

**The association of meaningfulness, well-being and engagement with absenteeism:
a moderated mediation model**

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Abstract

We theorized that absence from work is a resource-based process that is related to perceived meaningfulness of work, well-being, and engagement. Broaden-and-build theory (Fredrickson, 1998, 2001) and engagement theory (Bakker, Schaufeli, Leiter, & Taris, 2008; Kahn, 1990) were used to develop a framework for explaining absence. Results of a study of 625 employees and human resource records of subsequent absenteeism data for a three-month period supported our hypotheses that meaningful work increases engagement with work, and that engagement is associated with low levels of absenteeism. Furthermore, data showed that engagement fully mediated the relationship between meaningfulness and absence, and that well-being strengthened the relationship between meaningfulness and engagement. The results have implications for understanding the role of individual-level resources in the workplace, and how meaningfulness, well-being, and engagement influence absence.

Introduction

Absenteeism is a perennial issue that has significant implications for human resource (HR) managers. In the United States, the overall cost of absence to employers has been estimated at more than \$253 billion (Work Loss Data Institute, 2003) or the equivalent of 35 percent of base payroll (Mercer, 2010). The cost to emerging economies is even greater (Ramsey, 2006). Across the United Kingdom, it has been estimated that absence costs organizations between £10 to £20 billion per year (Confederation of British Industry, 2011), with additional costs to the National Health Service and the government through increased benefits payments and loss of tax.

Theoretical and empirical studies have examined absence from several perspectives. For instance, research has found that employees' gender and age (Martocchio, 1989), personality characteristics (e.g., Bernardin, 1977), job attitudes (e.g., Hackett, 1989), and experience of strain (e.g., Darr & Johns, 2008) are associated with absence. Although these studies have gone a long way in unveiling factors that may lead to absence, researchers have called for a shift in focus of absence research from a narrow view of ill health to a more comprehensive understanding of the relationships among people, their work, and well-being (Black, 2008). The present study contributes to such an approach by examining factors that mediate and moderate the associations between employees' perceptions of work and absence. Specifically, the present study develops and tests a model that integrates broaden-and-build theory (Fredrickson, 1998, 2001) with engagement theory (Bakker et al., 2008; Kahn, 1990) to explain absence from work.

The centerpiece of the proposed model is engagement with one's work (Schaufeli, Salanova, Gonzalez-Roma, & Bakker, 2002). Engagement is conceptualized as a resource that directly influences presence at and absence from work (Kahn, 1990, 1992). This is because employees who are engaged with their work are energized by it, find it significant, and become happily engrossed in it (Schaufeli et al., 2002). Engagement is influenced by the perceived meaningfulness of work, conceptualized here as a broadening component of Fredrickson's (1998, 2001) broaden-and-build theory. Perceptions of meaningful work could broaden affective and cognitive processes by generating interest in the wider context of work tasks (Compton, 1990). Thus, meaningfulness of work could function to influence presence and absence via its impact on engagement. The final component of the proposed model is well-being, an individual resource, which may enhance the positive affect generated from meaningfulness of work, and thereby provide additional energy and motivation (Fredrickson, 2001; Wright, Cropanzano, & Bonett, 2007). Hence, well-being could function as a building construct within

the broaden-and-build model (Fredrickson, 1998, 2001) and strengthen the relationship between meaningfulness and engagement. These three factors represent cognitive-affective individual resources that could influence absence, and are pertinent to HR managers seeking to create a positive working environment.

The present study makes three contributions. The first is the development of an integrated model of absence that draws associations between two theoretical areas: the broaden-and-build theory of resource building (Fredrickson, 1998, 2001) and engagement theory (Bakker et al., 2008; Kahn, 1990). Both theories have conceptual relevance to absence through their consideration of how cognitive-affective states build resources and motivate behavior, including presence at, or absence from, work. Although previous scholars have pointed out the synergies between the two theories (De Lange, De Witte, & Notelaers, 2008; Schaufeli, Bakker, & Van Rhenen, 2009), there is no research to our knowledge that theoretically develops these associations with absence and provides an empirical test. The current study aims to contribute to this literature by doing so.

The second contribution to the literature is setting engagement within a nomological net of antecedents and consequences, thus responding to Parker and Griffin's (2011) call for such development. Doing so has consequences for clarifying the positioning of engagement within the lexicon of active psychological states. There are also consequences for theorizing about the mechanisms of engagement based on identifying its psychological foundations. Therefore, the current study contributes to the engagement literature by complementing recent research that has tended to focus more on operational measures than underlying theory.

