, being more fully present and engaged, may see more value in their work or enjoy helping callers.

General Discussion

The present research examined the role of employee mindfulness for turnover intentions and task performance. We predicted, and found, that more mindful employees exhibited lower turnover intentions and higher task performance. Importantly, we hypothesized, and found, that these relationships were mediated by emotional exhaustion. Study 1 supported the hypothesized relationships between mindfulness, emotional exhaustion, and turnover intentions in a field study of Indian call center employees of a multinational organization, an industry in which turnover rates are very high. Study 2 replicated the results in a sample of Indian employees based in major

Indian cities and drawn from different industries, providing some support for the generalizability of the findings beyond the specific organization sampled from in Study 1. Study 2 also tested two additional hypotheses and showed that mindfulness was positively related to supervisor-rated task performance, another key organizational outcome, and that emotional exhaustion again served as a mediator, partially mediating the relationship between mindfulness and performance.

Our research makes several noteworthy theoretical contributions. First, these two studies add to an emerging body of research examining the role of mindfulness in the workplace in general (Reb & Atkins, 2015), and the influence of mindfulness on emotional exhaustion, turnover intentions, and task performance specifically. Past studies have provided evidence for each of these relationships separately. For example, Hülshager et al. (2013) have shown that mindfulness relates to emotional exhaustion, Dane and Brummel (2014) have shown that it relates to turnover intentions, and Reb et al. (2015) have shown that it relates to task performance. The present research is the first to examine these variables in one integrated model, conceptualizing and measuring emotional exhaustion as a mediating mechanism. Together with other emergent research, our studies suggest that emotional exhaustion may act as a key mediating process for translation mindfulness into benefits at work.

Second, we also contribute to the literature on turnover intentions. Turnover intentions are important predictors of actual turnover and other withdrawal-related behaviors. Whereas much is known about antecedents such as employee demographic characteristics, attitudes, and stress, we know comparatively less about the attentional and self-regulatory underpinnings of turnover intentions (Griffeth et al., 2000; Holtom et al., 2008). The present research contributes to a small body of research investigating mindfulness as a novel antecedent of turnover intentions (Andrews et al., 2014; Dane & Brummel, 2014). By linking mindfulness to turnover

intentions through emotional exhaustion, we arrive at a more complete understanding of turnover intentions through attentional, emotional, and intentional processes.

Third, the present research also adds to our understanding of the relationship between mindfulness and intentions. Kabat-Zinn (1990) originally conceptualized mindfulness as the intentional practice of being openly aware of ongoing experiences in the present moment, thus, incorporating intention setting into the definition of mindfulness (practice). Subsequent research found that mindfulness can also act as a moderator that helps individuals implement their intentions (such as to engage in more physical activity), possibly because it facilitates better self-regulation of emotional and cognitive activities that run counter to intention implementation (Chatzisarantis & Hagger, 2007). Interestingly, this facilitating moderation may be specific to conscious intentions and may not generalize to other, non-intentional motivational processes. For example, Papiés, Pronk, Keesman, and Barsalou (2015) found that mindfulness weakened the relationship between motivation in the form of hunger and the eating of unhealthy foods. The present research suggests yet a third connection between mindfulness and intentions: mindfulness may shape the content of intentions, such that more mindful individuals set different intentions (in our case, not to exit their organization) from less mindful individuals. Given that we found this relationship to be mediated by emotional exhaustion, it is not clear from our studies whether mindfulness directly shapes turnover intentions, or whether less mindful individuals are more exhausted, and their higher exhaustion leads to greater turnover intentions. Clearly, more research is needed to better understand the self-regulatory and emotional processes linking mindfulness and intentions.

