

## **The health-performance framework of presenteeism: Towards understanding an adaptive behaviour**

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### **Abstract**

The health and financial costs of presenteeism are high and well-documented. Paradoxically, presenteeism also has a positive side, which has been largely overlooked. Emerging evidence shows that presenteeism can be a choice that offers a range of positive benefits to the ‘presentee’ (employees who work through illness). In this conceptual paper, we view presenteeism as purposeful and adaptive behaviour: presenteeism is a dynamic process that serves the purpose of balancing health constraints and performance demands in tandem. We propose a 2×2 framework of presenteeism (therapeutic, functional, overachieving, and dysfunctional) and suggest that the success of the presenteeism adaptation process depends on the availability of resources. We examine the role of internal capacities and flexible work resources for functional presenteeism by drawing on conservation of resources theory and self-determination theory. When the workplace is supportive and provides adequate resources to aid adaptation, presenteeism can be a sustainable choice for maintaining performance under impaired health. This framework contributes to a better understanding of presenteeism by describing it as an adaptive process, considering presentees as heterogeneous groups, and exploring the role of work resources for balancing health and performance demands. It sketches new avenues for research and practice and the effective management of presenteeism, health, and performance.

**Keywords**

Presenteeism, Absenteeism, Health, Wellbeing, Work performance, Self-determination theory, Conservation of resources.

For the last two decades, research into presenteeism, or attending work whilst one is unwell (Aronsson & Gustafsson, 2005), has viewed it as a negative and costly behaviour. Indeed, presenteeism is widespread worldwide (Hirsch, Lechmann, & Schnabel, 2015) and costly to population health and the economy (Sainsbury Centre for Mental Health, 2007; Stewart, Ricci, Chee, Hahn, & Morganstein, 2003; Stewart, Ricci, Chee, Morganstein, & Lipton, 2003; Strömberg, Aboagye, Hagberg, Bergström, & Lohela-Karlsson, 2017; Vänni, Neupane, & Nygård, 2017). The substantial research attention on the impact of presenteeism on physical ill-health, performance, and absenteeism reflects the substantial reported financial costs of presenteeism for organizations (Burton, Conti, Chen, Schultz, & Edington, 2002; Goetzel, Hawkins, Ozminkowski, & Wang, 2003; Levin-Epstein, 2005; Stewart, Ricci, Chee, Hahn, et al., 2003; Stewart, Ricci, Chee, Morganstein, et al., 2003). Some argue that it is even more costly than absenteeism (Collins et al., 2005; Sainsbury Centre for Mental Health, 2007). Negative impact for individuals, work teams, and organizations includes poorer physical and mental health (Bergström, Bodin, Hagberg, Lindh, et al., 2009; Demerouti, Le Blanc, Bakker, Schaufeli, & Hox, 2009; Kivimäki et al., 2005), poorer self-rated ill-health (Skagen & Collins, 2016), decreased productivity and work ability (Dellve, Hadzibajramovic, & Ahlborg, 2011; Gustafsson & Marklund, 2011; Stewart, Ricci, Chee, Hahn, et al., 2003; Stewart, Ricci, Chee, Morganstein, et al., 2003), and increased ill-health and sickness absence (Bergström, Bodin, Hagberg, Lindh, et al., 2009; Skagen & Collins, 2016). Despite the combination of high prevalence and high cost, presenteeism is also a poorly understood phenomenon (Lohaus & Habermann, 2018) with research into the topic having been criticised as ‘markedly atheoretical’ (Johns, 2010: p. 531). This poor understanding is further complicated by suggestions for a positive path that leads to presenteeism and that includes support from colleagues, high engagement, and job satisfaction, but this positive path has

been under-explored. The predominant focus on negative impact colours perceptions of presenteeism as an unwelcome behaviour. As such, it also overlooks its adaptive potential, groups presentees into one homogeneous group with the same needs and behaviours, and distracts from an understanding of the resources that may be necessary to balance health and performance demands.