Third, the research model developed and tested expands upon prior models of engagement by considering engagement not only as an outcome of meaningfulness, and a mediator of relationships between meaningfulness and absence, but also as subject to the moderating effect of well-being. Moderation is underexplored in the engagement field, and the current study contributes to the literature by developing and testing a moderated mediation model, which aids explanation of how engagement functions to explain absence.

Personal Resources: Meaningfulness and Engagement

The framework of Positive Psychology, a movement that seeks to understand what makes people, organizations, and societies flourish (Luthans, 2002; Seligman & Csikszentmihalyi, 2000), has given rise to several theoretical developments. Fredrickson's (1998, 2001) broaden-and-build theory is one example. Fredrickson (2001, p. 219) stated that "certain discrete positive emotions . . . although phenomenologically distinct, all share the ability to broaden people's momentary thought-action repertoires and build their enduring personal resources, ranging from physical and intellectual resources to social and psychological resources." This theory explains how positive perceptions of work broaden both affective and cognitive processes that enhance application of the self to the work role.

Perceived meaningfulness of work is a potential component of the broaden-and-build process. Positive perceptions of meaningful work are a powerful motivator since they provide a rationale for the focused effort that work requires (Cohen, 2008) and yield commitment to the organization (Hackman & Oldham, 1980; Thomas & Velthouse, 1990). Moreover, people able to find meaning in adverse events are more likely to recover swiftly (Folkman & Moskowitz, 2000) because meaning provides a positive resource for regaining energy as well as an opportunity for learning and refocusing cognitive effort (Tugade & Fredrickson, 2004). In contrast, perceived lack of meaningful work can be detrimental since it does not enable the building of resources

described here, nor does it allow authentic self-expression (Shamir, 1991). Based on this theoretical and empirical evidence, we hypothesize that:

Hypothesis 1: Meaningfulness is negatively related to absence.

Kahn (1990) identified meaningfulness as one of the key antecedents of engagement. Kahn (1990, pp. 703–704) described psychological meaningfulness as “a feeling that one is receiving a return on investments of one’s self in a currency of physical, cognitive, or emotional energy.” Despite the subsequent proliferation of engagement research, there is relatively little theoretical development concerning the affective-cognitive aspect of engagement. Broaden-and-build theory provides a framework to understand how positive affect links with cognitive activity to yield a foundation for engagement. The building aspect of the theory leads to a positive spiral of resources and outcomes (Fredrickson & Branigan, 2005). Increased personal resources may, in turn, enhance engagement further since they provide reinforcing feedback and continued positive affect (Salanova, Bakker, & Llorens, 2006).

There is empirical support for the association between meaningfulness and engagement. May, Gilson, and Harter (2004) extended Kahn’s theorizing of engagement and built upon other models that have proposed that meaningfulness enhances intrinsic motivation. They argued that meaningfulness will be enhanced when jobs are appropriately enriched (Renn & Vandenberg, 1995), there is good person-job fit (Shamir, 1991), and when employees feel socially related to their colleagues (Florian & Snowden, 1989; Locke & Taylor, 1990). This is because each of these factors increases the connection between employees and their work. May et al.’s (2004) quantitative study of employees in an insurance organization supported their model and showed that meaningfulness was a strong associate of engagement. Truss et al.’s (2006) quantitative study of employees from a wide range of organizations found similar results. Thus, we propose that:

Hypothesis 2: Meaningfulness is positively related to engagement.

Engagement may be the mechanism that explains the relationship between meaningfulness and absence. De Lange et al. (2008) examined job resources, engagement, and turnover in a two-phase study based on the broaden-and-build model and the job demands-resources model (Bakker & Demerouti, 2007; Demerouti, Nachreiner, Bakker, & Schaufeli, 2001). They proposed that broaden-and-build theory explains how engaged employees continually build resources and progress through organizations, in contrast to the downward drift of people who lack resources and have low engagement (Ettner & Grzywacz, 2001; Frese, 1985). Data confirmed the presence and impact of the upward spiral of engagement, job resources, and promotion. In the present study, we extend this theorizing to examine whether broaden-and-build theory can contribute to explanations of how disengagement with work leads to absence. Specifically, we propose that employees who find their work full of meaning are less likely to be absent from work because they are engaged with their job. Rich, LePine, and Crawford (2010) proposed that engagement may be a broad underlying mechanism that explains a range of work-related relationships because it represents the agentic deployment of cognitive, emotional, and physical energy. Thus, antecedents, such as meaningfulness, influence outcomes via engagement. Building upon this prior theory and research, we propose that meaningfulness will influence absence through its impact on engagement.

