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THE RELATIONSHIP BETWEEN DEVELOPMENTAL OPPORTUNITIES,
BURNOUT, AND TURNOVER INTENTIONS: AN EXPLORATION OF POTENTIAL
MODERATING EFFECTS

BY
DEREK GRAVHOLT

A thesis submitted in partial fulfillment of the requirements for the

Master of Science

Major in Industrial and Organizational Psychology

South Dakota State University

2020

THESIS ACCEPTANCE PAGE

Derek Gravholt

This thesis is approved as a creditable and independent investigation by a candidate for the master's degree and is acceptable for meeting the thesis requirements for this degree.

Acceptance of this does not imply that the conclusions reached by the candidate are necessarily the conclusions of the major department.

Alper Kayaalp

Advisor

Date

Rebecca Martin

Department Head

Date

Dean, Graduate School

Date

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ABSTRACT

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BURNOUT, AND TURNOVER INTENTIONS: AN EXPLORATION OF POTENTIAL
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DEREK GRAVHOLT

2020

Through the lens of the Job Demands-Resources (JD-R) Model, potential moderating effects of Self-Determination Theory (SDT) needs were investigated for the relationships between developmental opportunities and both turnover intentions and burnout in a sample of healthcare employees. SDT needs include the need for competence, the need for relatedness, and the need for autonomy, which are all theorized to be important pieces of optimal psychological functioning. Results indicated that developmental opportunities were negatively related to both turnover intentions and burnout, and these effects were moderated by the employee's sense of relatedness, such that those with low relatedness appreciated even more reduction in turnover intentions and burnout. These findings provide further evidence for the use of providing developmental opportunities as an important organizational intervention, while illuminating the extra potential for employees that have less social support at work.

Introduction

Turnover is a major concern for human resource (HR) effectiveness as an employee is estimated to cost as much as 50-60% of their annual salary to replace (Society for Human Resource Management, 2016). It has also been found that turnover cost U.S. employers about \$600 billion in 2018, with the figure potentially moving as high as \$680 billion in 2020 (Work Institute, 2018). This cost is likely attributed, at least in part, to the impact turnover can have on the overall quantity and quality of productivity at an organization (Mor Barak, Nissly, & Levin, 2001). Additionally, the financial stress that comes with training and recruiting new employees can divert resources away from remaining employees; not to mention the time it takes for a new employee to acclimate to the new position. This discontinuity in the workforce has been shown to reduce the quality of care in human services organizations (Braddock & Mitchell, 1992). Reducing turnover is often a primary focus in HR departments, especially considering three-quarters of employee exit interviews show evidence that the employee could have been retained (Work Institute, 2018).

Multiple studies have revealed a link between burnout and an employee's turnover intentions (e.g., De Croon, Sluiter, Blonk, Broersen, & Frings-Dresen, 2004; Huang, Chuang, & Lin, 2003; Janssen, de Jonge, & Bakker, 1999). As such, burnout may be an important outcome to monitor for organizations that are interested in keeping turnover in check. Additionally, burnout itself has been negatively linked to some desirable organizational outcomes, such as organizational citizenship behaviors (Cropanzano, Rupp, & Byrne, 2003) and employee health (Moustou, Panagopoulou, Montgomery, & Benos, 2010). In fact, the 11th revision of the International Classification

of Diseases (ICD-11) includes burnout as an occupational phenomenon (World Health Organization, 2018). On the other hand, burnout has been positively linked to other undesirable organizational outcomes, such as absenteeism (Iverson, Olekalns, & Erwin, 1998). In summary, reducing burnout can have a significant role in organizational strategy, making it an important outcome to investigate further.

A potential remedy to both turnover and burnout may be to provide employees with career developmental opportunities. Providing employees with developmental opportunities has been linked to both reduced turnover intentions (Joo & Park, 2010) and reduced burnout (Whitaker, 1996). Incorporating this management technique can also be an asset for increasing job satisfaction (Spence-Laschinger, Leiter, Day, & Gilin, 2009) and organizational citizenship behaviors (Dysvik & Kuvaas, 2008). However, although past research has shown the potential for developmental opportunities as an asset in HR management, there has been little research investigating other factors that moderate its effect on these outcomes.

The present research intends to fill this gap by investigating the context in which developmental opportunities can have the most impact on reducing turnover and burnout. The sample used in this research was obtained from a large midwestern healthcare organization that has a prominent learning culture. In line with this culture, the organization encourages employee development in their management practices in part to improve organizational outcomes. Past research has shown that developmental opportunities can reduce turnover and burnout (Joo & Park, 2010; Robinson, Magee, & Caputi, 2016), but our review of the literature found no research investigating how an individual employee's needs can impact this relationship. As such, the organization

involved with this study was interested in investigating how individual differences in an employee's needs can impact the relationship between developmental opportunities and turnover or burnout. Understanding these differences would help to identify those individuals that could benefit the most from new opportunities to develop.

One theory that can help to explain potential needs that moderate the relationship between developmental opportunities and negative outcomes is Self-Determination Theory (SDT) (Deci & Ryan, 2012). It suggests that people have intrinsic motivation to fulfill three basic needs: competence, relatedness, and autonomy. In other words, humans have a desire to: (1) increase their skills and abilities, (2) acquire and maintain relatedness with others, and (3) feel a sense of control in everything that they do, respectively. Competence, relatedness, and autonomy are all considered crucial aspects of a person's needs and fulfilling them has been linked to positive outcomes. Studies show that fulfilling SDT needs is linked to higher job satisfaction and general wellbeing, while also partially explaining the relationship between job demands and burnout within the Job Demands-Resource (JD-R) model (Ilardi, Leone, Kasser, & Ryan, 1993; Van den Broeck, Vansteenkiste, De Witte, & Lens, 2010).

