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# **The interactive effect of team and manager absence on employee absence: A multi-level field study**

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# **The interactive effect of team and manager absence on employee absence: A multi-level field study**

## **Abstract**

Although it is commonly assumed that manager and team absence levels have a significant impact on an individual's absence level, research has yet to simultaneously test the effect of these sources, as well their interactive effect on employee absence behavior. Using archival attendance records for 955 employees, grouped in 79 teams and the absence records of their respective managers from a large professional services organization, this study considers absence behavior through the lens and social learning theory and social information processing theory to suggest that absence norms are socially constructed based on social influences of the absence pattern of one's team and manager. Through the use of hierarchical linear modeling to account for group-level influences on absence behavior, findings suggest that team-level absence level exerts a greater influence on employee absence than manager absence, and that manager absence exerts a moderating influence on this relationship. Implications for attendance management as well as future research are considered.

## **Practitioner Points**

- Team absence behavior exerts a group-level influence on employee absence behavior
- Manager absence moderates the team absence effect

## **Keywords**

Absenteeism, absence culture, teams, leadership, cross-level

## **Introduction**

Absenteeism continues to capture the interest of practitioners and researchers (Bacharach, Bamberger, & Biron, 2010; Bamberger & Biron, 2007; Lau, Au, & Ho, 2003; Patton, 2011; Rhodes & Steers, 1990). This is not surprising given that the annual cost of absenteeism has been estimated at \$46 billion in the United States and \$10 billion in Canada (Parboteeah, Addae, & Cullen, 2005). In the United Kingdom, £11.5 billion is estimated to be paid out to absentees and temporary staff, including overtime (Smale, 2004). However, the real cost of absenteeism remains elusive, as the hidden costs of absenteeism are difficult to compute. Frequently absent employees have been shown to demonstrate poorer job performance (Bycio, 1992), are likely to be absent in the future (Gellatly & Luchak, 1998) and are expected to leave the organization (Griffeth, Hom, & Gaertner, 2000). The research in this area is extensive, with over 25 academic articles on the topic published annually between 1977 and 1996 (Harrison & Martocchio, 1998), and more than 7800 peer reviewed articles in scholarly journals since that time in the ProQuest database, including the consideration of psychosocial influences of absenteeism (de Jonge, Reuvers, Houtman, Bongers, & Kompier, 2000).

Within this extensive body of research on absenteeism, the role of manager's attendance on the relationship between team absence norms and employee absence has not been fully captured, even though manager and group absence have separately each been suggested to influence absenteeism. With respect to manager influences, there is a long tradition of research that considers the influence of leadership styles on absenteeism (Johns, 1978; Lee, Coustasse, & Sikula, 2011; Tharenou, 1993). Absenteeism has been found to be negatively related to transformational leadership, authentic leadership, and charismatic leadership styles (Rowold & Laukamp, 2009; Schyns, 2004; Tanner, Brügger, van Schie, & Lebherz, 2010; Väänänen, et al.,

2008; Zhu, Chew, & Spangler, 2005). A manager's use of different human resource practices (such as programs in coaching, attendance management, family friendly programs, and wellness) is also suggested to impact absenteeism (Duff, 2013; Johns, 2011; Wright, 2007; Zacharatos, Hershcovis, Turner, & Barling, 2007). Furthermore, a manager's own absence level has been suggested to serve as an implicit criterion for subordinates' own attendance behavior (Kristensen, Jørn Juhl, Eskildsen, Nielsen, Frederiksen, & Bisgaard, 2006; Nielsen, 2008; Rentsch & Steel, 2003).

As for unit or group influences, Hackman (1992) conceptualized group norms as reflecting the "distribution of members' approval and disapproval for various behaviors that might be exhibited in a given situation", and whose main function is to "regulate and regularize members' behavior" (pp. 235-236). Consistent with this conceptualization, absenteeism at the group level has been defined as the observable average absence in a given work unit (Gellatly & Luchak, 1998; Mathieu & Kohler, 1990). In the current study we focus on the *actual average employee absence in teams* as indicative of the absence norms for the team. This should complement prior research, which has mainly considered *perceived absence norms* in the employees' work unit (e.g., Bamberger & Biron, 2007; Gellatly, 1995) and *perceptions of one's absence behavior relative to their work group* (Markham & McKee, 1995). Absence norms emerge over time as a function of social interaction, communication and observations among work unit members with more permissive absence norms reflecting perceptions of absenteeism as being legitimate and acceptable in a wider range of circumstances (Markham & McKee, 1995; Rentsch & Steel, 2003).