Hypothesis 3: The relationship between meaningfulness and absence is mediated by engagement.

The Moderating Role of Well-being

Well-being involves the simultaneous experience of high positive affect and low negative affect (Wright et al., 2007), and is associated with good health (Goldberg, 1978). Prior theoretical developments have considered the role and functioning of well-being within the broaden-and-build model. Wright et al. (2007) proposed that the broadening effect of positive affect, and the subsequent expansion of thought-action repertoires, assist in resource building, thus influencing relationships such as the satisfaction-performance link. Furthermore, they suggested that wellbeing has an important moderating role that has been overlooked by some studies that have focused on direct relationships (e.g., Wright & Cropanzano, 2000), and that the broaden-and-build model enables theoretical development that can strengthen the field (e.g., Wright, 2005). Data from Wright et al.'s (2007) empirical study of managers in a US customer services organization confirmed their hypothesis that the broaden-and-build process could be applied to a model of job performance; their results showed that the relationship between job satisfaction and performance was strengthened by well-being.

Similarly, we propose that well-being will influence absence by strengthening the positive relationship between meaningfulness and engagement. Engagement encompasses activated affect and cognitions, and it is likely that well-being will influence the extent to which people are able to engage with work through its impact on building personal resources (Tugade & Fredrickson, 2004). Since meaningfulness is representative of the broadening process that can enhance engagement directly, and well-being is an aspect of the building process, well-being could influence the impact that perceived meaningfulness has upon engagement by amplifying the impact of meaningfulness and increasing the likelihood that perceived meaningfulness will lead to engagement. Thus, we hypothesize that:

Hypothesis 4: The relationship between meaningfulness and engagement is moderated by well-being, such that well-being strengthens the relationship.

In summary, we hypothesize that meaningful work leads to lower levels of absence because people are engaged with their work. Furthermore, we examine whether the association between meaningfulness and engagement is strengthened by well-being. Figure 1 depicts the hypothesized relationships in the present study.

Methods

Respondents and Procedure

We drew the sample from a UK support services organization that provides business solutions for clients in a range of sectors, including local government, health, transport, education, and defense. Employees were informed about the purpose of the study and its confidentiality, and encouraged to participate in the survey within two weeks. All employees were given time to complete the survey at work. Absence data were collected from the HR manager.

Hard-copy questionnaires were administered to employees who did not normally work in an office environment, and a link to an online questionnaire was sent to office-based

employees. A total of 1,050 hard-copy questionnaires were distributed; 366 were returned (35 percent response rate). Online questionnaire links were sent to 550 individuals; 326 completed the online survey (59 percent response rate). Overall, there were 692 respondents (43 percent response rate). Deletion of missing values resulted in a usable sample of 625 employees. The sample comprised 70.5 percent men; the mean age was 42.21 years (SD = 10.58).

Measures

All scale items were in the form of a statement followed by a seven-point response range from “strongly disagree” to “strongly agree” unless noted otherwise.

Employee Engagement

We measured employee engagement using a 17-item scale developed by Schaufeli et al. (2002). The scale has been extensively used in previous studies (e.g., Salanova, Agut, & Peiro, 2005; Schaufeli & Bakker, 2004; Siu et al., 2010) and has been shown to have high reliability and validity. The subscales— absorption (six items; e.g., “I am immersed in my work”), dedication (five items; e.g., “I am enthusiastic about my job”), and vigor (six items; e.g., “At work, I feel full of energy”)— were combined to measure the overall level of engagement.

Meaningfulness

We measured meaningfulness using a four-item scale developed by May et al. (2004). A sample item is “The work I do on this job is meaningful to me.”

Well-being

Well-being was measured using a five-item measure adapted from the General Health Questionnaire (GHQ12; Goldberg, 1978). A sample item is “I don’t lose sleep over work-related issues.”

Absence

Absence data (number of days absent) was collected from the HR manager for the three-month period after the survey data was collected. Absence was skewed and therefore transformed into its square root (Tabachnick & Fidell, 1996). This was important given that transformation aims to normalize the distribution so that parametric tests can be used without violating assumptions of normality (Bradley, 1978). Further, there is some evidence that transformation increases statistical power and minimizes the attenuation of correlations (e.g., Dunlap, Burke, & Greer, 1995).