Although the notion of presenteeism as something positive is gaining popularity (Karanika-Murray & Cooper, 2018), it is also still at very early stages of development. We formulate three starting points to advance our understanding. First, more conceptual clarity is needed to describe the nature and essence of the presenteeism behaviour. Second, building a deeper understanding of presenteeism can benefit from applying established psychological theory. Third, we need to move away from a sole focus on correlates and variance models towards understanding the dynamic nature of presenteeism and its value for presentees. Based on these premises, our objectives are (1) to describe presenteeism as a purposeful and adaptive behaviour, (2) explore how the process of adapting to health and performance demands delineates different types of presenteeism, (3) argue that work resources have an important role in this adaptation process, (4) draw from key theories in psychology to explain the role of resources for enacting presenteeism, and (5) delineate implications for a research agenda.

### **Conceptualizing presenteeism as an adaptive behaviour**

Presenteeism was first defined as ‘being at work when you should be at home either because you are ill or because you are working such long hours that you are no longer effective’ (Cooper, 1996: p.15). Over time, two main approaches were developed: one describing presenteeism as working through illness and the other focusing on productivity loss and the impact of a range of illnesses on lost productivity time (Johns, 2010; Karanika-Murray & Cooper, 2018).

The first, the definition of presenteeism as working through illness, is now used rather widely. However, a sole focus on health in the work domain would only offer a partial understanding of presenteeism if a focus on work and its purpose is omitted from this understanding. We therefore propose a framework of presenteeism that integrates both health and performance. We argue that presenteeism is an adaptive behaviour that serves the purpose of balancing health constraints and performance demands, especially in the case of non-contagious health problems (e.g., common health problems, CHPs). CHPs are defined as ‘health complaints that occur most frequently across the population’ (Kendall et al., 2016: p. 1) such as musculoskeletal disorders and mental ill-health, the latter including stress, depression, and anxiety. As it is beyond the scope of this paper to discuss how specific health conditions relate to presenteeism, we focus on acute or chronic and non-contagious CHPs as a starting point towards understanding adaptive presenteeism.

As mentioned, the bulk of research activity mirrors the prevailing perception that presenteeism is negative and something to be avoided and this amplified by reported high costs for businesses (Strömberg et al., 2017; Vänni et al., 2017). However, viewing presenteeism as inherently or exclusively negative is counterintuitive, for at least three reasons. First, work is good for health and wellbeing (Waddell & Burton, 2006), it is meaningful in a range of ways (Rosso, Dekas, & Wrzesniewski, 2010), and can help to fulfil basic psychological needs (Van den Broeck, Ferris, Chang, & Rosen, 2016). Second, relatively few health conditions are debilitating enough to preclude any engagement with work, a principle which underlines flexible work arrangements (Halonen et al., 2016). Even in full health, it would be unrealistic to expect that we can work at full physical or mental capacity all the time. Third, as return-to-work programmes (Halonen et al., 2016) demonstrate, work can support recovery from ill-health, contingent on the specific health condition. Abstaining from work during the full course of ill-health is not always

advisable given that the degree of debilitation may differ depending on the health condition and its course, and this may require different attendance configurations to support adjustment to work. Indeed, there is substantial investment in developing rehabilitation or return-to-work programmes after long-term illness (Halonen et al., 2016; Irvine, 2011; Sampere et al., 2011). Misconceptions of presenteeism as a solely negative behaviour bring the risk of mismanaged work, under-utilised capabilities, and attendance pressures (e.g., punitive attendance policies) that can impede gradual recovery and return to work. Therefore, if managed well and supported with adequate resources, attending work during illness has the potential to benefit health and performance.

Because behaviour is purposeful, goal-directed, and adaptive (Barrick, Mount, & Li, 2013; Sherman & Dinkmeyer, 2014) it is more useful to start by understanding its purpose rather than its outcomes. Thus, for the presentee, working through illness offers an adaptive response to the need to meet work commitments during compromised health. In other words, the adaptive function of presenteeism is described by the need to balance performance demands against the limitations imposed by ill-health. Thus, we define presenteeism as goal-directed and purposeful attendance behaviour aimed at facilitating adaptation to work in the face of compromised health.

