

# Understanding the relationship between absence constraints and presenteeism among nurses and midwives: Does social support matter?

Huw Flatau-Harrison • Wouter Vleugels • Steven Kilroy • Janine Bosak

**Background:** The substitution hypothesis identifies absence constraints such as job and organizational demands as key precursors of presenteeism (attending work while ill). However, the relationship between absence constraints and presenteeism might be more complex than traditionally assumed (i.e., curvilinear). Moreover, it also remains unclear whether and how effective social support is in buffering these relationships.

**Purpose:** This study investigates whether the relationship between key absence constraints (i.e., attendance enforcement and work overload) and presenteeism follows a U-shaped curvilinear pattern and whether support mechanisms (i.e., colleague and manager support) moderate the absence constraints–presenteeism relationship.

**Methodology:** To answer these questions, we employed binary logistic regression analysis on survey data from a large and representative sample of nurses and midwives from Ireland ( $N = 1,037$ ).

**Results:** The relationship between absence constraints and presenteeism is dependent on the type of absence constraint, with attendance enforcement demonstrating a curvilinear relationship and work overload demonstrating a linear relationship. Contrary to expectations, social support had limited impact on this relationship and acted as a “constraint in disguise” in the case of manager support and had no impact in the case of colleague support.

**Conclusion:** Our study challenges the basic tenets of the substitution hypothesis of presenteeism, particularly the idea that eliminating absence constraints always reduces the likelihood of presenteeism among nurses and midwives.

**Practice Implications:** Increasing support to reduce presenteeism is unlikely to be effective in controlling presenteeism among nurses and midwives. Hospitals would be better served by directly targeting the absence constraints of such presenteeism behavior.

**Key words:** Curvilinearity, job demands, presenteeism, substitution hypothesis, support

Presenteeism, commonly defined as attending work while ill (Johns, 2010), represents a growing organizational problem (Deery et al., 2014). Presenteeism places a significant burden on employee well-being through its relationship with stress and burnout (Demerouti et al., 2009) and implies significant health-related costs for employers because of productivity loss (Caverley et al., 2007). Indeed, a large organizational health audit (Goetzel et al., 2004) has estimated that between 20% and 60% of employers' total medical expenses are attributable to presenteeism. This is especially true among nurses and midwives in hospitals, a population in which presenteeism is known to be much more prevalent compared with other professional groups because of

persistently high levels of work pressure and their concern for vulnerable clients (Aronsson et al., 2000; Dew et al., 2005).

Indeed, research indicates that workers active in the health care sector such as nurses are four times more likely to engage in presenteeism compared with managers (Aronsson et al., 2000; Dew et al., 2005), suggesting the existence of strong absence constraints that prevent sickness absenteeism from being a viable alternative. Occupations in the health care sector are largely predicated on loyalty and concern for vulnerable patients as well as a strong teamwork ethos, all of which motivates attendance in the face of stress and illness (Demerouti et al., 2008). Presenteeism behavior is especially problematic in this population because it can spiral into more severe, long-term health and well-being complaints such as stress and burnout (Demerouti et al., 2009), especially so in hospital settings where resources are often scarce and the workforce is chronically understaffed (Aiken et al., 2002).

Research on presenteeism has flourished widely within the last decade (Johns, 2010; Lui et al., 2018; Miraglia & Johns, 2016). Presenteeism researchers have mainly been concerned with researching the factors leading to presenteeism, with presenteeism being more likely to occur whenever work characteristics constrain the opportunity to be absent (Gosselin et al., 2013; Miraglia & Johns, 2016)—a phenomenon known as the “substitution hypothesis” of presenteeism

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(Caverley et al., 2007). By contrast, little is known about the factors that may protect employees from engaging in presenteeism when facing demanding work characteristics. Research suggests, in this respect, that the presence of resources may relate to presenteeism in counterintuitive ways. For example, Miraglia and Johns' (2016) dual-path model of presenteeism revealed that both job demands *and* job resources can elicit presenteeism via both health impairment and motivational pathways. Furthermore, a recent review revealed contradictory and inconclusive findings in previous research across a range of theoretical frameworks (Lui et al., 2018), suggesting the need for new and novel perspectives on the precursors of presenteeism. Investigating why health care staff decide to (not) come into work while feeling unwell is paramount because it is abundantly clear that, for health care workers, the stressful experience of dealing with excessive job demands is not going away any time soon, especially for those on the front-line of the current COVID-19 health crisis (Caldas et al., 2021). Therefore, understanding which factors can ameliorate the propensity of health care staff attending work while ill, even in the face of high job demands and despite the presence of adequate support resources, is critical.