Control Variables

Age, gender (1 = female, 0 = male), and hard-copy versus online questionnaire (hard copy = 1, online = 0) were added as control variables. They were chosen because women tend to be absent from work more frequently than men (e.g., Dionne & Dostie, 2007; Pines, Skulkeo, Pollak, Peritz, & Steif, 1985), and research tends to find a negative relationship between absenteeism

and age (e.g., Hackett, 1990). The manner in which the survey was administered was used as a control variable because there might be systematic differences between those who do and do not have ready access to a computer (e.g., socioeconomic status, health, nature of job, etc.). Table I presents the percentage of those who completed an online versus hard-copy questionnaire by job type. A disproportionately high percentage of the sample who completed a hard-copy version of the survey were manual workers, and a disproportionately high percentage of the sample who completed an online version of the survey were office-based workers. Therefore, the manner in which the survey was completed serves as a proxy for an office-based job versus jobs that are not carried out in an office setting.

Results

Descriptive Statistics

Table II presents the scale reliabilities, means, and standard deviations for each scale, and interscale correlations for all variables. Table II reveals that there are substantial correlations among the independent variables. Meaningfulness is significantly correlated with engagement ($r = .61$) and well-being ($r = .24$); engagement and well-being are significantly correlated ($r = .32$). However, all variance inflation factors in the regressions were below 2.1, meaning that the problems due to multicollinearity are minimal in the present study.

Preliminary Analyses

We carried out additional analyses to assess the construct validity of our measure. A series of confirmatory factor analyses were conducted to establish the discriminant validity of the scales. A full measurement model was initially tested, in which the three facets of engagement loaded onto a general engagement factor and all indicators for meaningfulness and well-being were allowed to load onto their respective factors. All factors were allowed to correlate. Five fit indices were calculated to determine how the model fitted the data (Hair, Black, Babin, & Anderson, 2009). For the χ^2/df value, less than 2.5 indicates a good fit and values around 5.0 an acceptable fit (Arbuckle, 2006). For the comparative fit index (CFI) and normed fit index (NFI), values close to .95 are recommended as an indication of good model fit (Bentler & Bonett, 1980; Hair et al., 2009; Hu & Bentler, 1999). For the root mean square error of approximation (RMSEA) and standardized root mean square residual (SRMR), values less than .06 indicate a good model fit and values less than .10 an acceptable fit (Arbuckle, 2006; Browne & Cudeck, 1993). The three-factor model showed a good model fit ($\chi^2 = 355$, $df = 50$, $CFI = .95$, $NFI = .94$, $RMSEA = .099$, $SRMR = 0.094$), apart from the χ^2/df value. However, as the χ^2/df value is sensitive to large sample sizes, this value is acceptable (Hair et al., 2009).

Next, sequential χ^2 difference tests were carried out. Specifically, the full measurement model was compared to four alternative nested models. The first alternative nested model subsumed engagement and meaningfulness under one factor (model A). The fit statistics in Table III reveal that the model fit decreased significantly, which provides evidence for the distinctiveness and construct validity of both measures. Three other alternative nested models were created: in model B, engagement and well-being were subsumed under one factor; in model C, meaningfulness and well-being were subsumed under one factor; and in model D, engagement, meaningfulness, and well-being were combined into one common factor. As Table

III reveals, none of these alternative models yielded an acceptable model fit (all at $p < .001$). Hence, all constructs in the present study were distinct from one another.

To assess convergent validity, Fornell and Larcker's (1981) guidelines for calculating the composite reliability and the average variance extracted (AVE) were followed. The AVE values were 69 percent for engagement, 85 percent for meaningfulness, and 48 percent for well-being. The AVE values are all close to, or above, the recommended threshold of 50 percent (Hair et al., 2009). Moreover, in accordance with Fornell and Larcker (1981), the AVE values for any two constructs were greater than the squared correlation between them.

The composite reliability estimates were adequate for engagement (.70) and meaningfulness (.75) but were below the minimum threshold of .60 for well-being (.41). Upon inspection of the items, the standardized factor loading for one well-being item was low (.38), and the error variance for the same item was high (2.85). An explanation for these values may lie in the wording of the item, as it is the only item that is negatively worded ("I don't lose sleep over work-related issues"). Excluding this item from the calculations considerably improved the composite reliability (.61) and AVE (.67) values. We ran all of the analyses presented below twice, with a four- and five-item measure of wellbeing. The significance and magnitude of the effects did not significantly change. As all other additional tests support the construct validity of our measures, the five-item measure of well-being was used in the analyses.