However, while the aforementioned studies have considered the impact of manager absence behavior or team absence behavior on individual employees' absenteeism separately,

research has yet to consider the combined influences of team and manager absence on employee absenteeism. The purpose of this study is to (1) consider the simultaneous influences of team and manager absence behavior on employee absenteeism and (2) examine whether manager attendance moderates the influence of team absence norms on worker attendance. In doing so, this work aims to make a practical contribution by better understanding the social influences of absenteeism, as well as make a theoretical contribution through the consideration of the interaction of manager and team influences.

Building on the work of Brown, Treviño and Harrison (2005), which considers ethical behavior as socially influenced through role modeling, this work considers absence behavior as an ethical choice influenced by modeling the absence behavior of one's manager and team members. More specifically, we draw from social learning theory (Bandura, 1977; Gibson, 2004) to suggest that managers play an important role in modeling appropriate workplace behavior and social information processing (Salancik & Pfeffer, 1978) to suggest that team attendance norms should stem from the social influence of attendance or absence behaviors resulting from the impact of team member's employee absence on the individual. Taken together, we suggest that both manager and team influences should contribute to an individual's perceptions of appropriate attendance standards. This work thus builds upon extant research on absence culture (Bamberger & Biron, 2007; Johns & Nicholson, 1982) to suggest that absence rates in teams may serve as normative guidelines or standards of conduct, influencing the propensity for individuals to be absent from work. Finally, we consider the interactive effect of the manager and team absence on employees' absenteeism. By considering both influences simultaneously, this research is uniquely positioned to consider whether both manager and team absence influence individual absence behavior and whether manager and team absence interact to affect individual

absenteeism. As we explain below, to the degree that the leader may affect the saliency of team absence norms, the impact that team absence norms may have on individual absence may be amplified or attenuated.

## **Challenges in Defining Absenteeism**

One of the challenges with absenteeism research is that the definition of absenteeism is largely dictated by the elements included in the measurement of employee absence. For example, organizations might include absences due to sickness, accidents, personal reasons, other leaves such as jury duty or bereavement leave, or any number of other reasons for being absent from work (Blau, Tatum, & Cook, 2004).

Rhodes and Steers (1990) suggest that absence behavior is determined by two distinct factors: an employee's ability to attend and their motivation to attend. Thus, absence can be either involuntary or voluntary (Hackett & Guion, 1985; Steel, Rentsch, & Van Scotter, 2007). Those who are unable to attend may lack the power of choice as a result of the situational factors at hand. For example, someone who is involved in a serious car accident, which significantly incapacitates them, lacks the power to choose whether they are in a physical state whereby they can work. Those who lack motivation to attend have the physical ability to attend, but out of the available options to attend or not, some may be unmotivated to attend and act on that motivation. This distinction of unplanned absence is important as it clarifies that planned periods away from work, such as maternity or parental leaves or vacations, as well as extended disability, lie outside of the domain of voluntary absence behavior or absenteeism.

'Ability to attend' might on the surface suggest that the *nature* of illness falls under such consideration. For two main reasons, we elect not to extend our understanding of 'ability to

attend' to exclude specific reasons of sickness. Firstly, while sickness itself is relatively objective in that one being sick can be assessed by a physician, the degree to which one is deemed too sick to go to work can be highly subjective. Workers with comparable illnesses make different choices in their determination to go to work or stay home, based on a wide range of variables unique to each individual. Secondly, recognizing that most employees are not qualified medical practitioners, self-diagnosis of (the seriousness of an) illness itself is also suspect. Considering these challenges regarding the assessment of whether one is too sick to work, for the purpose of this research we limit our conceptualization (and respective operationalization) of absenteeism as sick leave absences, without consideration of the nature of illness, which assumes the subjective election to be absent or attend in the face of an illness to be normally distributed across this sample. In so operationalizing absenteeism as voluntary absence for sickness, this study excludes the consideration of long-term disability, and planned absences such as maternity leaves while including all other forms of sickness absence without consideration for the specific ailment experienced by workers.