### **Functions of presenteeism: A person-centred approach**

Research has placed great emphasis on the antecedents of presenteeism (for comprehensive discussions of the antecedents and outcomes of presenteeism see (Karanika-Murray & Cooper, 2018; Lohaus & Habermann, 2018). Lohaus and Habermann (2018) note that most research on presenteeism has focused on identifying the variables involved in explaining the occurrence of presenteeism and its consequences (i.e. content theories, p. 4). Moreover, in most re-

search so far, the potentially positive side of presenteeism has been overshadowed by the predominantly negative view. The available research does not offer insights on the possible goals and adaptive function of presenteeism or perhaps how presentees protect resources or obtain new resources in order to respond to health and performance demands.

A smaller group of studies have focused on the positive outcomes of presenteeism. Specifically, keeping engaged with work during illness can facilitate return to work after long-term illness (Ashby & Mahdon, 2010) and support gradual return to work (Howard, Mayer, & Gatchel, 2009). As a performance protection strategy, presenteeism can help to maintain some level of performance during an illness (Demerouti et al., 2009) and perhaps reduce feelings of anxiety associated with losing control of one's workload, at least in the short-term. By preventing the accumulation of work during sickness, presenteeism can help to reduce future sickness absence (Johns, 2008). Presenteeism can also safeguard the quality of working relationships, sustain job control by aiding adjustment of workload and tasks to their health impairment, support engagement and job satisfaction, and generate approval from colleagues and managers (Biron & Saksvik, 2010). Presenteeism can yield personal motivational benefits such as a sense of accomplishment (Biron & Saksvik, 2010) and has been strongly linked to performance-based self-esteem ('a type of contingent self-esteem referring to the level to which individuals' self-esteem depends on their performance', Love, Grimby-Ekman, Eklof, Hagberg, & Dellve, 2010: 604). Finally, presenteeism can reduce economic deprivation due to absence from work (Barnes, 2016), especially for those who have no insurance for long-term absence, the self-employed, and those on zero-hour contracts. Presenteeism can also indirectly benefit teams and organizations by reducing the burden on the colleagues required to cover the absentee's work (Caverley, Cunning-

ham, & MacGregor, 2007) and in this way helps to signal commitment to colleagues and the organization and create camaraderie within the workplace (Dew, Keefe, & Small, 2005). Finally, if presenteeism is approached as graded absence (for example working 40% of the time or to a lesser capacity during illness) it can also mitigate the high costs of sickness absence (Godøy, 2016). As Miraglia and Johns (2016: p. 16) observe, ‘more research is needed to understand when going to work while ill can represent a sustainable choice, as in the case of a gradual recovery from long-term sickness, a self-affirming choice in the face of chronic illness, or being an example of citizenship behaviour’. To understand how and when presenteeism can yield adaptive benefits, we describe this range of positive outcomes into the range of functions that presenteeism serve for the individual.

Health behaviour theory supports our person-based definition and approach to presenteeism. Health behaviour is defined as ‘any activity undertaken by a person who believes himself to be healthy for the purpose of preventing disease or detecting disease in an asymptomatic stage’ (Kasl & Cobb, 1966: p. 246). Reflecting this, researchers focused on the process underlying the decision to work or not while ill (Cooper & Lu, 2016; Halbesleben, Whitman, & Crawford, 2014). Johns (2010) argued that presenteeism is a choice which is triggered when a health event interrupts performance. This is in line with the call by Cooper and Lu (2016) for more research attempting to ‘unravel the central, dynamic processes and mechanisms through which people ascribe meanings to the situation, make decisions to come to work when ill, and attempt to achieve performance outcomes’ (p. 226). We add that the choice to enact presenteeism also depends on moderators such as the severity of the health condition, environmental or intrinsic pressures to be productive, and available resources to support work, which together define the impact of presenteeism on balancing health and performance. Thus, presenteeism is to some extent intentional



(Karanika-Murray, Pontes, Griffiths, & Biron, 2015) and grounded in a goal-directed decision process (Halbesleben et al., 2014; Miraglia & Johns, 2016).