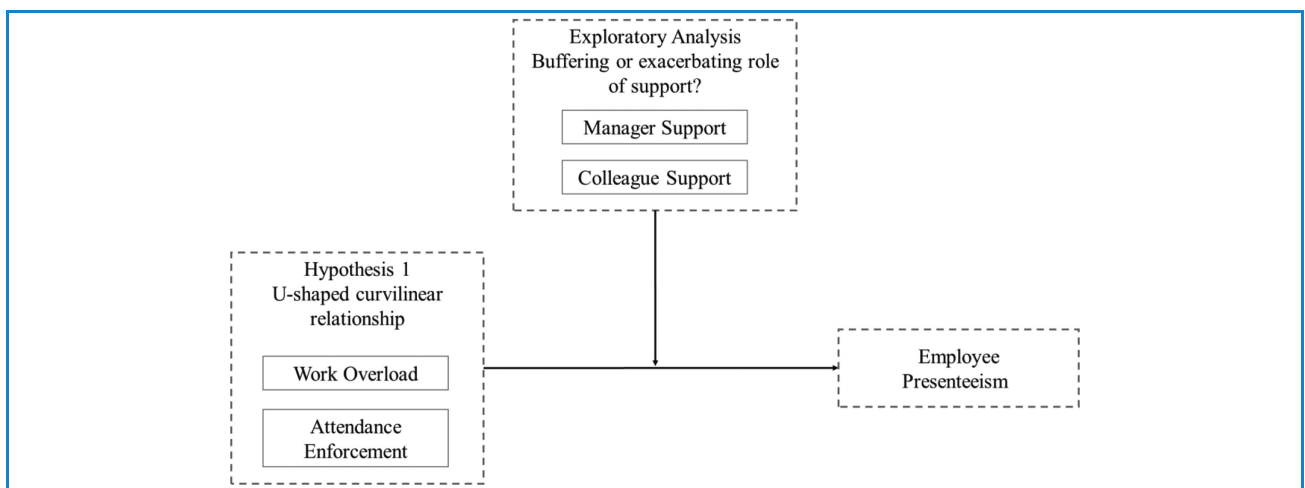
In this article, we intend to contribute to the presenteeism literature in two important ways. First, we consider the potential existence of more complex curvilinear relationships between two widely studied absence constraints (i.e., work overload and attendance enforcement) and presenteeism among nurses and midwives (see Figure 1). This aim follows from more recent insights that the impact of work characteristics on pertinent employee outcomes may be curvilinear as opposed to linear in nature (Pierce & Aguinis, 2013). In a presenteeism context, this would indicate that presenteeism can become more pronounced even when absence constraints are low as opposed to high, effectively taking the form of a U-shaped relationship. Second, and building on the job demands–resources (JD-R) model (Demerouti et al., 2001), we extend existing presenteeism research by examining the moderating role of social support from colleagues and managers in this relationship. With a culture predicated on a strong teamwork ethos and a sense of loyalty toward co-

workers (Aronsson et al., 2000; Johns, 2010), social support can be expected to feature prominently in a health care environment, yet its exact implications for presenteeism remain unclear (Caverley et al., 2007; Gosselin et al., 2013). For example, Miraglia and Johns (2016) demonstrated that the presence of support can decrease presenteeism via improved health as well as increase presenteeism via improved job satisfaction, supporting the idea of the dual-path model of presenteeism. However, most studies to date, including the meta-analysis of Miraglia and Johns, have overlooked the possibility that demands operate on outcomes in a curvilinear as opposed to a linear fashion and that this relationship and any subsequent interactions between such demands depends on the provision of job resources. As such, this study expands our knowledge of the nomological network of presenteeism by exploring whether the nature of the relationship is U-shaped curvilinear and investigates whether these relationships with presenteeism can be curbed or perpetuated through the provision of social support resources.

## Theory and Hypotheses

### *Presenteeism and the Role of Absence Constraints*

The “substitution hypothesis” of presenteeism, first coined by Caverley et al. (2007), proposes that any work factor that constrains the opportunity to be absent could potentially stimulate presenteeism. When Caverley and colleagues examined the relationship between sickness presenteeism, sickness absenteeism, and employee health in a Canadian public service organization, they observed that, although the workforce was of average national health, sickness absenteeism turned out to be less than half that of the national average at the time. Their subsequent analysis indicated that the average number of days employees attended work while ill or injured was greater than the number of days in sickness absence, indicating that employees were essentially substituting absenteeism for presenteeism. The main reported reasons for coming into work while feeling unwell related to a lack of staff back-ups, work overload, and having many deadlines, essentially reflecting a regimen of working under tight timelines



**Figure 1.** Proposed research model.

combined with a strong normative expectation to meet professional responsibilities. These findings complement observations made by other researchers (Aronsson & Gustafsson, 2005; Aronsson et al., 2000; Demerouti et al., 2009; Grinyer & Singleton, 2000; Johns, 2010), who have reported a positive association between presenteeism and organizational policies (e.g., staffing, replacement, and attendance control) and job design features (e.g., work overload and teamwork).

### **Absence Constraints and Presenteeism: A Curvilinear Perspective**

In this study, we focus on two key absence constraints that have been found to be crucial in explaining presenteeism, namely, work overload and attendance enforcement (Deery et al., 2014; Demerouti et al., 2009; Grinyer & Singleton, 2000). Past studies (e.g., Deery et al., 2014) have shown that people with work overload are more inclined to show up at work while feeling unwell out of fear of having to deal with an even higher workload when returning to work. Indeed, nursing and midwifery are professions widely regarded to experience work overload (Aiken et al., 2002) and are often denied the possibility to effectively recover from stressors and illness at home (Aronsson & Gustafsson, 2005). In addition, increasing work overload and patient demands associated with the profession often requires visible displays of commitment, which makes absence less viable and presenteeism more likely (Demerouti et al., 2009). With respect to attendance enforcement, research suggests that when employees face negative repercussions for not attending work, they are likely to be less willing to take time off work when they are ill (Grinyer & Singleton, 2000). Indeed, organizational policies put in place to stimulate attendance, such as the strictly regulated work schedules that can often be found in hospital settings, are known to contribute directly to presenteeism (Lu et al., 2013). In such circumstances, the fear of taking sick leave is more likely to be perceived as a risky strategy rather than a health promotion decision.