Drawing from social learning theory (Bandura, 1977) and social information processing theory (Salancik & Pfeffer, 1978), we propose that individual absence is influenced by (1) the absence behavior of one's manager and (2) the absence behavior of the group one is part of. We suggest that individual attendance behavior is socially constructed through the modeling of attendance behavior of 'relevant' others, i.e., people whose attitude, opinions and behaviors likely shape the target employee's behavior, mostly due to frequent interactions and high proximity (Harrison, Johns, & Martocchio, 2000; Johns, 1997; Kristensen et al., 2006; Markham & McKee, 1995). It has been suggested that attendance norms of one's manager (Nielsen, 2008)

and general attendance norms of a team (Gellatly & Luchuk, 1998; Sanders, 2004), are separately believed to influence normative behavior regarding attendance.

Individuals spend considerable time working with their supervisor and colleagues. Thus, there is ample opportunity for individuals to witness the absence or attendance behavior in these relevant others, and directly or vicariously experience how rewards and consequences tie with such behavior (e.g., Abrams, Wetherell, Cochrane, Hogg, & Turner, 1990; Manz & Sims, 1981). Leadership influences on absenteeism have been studied mostly from the perspective of leadership characteristics (authentic and charismatic leadership styles; e.g., Tanner et al., 2010) and management practices (e.g., wellness; e.g., Zacharatos et al., 2007). From a modeling perspective, research suggests that employees view their direct supervisors as models providing a concrete explication of how to behave. Employees use the example of their manager's behavior as an example of the behavior that is expected. Social learning theory (Bandura, 1977) suggests that managers should be a salient reference for appropriate behavior since employees draw their social cues from others in positions of respect and authority. Additionally, managers have the power to influence behavior through rewards and consequences. Employees are likely to infer through the behavior of managers which employee actions will be met with rewards, and which will be punished. Employees will perceive that behavior which aligns with the manager's behavior will be supported, and that which falls below the standards demonstrated by the manager may be met with some form of punishment. Research supports the theory that manager absence behavior influences employee absence, as a manager's own absence level has been found to be related to employee absenteeism (Kristensen et al., 2006; Nielsen, 2008; Rentsch & Steel, 2003). Building on this established research we suggest:

*Hypothesis 1: Manager absence is positively-related to individual absence.*

While social learning theory provides a theoretical basis for understanding the influence of a manager's absence behavior on employees, we believe that social information processing theory (Salancik & Pfeffer, 1978) explains how and why the absence behavior of team members should influence an employee's absence behavior. Chadwick-Jones et al. (1982) made the observation that differences in frequency and types of absence "tend to occur within the limits set by a particular culture" (p.7). This shared understanding is held at a work unit level. Mason & Griffin (2003) further clarify that as a result of the interreliance between team members, creating work environments where the absence of team members influences others by potentially transferring work when a worker is absent, worker absence is not only visible to but negatively impacts others by increasing their workload. Such visibility and interreliance has the effect of influencing the degree to which workers miss work based on what the attendance standards of others. When a worker has incurred an increased workload as a result of supporting the absence of other team members, they may feel justified in being absent themselves as a way of being compensated for the extra workload bourn due to the absence of others.

Social information processing theory (Salancik & Pfeffer, 1978) provides an outline for how and why the social environment of work influences attitudes with respect to what behavior is appropriate or not, which then influences behavior. It proposes that norms of work behavior are socially constructed, with employees observing and interpreting others, and shaping their behavior based on a decision-making process which factors their holistic interpretation of the work context in which they are situated. Social information processing theory is premised in the idea that the social environment provides the context for meaning constructing based on what is

or is not acceptable to others and that it enacts a sense of which behaviors are of greater or lesser importance in that context. Because the work team is the central work environment in which the employee is situated, it is the work team which provides the most salient source of meaning construction for the employee.

Social information processing theory proposes that work environments characteristics such as the job or work context influences an employee's attitudes or belief, which in turn influences behavior. The application of a social information processing theory (Salancik & Pfeffer, 1978) to the influence of groups absence norms on individual absence behavior would suggest (1) that differences in group-level absenteeism should exist as a result of different work environments and tasks influencing absence, and (2) that individuals are likely to shape what is appropriate attendance based on the observations of and the influences on their group. Accordingly, we first consider the environmental and task influences on absence, and then consider the social influences.