Test of Hypotheses

We used hierarchical multiple regressions to test Hypotheses 1 to 3, and hierarchical moderated regression to test Hypothesis 4. In all analyses, we entered age, gender, and a dummy variable representing whether an employee completed the questionnaire in hard copy or online as control variables. All continuous variables were standardized so that tests of the interactions could be carried out, and also to reduce the likelihood that multicollinearity would influence the results (Aiken & West, 1991). Next, we tested for mediation following the steps outlined by Baron and Kenny (1986).

Results in Table IV indicate that meaningfulness is negatively and significantly related to absence, thereby lending support to the first hypothesis, and meeting the first condition for mediation. Results in Table IV reveal further that meaningfulness is significantly related to engagement, and that engagement is significantly related to absence, supporting the second hypothesis, and fulfilling the next two requirements for mediation. Finally, when both meaningfulness and engagement are entered into the model simultaneously, meaningfulness drops in significance, indicating that engagement fully mediates the relationship between meaningfulness and absence. Sobel's test (1982) for indirect effects shows that the intervening effect of engagement on the relationship between meaningfulness and absence was significant (Sobel Test Statistic: -2.89 , $p < .05$). Therefore, Hypothesis 3 was supported. Although the R -squared value (.08) is relatively low, it is similar to prior research (Wegge, Schmidt, Parkes, & Van Dick, 2007), indicating that explanations of absence are likely highly complex.

The final hypothesis predicted that the relationship between meaningfulness and engagement would be moderated by well-being. To assess moderated mediation (Muller, Judd, & Yzerbyt, 2005; Preacher, Rucker, & Hayes, 2007), we examined the relationships and significance tests among five sets of variables. We have already presented results that demonstrated that meaningfulness is significantly related to absence (see Table IV), supporting the first condition for moderated mediation. To test for the second condition, we tested whether the interaction between meaningfulness and well-being was significant in predicting

engagement. Results of the moderated regression of meaningfulness and well-being on engagement are shown in Table V.

The results in Table V reveal that wellbeing interacted with meaningfulness to predict engagement. Therefore, Hypothesis 4 was supported.

The third condition for moderated mediation as set forth by Preacher et al. (2007) has already been supported; engagement is negatively related to absence (see Table IV). To test the fourth condition, we examined whether the magnitude of the conditional indirect effect of meaningfulness through engagement was different at high versus low levels (1 standard deviation above and below the mean) of well-being. The conditional indirect effects were calculated using the bootstrapping procedure as recommended by Preacher et al. (2007) in order to provide a robustness check of the reported findings. Preacher et al.'s (2007) statistical significance test was used, whereby a z statistic was computed for the conditional indirect effect.

The results in Table VI reveal that the meaningfulness-engagement relationship is strengthened by well-being, at both low and high levels of well-being. The positive relationship between meaningfulness and engagement is stronger for individuals who have higher levels of well-being, a significant result for field-study data (McClelland & Judd, 1993). This result satisfies the fifth condition for moderated mediation. Figure 2 plots this interaction.

Discussion

This study makes three contributions to the literature. First, it weaves broaden-and-build theory (Fredrickson, 1998, 2001) with engagement theory (Bakker et al., 2008; Kahn, 1990). Broaden-and-build theory (Fredrickson, 1998, 2001) explains how positive affect influences cognitive processes and leads to beneficial outcomes. This theory accounts for the development of positive affective states arising from perceptions of one's work role, which broadens cognitive activity and builds personal resources. Engagement theory (Bakker et al., 2008; Kahn, 1990) proposes that the confluence of positive affective-cognitive processes generates an engaged state that drives positive behaviors. Taken together, the two theories can account for a wide range of processes from affect through to complex cognition and ensuing behavior. In making this link, we present a novel conceptual development concerning how these theories explain absence.

The second contribution of this study is the development of a model of engagement that has an integrated theoretical foundation. It positions engagement within the wider context of broaden-and-build theory, which provides a more holistic approach to understanding the process of engagement and how it influences work-related outcomes. While previous review papers have considered the role of affective-cognitive resources in engagement (Macey & Schneider, 2008), few prior studies have presented an integrated theory that accounts for the antecedents and consequences of engagement. Yet, the broaden-and-build process seems central to engagement. It provides a theoretical platform to explain how perceptions of work lead to the expanded personal resources and the simultaneous deployment of cognitive, emotional, and physical processes that constitute engagement as conceptualized by Kahn (1990) and Bakker et al. (2008). These findings may lead future scholars to think differently about engagement. Specifically, engagement as a construct has been studied in a silo, with a focus on measurement issues. The present study steps outside of this trend to conjoin engagement with broaden-and-build theory to assist in explaining the factors that drive

engagement and its consequences. Doing so responds to a recent call by Parker and Griffin (2011) by positioning engagement within a wider nomological net.