Crucially, the substitution hypothesis framework, as illustrated by the suppositions argued above, implicitly assumes the existence of positive linear relationships between absence constraints, which often take the form of excessive work demands (e.g., managing work overload and having to deal with attendance enforcement policies) and presenteeism. However, the idea that increasing (or decreasing) absence constraints would be infinitely positively (or negatively) related to presenteeism is at odds with a growing recognition that many predictor variables, including work demands (Janssen, 2001; Wang et al., 2020), show complex, curvilinear relationships with work outcomes and can have a different impact at different levels (Pierce & Aguinis, 2013). There is therefore plausible grounds to suggest that presenteeism too may have different thresholds for enactment, such that absence constraints may trigger presenteeism behavior not only at very high levels but also at very low levels, essentially resulting in a U-shaped relationship between absence constraints and presenteeism.

At very high levels of absence constraints, such as when being confronted with strict attendance enforcement and work overload, employees feel compelled to go to work even while ill as they respond to the structural limitations of their

job demands and employer's attendance policies. The likelihood of engaging in presenteeism might thus increase when perceptions of attendance enforcement and work overload peak. Indeed, under such circumstances—facing high patient demands and high attendance expectations—health care staff cannot afford to be absent (Demerouti et al., 2009). Paradoxically, however, presenteeism could also be expected to peak when absence constraints are very low or missing, albeit for different reasons.

First, at low levels of job demands (e.g., no excessive workload), health care workers can afford to take it slightly easier and psychologically and physically recover on the job (Lu et al., 2013). Even when the absence of strict attendance enforcement policies would make it possible to recover at home, a presenteeism strategy—showing up while feeling unwell—would still be beneficial as it would allow staff to save any paid sick leave for other occasions, such as dealing with children's health problems (Johns, 2010). Second, and in line with social exchange theory (Blau, 1964), the absence of excessive work demands and strict attendance enforcement policies may be interpreted favorably by health care staff as indicative of a good employment relationship that needs to be "honored." Indeed, it has been suggested that employees that view their work environment as low in demands and high in resources regard showing up unwell as a display of commitment or a form of organizational citizenship behavior (Johns, 2010). Under such positive work conditions, health care staff may be more likely to attend work when unwell to reward their employer out of a desire to reciprocate favorable treatment.

Thus, although the existence of positive linear relationship between absence constraints and presenteeism has been well documented in past empirical research (Caverley et al., 2007; Demerouti et al., 2009; Johns, 2010; Miraglia & Johns, 2016), there are compelling arguments to suggest that the relationship between absence constraints and presenteeism might be U-shaped (curvilinear) as opposed to strictly linear. This means that both very low and very high levels of work overload and attendance enforcement may trigger presenteeism behavior. As such, we propose the following hypothesis:

*Hypothesis 1: The relationship between absence constraints (i.e., work overload and attendance enforcement) and presenteeism is U-shaped curvilinear.*

### **Social Support: Resource or Constraint in Disguise?**

Past research shows that employees are not left entirely at the mercy of stressful work demands. Indeed, a key proposition of the JD-R model (Demerouti et al., 2001) is that job resources can assist employees in coping with stressful work demands. Job resources are those physical, organizational, and/or social aspects of a job that (a) help employees reduce their job demands and the associated physical and psychological costs; (b) are functional in achieving work goals; and (c) provide opportunities for learning, growth, and development (Demerouti et al., 2001). One of the most potent resources in the organizational context is social support received from managers or colleagues (Halbesleben, 2006). Social support

can be defined as interrelated social relations and connections that help individuals cope and deal with difficult situations (Marín & Garcia-Ramirez, 2005). Although the role of social support as a protective resource in the presenteeism process has largely been overlooked to date (Gosselin et al., 2013), supervisor support and colleague support are widely regarded as critical sources of support in the workplace, in general (Halbesleben, 2006), and among nurses and midwives, specifically (Marín & Garcia-Ramirez, 2005).

Intuitively, it is reasonable to assume that the accessibility of support resources among health care employees will mitigate against the detrimental impact that absence constraints might have on presenteeism behavior. Indeed, the presence of strong support networks may buffer the well-documented health impairment process activated by work demands and, as such, mitigate the occurrence of presenteeism (Miraglia & Johns, 2016). For instance, strong support from managers and colleagues would imply that health care employees may feel that taking sick leave is justified—even when confronted with work overload and when strict attendance policies are in place. In addition, being able to rely on a supportive network may imply that they need to worry less about finding a replacement or about colleagues carrying out additional duties in their absence, which is the number one reason that people give for working while stressed or ill (Caverley et al., 2007). By contrast, the pressure of not having enough support to accomplish work tasks might mean that employees are constantly playing catch up in the work environment and feel reluctant to ask their manager for help or colleagues to step in (Halbesleben, 2006).