A social information processing perspective suggests that environmental or task differences will influence employee absence norms. With respect to the influence of the broader environment, structural or work-related commonalities may influence absence behavior. Company attendance policies, suggested to influence attendance (Baum, 1978; Landau, 1993), exemplify how structural conditions enact absence or attendance behavior. Research suggests that when organizations implement attendance management programs with more stringent standards, employee absence rates decline (Baum, 1978; Landau, 1993). Additionally, the probability of contracting illness has been suggested to be influenced by differences in work. Roles such as teachers and nurses, which place employees at greater risk of contact with others who are sick, are expected to be associated with higher absenteeism levels than roles with less

exposure to potential contagion, such as office workers or computer programmers (Pousette & Hanse, 2002).

Social information processing is also facilitated by the benefits and consequences of an individual's past actions as well as the benefits and consequences experienced by the actions of observable others (Sheldon & Schüler, 2011). In the context of considering to call in sick, workers will consider the consequences and benefits associated with past work absences to construct an understanding whether that should go to work or stay home. As a result, work absence which is a positive experience should encourage further work absence. Work absence has been suggested in large part to be a positive experience, with nearly half of sick time taken being to attend to personal needs such as shopping, personal meetings with lawyers or other professionals, or engaging in some form of leisure activity (Haccoun & Dupont, 1987; Haccoun & Desgent, 1993).

This meaning construction may be personal (ie. the employee) or vicarious (ie. the absence of others on the team). When workers witness the absence of others which is interpreted relative to the hardship endured by others who must assume the work for the absent worker, employees are likely to interpret the absence as a positive experience for those absent, and a negative experience for those impacted by the absence of others. Workers who are absent from work and who do not experience negative consequences have this behavior reinforced, encouraging others to adopt similar absence norms (e.g., Abrams et al., 1990; Väänänen, et al., 2008). In this consideration, workers may project their interpretations of benefits onto the absent others. Additionally, they will observe the consequences (or lack thereof) which come after the employee being absent from work. Finally, if an employee has had to assume a greater workload

to cover for the absence of other workers, they may feel a sense of justice in being absent at a later time, placing the onus of increased workload on the shoulders of others in the group.

While different organizations may be expected to demonstrate different absence levels, this phenomenon should also present itself within large organizations which are structured into distinct teams (Terborg, Lee, Smith, Davis & Turbin, 1982). The differentiation of teams may reflect different proximal work settings which may represent different contagion risks or other hazards (Biron & Bamberger, 2012). Alternatively, teams may represent regional divisions, which may present different climatic health risks for employees. Teams may also employ different policies and practices applicable to absenteeism, be they different attendance policies, or different application and reinforcement of a team's attendance policy. Such differences may be attributed to different cultures between teams, or may be based on different laws applying to different teams (when teams lie in different geographical regions). Finally, teams may have different historical backgrounds which may influence norms such as absenteeism. In an age of business where mergers, acquisition, outsourcing, and divestiture are commonplace, organizations may exist as collections of groups formed by different organizations with different operating norms, brought together through mergers and acquisitions.

Social information processing theory also suggests that the employees will socially construct their interpretation of appropriate absence through the interaction with their team. Realizing that their behaviors are open to surveillance by others, employees in teams where absenteeism is not condoned are likely to avoid absenteeism to avoid certain sanctions (social rejection, e.g., Turner, 1991). Research by Väänänen, et al. (2008), considering the team-level absence on individual absence using a multi-level analysis, suggested that the work group exerted a moderating influence on the extent to which employees acted on their liberal attitude

regarding absence. Alternately, employees in teams where absenteeism is an accepted norm may feel justified in acting in accordance with the norms of the group, and may feel “pressures for conformity emanating from the social environment” (Salancik & Pfeffer, 1978, p. 233) which may influence a worker to call in sick. Based on environmental, task, and social interaction influences, we posit:

*Hypothesis 2:* Team absence is positively-related to individual absence.

Although the arguments presented above suggest that team absence and manager absence both have independent effects on employee absence, we propose that manager influences should exert a stronger influence on employee absence behavior. In this consideration, two separate lines of evidence may be at work. On the one hand, recognizing that managers are considered authority figures, they are likely to enact a greater role modeling influence than team members (Bandura, 1977; Brown et al., 2005). Moreover, with managers viewed as being as the nexus of organization-employee relations (Aselage & Eisenberger, 2003), holding responsibility for wages and bonuses, promotions, and disciplinary sanctions, they are expected to exert greater motivational influence than individual team members (Duff, 2013). On the other hand, team members are also expected to exert influence by using social sanctions toward deviant employees who fail to comply with the absence standards of the team (e.g., Abrams et al., 1990; Hackman, 1992). The absent employee, whose absence impacts the workload of other team members in a way that is perceived as unfair, may be excluded from affective social relations with others. While it is expected that the individual influence of the manager will be greater than the individual influence of a single team member, it is expected that the influence of multiple

team members on an individual employee will have a cumulative effect. Similar ideas have been demonstrated, for example, in the realm of consumer advertising, where the number of impressions has been shown to influence consumer buying behavior (Clark, 1976).