Essentially, JD-R posits that employees have a certain amount of job demands and job resources (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001). If job demands accrue with no resources to counter them, they can progress into work stressors for employees. These work stressors have been linked to a variety of negative outcomes, including burnout and turnover. However, research has shown that job resources (e.g. developmental opportunities, competence, relatedness, autonomy) can help to counteract

work stressors that come about from excessive job demands and mitigate these negative outcomes (Bakker, Demerouti, & Euwema, 2005).

Recognizing the ability of SDT needs to act as job resources in the JD-R framework, I expect the fulfillment of each need to be an important consideration when investigating the relationship between developmental opportunities and burnout or turnover intentions. Acting as a resource within the JD-R model, each need's fulfillment could lead to further reduction in burnout or turnover intentions that could result from job demands. Additionally, Self-Determination theory implies that individuals require competence, autonomy, and relatedness for optimal psychological functioning, suggesting the importance of fulfilling each need as a baseline before attempting other interventions that could impact employee outcomes (Deci & Ryan, 2012). As such, the relationship between developmental opportunities and burnout or turnover intentions may differ based on the level of each SDT need's fulfillment in each employee. In other words, providing employees with developmental opportunities may only be a useful intervention for reducing burnout or turnover intentions when the employee's SDT needs are already fulfilled.

Considering the negative effects of burnout and turnover for modern organizations, an important question arises: How do we mitigate burnout while retaining workers? With no previous studies investigating need fulfillment in this context, the present research explores the potential ability of SDT needs to play a role. Thus; the objective of this study is to offer new insights into the potential for SDT need fulfillment to interact with a well-known intervention (i.e. developmental opportunity) for reducing burnout and turnover intentions. Specifically, my findings will help to contribute to a

better understanding of the context in which providing employees with developmental opportunities can have the most positive impact on important organizational outcomes.

Literature Review

Developmental Opportunities Overview

Employee opportunities for development have been the focus of research dating as far back as the 1970s, but the specific aims of these studies have evolved over the years. The initial rationale for studying developmental opportunities' effects on employees was utilitarian in nature and focused on the need for employees to stay updated with the most current knowledge in their field to stay competitive with their peers (Kaufman, 1974). Later, research began to focus on antecedents to voluntary participation in developmental opportunities (Noe & Wilk, 1993; Maurer & Tarulli, 1994), while current studies examine the utility of providing employees with developmental opportunities on a broader range of work attitudes, such as organizational commitment (Tansky & Cohen, 2001) or turnover intentions (Ito & Brotheridge, 2005).

The current research will continue examining more recent trends in developmental opportunity research by looking at its relationship with work attitudes, namely turnover intentions, and burnout.

Developmental Opportunities and Turnover Intentions

Turnover can lead to significant troubles for an organization if left untreated as financial costs, combined with the time it takes to recruit and train new employees, can be a major setback for human resource departments (McConnell, 1999). Past research has identified an employee's turnover intentions as a meaningful causal predictor of objective retention (Bedeian, Kemery & Pizzolatto, 1991), and others have shown a positive

relationship between the two (Mobley, 1977). Research has also shown significant relationships between turnover rates and performance in a variety of industries, including healthcare (Mor Barak et al., 2001) and manufacturing (Hatch & Dyer, 2004). As such, understanding antecedents to turnover can provide key insights for strategizing a reduction of it.

Providing developmental opportunities can be an effective means for preventing this adverse outcome. This intervention is a common way for organizations to invest in their employees (Spence-Laschinger et al., 2009), and other studies have shown a direct link between developmental opportunities and reduced turnover (Ito & Brotheridge, 2005; Kalleberg & Rognes, 2000; Tansky & Cohen, 2001). Furthermore, employee development was shown to negatively predict turnover at the organizational level, such that organizations that provide more developmental opportunities had generally lower levels of turnover (Colarelli & Montei, 1996). At an individual level, an employee's perception of their developmental opportunities and their perception of their developmental climate have both been linked to an increased chance of their retention (Lee & Bruvold, 2003; Spell, Eby, & Vandenberg, 2014).

Past research has continuously shown that providing employees with developmental opportunities can be an effective intervention for reducing turnover. However, it is also important to understand why this reduction in turnover happens, and what other factors may contribute to developmental opportunities' efficacy for reducing negative outcomes. I argue that JD-R is a robust model for explaining this complex relationship. It states that employees can utilize developmental opportunities as resources on the job, which can help to counteract the job demands that they experience (Bakker &

Demerouti, 2007). These job demands, if not countered, would then lead to work stressors. In turn, these work stressors could eventually lead to an employee's burnout, and subsequently their turnover intentions. Based on this theory, an employee's reduction in job demands that results from their abundant resources (i.e. from developmental opportunities) can lead to reduced negative outcomes like turnover or burnout. Accordingly, the following hypothesis is proposed:

Hypothesis 1a: Developmental opportunities will negatively relate to turnover intention.

Developmental Opportunities and Burnout

High turnover rates can be a major problem for modern organizations, but there are other important outcomes to investigate. Burnout can be one of these, especially considering past research showing its positive relationship with turnover (Lingard, 2003; Leiter & Maslach, 2009; Du Plooy & Roodt, 2010). It is defined as a negative work outcome that results from prolonged emotional or interpersonal stress and is often characterized by the three dimensions of exhaustion, cynicism, and a lack of professional efficacy (Maslach, Schaufelli, & Leiter, 2001). Additionally, the construct has been positively linked to other negative outcomes like absenteeism (Iverson et al., 1998) and counterproductive work behaviors (Ansari, Maleki, & Mazraeh, 2013). For these reasons, developing strategies to reduce burnout is important for maintaining a well-functioning workforce.