Furthermore, health behaviour theory specifies that health behaviours signify an intention to act based on cues to act, and that these cues include internal beliefs, perceived benefits and threats, and external cues to action (Nisbet & Gick, 2008; Rosenstock, 1974). In a similar way, work attendance behaviour is a function of internal and external pressures on resources, which may co-exist in presenteeism as they do in absenteeism (Løkke Nielsen, 2008; Prater & Smith, 2011). Individuals may work while ill because they find satisfaction in completing certain tasks, thus preserving meaningfulness or demonstrating commitment to the organization (Bierla, Huver, & Richard, 2013). Yet, at the same time they may feel pressure from colleagues or organizational practices to attend work, regardless of the stage of the illness or impact on their health. Our working definition of presenteeism offers the flexibility to accommodate any type of performance demands and any ill-health condition regardless of its severity, but does not apply when the ailment is so severe that it precludes any physical or mental engagement with work.

The adaptive purpose of presenteeism underlines an alternative person-centred approach which describes the presentee as demonstrating agency in enacting the behaviour, either as a reaction to external demands outside his or her control or as a proactive initiative to control a situation (Cooper & Lu, 2016; Halbesleben et al., 2014; Lohaus & Habermann, 2018). Because presentees will differ in the purpose, functions, and goals that presenteeism serves, they will also differ in the way their health and performance are further affected as an outcome of enacting presenteeism. This leads to delineating different groups of presentees and a more dynamic view of presenteeism. In other words, the person-centred approach to presenteeism suggests different

stories for different presentees. Next, we propose a framework that reflects different configurations of presentees depending on the extent to which they successfully manage to balance their health constraints with their performance demands.

### **A framework of presenteeism behaviour**

As an adaptive behaviour aimed at meeting work or performance demands during impaired capacity due to ill-health, presenteeism gives rise to four configurations or types of presenteeism. Since achieving balance between health and performance is idiosyncratic to each presentee, this framework also describes four types of presentees. Figure 1 presents our framework. Next, we outline the four types of presenteeism before we discuss its dynamic nature.

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Insert Figure 1 about here

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#### ***Functional presenteeism: Optimal adjustment to health constraints and performance demands***

Functional presenteeism is about engaging with work and attending to work demands during ill-health but without further taxing the presentee's health. Presenteeism is a sustainable behaviour when the presentee accomplishes work tasks within the boundaries of his or her reduced physical or mental resources as a result of their ill-health. Functional presenteeism is sustainable in the sense that by attending work whilst ill, individuals are acting in accordance with their preferred regulatory focus of preventing losses or promoting gains in terms of their health and performance, and in this way maintain their personal goals (regulatory focus theory, Brockner & Higgins, 2001). Some level of productivity is maintained whilst at the same time health and recovery are supported. When the working conditions are good and the level of effort is not extreme, work can be beneficial for health and wellbeing (Urtasun & Nuñez, 2018).

Functional presenteeism is also dependent on the availability of work resources to achieve balance by allowing to adjust performance and attend to limited health capacities in tandem. A prospective study that looked at work resources and ill-health during presenteeism illustrates this. Specifically, Sanderson, Hobart, Graves, Cocker, and Hobart (2008) found that remaining at work during spells of ill-health can be a valuable strategy for maintaining mental health and performance, but *only* when the psychosocial work environment is positive. They also found that presenteeism at baseline increases the risk for subsequent mental health problems, but *only* within an adverse work environment. Therefore, a positive work environment is likely to play a central role in explaining functional presenteeism.