Given these contradicting predictions regarding the relative strength of team versus management influences, it is difficult to posit a specific hypothesis a priori in this regard. However, based on the sanctions that managers have the power to impose for failure to comply with objective or subjective rules regarding absence behavior, and that managers will construct their sense of what is sanctionable based on the same criteria they will use for the determination of their own absence behavior, we propose that managers are likely to exert a stronger influence on employee absence behavior.

*Hypothesis 3:* Individual-level absence is more strongly associated with manager absence level than team average absence level.

Furthermore, we propose that manager absence may also moderate the association between team absence and individual absence. Managers, in addition to having the power to apply sanctions on the individual for violating the objective and subjective standards of attendance, also have the power to exercise such sanctions on each team member. The work environment often provides visibility for others to see the sanctions exerted against other team members. In the context of being absent from work, this may take the form of (1) the manager being publically critical of an employee's absence while the worker is absent or (2) by workers being made aware an absent worker having received sanctions such as warnings, often shared with other co-workers by the absent employee themselves. Because the manager's absence

behavior should reflect the standards by which he or she exerts these standards, it should represent the manager's influence on each member of the team. However, because all employees in the team should be affected by such awareness, and team absence should influence individual absence, manager absence behavior should interact with team absence to moderate employee absence. When the manager engages in low levels of absence, they are more likely to exercise sanctions to an employee for absence above the manager's standard than if the manager engaged in higher personal absenteeism, demonstrative of the manager having less stringent absence standards. Sanctions awarded to one team member will enact a group effect, where group members discuss and reflect on the consequences of absenteeism enacted on one of its members, thus interacting with the team positively influencing attendance behavior (ie. reducing absenteeism). This leads us to propose:

*Hypothesis 4:* Manager absence level moderates the association between team average absence level and individual absence level, such that the effect of team absence on employee absence is stronger when manager absence level is low, and attenuated when manager absence level is high.

## **Method**

### **Sample**

Absence records from a single large and diverse division within a large Canadian professional services firm were analyzed to test the hypotheses. The work performed by this division, in an office setting, consisted largely of technical services and consulting supporting clients. Workers were typically collocated with others. Some teams were collocated in offices

with the clients they supported, while others were located in offices occupied solely by the study firm. As the nature of the work was largely knowledge or services-based, the work required little physical exertion with no exposure to weather other than commuting to and from work from home. The sample group included multiple locations across two cities in different provinces. This group was primarily made up of professional level staff with some administrative support roles.

The business unit had 1077 employees. We excluded 82 people who were temporary employees, had incomplete time records for the period, or were individuals (without team members) reporting to a common manager, and 29 employees who had less than six months of service. A further 9 employees were excluded from the analysis as a result of being single employees reporting to a manager, which precluded a meaningful team average absence level. Two outliers, with absences dramatically higher than other individuals in the sample were also removed from the sample. Therefore, the final sample consisted of 955 employees, for which absence records for a six month period from April to September was tracked.

## **Measures**

Absence for individuals, managers, and teams were all captured for the same six-month period using attendance records tracked by the organizations existing time management system. A six-month time interval is considered a medium-length interval that is appropriate for studying organizational absenteeism trends (Harrison & Martocchio, 1998). We captured actual time lost rather than directly surveying employees regarding their work absence in order to obtain a more objective assessment of absence. The six-month interval was from April to September, a period of traditionally lower sickness absence as a result of a more temperate seasonal climate and

summer vacations during this period. Absence tracking was recorded weekly using a self-service automated system, with time reports approved by managers. Weekly time reporting accounted for all time allocation, be that worked hours, vacation or holiday hours, or sick time. Employees who were off sick recorded their time as sick leave, which in accordance with organizational policy was paid time. Company policy did not stipulate a fixed or maximum number of paid sick days. The philosophy was aimed at encouraging employees to come to work when well, but take time off to recuperate when ill. Because this time reporting was part of the organization's regular operations, and reporting was approved by an employee's immediate supervisor, this measure is expected to contain less bias than self-reported data. Actual time lost, being the number of sick hours recorded over this period, was employed as the unit of measure rather than absence frequency. Time lost was employed as it provided a more accurate representation of the organizational cost associated with absence than absence frequency (Martocchio, 1994).