Finally, and somewhat ironically, even though the roots of secular mindfulness research and training interventions lie in contemplative traditions originating from India, little research

has examined mindfulness in Indian employees and organizations. While not explicitly taking a cultural lens, the present research contributes to a growing literature on work and organizations in India and adds to a relatively small body of studies of mindfulness using samples outside of the US and Europe, thus contributing to our understanding of the generalizability of mindfulness findings across cultures (e.g., Christopher, Charoensuk, Gilbert, Neary, & Pearce, 2009). That we replicated previous findings in Western samples is both noteworthy and reassuring as it raises the possibility that mindfulness, beyond culturally influenced differences in understanding and practices, may also share a relatively common core as a universal quality of attention and awareness. Having said that, more research is needed to understand potential cultural contingencies, as well as commonalities, of mindfulness.

Practical Implications

Estimates of the annual costs of turnover, including the loss of human capital and the cost of replacement, range in the billions of dollars in the US alone (Rosch, 2001). India, the location of the current studies, is expected to soon have the highest attrition rate globally (Hay Group, 2013). Our research suggests that organizations can lower employee turnover intentions, as well as improve task performance, by finding ways to reduce emotional exhaustion. Our research further points to mindfulness as an important path towards lowering emotional exhaustion. Mindfulness training programs, such as mindfulness-based stress reduction (MBSR), have consistently been shown to reduce stress and anxiety (Chiesa & Serretti, 2009). It is possible that such interventions might alleviate emotional exhaustion in the workplace, as initial findings reported by Hülshager et al. (2013) suggest. Such interventions may help prevent emotional exhaustion from occurring in the first place and in so doing reduce turnover intentions and increase job performance and potentially have other beneficial effects. In addition to mindfulness

training, organization should also explore other ways to increase employee mindfulness. For example, Reb et al. (2015) found that employee mindfulness was lower when organizational constraints were high and the tasks were routine but higher when employees received a lot of support from supervisors. Thus, organizations could make tasks less routine, reduce constraints, and improve support in order to increase employee mindfulness and lower emotional exhaustion.

Limitations and Future Directions

Our research has several limitations which point to directions for future studies. First, both of our studies employed a cross-sectional design and causality should be inferred with caution only. For example, although we propose that emotional exhaustion mediates the relationship between mindfulness and outcomes, our design does rule out the possibility that mindfulness mediates the relationship between emotional exhaustion and outcomes (even though follow-up analyses suggest that such models provide a poorer fit to the data). Given our measure of mindfulness as a dispositional variable, our model seems more plausible than a model in which emotional exhaustion drives dispositional mindfulness. However, future research could examine if a reciprocal relationship exists between mindfulness, conceptualized as a state, and emotional exhaustion such that higher mindfulness leads to lower emotional exhaustion and greater emotional exhaustion leads to the lower (state) mindfulness. Further, it could also be that emotionally exhausted employees have higher turnover intentions and because they are less committed to - and mentally present at - their work, they exhibit lower mindfulness.. However, this concern is partly reduced by the fact that we measured mindfulness in a global, trait-like manner, rather than using a work-specific scale. Ultimately, future research should complement cross-sectional field studies with longitudinal studies, laboratory experiments, and field experiments (intervention studies) to address such alternative hypotheses.

Second, we focused on only one mediating mechanism, emotional exhaustion. Our choice of mediating variable was based both on research on mindfulness (Hülshager et al., 2013) and organizational scholarship linking emotional exhaustion to performance and turnover intentions (e.g., Lee & Ashforth, 1996; Wright & Bonett, 2004). However, the findings of partial mediation suggest that there may be additional mediating mechanisms apart from emotional exhaustion, presenting a worthwhile direction for future research. In this regard, Kiken and Shook (2011) found that mindfulness is associated with a reduction in negativity bias, or the tendency to weigh negative information more heavily than positive information. Further, they found that mindfulness is associated with more positive judgments and increased optimism. Thus, mindful employees may have lower turnover intentions because, even in difficult periods, they are able to maintain a more positive outlook. Also, mindfulness has been found to be related to better relationship quality (Barnes, Brown, Krusemark, Campbell, & Rogge, 2007). According to the embeddedness model, people stay in organizations partly because of the human relations they have formed (Mitchell & Lee, 2001). When relationships at work are unpleasant or turn sour, employees are motivated to seek employment elsewhere (Gerstner & Day, 1997). Thus, another path through which mindfulness may lower turnover intentions is through high-quality relationships at work.