However, the theorized relationship between resources, including the role of social support and presenteeism, is still unclear (Johns, 2010), and empirical research has barely scratched the surface on this matter (Caverley et al., 2007; Gosselin et al., 2013). An alternative view is that the presence of strong support networks instigates a motivational pathway toward more, as opposed to less, presenteeism (Miraglia & Johns, 2016). For example, it is very plausible in a hospital setting characterized by teamwork, loyalty, and a strong commitment toward the health care profession (Aronsson et al., 2000; Dew et al., 2005; Johns, 2010) that social support may further exacerbate, as opposed to buffer, any effects absence constraints have on presenteeism behavior.

First, employees with ample support resources may see themselves as being less sick and regard showing up unwell as an act of “organizational citizenship and [likely to] garner praise” (Johns, 2010, p. 521), much in line with the principles of social exchange theory (Blau, 1964). Indeed, a primary reason for employees attending work while unwell is their sense of obligation toward coworkers—an effect found to be especially strong in a health care context (Grinyer & Singleton, 2000). In this scenario, receiving high levels of social support may alter individuals’ definition of presenteeism and stimulate their desire to reciprocate (Johns, 2010). That is, for such employees, it becomes less about being ill and more about doing something good to others. Second, support also provides presentees with the adjustment latitude needed to remain productive in the workplace. Given that the desire to preserve

productivity is one of the main motives behind presenteeism (Demerouti et al., 2009), one could logically argue that access to more social support may also stimulate employees’ desire to continue working while being unwell.

In summary, although social support is traditionally seen as a potent buffer of job demands (Demerouti et al., 2001; Halbesleben, 2006) and a way to replenish employees’ drained resources (Hobfoll, 1989), there is evidence both for and against this perspective, indicating that the role of support in the substitution hypothesis framework is theoretically and empirically unclear. More specifically and based on the available research, support can be portrayed as both a resource and a “constraint in disguise” in relation to presenteeism. Given the conflicting evidence in this regard, we examine, on an exploratory basis, the impact that support has on the U-shaped curvilinear relationship between absence constraints (i.e., work overload and attendance enforcement) and presenteeism. Although, on the one hand, research suggests that support resources gain salience in the context of excessive work demands (van Woerkom et al., 2016) and might buffer the impact of demands on outcomes including presenteeism, on the other hand, we argue that, in the joint presence of multiple demands, this effect might also not be found or even backfire, such that it adds to the constraining effects of work demands. We therefore also investigate, on an exploratory basis, these competing perspectives regarding the moderating role of support in the context of multiple absence constraints combined.

## Method

### Participants and Procedures

Surveys were distributed to nurses and midwives via e-mail in Ireland in April 2015 (see Supplemental Digital Content 1, <http://links.lww.com/HCMR/A101>).<sup>1</sup> All nurses and midwives were registered with the national union, which represents them, and an opportunity was made available for employees to fill in the survey on the union website. The union considers the two professions to be synonymous as a population with respect to the likelihood of presenteeism and a relevant sample to study for an investigation of presenteeism given the likelihood for resources to potentially act as a constraint in disguise. A cover letter from the head of the union as well as one designed by the researchers accompanied the questionnaire. Overall, the number of union members with an e-mail address was 23,918. Although the questionnaire was available to complete, there was no incentive for the respondents to fill in the survey other than having an interest in the topic of well-being. One thousand one hundred forty-three surveys were received, yielding a response rate of 4.78%. Of these, 1,135 questionnaires were deemed usable, and 1,037 cases were used in the final analyses reported after missing cases were removed using listwise deletion. Respondents averaged 40–50 years old and had between 5 and 10 years of organizational tenure. The majority (96%) of respondents

<sup>1</sup>Our sample predates the impact of COVID-19. We believe the findings to be of continued relevance to staff in health care settings in the long term as the impact of the pandemic gradually decreases to endemic levels, and presenteeism becomes a function again of structural organizational and job design factors.

were women. The majority were also Irish, comprising 95% of the sample. The demographics of nurses and midwives are representative of the larger population of nurses and midwives who are members of the union as obtained by the organization's records. Further evidence to support this claim is available from the authors of this paper upon explicit request.

## Measures

All scales, except for the control variables and the measure of presenteeism, were measured on a 5-point Likert scale, ranging from 1 (*strongly disagree*) to 5 (*strongly agree*).

**Absence constraints.** Absence constraints were operationalized as work overload and attendance enforcement. To measure work overload, three items were taken from the quantitative work overload scale developed by Caplan et al. (1980). A sample item is "My job leaves me with very little time to get everything done." The Cronbach's alpha was .80. Attendance enforcement was measured using two items adapted from Iverson and Deery (2001) appearing in Deery et al. (2014). These include "Management is very strict about unscheduled days off" and "When you are scheduled for work management really expects you to be there." We were unable to calculate the Cronbach's alpha given there were only two items because of survey length constraints; however, the bivariate correlation was .47 ( $p < .01$ ), indicating a moderately strong association between the two items in measuring the same construct. This correlation between the items was of comparable strength to the average interitem correlations between work overload items ( $r = .59, p < .01$ ).

**Support resources.** Manager and colleague support were measured each with three items from Eisenberger et al.'s (2002) perceived organizational support scale. Because of survey length restrictions, we used items that had high factor loadings from the original research (Eisenberger et al., 1986), as reported by Eisenberger et al. (2002), which also addressed face validity concerns raised by organizational representatives in the sampled population. Following Eisenberger et al. (2002), we also replaced the word "organization" with "manager" or "colleague" for these items. A sample item for manager support is "If I have a problem, I can get help from my line manager." The Cronbach's alpha was .77. A sample item for colleague support is "I know I can count on my colleagues if I have a problem." The Cronbach's alpha was .93.