Third, the study extends modeling of engagement through the inclusion of wellbeing as a moderator of the relationship between meaningfulness and engagement. Our proposition that well-being, as a building construct, functions differently from meaningfulness, a broadening construct, was confirmed by the data. Although both meaningfulness and well-being were relevant to engagement, they influenced engagement in different ways. Meaningfulness had a direct association, and well-being influenced engagement via the association between meaningfulness and engagement. Although prior research has established that meaningful work leads to engagement (May et al., 2004), the current study is the first to demonstrate that the relationship is strengthened when employees report high levels of well-being.

While efforts have been made to develop and test a robust research model, the current study has several limitations. For instance, the *R*-squared statistic is .08, indicating that a modest proportion of absence is explained by the research model. However, the figure is commensurate with some prior research, notably Wegge et al.'s (2007) study of the associations between job involvement and job satisfaction on absence (*R*-squared = .06). Moreover, the data show significant associations that are not overly influenced by multicollinearity. Nonetheless, an expanded research model could be developed that might contribute to a better understanding of factors that lead to absence.

The current study has implications for future research. A deeper understanding of the role of managers' and employees' responses to work could be achieved using different methods, including qualitative and experimental methodology. Future research could leverage these methodologies to examine interactions among individual differences, job type, and responses to a job role. There could also be further investigation into the impact of engagement on absence for different job types. Moreover, future research could examine the research model at the group level. Prior research suggests that there are group-level affective experiences, such as group affective tone (George, 1990) or group cohesion (Pelled & Xin, 1999).

Implications for HR Practitioners

The data provide support for a growing body of work that emphasizes the importance of positive working environments for reducing employee absence. The foundational framework developed in the present study positions broaden-and-build theory (Fredrickson, 1998, 2001) as central to a range of psychological processes and behavioral outcomes. The practical consequences of doing so include an increased emphasis on generating positive affect at work (Luthans, 2002; Seligman & Csikszentmihalyi, 2000). Empirical work supports the significance of positive affect to a range of factors such as motivation to pursue goals that enhance performance (Camacho, Higgins, & Luger, 2003), job satisfaction (Judge & Larsen, 2001), and organizational commitment (Allen & John, 1990). Thus, there are powerful reasons to support HR approaches that value and enhance positive affect.

The practical consequences of the present study include an emphasis on the proactive management of absence. One way to do so is to help employees see how their work fits with the broader purpose of the organization, thereby increasing perceptions of work meaningfulness (Lips-Wiersma & Morris, 2009). For example, managers can enable different functional areas to see across traditional boundaries (Cartwright & Holmes, 2006). Improved visibility of, and dialogue with, the senior management team are likely to be important components of this process (Truss et al., 2006; Van Schalkwyk, Du Toit, Bothma, & Rothmann, 2010).

Increasing numbers of organizations are focusing on well-being with the intention of creating a working environment that will be mutually beneficial to employees and the organization (Wright et al., 2007). Engagement could be positioned similarly, and is already a strategic priority for HR managers in a growing number of organizations. Practical approaches to increasing engagement are important and seem likely to yield the intended worthwhile outcomes (Alfes, Truss, Soane, Rees, & Gatenby, 2010). Research such as that presented here could assist organizations in understanding how engagement functions, and the key drivers of engagement that could be incorporated into organizational development.

Conclusion

The present study developed and tested a moderated mediation to explain absence at work. The model was inspired by two complementary theories—namely, broaden-and-build theory and engagement theory. Broaden-and-build theory explains the development of positive affective states that arise from perceptions of meaningful work. Such perceptions broaden cognitive activity and build personal resources. This leads to higher levels of engagement, and as a consequence, positive individual and organizational outcomes. The practical implications for HR managers are to take a proactive approach to managing absence by helping employees to find meaning in their work and by facilitating a positive organizational environment.