It is also important to keep in mind that the negative relationship between mindfulness and turnover intentions presents an average relationship across all participants. It is quite conceivable that for certain individuals and in certain situations, the relationship between mindfulness and turnover intentions becomes positive. Mindfulness is thought to help individuals perceive themselves and their environment more objectively as well as reach greater clarity about their values (Brown et al., 2007). As a result, to the extent that an organization or job do

not present a good fit to an employee, for example because of value conflicts, more mindful employees may be more, rather than less, likely to leave the organization. Related, more mindful employees may be less likely to stay with their current job if they can get a better job elsewhere, given that mindfulness has been found to reduce the sunk cost fallacy (Hafenbrack, Kinias, & Barsade, 2014) that can bias employees to stay with their present job due to past (sunk) investments into it. In addition to factors such as person-job fit or alternative employment options, individual and cultural characteristics may also play a moderating role. For example, employees' lay theories (cf. Murphy & Dweck, 2010) may influence whether they blame themselves or the organization for reasons to be unhappy with their job. Thus, whereas mindfulness may help employees become more aware of such reasons, lay theories may moderate the conclusions drawn such that an external attribution may be more likely to lead to turnover than an internal attribution. Future research could examine such moderating factors to shed further light on the role of mindfulness at work.

Compliance with Ethical Standards

Conflict of Interest: The authors declare that they have no conflict of interest.

Ethical Approval: All studies were approved by the appropriate ethics committee. All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Informed Consent: Informed consent was obtained from all individual participants included in the study.

References

- Anderson, J.C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin*, 103(3), 411-423.
- Andrews, M. C., Kacmar, K. M., & Kacmar, C. (2014). The mediational effect of regulatory focus on the relationships between mindfulness and job satisfaction and turnover intentions. *Career Development International*, 19(5), 494-507.
- Arch, J. J., & Craske, M. G. (2010). Laboratory stressors in clinically anxious and non-anxious individuals: The moderating role of mindfulness. *Behaviour Research and Therapy*, 48, 495-505.
- Barnes, S., Brown, K.W., Krusemark, E., Campbell, W. K., & Rogge R. D. (2007). The role of mindfulness in romantic relationship satisfaction and responses to relationship stress. *Journal of Marital and Family Therapy* 33(4), 482-500.
- Beal, D. J., Weiss, H. M., Barros, E., & MacDermid, S. M. (2005). An episodic process model of affective influences on performance. *Journal of Applied Psychology*, 90, 1054–1068.
- Bishop, S. R., Lau, M., Shapiro, S., Carlson, L., Anderson, N. D., Carmody, J., Segal, Z. V., Abbey, S., Speca, M., Velting, D., & Devins, G. (2004). Mindfulness: A proposed operational definition. *Clinical Psychology: Science and Practice*, 11, 230–241.
- Brown, K.W. & Ryan, R.M. (2003). The benefits of being present: Mindfulness and its role in psychological well-being. *Journal of Personality and Social Psychology*. 84(4), 822-848.
- Brown, K.W., Ryan, R.M., & Creswell, J.D. (2007). Mindfulness: Theoretical foundations and evidence for its salutary effects. *Psychological Inquiry*, 18, 211-237.
- Cascio, W. F. (1991). *Costing human resources*. Cincinnati: South-Western Educational Publishing.