**Presenteeism.** Presenteeism was assessed with a single yes/no item: "Has it happened over the last 12 months that you have gone to work despite feeling sick?" Although single-item measures have been criticized for having worse psychometric properties than multiple-item measures, in many organizational contexts they are deemed statistically comparable (Fisher et al., 2016). Indeed, our approach is consistent with how previous research has measured presenteeism when investigating the impact of job demands (Demerouti et al., 2009; Janssens et al., 2016).

**Control variables.** Previous research has demonstrated that women, younger, and higher tenured individuals are

more inclined toward engaging in presenteeism (Miraglia & Johns, 2016). Therefore, we controlled for age, gender, and tenure. We additionally included job characteristic controls that might have otherwise acted as an absence constraint on employees. Such variables included job status (full time vs. part time) and work schedule (12- vs. 8-hour shifts).<sup>2</sup>

## Data Analysis

To test Hypothesis 1 and associated exploratory analyses, we conducted a binary logistic regression using IBM SPSS Statistics Version 27. Binary logistic regression is used when researchers are interested in modeling the impact of independent variables on a dependent variable, which only has two possible outcomes (i.e., 0 or 1). Formally, it involves the prediction of the odds or membership of being a positive case (i.e., 1) based on the independent variables. As such, parameter estimates produced reflect the odds ratio of membership of a positive case per unit increase of independent variable. The formal approach included construction of a single binary logistic regression model predicting presenteeism and inspection of regression terms for significance at  $p < .05$ , sequentially entering control dummy variables (age, tenure, gender, job status, work schedule, and sick leave), followed by job demands (work overload and attendance enforcement) and support sources (manager and coworker support). Squared terms for each demand were introduced in separate steps simultaneously with the two-way interaction terms. Finally, interactions between the quadratic demand terms and support sources were entered simultaneously with the three-way interaction terms in the final step.

## Results

### Descriptive Statistics and Intercorrelations

Table 1 contains the means, standard deviations, and correlations for the study variables. As shown, the job demands of work overload ( $r = .23, p < .01$ ) and attendance enforcement ( $r = .15, p < .01$ ) were significantly and positively correlated with presenteeism. Manager support was negatively correlated with presenteeism ( $r = -.15, p < .01$ ), but conversely, coworker support was not significantly correlated with presenteeism.

### Test of Hypothesis 1 and Exploratory Moderation Relationship

Table 2 depicts the results of each step of the binary logistic regression tested. To investigate Hypothesis 1, we inspected the parameter estimates for the quadratic terms in the regression results. After including the control variables in the binary logistic regression, we observed a significant positive quadratic relationship between attendance enforcement and presenteeism ( $B = 0.28, p < .05$ ) and a significant negative linear relationship between manager support and presenteeism ( $B = -0.32, p < .01$ ). The 95% confidence interval for the odds ratio was [1.030, 1.702] for the curvilinear attendance enforcement term, with an odds ratio estimate of 1.324. The odds of employees attending work while unwell were highest when attendance enforcement was either extremely high or

<sup>2</sup>Although our study was primarily focused on individual-level sources of data, future research may want to explore the impact of other organizational-level variables such as health care organization and organizational slack on presenteeism.

**TABLE 1: Descriptive statistics and correlation coefficients**

Variables	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7
1. Coworker support	3.77	.90	(.93)						
2. Management support	2.89	.99	.23**	(.77)					
3. Work overload	4.20	.76	-.07*	-.29**	(.80)				
4. Attendance enforcement	4.10	.85	.01	-.22**	.31**	NA			
5. Work overload <sup>2</sup>	18.22	5.87	-.08*	-.30**	.99**	.30**	NA		
6. Attendance enforcement <sup>2</sup>	17.50	6.44	.01	-.24**	.32**	.99**	.32**	NA	
7. Presenteeism	.83	.37	-.01	-.15**	.23**	.15**	.22**	.17**	NA

Note. Scale reliabilities reported on the diagonal. *N* = 1,037.

\**p* < .05. \*\**p* < .01.

extremely low and least likely when attendance enforcement was at moderate levels, thereby lending support for a quadratic effect. As expected, higher manager support in isolation decreased the likelihood of presenteeism. No significant quadratic effect was found for work overload (*B* = 0.05, *p* = ns) or a linear effect for coworker support (*B* = 0.17,

*p* = ns) in the final model. The linear term for work overload was significant (*B* = 0.54, *p* < .01) suggesting a strong and clear positive relationship between higher work overload and higher presenteeism. The absence of any significant effect for coworker support suggests that it does not explain additional variance in presenteeism over and above manager support.