***Dysfunctional presenteeism: Poor health and poor performance***

Dysfunctional presenteeism describes presenteeism behaviour that has deleterious effects for health and performance and is an unsustainable choice with a high potential to lead to sickness absenteeism. A downward spiral of impaired future health (Aronsson, Gustafsson, & Mellner, 2011; Bergström, Bodin, Hagberg, Aronsson, & Josephson, 2009; Bergström, Bodin, Hagberg, Lindh, et al., 2009) and performance is the main outcome of poorly managed presenteeism, where demands on productivity can take priority, over-stretching work capacities and blocking recovery. The effects can be profound: presenteeism has been shown to be a risk factor for future poor health and sickness absence two years later (Taloyan et al., 2012).

There is also evidence for a downward spiral of impaired performance, with presentees experiencing subsequent declines in overall performance (Meerding, IJzelenberg, Koopmanschap, Severens, & Burdorf, 2005; van den Heuvel, Geuskens, Hoofman, Koppes, & van den Bossche, 2010). Efforts to compensate for the negative impact of depleted energy on performance can lead, reciprocally, to future presenteeism and emotional exhaustion (Demerouti

et al., 2009). Furthermore, individuals who lack resources are more vulnerable to resource loss and less capable of resource gain (Conservation of resources theory, Freedy & Hobfoll, 2017; Hobfoll, 1989). For example, they may perceive a lack of support from colleagues or superiors, fear job insecurity or other resource loss given their poor health and productivity, be in a more fragile position to pursue presenteeism gains, or be unable to make effective decisions. Therefore, dysfunctional presentees are more prone to a loss spiral, striving to protect a depleted reservoir of resources, and gradually utilizing fewer and fewer resources to support adaptation.

***Therapeutic presenteeism: Finding a refuge at work but being unproductive***

Therapeutic presenteeism implies a greater emphasis on health and a lesser focus on performance levels. For example, far from having a focus on performance, nurses who chose to work through illness have been reported to be motivated by camaraderie, describing their workplace as a ‘sanctuary’ and their relationship with their team as ‘family’ and, as a result, being highly engaged in their work (Dew et al., 2005). This narrative highlights how climate resources such as team support can both increase the occurrence of presenteeism and also buffer its negative effects (Knani, Biron, & Fournier, 2018).

As mentioned, work is good for physical and mental health and wellbeing (Waddell & Burton, 2006) and also engaging in a productive activity has a therapeutic value as it can strengthen one's sense of responsibility, identity, and self-worth (Arbesman & Logsdon, 2011). Therefore, it is important to maintain the employment relationship even if full readjustment back to work can take some time. People with mental illness may find the routine provided by work and a supportive work environment to be helpful. For example, caring for children with special health needs is strongly linked to stress, depression, and anxiety (Kuster & Merkle, 2004) but

there is evidence that for carers, work can be positive, especially within a supportive work climate (Ramesh, Ireson, & Williams, 2017). Therapeutic presenteeism may be more prominent among presentees whose health benefits from being engaged and absorbed with work, and more so in the long term, despite impaired performance in the short-term. A higher prevalence of therapeutic presenteeism among workers with mental health issues can be expected, because they may fear stigma and decide to work through illness. As highlighted by Miraglia and Johns (2016), those workers with mental health issues could be reluctant to take time off as they are not perceiving their problem to be a legitimate reason to be absent from work. Although working through a mental health problem might not be beneficial for all and some workers might see their health deteriorate (propelling them towards dysfunctional presenteeism), a work environment that is favourable and provides adequate adjustment resources could help workers with mental health problems in the longer term and even avoid negative consequences such as stigma.