All absence data was captured at the individual level, with a single number of absence hours for the six-month period employed for each employee and manager. Group-level influences of absenteeism were assessed using multivariate statistical analyses. The sample was comprised of 79 groups, each with one manager, each with an average of 11 subordinates. Demographic data such as age, gender and tenure were tracked from the organization's Human Resources Information System. The mean age overall was 43 years of age, and 46 years of age for managers. The gender distribution was 66% male and 34% female for both the overall population and for the managers. The average tenure was 9 years for the overall population, and 11 years for the managers.

### ***Control Variables***

Previous research suggests that demographic variables such as gender and age may be related to absenteeism (e.g., Haccoun & Desgent, 1993; Haccoun & Dupont, 1987; Hackett, 1990; Martocchio, 1989; Scott & McClellan, 1990). Accordingly, we controlled for these variables.

### **Analytical Technique**

With absenteeism typically modeled as a count variable, there is a need to account for the fact that absence data typically has a skewed distribution (Coxe, West, & Aiken, 2009). Although the single-parameter Poisson distribution is widely applied in such cases, this technique is often criticized for its restrictive assumption of equality between the variance and the mean. Accordingly, in addition to the Poisson model, we also considered several different extensions of this model based on the work of Cameron and Trivedi (1986). The three models include a standard negative binomial model, the over-dispersed Poisson model, and a zero-inflated negative binomial model.

We evaluated the goodness of fit of each of the four distributions by comparing the Akaike Information Criterion (AIC) for each distribution in each hypothesis model. The AIC is useful for determining the relative fit of mixed models from among a competing group of models based on the same data (Lian, 2012). The zero-inflated negative binomial model distribution showed the best fit (AIC = 5333) when compared to the zero-inflated Poisson (AIC = 8012) and negative binomial (AIC = 5701) models. Accordingly, we tested our hypotheses on the basis of the zero-inflated negative binomial distribution model (Hilbe, 2011).

Employees in this sample are grouped into work teams by manager, and because we are interested in examining the effects of manager-based and group-based norms on individual

absence behaviors, we used a multilevel model to account for the potential lack of independence between the individual observations and to examine the effects of the group-level variables on individual absence. We followed the methods outlined in Stasinopoulos and Rigby (2007) to test the three multilevel models. A common first step in conducting a hierarchical linear model is to examine the amount of variance in the outcome variable that may be attributable to group level variables (Bryk, Raudenbush, & Congdon, 1996); Gavin & Hofmann, 2002). ICC(1) is used to demonstrate the amount of variance in a variable that lies between groups as a proportion of total variance (Bliese, 2000); however, models with zero counts and overdispersion can violate the assumption of multivariate normality. The kurtosis of the outcome variable (employee absence) in our study is 7.74, and the skewness is 2.51, which suggests that ICC(1) would provide an inaccurate representation of variance partitioning (Coffman, Maydeu-Olivares, & Arnau, 2008). Snijders and Bosker (1999) point out that ICC(1) does not account for any increase in variance in the dependent variable attributable to covariates added to the model, which suggests that ICC(1) represents a potentially inaccurate measure of the maximum amount of variance in the dependent variable that can be attributed to group variables. A simpler alternative is to test the multilevel model and examine the independent effects of each variable of interest.

## **Findings**

Table 1 presents the means, standard deviations, and correlations among the variables at the individual and group levels. Employee absence and gender are significantly correlated ( $r = -.12, p < .001$ ) at the individual level, and group-level team sick hours and manager sick hours were also significantly correlated ( $r = .38, p < .001$ ).

(Insert Table 1 about here)

Hypothesis testing was conducted using multilevel zero-inflated negative binomial regression, the results of which are presented in Table 2. None of the predictors in Model 1 were significant, thereby providing no support for our first hypothesis, that manager absence level predicts individual absence level. Furthermore, neither age nor gender were significant as control variables. The results associated with our second hypothesis, that team average absence predicts individual absence, are shown in Model 2. This model shows that team average absence is a significant predictor of individual absence ( $\beta = .04, p < .001$ ), while neither control variable was significant. This fully supports hypothesis 2. Because neither control variable was significant, they were dropped from subsequent analyses.