As noted before, one strategy that has shown utility in reducing burnout is providing developmental opportunities to employees, especially in the health care industry. For instance, one study found that continuing development can be one way to

keep pharmacists actively engaged in their profession (Mottram, Rowe, Gangani, & Al-Khamis, 2002). Other studies looking at samples of nurses showed developmental opportunities are related to decreased levels of burnout (Benders, Bleijerveld, & Schouteten, 2016), along with higher job satisfaction and organizational commitment (Spence-Laschinger et al., 2009). Some studies have also shown a link between developmental opportunities and reduced burnout in more general samples (Demerouti et al., 2001).

Again, we can explain these relationships through the JD-R model. Specifically, we can think of developmental opportunities as an effective resource that counteracts the stressors from job demands that often progress to burnout. In fact, the JD-R model was originally conceived as a model that could help explain the pathway to employees becoming burned out (Demerouti et al., 2001). Based on previous research, and the potential for developmental opportunities to act as a resource that can counteract job demands, the following hypothesis is proposed:

Hypothesis 1b: Developmental opportunities will negatively relate to burnout.

Need for Competence

Competence is one of the three basic needs that SDT lays out as necessary for a person's positive development, along with the need for relatedness and the need for autonomy. The need for competence implies that everyone has some innate desire to master some skill or ability, or at least strive toward this goal. In simple terms, competence and self-efficacy are similar concepts; however, the two have an important distinction from one another. Self-efficacy is a construct that implies a socially acquired expectancy of your perceived ability to carry out a specific task in the future (Bandura,

1977), while competence is more focused on the present and describes a more general sense of ability when interacting with one's environment (Deci & Ryan, 2012).

To date, there is no single measure specifically designed to assess an individual's need for competence. However, in line with the need for competence, growth need strength (GNS) describes the strength of the desire to gain competence (Hackman & Oldham, 1980). Thus, the need for competence can be effectively measured with growth need strength scales in order to investigate its relationship with developmental opportunities, and the outcome variables of turnover intention and burnout.

Bandura's (1977) conceptualization of self-efficacy and an employee's drive to obtain it can be used as a framework for understanding the proposed moderating effect of GNS on the relationship between developmental opportunities and both turnover intentions and burnout. This seminal article lays the foundation for understanding what an employee might expect out of a developmental opportunity. It argues that employees' unmet expectations increase the likelihood of developing negative attitudes about the situation. In the context of the present study, if an individual's expectations for development are not met (because of high GNS), they may be more likely to develop negative work attitudes (i.e. turnover intentions, burnout).

Past research backs this theory by showing that frustration with gathering the necessary resources to satisfy one's growth need strength could lead to turnover intentions (Houkes, Janssen, De Jonge, & Nijhuis, 2001). In other words, this suggests that if someone is incapable of satisfying their need for competence at an organization, they may be more inclined to leave that organization for a different one that can provide them with the opportunities they desire. If an employee has a higher level of growth need

strength, it takes more developmental opportunity to satisfy their need for competence. Conversely, if an employee has a lower level of growth need strength, it should not take as many developmental opportunities to satisfy their need for competence. This suggests growth need strength could moderate the relationship between developmental opportunities and turnover intention.

Hypothesis 2a: Growth need strength will moderate the relationship between developmental opportunities and turnover intention, such that higher growth need strength will result in a weaker negative relationship while lower growth need strength will result in a stronger negative relationship.

The need for competence has also been shown to be related to burnout. One study showed that a need for competence is moderately related to engagement (Van den Broeck et al., 2010), which is characterized on the same spectrum as burnout. On top of the turnover intention findings, Houkes and colleagues (2001) also found that frustration with a lack of growth need fulfillment can lead to employee burnout.

The lack of growth need fulfillment that results from a lack of developmental opportunities could lead an employee with high growth need strength to perceive their resources as depleting because they will not feel as though they are achieving the level of competence that they desire. This, in turn, could relate to higher levels of stress and burnout. On the other hand, if the employee has a lower growth need strength, their need for competence can be fulfilled more easily by only a few developmental opportunities. In this case, their growth need fulfillment should lead to more resources that can help to counteract burnout.

Hypothesis 2b: Growth need strength will moderate the relationship between developmental opportunities and burnout, such that higher growth need strength will result in a weaker negative relationship while lower growth need strength will result in a stronger negative relationship.

Need for Relatedness

SDT defines relatedness as a feeling of “connectedness with others” or membership in a group (Ryan & Deci, 2000). Relatedness is often measured using an employee’s perception of their social support at work (Van den Broeck et al.; 2008; Van den Broeck et al., 2010). The idea that humans require a sense of belonging with others is not controversial and has also been proposed in other theories of motivation like Maslow’s hierarchy of needs (Maslow, 1943).

While the need for competence is related to developmental opportunities directly, the need for relatedness may have a more indirect relationship. Because SDT theorizes that all needs are necessary for optimal psychological functioning, it may be especially necessary to compensate for them with interventions (i.e. developmental opportunities) if they are absent or lacking.

In line with the JD-R model, relatedness with others in a work setting can act as a resource for employees. Theoretically, employees draw upon this resource to help reduce stressors at work, which in turn can lead to their lower levels of burnout or turnover intentions (Demerouti et al., 2001). However, if an employee does not feel they have a strong sense of relatedness at work, they may not have enough resources to counteract the job demands that arise from their work. In this case, more developmental opportunities could act as an important resource replacement for those not reaping the benefits of a

solid social network. In other words, an employee may experience an even stronger compensatory effect from developmental opportunities if they are lacking in other resources like relatedness.

Just like the need for competence, the need for relatedness has shown implications for predicting turnover intention and burnout. A study looking at childcare workers found that troublesome relationships at work were a significant predictor of turnover intentions (Stremmel, 1991), while another study showed that relatedness negatively predicts turnover intentions among social workers (Kim & Stoner, 2008). Other studies have shown that relatedness can be a significant negative predictor of burnout as well (Burke, Greenglass, Schwarzer, 1996; Russell, Altmaier, Van Velzen, 1987).