***Over-achieving presenteeism: Performing at work at the expense of health***

Over-achieving presenteeism implies that the presentee is able to maintain a high level of performance, but at the expense of their recovery from ill-health. Indeed, presenteeism has been linked to burnout (Demerouti et al., 2009; Ferreira & Martinez, 2012): by over-committing to work and striving to retain performance, presenteeism allows one little respite to recover, especially if over-achieving presenteeism is prolonged. It is precisely the ability to recover (Demerouti et al., 2009) that may protect from over-burning energy while ‘pedalling faster’ to maintain performance. A chronic lack of recovery from work is linked to an increased risk of cardiovascular mortality, even after controlling for several socio-demographic, health, and professional risk factors (Kivimaki et al., 2006). Over-achieving presentees may lack the resources to recover from work during non-work hours or may feel compelled to achieve a high level of

performance, and this may be because of factors such as boundary-less work (Aronsson et al., 2011), the demands of the job (McGregor, Iverson, Caputi, Magee, & Ashbury, 2014), or simply positive attitudes towards work (Miraglia and Johns, 2016). When these attitudes towards work resemble over-commitment and compulsion it is easy to see how presenteeism can be linked to workaholism or work addiction (Griffiths & Karanika-Murray, 2012). Workaholism tendencies may also explain how over-achieving presentees can maintain performance despite impaired health, at least in the short-term (Karanika-Murray et al., 2015).

### **The dynamic nature of presenteeism behaviour**

As an adaptive behaviour, presenteeism is by nature a dynamic process where the four types of presenteeism are not fixed in time and where possible trajectories between types depend how presentees access and use resources to adjust to work demands and health impairments. In support of this dynamic nature of presenteeism, is the suggestion that presentees enact a ‘trade-off between health and motivation’ (Miraglia and Johns, 2016: p. 17), although the prospect of presentees negotiating trade-offs between goals or expected impacts of presenteeism remains under-explored. Adjustment then, depends on whether the presentee is able to reach functional presenteeism in order to successfully balance ill-health and performance demands. Three observations further support the view of presenteeism as a dynamic process of adaptation.

First, some types of presenteeism are necessarily temporary conditions that can ultimately lead to adjustment and use of relevant resources. For example, dysfunctional presenteeism can spur the presentee towards action as it is an uncomfortable and unsustainable condition for health. Dysfunctional presenteeism is also short-lived because maintaining a certain level of performance in the face of ill-health or deteriorating health can only be temporary, since depleted resources will lead to a negative spiral of deteriorating health and performance (Demerouti et al.,

2009). In the same vein, in therapeutic presenteeism, the emphasis on health to the detriment of performance is likely to be untenable in the long term, as the presentee is likely to react to negative repercussions such as a receiving negative feedback on performance from supervisor, stigma, missing on career opportunities, or losing support from colleagues due to impaired performance. Thus, the adjustment process changes and presentees enact different types of presenteeism depending on the resources available to protect health and maintain performance.

Second, health is a finite resource, and, with perhaps a few exceptions where the health condition remains stable, the ailment that has rendered presenteeism to be necessary response will eventually improve or worsen. Presenteeism behaviour is sensitive to the individual's health status and available resources, which, through a feedback loop between the behaviour and the adjustment achieved at a given time, represent a drive to change. COR theory (Hobfoll, 1989; Hobfoll, 2001) suggests that resources become more salient in the face of threat and that individuals are likely to act to protect existing resources when faced with resource loss. In therapeutic presenteeism, for example, as health improves or is no longer the main priority, more resources will be made available to support health and meet performance demands, further moving the presentee towards functional presenteeism.

Third, because the positive impact of presenteeism on performance can be short-lived and does not preclude longer-term ill-health (Kivimaki et al., 2006) and exhaustion (Demerouti et al., 2009), positive and negative effects can coexist and also accumulate in the longer term. Although the range of positive and negative aspects of presenteeism have been presented as separate paths (Miraglia & Johns, 2016) or separate outcomes, we argue that viewing positive and negative outcomes as being experienced in tandem can be more informative. In addition, suggestions that performance may increase in the short term whilst health is further debilitated in the long term