The third hypothesis proposes that individual absence is more strongly related with manager absence than with team absence. We standardized the independent variables in order to be able to directly compare the effect sizes of each variable. By standardizing the independent variables, the standardized regression coefficient can be interpreted as the change in the expected log count of employee hours of absence in response to a 1-standard deviation change in the independent variable, holding all other variables constant. When both team and manager absence are entered into the multilevel regression model, only team absence is significant ( $\beta = .27, p < .001$ ), failing to lend support to hypothesis 3.

We further predicted that manager absence moderates the relationship between team absence and individual absence such that the effect of team absence on individual absence is stronger when manager absence is low than when manager absence is high. This analysis shows that the interaction term is significant ( $\beta = -.12, p < .001$ ). The interaction was further probed by

centering the moderator (manager absence hours) at various realistic values. We chose to examine the interaction at realistic values that occur within the data rather than  $\pm 1$ SD because of the non-normal distribution of the absence data. For example,  $-1$ SD of manager absence is a meaningless value (i.e., below zero hours of absence) in our sample. These analyses showed that the simple slope of the regression of individual absence on team absence is significant ( $p < .001$ ) at low levels of manager absence, and that the slope becomes non-significant at a value of approximately 25 hours of absence (Figure 1). This value is above the 75<sup>th</sup> percentile of manager absence values, but well below the maximum value in our sample of 82.5 absence hours. These results, therefore, support our fourth hypothesis. However, where we proposed that the role of manager absence as a moderator would compromise the effect of team absence on individual absence, we actually found that the relationship between team level absence and individual absence was significant only for lower levels of manager absence. Once manager absence increases to a substantial level (in our data that level was around 25 hours of absence over the 6-month period), the normative influence of team absence no longer has an effect on individual absence.

### **Discussion and Suggestions for Future Research**

We believe that this study represents the first multi-level attempt to simultaneously consider both the team and manager as sources of normative influence on employee absence behavior. Specifically, we examined absence level of one's direct supervisor and the formal work team as indicators of the normative context within which one's personal attendance behavior takes place. Our findings lend support to the influence of team absence on individual attendance behavior, where individuals emulate the behavior of their team. As suggested by

social information processing theory, social and environmental influences provide an evaluative lens through which employees may shape their attitudes and subsequent behavior. While this study lends further support to past research suggesting the group influence on absenteeism (Bamberger & Biron, 2007; Gellatly, 1995; Harrison & Martocchio, 1998; Johns & Nicholson, 1982; Markham & McKee, 1995), the simultaneous consideration of the influence of manager absence provide interesting insights to our understanding of absenteeism. While previous research suggested a direct relationship between leader and employee absence behavior (Kristensen et al., 2006; Nielsen, 2008; Rentsch & Steel, 2003), by simultaneously considering the influence of the manager and the team, our findings instead suggest that team influences shape individual absence, and manager absence moderates this relationship, but only when manager absence is low.

The interaction effect found between manager and team absence norms suggests that team absence norms only exert influence on individual absenteeism when manager absence norms are less permissive. Put differently, as long as managers maintained strict absence norms, individuals' absence seemed to be associated with that of their team members. However, the moderating effect of manager absence is such that when manager absence is low, this helps to reduce the absence norms for the team, exerting an effect to reduce absenteeism for individuals. When manager absence is high, on the other hand, manager absenteeism does not appear to moderate the team influence of absenteeism in the other direction (ie. it does not significantly influence an increase in team-level absenteeism).

While we have drawn from past research and theory to suggest that absenteeism is a group-level phenomenon labelled absence culture (Johns & Nicholson, 1982) and we have sought to theoretically consider this phenomenon as based in workers taking their social cues

from others in their work environment (Bandura, 1977; Salacik & Pheffer, 1978), this research may suggest the need for deeper investigation of the social processes at play which may help to explain why manager absence appears to exert a controlling effect but not a modelling effect. This research has considered social processes from a positive perspective (ie. suggesting what is acceptable). However, actions such as absenteeism may also carry negative perceptions or stigma associated with them (Vogel, Wade, & Ascherman, 2009). If absenteeism is perceived by others to be a form of weakness or deficiency, which may carry different attributions for managers than for employees, then employees may seek to distance themselves from this sort of behavior rather than be influenced by it. It is quite conceivable that because the notion of being a manager traditionally is associated with power and agency, and being absent for sickness may be perceived as counter to this image, illness stigma may differ significantly between managers and employees, and should enact differential influences. Therefore, future research which considers negative social processes such as stigma on behavior emulation should contribute to our understanding of absenteeism as a social phenomenon.