Because relatedness appears to be a resource that employees frequently draw upon to combat both turnover intentions and burnout, I expect that it will be important for reducing outcomes of turnover and burnout. However, because of the role of relatedness as a necessary piece of optimal psychological functioning, I predict that those with low relatedness will gain more benefit from developmental opportunities because they are more in need of the extra resources they provide.

Hypothesis 3a: Relatedness will moderate the relationship between developmental opportunities and turnover intentions, such that lower relatedness will result in a stronger negative relationship while higher relatedness will result in a weaker negative relationship.

Hypothesis 3b: Relatedness will moderate the relationship between developmental opportunities and burnout, such that lower relatedness will result in a stronger

negative relationship while lower relatedness will result in a weaker negative relationship.

Need for Autonomy

The last of the three SDT needs is autonomy. Autonomy is described in terms of its use in SDT by Ryan & Deci (2000) as an innate desire to experience a sense of choice or feel a sense of psychological freedom when performing activities. As the need for relatedness in the JD-R model, autonomy, in a work setting, can also act as a resource for employees. Employees can also theoretically draw upon this resource to help reduce stressors at work. Again, this reduction in stressors can help lead to lower levels of burnout or turnover intentions (Demerouti et al., 2001). If an employee doesn't have the autonomy they desire, they are less likely to have enough resources to counteract their job demands.

Like the previous needs described in SDT, previous research has shown autonomy's relationship with work outcomes. A meta-analysis investigated autonomy as an antecedent of several outcomes (Spector, 1986). Of importance to the current study, autonomy was associated with higher levels of motivation at work and a decrease in turnover intentions. Another study showed that autonomy acts as one of the most effective resources in counteracting work stressors (Johnson & Hall, 1988) which can lead to burnout. Additional research has looked at employee autonomy as an important resource for promoting health and wellbeing because it allows for an employee to explore opportunities to manage their stress (Karasek, 1998).

In summary, a sense of autonomy could provide employees with the necessary resources that can counteract job demands. Furthermore, and as mentioned previously,

autonomy is a basic psychological need that must be met for optimal psychological functioning (Deci & Ryan, 2012). In other words, it is important to fulfill this need to ensure a satisfactory level of resources. However, if the need for autonomy is not met, it may be especially useful to intervene (i.e. with developmental opportunities), in order to compensate for the employee's potentially low levels of resources. As such, I expect autonomy to moderate the relationship between developmental opportunities and these negative outcomes.

Hypothesis 4a: Autonomy will moderate the relationship between developmental opportunities and turnover intentions, such that lower autonomy will result in a stronger negative relationship while higher autonomy will result in a weaker negative relationship.

Hypothesis 4b: Autonomy will moderate the relationship between developmental opportunities and burnout, such that lower autonomy will result in a stronger negative relationship while higher autonomy will result in a weaker negative relationship.

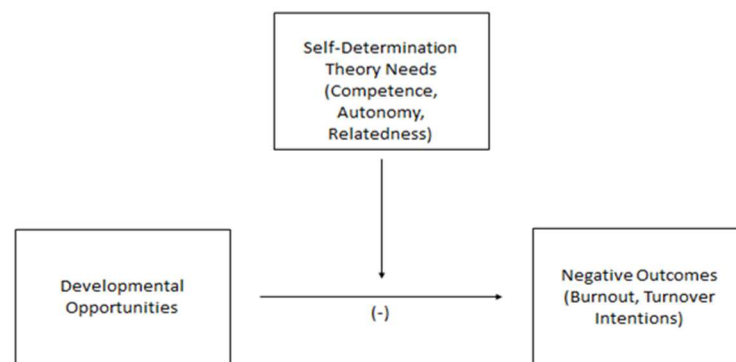


Figure 1. Effect of Developmental Opportunities on Negative Outcomes (i.e. Burnout, Turnover Intentions) as a function of SDT Need Fulfillment (i.e. Competence, Autonomy, Relatedness).

Methods

Participants

Participants were adults (18 years or older) from a large, nonprofit, health care organization in the Midwest US that worked at least 20 hours per week at the time of invitation. A sample of 500 was selected randomly from the organization's internal contact list. Human resource leaders sent an email with a link to the SurveyMonkey questionnaire to the randomly selected participants that included instructions about how to complete the survey, along with necessary information about its purpose. The email included information about the survey's anonymity and explained the implication of consent by clicking the link. Participants completed the self-report questionnaire while at work, which took approximately 5-10 minutes to finish. Of the 500 invitations sent, 143 responded for a 29% response rate.

Measures

Controls. Because of the length and anonymity concerns of the organization, only two control variables were collected: organizational tenure and job type. For organizational tenure, participants were asked to indicate the number of years they had worked at the organization to the nearest full year. Employees worked at the organization for an average of 12.24 years with a standard deviation of 10.95 years. This control was included to test for differences that could have risen from longer-tenured employees having higher rates of burnout and potentially lower levels of turnover intentions.

For job type, employees were asked to list their job type as either "medical" or "nonmedical." There were 69 (60%) medical employees and 46 (40%) nonmedical

employees in the sample. This control was included to test for potential differences because of the high prevalence of continuing education in healthcare professions.

Developmental opportunities. Developmental opportunities was measured with the Career Development Opportunities scale (Liu, 2004). The internal consistency was quite high ($\alpha = .96$). The scale consists of four items measured on a 5-point Likert-type scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). An example item on this scale is “In the long run, my organization will facilitate me in accomplishing my goals.” The four items provided an aggregate score for developmental opportunities. The full measure can be found in Appendix A.