- Chatzisarantis, N. L., & Hagger, M. S. (2007). Mindfulness and the intention-behavior relationship within the theory of planned behavior. *Personality and Social Psychology Bulletin*, 33(5), 663-676.
- Chiesa, A., & Serretti, A. (2009). Mindfulness-based stress reduction for stress management in healthy people: A review and meta-analysis. *Journal of Alternative and Complementary Medicine*, 15, 593–600.
- Christopher, M. S., Charoensuk, S., Gilbert, B. D., Neary, T. J., & Pearce, K. L. (2009). Mindfulness in Thailand and the United States: A case of apples versus oranges? *Journal of Clinical Psychology*, 65(6), 590-612.
- Cordes, C.L. & Dougherty, T. W. (1993). A review and an integration of research on job burnout. *Academy of Management Review*. 18(4), 621-656.
- Dane, E., & Brummel, B. J. (2014). Examining workplace mindfulness and its relations to job performance and turnover intention. *Human Relations*, 67(1), 105-128.
- Gerstner, C. R., & Day, D. V. (1997). Meta-analytic review of leader– member exchange theory: Correlates and construct ideas. *Journal of Applied Psychology*. 82, 827–844.
- Good, D.J., Lyddy, C., Glomb, T., Bono, J., Brown, K.W., Duffy, M., Baer, R. Brewer, J., & Lazar, S. (2016). Contemplating mindfulness: An integrative review. *Journal of Management*, 42(1), 114–142.
- Griffeth, R. W., Hom, P. W., & Gaertner, S. (2000). A meta-analysis of antecedents and correlates of employee turnover: Update, moderator tests, and research implications for the next millennium. *Journal of Management*, 26(3), 463-488.
- Hafenbrack, A. C., Kinias, Z., & Barsade, S. G. (2014). Debiasing the mind through meditation: Mindfulness and the sunk-cost bias. *Psychological Science*, 25(2), 369-376.

- Halbesleben, J.R.B., & Bowler, W.M. (2007). Emotional exhaustion and job performance: The mediating role of motivation. *Journal of Applied Psychology*, 92(1), 93-106.
- Hay Group (2013). Preparing for take off. Retrieved on 16 July 2015 from http://atrium.haygroup.com/downloads/marketingps/in/Preparing%20for%20take%20off_executive%20summary_IN.pdf.
- Holtom, B. C., Mitchell, T. R., Lee, T. W., & Eberly, M. B. (2008). Turnover and retention research: A glance at the past, a closer review of the present, and a venture into the future. *The Academy of Management Annals*, 2(1), 231-274.
- Hu, L., & Bentler, P.M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Model*, 6(1), 1-55.
- Hülshager, U. R., Alberts, H. J. E. M., Feinholdt, A., & Lang, J. W. B. (2013). Benefits of mindfulness at work: The role of mindfulness in emotion regulation, emotional exhaustion, and job satisfaction. *Journal of Applied Psychology*, 98, 310–325.
- Huselid, M.A. (1995). The impact of human resource management practices on turnover, productivity, and corporate financial performance. *Academy of Management Journal*, 38(3), 635-672.
- Kabat-Zinn, J. (1990). *Full Catastrophe Living, Using the Wisdom of Your Body and Mind to Face Stress, Pain, and Illness*. Delacourt, New York.
- Keng, S.-L., Robins, C. J., Smoski, M. J., Dagenbach, J., & Leary, M. R. (2013). Reappraisal and mindfulness: A comparison of subjective effects and cognitive costs. *Behaviour Research and Therapy*, 51, 899-904.
- Kiken, L. G., Shook, N. G. (2011). Looking up: Mindfulness increases positive judgments and

- reduces negativity bias. *Social Psychological and Personality Science*. 2(4), 425-431.
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. New York, NY: Springer.
- 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.
- MacKinnon, D., Lockwood, C., & Williams, J. (2004). Confidence limits for the indirect effect: Distribution of the product and resampling methods. *Multivariate Behavioral Research*. 39(1), 99-128.
- Maslach, C., Jackson, S.E., & Leiter, M.P. (1996). *Maslach Burnout Inventory, Manual Research Edition*. Consulting Psychology Press, Palo Alto.
- Maslach, C., Schaufeli, W.B., & Leiter, M.P. (2001). Job burnout. *Annual Review of Psychology*, 52, 397-422.
- Mitchell, T. R., & Lee, T. W. (2001). The unfolding model of voluntary turnover and job embeddedness: Foundations for a comprehensive theory of attachment. *Research in Organizational Behavior*, 23, 189-246.
- Murphy, M. C., & Dweck, C. S. (2010). A culture of genius: How an organization's lay theory shapes people's cognition, affect, and behavior. *Personality and Social Psychology Bulletin*, 36(3), 283-296.
- Papies, E. K., Pronk, T. M., Keesman, M., & Barsalou, L. W. (2015). The benefits of simply observing: Mindful attention modulates the link between motivation and behavior. *Journal of Personality and Social Psychology*, 108(1), 148.
- Reb, J., & Atkins, P. W. B. (Eds.). (2015). *Mindfulness in organizations: Foundations, research, and applications*. Cambridge, UK: Cambridge University Press.
- Reb, J., Narayanan, J., & Chaturvedi, S. (2014). Leading mindfully: Two studies on the influence