**TABLE 2: Binary Logistic Regression of JD-R effects on likelihood of presenteeism**

	Block 2	Block 3	Block 4	Block 5	Block 6
Work overload	.62**	.55**	.49**	.51**	.54**
AE	.24*	.19	.39**	.38**	.43**
MgmtS		-.32**	-.30**	-.33**	-.32*
CwkS		.12	.12	.11	.17
Work overload <sup>2</sup>			-.04	-.02	.05
AE <sup>2</sup>			.20*	.22*	.28*
MgmtS × Work Overload				-.13	-.14
MgmtS × AE				-.01	.07
CwkS × Work Overload				.00	-.11
CwkS × AE				-.03	-.01
Work overload × AE				-.08	-.23
MgmtS × Work overload <sup>2</sup>					-.11
MgmtS × AE <sup>2</sup>					-.03
CwkS × Work overload <sup>2</sup>					-.04
CwkS × AE <sup>2</sup>					.02
CwkS × AE × Work overload					-.18
MgmtS × AE × Work overload					.39*

Note. Reference category for tenure dummy variables was 10–19 years. Unstandardized *B* parameters reported. Due to space constraints, block 1 is not included in this table due to the number of dummy variables used to test the controls. None of these had significant parameters, however they are available upon explicit request from the authors. MgmtS = management support; CwkS = coworker support; AE = attendance enforcement. *N* = 1,037.

\**p* < .05. \*\**p* < .01.

To investigate our exploratory moderation relationship involving competing perspectives, we inspected the estimates for the interaction effects, specifically the interactions between the quadratic demand terms and the support terms. Although there was a significant three-way interaction between management support, work overload, and attendance enforcement ( $B = 0.39$ ,  $p < .05$ ), neither the remaining three-way interactions nor the interactions between quadratic demand terms and resources were significant. This suggests there was no support for moderation in relation to the quadratic terms specifically. Nevertheless, we probed the significant three-way interaction term.

The 95% confidence interval for the odds ratio was [1.032, 2.133] for the three-way interaction between management support, attendance enforcement, and work overload. To test the simple slopes of the three-way interaction at low versus high levels of management support, we used the approach recommended by Dawson (2014) and constructed two separate binary logistic regressions after centering management support at low versus high levels. The estimate of the two-way interaction term was then inspected to determine whether there was a significant difference in the way in which work overload and attendance enforcement interacted at either low or high levels of management support. No significant interaction was found at low levels of management support ( $B = -0.62$ ,  $p = ns$ ), but there was a significant interaction at high levels of management support ( $B = 0.57$ ,  $p < .05$ ). A three-way interaction graph was subsequently plotted to aid interpretation (see Supplemental Digital Content 2, <http://links.lww.com/HCMR/A102>), which further indicated that there were no straightforward buffering effects and management support increased presenteeism when demands were low. These effects are further elaborated on in the Discussion section.

## Discussion

This study investigated whether the relationship between absence constraints (i.e., attendance enforcement and work overload) and presenteeism followed a curvilinear pattern (Hypothesis 1). On an exploratory basis, we also investigated whether support mechanisms (i.e., colleague and manager support) buffered or exacerbated this relationship. With respect to Hypothesis 1, we demonstrated the presence of U-shaped curvilinearity in the relationship between attendance enforcement and presenteeism, indicating that presenteeism does not only occur when absence constraints limit the possibility to recover from home but also when such attendance enforcement policies are perceived as less strict or absent. By contrast, and for work overload, the relationship with presenteeism was found to be linear. With respect to our exploratory analysis of the proposed moderation relationship, we failed to replicate the traditional buffering role for social support in mitigating the impact of absence constraints on presenteeism. We discuss our findings in more detail in the following paragraphs.

Our first aim was to explore the nature of the relationship between absence constraints (i.e., attendance enforcement and work overload) and presenteeism. Research conducted within the substitution hypothesis framework (Caverley et al., 2007) suggests that these relationships unfold in a linear way; however, anecdotal empirical evidence (e.g.,

Johns, 2010; Lu et al., 2013) suggests that presenteeism behavior may be activated at both low and high levels of absence constraints, implying the relationship is U-shaped curvilinear rather than linear. Our study findings indicate that attendance enforcement demonstrates a U-shaped curvilinear relationship with presenteeism, such that, at extremely low levels of attendance enforcement (i.e., when policies around attendance enforcement were perceived as very weakly present or entirely absent), nurses and midwives were just as likely to attend work while unwell as when policies around attendance enforcement were perceived as strict and absolute. Although the relationship between attendance enforcement and presenteeism was U-shaped curvilinear, work overload demonstrated a positive linear relationship with presenteeism, such that at low levels of work overload, nurses and midwives were unlikely to attend work while unwell, whereas at high levels of work overload, they were more likely to attend work while unwell.

These findings suggest that the absence of a strict attendance enforcement policy is not a good enough reason for employees to stay at home while feeling unwell. In so doing, our findings mimic those by Johns (2010) and Lu et al. (2013) in proposing that presenteeism might be high even when absence constraints are perceived as low or nonexistent (in this case, attendance enforcement policies). This might simply be because employees can still decide to come into work for various other, idiosyncratic reasons, including the desire to save up sick days for another time or the desire to reciprocate and honor their employment relationship (i.e., acting as a good organizational citizen). We suggest that this pattern of results should be seen in light of the strong work ethos and felt responsibility of nurses and midwives toward their patients and colleagues. Indeed, research indicates that nurses are likely to feel a strong obligation to the health and well-being of their patients (Demerouti et al., 2008), as well as a strong sense of accountability toward their coworkers (Aronsson et al., 2000). This also potentially reflects the desire for employees to reward a favorable working culture according to social exchange theory (Blau, 1964). Results were different for work overload, for which relations with presenteeism were found to be linear as opposed to U-shaped curvilinear. One possible explanation is that, at low levels of work overload, nurses and midwives can reasonably surmise that coworkers can adequately care for the health and well-being of patients and cover their existing work while they take the time to recover away from work.