Turnover intentions. Turnover intentions was measured using a 5-point Likert-type scale that consisted of three items (Konovsky & Cropanzano, 1991). Each item used different anchors on the 5-point scale. The first item, “How likely is it that you will look for a job outside of this organization during the next year?” ranges from 1 (*very unlikely*) to 5 (*very likely*). The second item, “How often do you think about quitting your job at this organization?” ranges from 1 (*never*) to 5 (*very often*). The third item, “If it were possible, how much would you like to get a new job?” ranges from 1 (*not at all*) to 5 (*very much so*). The three items provided an aggregate score for turnover intentions. The internal consistency was high ($\alpha = .90$). The full measure can be found in Appendix A.

Burnout. Burnout was measured using the Oldenburg Burnout Inventory which consists of two subscales: emotional exhaustion and disengagement (Demerouti et al., 2001). The emotional exhaustion subscale consisted of 8 Likert-type items with an example being, “After my work, I usually feel worn out and weary.” The disengagement subscale consisted of 8 items with an example being, “I usually talk about my work in a

derogatory way.” Both subscales were measured using a 4-point Likert scale with anchors being 1 (*Strongly disagree*) to 4 (*Strongly agree*). An aggregate score for the whole measure was used for analysis, and the internal consistency was high ($\alpha = .88$). The full measure can be found in Appendix A.

Autonomy. Autonomy was assessed using a 6-item Likert-type scale ($\alpha = .82$; Van den Broeck et al., 2010) from the Work-related Basic Need Satisfaction Scale (W-BNS). It was assessed using a 5-point Likert scale with anchors from 1 (*Strongly disagree*) to 5 (*Strongly agree*). An example item is “I can decide for my own which task I execute.” The five items provided an aggregate score of autonomy. The full measure can be found in Appendix A.

Relatedness. Relatedness was also using a 6-item ($\alpha = .89$) scale that is also part of the W-BNS (Van den Broeck et al., 2010). It was also assessed using a 5-point Likert-type scale with anchors from 1 (*Strongly disagree*) to 5 (*Strongly agree*). An example item is “My colleagues help me to get things done.” The five items provided an aggregate score of relatedness. The full measure can be found in Appendix A.

Competence. Need for competence was assessed using the 6-item Growth Need Strength scale ($\alpha = .93$) developed by Hackman & Oldham (1975) which utilizes a 7-point Likert-type scale. The values on the scale were 1 (*Not at all important*) to 7 (*Very important*). Participants were asked, “How much would you personally like to have each of these characteristics present in your job?” The participants were then presented with the 6 items and asked to rate each on the Likert-type scale. An example item is “Opportunities to learn new things from my work.” The six items provided an aggregate

score of growth need strength (need for competence). The full measure can be found in Appendix A.

Results

Table 1 (Appendix B) shows correlation, mean, standard deviation and coefficient alpha values. All scales showed acceptable reliability. To test for differences in position type, an independent samples t-test was conducted to check for differences in means for all independent variables. There were no significant differences in mean between medical and non-medical position type for developmental opportunities $t(113) = .08, p > .05$; for growth need strength $t(113) = .04, p > .05$; for relatedness $t(113) = -.06, p > .05$; or for autonomy $t(113) = -.99, p > .05$.

For organizational tenure, linear regression was used to analyze relationships with both independent and outcome variables. Organizational tenure was significantly related to both burnout ($R^2 = .04, F(1, 113) = 5.179, p < .05$) and turnover ($R^2 = .03, F(1, 113) = 5.13, p < .05$). For independent variables, organizational tenure predicted autonomy ($R^2 = .07, F(1, 113) = 9.447, p < .01$) and relatedness ($R^2 = .05, F(1, 113) = 7.485, p < .01$), but not growth need strength or developmental opportunities.

Hypothesis 1a and 1b were tested using Pearson Product-Moment correlation and linear regression. After controlling for organizational tenure, developmental opportunities predicted both turnover intentions ($R^2 = .22, F(1, 112) = 16.88, p < .001$) and burnout ($R^2 = .20, F(1, 112) = 15.57, p < .001$). Developmental opportunities were also correlated to turnover intentions ($r = -0.44$) and burnout ($r = -.043$). Model 1 of the PROCESS MACRO (Hayes, 2013) with mean-centered variables was used to test hypotheses 2-4. Hypotheses 2a, 2b and 4a, 4b which predicted that

growth need strength and autonomy, respectively, would moderate the relationship between developmental opportunities and both outcomes (i.e. turnover intentions and burnout), were not supported (2a: $\beta = .02, p > .05$; 2b: $\beta = -.02, p > .05$; 4a: $\beta = .05, p > .05$; 4b: $\beta = -.01, p > .05$).

Hypotheses 3a and 3b, which predicted that relatedness would moderate the relationship between developmental opportunities and both outcomes, were supported. Specifically, the overall model was significant for turnover intentions ($R^2 = .28, F(2, 112) = 23.64, p < .001$), as was the interaction ($\Delta R^2 = .04, F(1, 111) = 18.69, p < .001, \beta = -.22$). The overall model was also significant for burnout ($R^2 = .26, F(2, 112) = 20.68, p < .001$), as was the interaction ($\Delta R^2 = .03, F(1, 111) = 16.48, p < .001, \beta = -.10$). The interaction effect sizes for turnover intention and for burnout are stronger than the typical range ($\Delta R^2 = .01-.03$) found in non-experimental studies (Champoux & Peters, 1987; Chaplin, 1991). To probe these interactions, simple slopes were calculated (Aiken & West, 1991). Figures 2 and 3 show that the directions of the interaction support hypothesis 3.