### **Limitations**

The findings of this study should be considered in light of its limitations. Firstly, the study was conducted among employees working in a single organization operating in the professional services sector. Accordingly, the findings may not be generalizable to other organizations/industries. Recognizing that professional services work carried out by our participants differs significantly in terms of working conditions, exposure to illness and absence culture than other industries such as manufacturing, construction, healthcare, or teaching, it is uncertain how such findings would translate to other industries and work contexts (Johns, 2006).

A second limitation has to do with our measure of absence. Specifically, while this study measured absences that were identified as “sickness” the research methodology did not consider specific reasons for absence. Although we excluded leaves such as maternity or long-term disability, research into absence reasons have identified sickness as accounting for less than half of absence (Haccoun & Desgent, 1993; Hacooun & Dupont, 1987), with sick leave being taken for reasons other than sickness including meeting family obligations, shopping, resting, and meeting other needs such as meeting with lawyers or accountants. As such, within absence recorded as “sickness” it is possible that some absences were for reasons other than employee sickness.

## **Implications**

The findings of the study suggest that employee absence is shaped by team influences and that manager and team influences interact to enact a team influence on absence behavior. Organizations seeking to improve attendance rates should realize improvements in attendance by tracking and implementing interventions aimed at reducing manager absence, as well as addressing absence culture in teams (Johns & Nicholson, 1982; Nicholson & Johns, 1985). Interventions such as absence monitoring and communication of tracked absence relative to average absence have been shown to improve attendance behavior (Gaudine & Saks, 2001). The development of such monitoring and communication programs with a focus on manager and unit absence behavior may prove even more effective as a result of the compounding effect of reducing unit absence and employees shaping their attendance behavior through the observation of their manager’s behavior when the team absence behavior is low, and through the emulation of their team-mates behavior when team absence behavior is high. While individual interventions

based on monitoring and communication should also be effective in managing and reducing unit and manager absence, issues such as poor physical working conditions, hostile or unsupportive work environments, or work which is by its nature unappealing, may impact absence rates regardless of any monitoring system in place. Accordingly, the address of such systemic issues will likely be required in concert with the any monitoring/communication interventions, else efforts aimed at reducing absenteeism through the monitoring and management of absence behavior, may instead increase presenteeism, where employees maintain positive work attendance, but attend work while sick, potentially increasing group sickness through contagion and compromising their work performance as a result of being ill, or result in a backlash effect (i.e., increase absenteeism that is based on “legitimate” reasons) (Johns, 2010; Johns, 2011).

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**Table 1**  
Descriptive Statistics, Correlations, and Reliability Coefficients <sup>a</sup>

Variable	Mean	s.d.	1	2	3
Individual-level measures					
1. Employee Sick Hours	10.52	15.88	(.83)		
2. Gender	0.66	0.48	-.12***	(.87)	
3. Age	43.33	8.7	0.06	0.02	(.85)
Group-level measures					
1. Manager Sick Hours	7.16	13.11			
2. Team Sick Hours	10.56	8.44	0.38***		

<sup>a</sup> For individual measures n = 955; For group level measures N = 79

Coefficient alpha is indicated in brackets along the diagonal

\*  $p < .05$

\*\*  $p < .01$

\*\*\* $p < .001$

**Table 2**  
Results of Multilevel Zero-Inflated Negative Binomial Regression Models <sup>a</sup>

Variable	Model 1	Model 2	Model 3	Model 4
1. Intercept	2.83*** (.20)	2.36*** (.21)	2.86*** (.03)	2.89*** (.03)
2. Gender	-.11 $\tau$ (.06)	-.07 (.06)		
3. Age	.01 (.01)	.01 (.01)		
4. Manager Sick Hours	.01 (.01)		-.04 (.02)	.11* (.04)
5. Team Sick Hours		.04*** (.01)	.27*** (.03)	.32*** (.04)
6. Manager x Team Sick Hours				-.12*** (.03)

<sup>a</sup> For individual measures n = 955; For group level measures N = 79

Standard errors are indicated in brackets

$\tau p < .10$

\*  $p < .05$

\*\*  $p < .01$

\*\*\* $p < .001$

**Figure 1**

Effect of Team Absence on Individual Absence when Manager absence is 0, 20 and 34 hrs.