Our second research objective was to explore whether and how social support influences the relationship between absence constraints (i.e., attendance enforcement and work overload) and presenteeism in a hospital context. In hospital settings, informal support structures (e.g., from colleagues) are often a defining feature of the culture (Herkes et al., 2019). Although mainstream stress models like the JD-R (Demerouti et al., 2001) have consistently conceptualized social support as a resource that buffers the impact of work and organizational demands on work outcomes, research has often been unable to confirm these buffering qualities of support (Kilroy et al., 2021), with studies often finding mixed support

for the JD-R's buffer hypotheses in the literature to date (Bakker & Demerouti, 2007; Xanthopoulou et al., 2007). Models of presenteeism, too, including the dual-path model of presenteeism (Miraglia & Johns, 2016), have highlighted the complex role that social support resources can play in relation to presenteeism. As a result, it remains theoretically unclear whether support resources buffer or exacerbate the presence of absence constraints in a presenteeism context. In this article, we contrasted this traditional view of social support as a buffering resource with an alternative perspective—one that treats support as a “constraint in disguise” when paired with job demands in a presenteeism context. In this scenario, support would further exacerbate the influence of absence constraints on presenteeism.

In partial support of this latter perspective, a test of the simple slopes and plot of the significant interaction between attendance enforcement, work overload, and manager support revealed that manager support did not act as a buffer in the presence of high levels of work overload and high attendance enforcement. Instead, manager support behaved as a constraint in disguise under low levels of work overload and low attendance enforcement, such that the odds of presenteeism occurring further increased when manager support was high compared to when it was low. However, manager support was able to buffer the impact of absence constraints on employee presenteeism when nurses and midwives were facing multiple demands, but only when at least one constraint was at a low level (e.g., high work overload and low attendance enforcement, or low work overload and high attendance enforcement). By contrast, manager support did not buffer the U-shaped curvilinear relationship between attendance enforcement and presenteeism. Finally, and for colleague support, no significant interactions with attendance enforcement and work overload were found.

This pattern of results for manager support can be explained by leader–member exchange theory. The literature on leader–member exchange and presenteeism suggests that high-quality relationships with supervisors are likely to stimulate employee presenteeism (Wang et al., 2018). Employees may feel obliged to repay their organization beyond basic organizational requirements with presenteeism when they have positive relationships with their supervisors. The relationship between coworker support and presenteeism may be much more complex. Similar exchange-based principles may not apply when support comes from colleagues, given the strong team ethos in health care contexts where colleague support might be perceived as the “norm” rather than a support tool for relieving high job demands. In this way, it is less an exchange between coworkers and instead an expected culture on a dynamic, day-to-day level.

In summary, the findings from testing Hypothesis 1 and our exploratory analysis of the proposed moderation relationship revealed important implications for theorizing on presenteeism. First, our results underscore the validity of both the linear and curvilinear perspective on presenteeism and also suggest that the nature of this relationship transforms depending on the type of absence constraint under investigation. These findings challenge some of the basic tenets of

the substitution hypothesis framework (Caverley et al., 2007) in that presenteeism cannot be simply explained by the presence of absence constraints (e.g., attendance enforcement policies and high workload) in the organizational environment. Indeed, given that the link between attendance enforcement and presenteeism can be U-shaped curvilinear instead of linear suggests that the substitution hypothesis of presenteeism alone is unable to account for why employees choose to show up for work while ill.

Second, our results also have significant ramifications for the dual-path model of presenteeism (Miraglia & John, 2016). Even when absence constraints are low or missing and sickness absenteeism is thus not formally constrained in the case of attendance enforcement, employees may still feel the urge to attend work. Furthermore, although support primarily acts as a resource, it has the capacity to act as a constraint in disguise as demonstrated by the three-way interaction between management support, attendance enforcement, and overload. Therefore, our results challenge the substitution hypothesis framework while providing implicit support for the dual path model by showing that the presence of support can actually contribute to presenteeism (acting as a resource in disguise), depending on the source of support. This provides support for the motivational path in the dual-path model (Miraglia & John, 2016), in addition to the traditional health impairment pathway.

Third, and more broadly, our findings strongly suggest that presenteeism is, at least in part, also explained by factors other than those related to job design (e.g., work overload) and organizational policies (e.g., attendance enforcement). For example, many of these findings may be explained by high levels of professional commitment, cultures of loyalty, concern for vulnerable patients, and a strong teamwork ethos among nurses and midwives. Indeed, motivational and attachment processes (e.g., prosocial motivation and professional commitment) and social exchange mechanisms (e.g., loyalty and organizational citizenship behaviors) may be equally valuable in explaining presenteeism—indicating a need to look beyond the impact of job design and organizational policies. Ironically, much of these processes may be an unanticipated side effect brought about by the strong value fit public service employees experience with their environment (Herkes et al., 2019), which is known to activate social exchange mechanisms and to trigger organizational citizenship behaviors (Vleugels et al., 2019). In a hospital context, such citizenship behavior may manifest in the form of presenteeism.