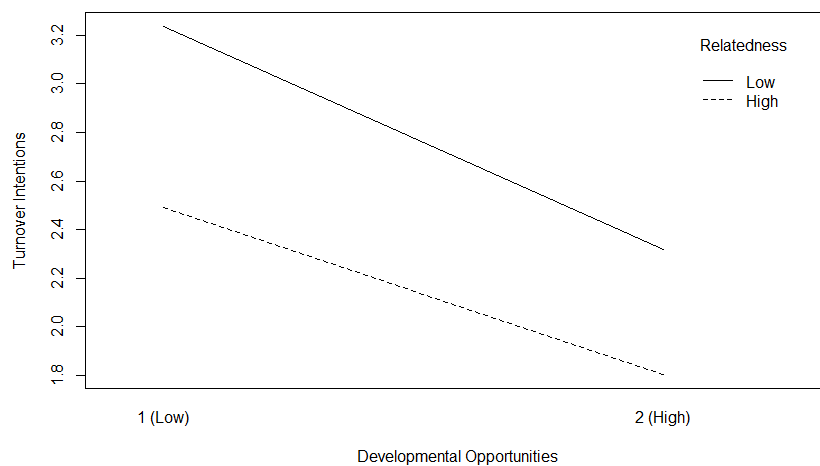


Figure 2. Developmental Opportunities relationship with Turnover moderated by Relatedness.

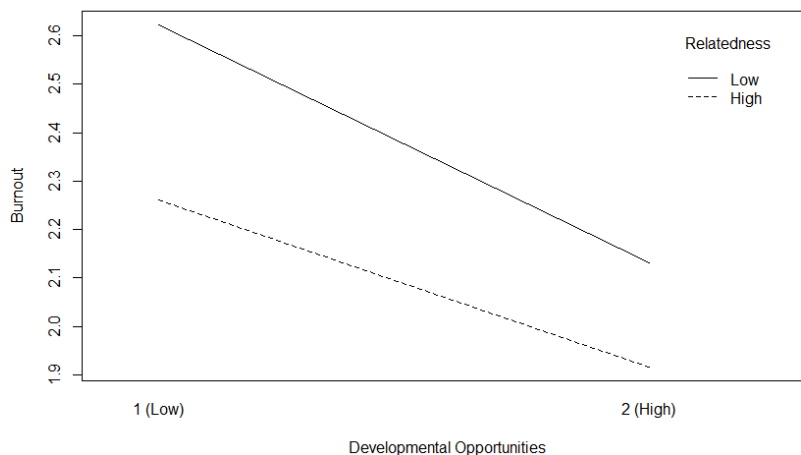


Figure 3. Developmental Opportunities relationship with Burnout moderated by Relatedness.

Discussion

Human resource departments, including that of the organization sampled in this study, are frequently looking for new and novel approaches to combat both burnout and turnover. Previous research has unearthed other methods but providing employees with developmental opportunity has continually been shown to reduce both of these undesirable outcomes (Demerouti et al., 2001; Ito & Brotheridge, 2005; Tansky & Cohen, 2001). The present study aimed to follow in the footsteps of past research, while taking an exploratory step toward understanding the potential for moderating factors of these relationships. The current study contributes to the literature in several ways.

First, this study showed support for both parts of the first hypothesis, which replicated previous findings that developmental opportunities can help to reduce turnover intentions and that developmental opportunities can help to reduce burnout. Although these relationships had been shown before, the present study provides further support for the use of developmental opportunities as an asset for human resource managers in a health care setting.

Second, this study investigated potential differences in these relationships contingent on Self-Determination Theory needs. While previous literature has linked developmental opportunities to turnover and burnout (Joo & Park, 2010; Robinson et al., 2016), no studies have examined how an individual employee's needs can impact this relationship. For the needs of autonomy and relatedness, this study investigated the potential effect of the fulfillment of these needs. For competence, the study examined the effect of growth need strength (i.e. the desire to learn or gain competence). The results indicate that there was no significant moderating effect for autonomy or growth need strength. However, relatedness was shown to have a significant interaction with developmental opportunities in reducing both burnout and turnover intentions.

For autonomy and relatedness, it was expected that employees could gain more from developmental opportunities if they were lacking in these basic needs. In other words, it was hypothesized that employees with fewer resources as a result of low need fulfillment may stand to gain their resources back when provided with developmental opportunities. In this case, the employees might pass a "threshold" of resources that were necessary to stave off their job demands. The present study found support for this concept regarding the basic need of relatedness, but not for autonomy.

Aside from potential power issues, the lack of any effect for autonomy suggests that employees may not heavily rely on autonomy as a resource. Regardless of their sense of autonomy, employees equally appreciate the gesture of an organization showing their support by investing in their learning. Considering the JD-R framework, this finding may be the result of employees perceiving their autonomy to have little meaning as a personal resource to counteract their job demands. In other words, it may be that employees with

low autonomy did not consider this construct as necessary to counteract their job demands, which otherwise may have led to further work stressors and burnout or turnover. Because of this, developmental opportunities may have improved all employees' total perceived level of resources equally (i.e. both for low-autonomy and high-autonomy).

The significant interaction of relatedness and developmental opportunities on both studied outcomes was expected. Those with lower relatedness showed an improved effect of developmental opportunities in reducing both turnover intentions and burnout. Those with lower relatedness (which, in part, measured positive relationships with coworkers) could have felt the perceived investment from their organization compensated for this lack of relatedness with their peers. Contrary to the speculation for the autonomy findings, these employees with lower relatedness at work could have perceived their relatedness to be an important resource for counteracting job demands. In this case, low-relatedness employees actually gained the necessary resources that they were previously lacking to counteract their job demands. In other words, employees with lower autonomy may not require intervention as much as employees that have low relatedness because employees with low autonomy don't perceive it as a necessary resource. However, further research should investigate this to understand whether employees truly value relatedness more than autonomy as a personal resource that can help to counteract their job demands.