- of supervisor trait mindfulness on employee well-being and performance. *Mindfulness*, 5(1), 36-45
- Reb, J., Narayanan, J., & Ho, Z. W. (2015). Mindfulness at work: Antecedents and consequences of employee awareness and absent-mindedness. *Mindfulness*, 6(1), 111-122.
- Rosch, P. J. (2001). The quandary of job stress compensation. *Health and Stress*, 3, 1-4.
- Schaufeli, W.B., Leiter, M.P., Maslach, C., & Jackson, S.E. (1996). *Maslach Burnout Inventory Manual*, Consulting Psychologist Press.
- Shao, R., & Skarlicki, D. P. (2009). The role of mindfulness in predicting individual performance. *Canadian Journal of Behavioural. Sciences*. 41(4), 195-201.
- Wayne, S. J., Shore, L. M., & Liden, R.C. (1997). Perceived organizational support and leader-member exchange: A social exchange perspective. *Academy of Management Journal*. 40(1), 82-111.
- Weinstein, N., Brown, K. W., & Ryan, R. M. (2009). A multi-method examination of the effects of mindfulness on stress attribution, coping, and emotional well-being. *Journal of Research in Personality*, 43, 374-385.
- Williams, L.J., & Anderson, S.E. (1991). Job satisfaction and organizational commitment as predictors of organizational citizenship and in-role behaviors. *Journal of Management* 17(3), 601-617.
- Wright, T.A., & Bonett, D. G. (1997). The contribution of burnout to work performance. *Journal of Organizational Behavior*. 18(5), 491-499.

Table 1
Descriptive Statistics, Correlations and Internal Consistency Reliabilities, Study 1

| | M | SD | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|------------------------|-------|-------|------|------|------|------|--------|-------|-------|
| 1 Age | 24.75 | 4.08 | -- | | | | | | |
| 2 Gender | 1.39 | .49 | -.06 | -- | | | | | |
| 3 Job tenure | 11.36 | 7.04 | .13* | .13* | -- | | | | |
| 4 Call volume | 55.49 | 24.05 | .12 | -.04 | .15* | -- | | | |
| 5 Mindfulness | 3.64 | .65 | .08 | .12 | .07 | -.11 | (.90) | | |
| 6 Emotional exhaustion | 2.49 | .75 | .00 | .01 | .15* | .08 | -.37** | (.91) | |
| 7 Turnover intentions | 2.34 | 1.10 | .00 | -.01 | .09 | .02 | -.32** | .54** | (.92) |

Notes: N = 251; Cronbach alphas in parentheses; job tenure coded in months; call volume is number of calls per day; gender coded as 1 = male, 2 = female.

** $p < .01$; * $p < .05$

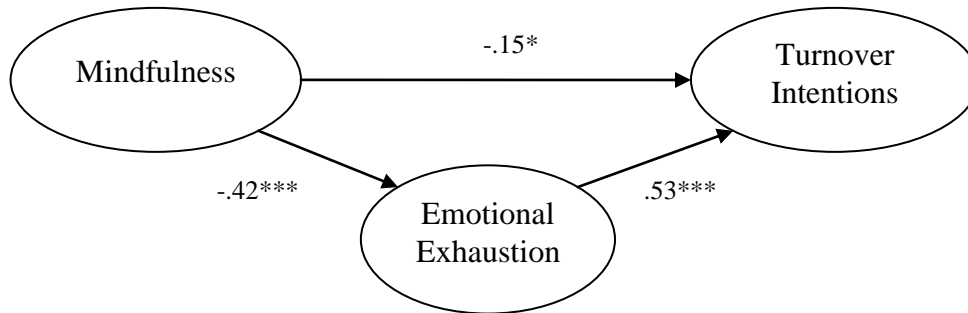
Table 2
Descriptive Statistics, Correlations and Internal Consistency Reliabilities, Study 2