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FIGURE 1. Hypothesized Relationships Among Meaningfulness, Well-being, Engagement, and Absence

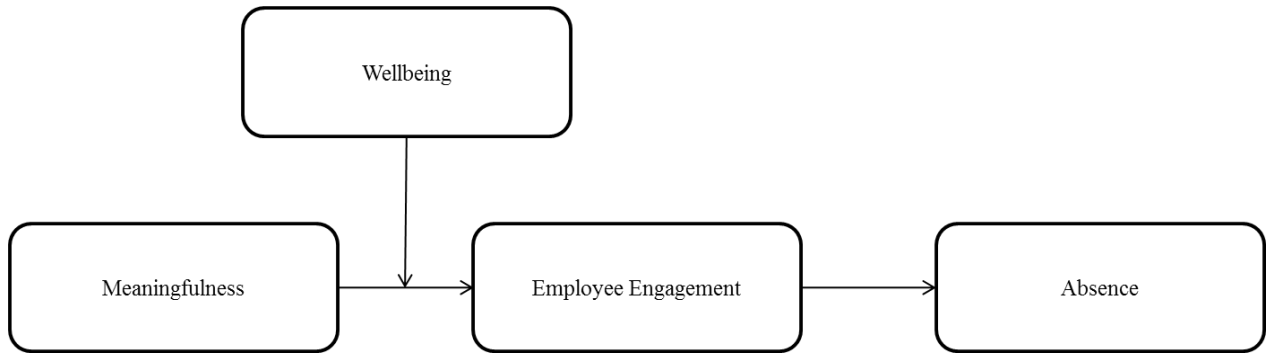


FIGURE 2. Well-being Strengthens the Relationship Between Meaningfulness and Engagement

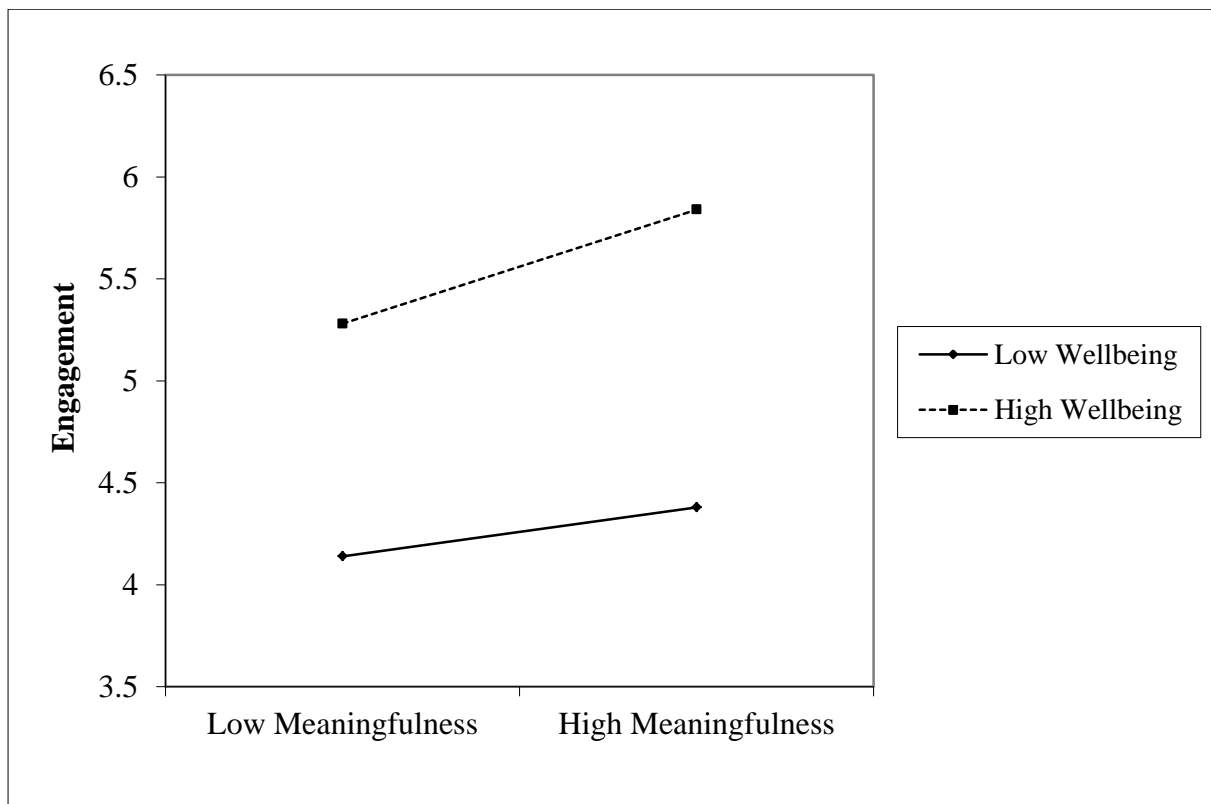


TABLE I. Percentage of Online Versus Hard-Copy Survey Completions by Job Type

Job Type	Online (N = 322)	Hard Copy (N = 303)
Professional	4.4	1.8
Associated professional	0.9	0
Administrative and secretarial	37.1	1.2
Manager	35.2	0.4
Personal services	0	0.4
Retail	8.4	0.4
Skilled trades	0.3	3.9
Machine operator	4.4	70.3
Laborers	0.3	3.6
Other	9	18