For growth need strength (GNS), it was predicted that those with high GNS would gain less benefit from developmental opportunities than those with low GNS because those with high GNS would find it difficult to fulfill their higher need for competence.

However, this study found no evidence to support this hypothesis. Perhaps developmental opportunities act as a resource for reducing negative outcomes through a mechanism unrelated to basic psychological needs, or perhaps they only perform this function through a mediating effect of something like employees' perceived organizational support. Alternatively, the lack of differences between those with low and high GNS could be explained through JD-R. Like autonomy, participants may not consider their competence to be an important resource for counteracting their job demands. Regardless, the relationship between developmental opportunities and mitigated negative outcomes warrants further research investigating all SDT needs as moderating factors. Specifically, new studies should examine which of these needs are perceived to be most important to employees in the context of accruing the necessary resources to counteract their job demands. The findings in this study suggest relatedness may be the most important.

The methodological limitations of the present research should be acknowledged. The previously mentioned measurement issues coupled with a small sample size may have led to some inconclusive results. Further, it should be noted that the growth need strength scale used in this study could have led to significant range restriction for the construct of the need for competence. Most participants rated at least some, if not all items on this scale at 7 (indicating that it was "very important" to have each of the characteristics present in their job). This made it difficult to differentiate between those with high growth need strength and those with low GNS. Future studies should consider measuring this construct with a different scale; perhaps even a forced-choice measurement where employees are required to pick aspects of their job that are important to them in comparison to other aspects unrelated to GNS.

Another limitation of the present research was the cross-sectional design. When multiple constructs are measured at one-time point, it is difficult to identify the potential causality of relationships. Even though there was evidence to support hypotheses 1 and 3, it would benefit from a future study where these relationships were studied over time.

The nature of data collection in this study is another potential limitation. The data was gathered from a single source via self-report measurements, which brings with it the potential for common method bias. When all measurements are conducted via the same method at one point in time, the social desirability tendencies of respondents to provide “positive” responses can inflate the relationships between the measured variables (Siemsen, Roth, & Oliveira, 2010).

There are several implications for organizations that can be derived from the current findings. Burnout and turnover are important organizational outcomes that were once again shown to be reduced by developmental opportunities. It may be that this intervention can be a “go-to” tool that works for virtually any employee. However, this research found that developmental opportunities may be especially useful for reducing burnout and turnover when employees are lacking in another key source of resources: relatedness. Employees that don’t have a solid social network on the job may be especially prone to being overwhelmed by their job demands. In this case, developmental opportunities may be able to act as a strong resource for the employee to tap into and compensate for the lacking resources that would normally originate from the employee’s relatedness.

In conclusion, the present study contributed to the literature by showing the ubiquitous positive effect of providing employees with developmental opportunities. To

my knowledge, this study is the first to investigate the importance of need fulfillment when considering organizational interventions for reducing turnover intentions and burnout. These findings are in support of Self-determination (Ryan & Deci, 2000) and JD-R (Demerouti et al., 2001) theories, and present possible mechanisms for researchers to further examine other moderating variables that may affect the impact of developmental opportunities on important organizational outcomes.

Not only can an organization improve the knowledge and skills of its workforce through developmental opportunity, but it can simultaneously retain employees while preventing burnout. Further, this study showed that the relationship between developmental opportunities and negative outcomes is unlikely to change based on tenure, job type, or most SDT needs. However, employees could gain especially from developmental opportunities if they don't benefit from relatedness with their peers.

Appendix A: List of Measures

Developmental Opportunities (Liu, 2004)

1. My organization is supportive of my long-term career development.
2. In the long run my organization will facilitate me accomplishing my career goals.
3. My organization takes steps to insure that I maximize my career potential.
4. My organization provides me with the opportunity to achieve my career goals.

Turnover Intentions (Konovsky & Cropanzano, 1991)

1. How likely is it that you will look for a job outside of this organization during the next year?
2. How often do you think about quitting your job at this organization?
3. If it were possible, how much would you like to get a new job?

Burnout (Oldenburg)

1. I always find new and interesting aspects in my work.
2. There are days when I feel tired before I arrive at work.
3. It happens more and more often that I talk about my work in a negative way.
4. After work, I tend to need more time than in the past in order to relax and feel better.
5. I can tolerate the pressure of my work very well.
6. Lately, I tend to think less at work and do my job almost mechanically.
7. I find my work to be a positive challenge.
8. During my work, I often feel emotionally drained.
9. Over time, one can become disconnected from this type of work.
10. After working, I have enough energy for my leisure activities.
11. Sometimes I feel sickened by my work tasks.
12. After my work, I usually feel worn out and weary.
13. This is the only type of work that I can imagine myself doing.
14. Usually, I can manage the amount of work well.
15. I feel more and more engaged in my work.
16. When I work, I usually feel energized.

Autonomy (Van den Broeck et al., 2010)

1. I feel like I can be myself at my job
2. At work, I often feel like I have to follow other people's commands (R)
3. If I could choose, I would do things at work differently (R)
4. The tasks I have to do at work are in line with what I really want to do
5. I feel free to do my job the way I think it could best be done
6. In my job, I feel forced to do things I do not want to do (R)

Relatedness (Van den Broeck et al., 2010)

1. I don't really feel connected with other people at my job (R)
2. At work, I feel part of a group
3. I don't really mix with other people at my job (R)
4. At work, I can talk with people about things that really matter to me
5. I often feel alone when I am with my colleagues (R)

6. Some people I work with are close friends of mine

Need for competence/Growth Need Strength (Hackman & Oldham, 1975)

1. Stimulating and challenging work
2. Chances to exercise independent thought and action
3. Opportunities to learn new things from my work
4. Opportunities to be creative and imaginative in my work
5. Opportunities for personal growth and development
6. A sense of worthwhile accomplishment in my work