### **Limitations and Directions for Future Research**

This study involves data collected from one source and which is cross-sectional in nature. This raises questions about common method bias and causality that could be addressed in future research. The presence of common method bias is, however, unlikely to create curvilinear and interactive relationships such as the ones in our study (Edwards, 1996). A second potential limitation concerns the low response rate. However, nurses and midwives are commonly known to have very busy schedules, making it difficult to participate in research studies



(Kramer et al., 2009). Despite this limitation, a veritable strength of the sample contained in the current study is that it is reflective of the broader population of nurses and midwives in Ireland in general.

Third, the conclusions of this study are restricted to the focal constructs in the model. Future research would benefit from including other absence constraints or resources to replicate our findings. Only two types of absence constraints were embedded in our study: work overload (a job design variable) and attendance enforcement (an organizational policy variable). Our findings suggest that job design factors may relate to presenteeism in a linear way, whereas the relationship between organizational policy variables and presenteeism is more complex. However, more research is needed to confirm this pattern.

Fourth, past researchers have made great strides forward in investigating the separate impact of demands and resources on presenteeism (Miraglia & Johns, 2016). However, future research needs to build more complex models that account for the multifaceted nature of the work environment, including the simultaneous occurrence of demands and resource at varying levels. The first step in this new body of work is exploring the potential for interaction effects as we have. Future work should also focus on extending the causal chain for support sources and their interactions by exploring how they can impact on presenteeism through mediating variables. Such longitudinal designs could further probe for different types of presenteeism (i.e., acute vs. chronic sickness-based presenteeism), when and for whom they are most damaging, and if they can in fact be used positively in certain contexts by employees in periods of long-term recovery.

Another potential limitation is that, because of organizational restrictions, shortened versions of scales were used to measure the focal constructs, and therefore, their full scope may not be effectively captured. However, items were strategically chosen based on the results of factor analyses from previous studies, face validity, and relevance to the context. Finally, health care workers are more prone to presenteeism compared with other professional groups; hence, some of the findings we report here may be context specific to some extent. More research is needed to investigate whether the current pattern of results also extends to other professions.

## Practice Implications

First, results suggest that the nature of the relationship between absence constraints and presenteeism is conditional upon the absence constraint under consideration. Keeping absence constraints low is likely to have a direct and noticeable effect on presenteeism for one type of absence constraint (e.g., work overload) but may backfire for others (e.g., attendance enforcement)—or at least produce null effects. Hence, practitioners should carefully analyze (a) which absence constraints are relevant for explaining presenteeism in their work environment and (b) how these factors relate to presenteeism. A one-size-fits-all approach (i.e., limit absence constraints to a minimum) is likely to be ineffective.

Second, social support seems to have limited influence on this relationship. This is not an isolated finding, and prior research has also shown among health care workers that sup-

port sources operate entirely as direct effects rather than moderators (Kilroy et al., 2021), which also corroborates the mixed support received for JD-R's buffer hypotheses in the literature to date (Bakker & Demerouti, 2007; Xanthopoulou et al., 2007). If anything, support may be a "constraint in disguise" as opposed to a buffer, and hence, the popular belief that poorly designed policies and excessive work demands can be neutralized by infusing resources, such as support, does not hold in this context. Policies designed around reducing presenteeism should focus on the root causes of absenteeism (the constraints) and the nature of their relationship with presenteeism (linear vs. curvilinear) as opposed to trying to counterbalance constraints by improving support. Work demands may also be so pervasive that they are impossible to buffer with increased support, suggesting hospitals need to also consider whether there are other resources that might be more effective than support sources in clearly buffering against demands in predicting presenteeism.

Third, our study raises concerns about the possible unintended side effects of positive resources in workplaces such as hospitals with employees feeling obligated to reward positive job resources with higher presenteeism. This highly noble behavior is, however, concerning considering the many productivity and health-related complaints that originate from presenteeism, especially so in the current global context of a virulent pandemic. Even positive job characteristics enacted through safety culture and climate can have large and variable implications on health care employee motivation to carry out their jobs safely (Flatau-Harrison et al., 2020), which is concerning given that research already shows that presentees are more likely to make safety errors and mistakes compared with nonpresentees (Niven & Ciborowska, 2015). Employers should be wary of this and be vigilant to maintaining strict sick leave policies in the workplace, which remove the decision-making capability of individuals when unwell. This is likely to be reasonably successful in the current global health context of the COVID-19 pandemic, with employers much more sensitive to the consequences of "soldiering on" among health care workers.

Finally, we know that policies that constrain health and/or the opportunity to remain absent while unwell run the risk of increasing presenteeism, impairing health, and prolonging absence spells (Caverley et al., 2007; Johns, 2010). However, total sickness or health costs for organizations are a weighted sum of productivity loss because of absenteeism and presenteeism (Caverley et al., 2007), with reports of a hidden productivity cost for organizations (Goetzel et al., 2004). Employees are therefore clearly also unable to adequately carry out the core requirements of their jobs when sick at work. Employers in hospital settings could consider a public health message marketing effort educating staff on the cost to patients of turning up for work while unwell, including an emphasis on the economic opportunity cost.

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Data used have some overlap with another recent publication (Kilroy, S., Bosak, J., Flood, P. C., & Peccei, R. (2020). Time to recover: The moderating role of psychological detachment

in the link between perceptions of high-involvement work practices and burnout. *Journal of Business Research*, 108, 52–61) but use a completely different dependent variable and answer a substantially distinct research question.

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