| | M | SD | 1 | 2 | 3 | 4 | 5 | 6 |
|------------------------|-------|------|--------|------|--------|--------|-------|-------|
| 1 Age | 29.73 | 6.73 | - | | | | | |
| 2 Gender | 1.41 | .49 | -.25** | - | | | | |
| 3 Mindfulness | 4.52 | .76 | .05 | .06 | (.87) | | | |
| 4 Emotional exhaustion | 2.21 | 1.42 | -.15* | .04 | -.45** | (.87) | | |
| 5 Turnover intentions | 3.03 | 1.62 | -.12* | -.04 | -.14* | .30** | (.84) | |
| 6 Task performance | 4.04 | .75 | .01 | -.00 | .30** | -.31** | -.10 | (.87) |

Notes: N = 286; Cronbach alphas in parentheses; gender coded as 1 = male, 2 = female.

** $p < .01$; * $p < .05$

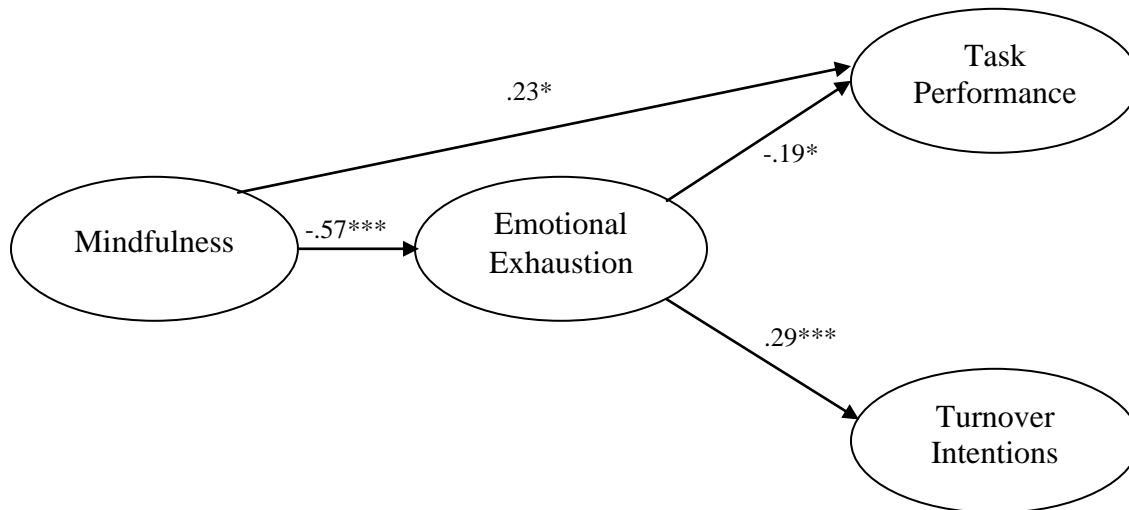
Figure 1
Partial Mediation Model, Study 1



Notes: Final structural model results, with ovals representing latent factors. Path coefficients are standardized, with significance levels determined by critical ratios on unstandardized coefficients. Results reported after controlling for age, tenure, call volume, and gender.

*** $p < .001$, ** $p < .01$, * $p < .05$

Figure 2
Final Model, Study 2



Notes: Final structural model results, with ovals representing latent factors. Path coefficients are standardized, with significance levels determined by critical ratios on unstandardized coefficients. Results reported after controlling for age, gender, and industry.

*** $p < .001$, ** $p < .01$, * $p < .05$