TABLE II. Descriptive Statistics, Correlations, and Scale Reliabilities for Variables

		Alpha	Mean	SD	1	2	3	4	5	6
1	Gender									
2	Age		42.21	10.58	-.23**					
3	Hard-Copy Questionnaire				.57**	-.23**				
4	Meaningfulness	.96	5.14	1.40	.08*	.06	.26**			
5	Engagement	.93	4.97	.99	.09*	.03	.24**	.61**		
6	Well-being	.77	5.74	.91	-.09*	.10*	-.15**	.24**	.32**	
7	Absence		1.06	1.72	-.03	-.01	-.22**	-.13**	-.17**	-.03

Notes: $N = 625$; * $p < .05$; ** $p < .01$.

TABLE III. Fit Statistics From Measurement Model Comparison

Models	χ^2 (df)	CFI	NFI	RMSEA	SRMR	χ^2_{diff}	df_{diff}
Full Measurement Model	355 (50)	.949	.941	.099	.094		
Model A ^a	806 (52)	.874	.866	.153	.115	451	2**
Model B ^b	925 (52)	.854	.847	.164	.130	570	2**
Model C ^c	1,093 (52)	.826	.819	.179	.153	738	2**
Model D ^d	1,481 (53)	.761	.755	.208	.158	1,126	3**

Notes: $N = 625$, $**p < .001$; χ^2 = chi-square discrepancy, df = degrees of freedom; CFI = comparative fit index; NFI = normed fit index; RMSEA = root mean square error of approximation; SRMR = standardized root mean square residual; χ^2_{diff} = difference in chi-square, df_{diff} = difference in degrees of freedom; in all measurement models, error terms were free to covary between one pair of well-being items to improve fit and help reduce bias in the estimated parameter values (Reddy, 1992).

^a Engagement and meaningfulness combined into a single factor; compared to full measurement model.

^b Engagement and well-being combined into a single factor; compared to full measurement model.

^c Meaningfulness and well-being combined into a single factor; compared to full measurement model.

^d Engagement, meaningfulness, and well-being combined into a single factor; compared to full measurement model.

TABLE IV. Hierarchical Regression Results for Testing Mediation

Variables	Engagement	Absence		
		Step 1	Step 2	Step 3
Gender	-.01 (.07)	.12* (.18)	.11* (.18)	.11* (.18)
Age	.01* (.01)	-.05 (.01)	-.05 (.01)	-.05 (.01)
Hard-Copy Questionnaire	.06 (.07)	-.28** (.16)	-.26** (.16)	-.27** (.16)
Meaningfulness	.69** (.02)	-.08* (.04)		.03 (.09)
Engagement			-.14** (.07)	-.26** (.09)
F-statistic	158.75**	11.63**	13.46**	10.92**
R ² (Adj. R ²)	.51 (.51)	.07 (.06)	.08 (.07)	.08 (.08)

Note: ** $p < .01$, * $p < .05$.

TABLE V. Moderation of Well-being on Meaningfulness to Engagement

Variables	Step 1	Step 2	Step 3
Gender	-.13 (.10)	-.01 (.07)	-.02 (.08)
Age	.01* (.01)	-.01 (.01)	.01 (.01)
Hard-Copy Questionnaire	.29** (.10)	.10* (.07)	.11* (.07)
Meaningfulness		.18** (.03)	.20** (.03)
Well-being		.64** (.03)	.65** (.03)
Meaningfulness × Well-being			.08** (.07)
F-statistic	15.05**	142.53**	121.08**
R^2 (Adj. R^2)	.07(.06)	.54(.536)	.55(.54)
ΔR -squared values	.06**	.48**	.04**

Note: ** $p < .01$, * $p < .05$.

TABLE VI. Bootstrapped Moderated Mediation Results

Moderator	Level	Conditional Indirect Effect	SE	<i>z</i>	<i>p</i>
Well-being	High	-.11	.05	-2.41	.02
	Low	-.13	.06	-2.35	.02