Appendix B: Figures and Tables

Figure 1. *Effect of Developmental Opportunities on Negative Outcomes (i.e. Burnout, Turnover Intentions) as a function of SDT Need Fulfillment (i.e. Competence, Autonomy, Relatedness)*

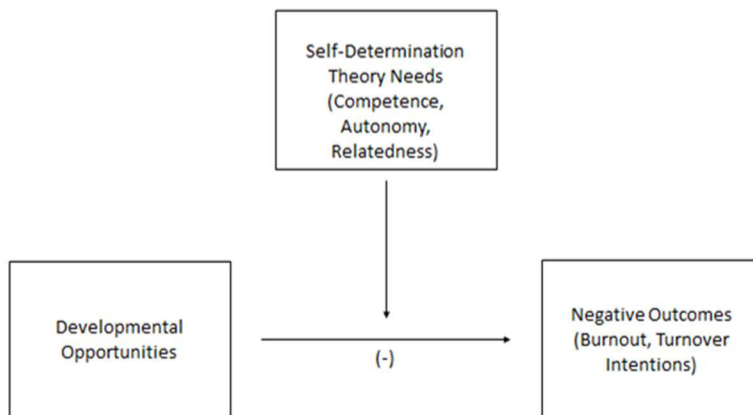


Table 1. Descriptive statistics and correlations.

Variable	M	SD	1	2	3	4	5	6	7	8
1. Developmental Opportunities	3.67	1.17	(.96)							
2. Turnover Intentions	2.33	1.11	-.44**	(.90)						
3. Burnout	2.17	.53	-.43**	.73**	(.88)					
4. Autonomy	3.48	.85	.36**	-.65**	-.71**	(.82)				
5. Relatedness	3.91	.99	.27*	-.42**	-.40**	.55**	(.89)			
6. Growth Need Strength	5.87	1.24	.20*	-.24*	-.34**	.30**	.32**	(.93)		
7. Organizational Tenure	12.24	10.95	.05	-.21*	-.21*	.28*	.25*	.09	(--)	
8. Job Type	1.4	.49	-.01	-.05	-.07	.09	.01	0	.07	(--)

Note. * significant at $p = .05$, ** significant at $p = .001$. Bold values represent Cronbach's alpha reliabilities (except for Organizational Tenure and Job Type).

Figure 2. *Developmental Opportunities relationship with Turnover moderated by Relatedness*

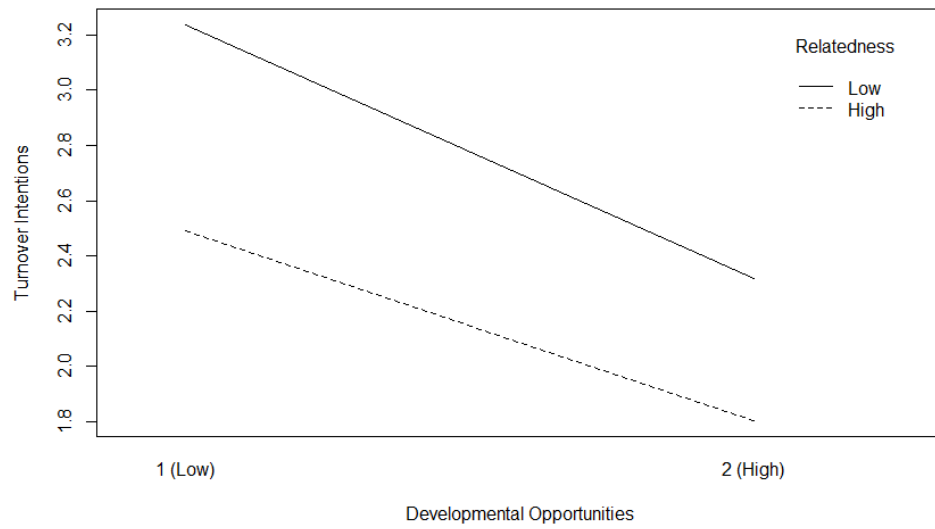
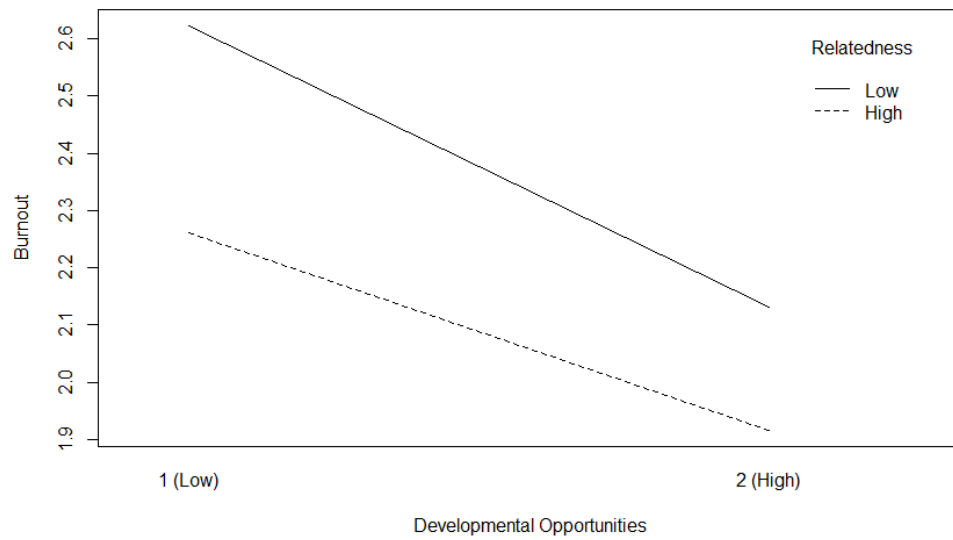


Figure 3. *Developmental Opportunities relationship with Burnout moderated by Relatedness*



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