imply that the impact of presenteeism may be delayed or cumulative. For example, there is evidence that presenteeism can garner acknowledgement from colleagues, resources to respond to work demands or meet a deadline, and engagement and productive work (Biron & Saksvik, 2010; Caverley et al., 2007). At the same time, however, more frequent or longer spells of presenteeism can lead to increased future sickness absence (Skagen & Collins, 2016) and cardiovascular disease (Kivimäki et al., 2005). Thus, under impaired health, the presentee may be able to muster energy and resources in order to complete work or meet a deadline, but only in the short term, after which energy reserves are depleted (Muraven & Baumeister, 2000). As the individual enacts presenteeism in order to adjust to work during ill-health, sustained performance may be short-lived, eventually leading to impaired health in the long term. Whether this adaptation is successful or not will depend on the availability of resources to support wellbeing and performance, ideally moving towards functional presenteeism.

Therefore, presenteeism is a dynamic process of adaptation that reflects the demands to balance health and performance and the resources available to achieve this. Functional presenteeism, where health and performance demands are achieved in tandem, becomes the ultimate goal and the exit point from presenteeism (this is the optimal health and performance, or grey zone, in Figure 1). Next, we explore the characteristics of functional presenteeism in more detail.

### **The importance of resources for adaptive presenteeism**

We propose that the type of presenteeism enacted will be contingent on (1) the individual's capacities or internal resources afforded by the health condition and (2) the flexible work resources available in the psychosocial environment and the organizational policies to support the behaviour. Health behaviour models suggest two types of 'cues to action': internal, such as evaluations of one's health symptoms, and external, such as information on factors that can support



enactment of the behaviour (Nisbet & Gick, 2008). Together, these correspond to capacities, which are determined by the health condition, and external resources, which pertain to the work environment. We define *capacities* as the mental, physical, or physiological capabilities afforded by the health condition. We define *work resources* for presenteeism as any assets in the workplace that the individual has access to and can draw from when enacting presenteeism behaviour. Capacities define the boundaries: what an individual can do under impaired health and are particular to the health condition. Work resources define the type of presenteeism by providing the needed degree of flexibility: they help presentees make the most of their capacities and adjust to the demands of their work, enabling them to work under impaired health and engage, ideally, in functional presenteeism and move towards recovery. Work resources can include a range of psychosocial (job control, social support, rewards, etc.) and organizational characteristics. For example, in an organization where workers are allowed to work from home, some workers, whose health condition allows it, could decide to engage in presenteeism to accomplish some work from home despite their health ailment, in order to avoid work overload. This could be viewed favourably by colleagues and managers and thus lead to increased social support and more developmental or career opportunities, or could prevent the worker from feeling anxious about getting behind or about work not being completed. In addition, if the work environment provides adequate resources to address the health impairment and its impact, presenteeism can also help to avoid some of the negative consequences associated with absenteeism (Kivimaki et al., 2004; Vahtera, Pentti, & Kivimaki, 2004). Similarly, there is evidence that, under a favourable environment, presenteeism can increase due to more positive attitudes towards work (Ashby & Mahdon, 2010). In other words, it is the interplay between the person and the environment that determines

behaviour (Lewin, 1939). In the case of presenteeism, this interplay is between internal capacities and work resources. Next, we explore two key mechanisms that can help to explain how flexible work resources can define the type of presenteeism enacted.

### *Conservation of Resources Mechanisms*

Conservation of Resources (COR) theory posits that individuals behave as a function of resources; they ‘invest resources to prevent against resource loss, to recover from losses, and gain resources’ (Hobfoll, 2011: p. 117) and ‘strive to obtain, retain, and protect that which they value’ (Hobfoll & Lilly, 1993, p. 129). In line with COR theory, presenteeism may threaten resources (i.e., health, mental capacities, performance-related resources), spur a drive to recover from resource loss (e.g., regain health, control over workload, or what was lost during the illness episode), and even gain new resources (e.g., esteem from co-workers or supervisors, being perceived as highly engaged, new career opportunities).

Anything that helps one achieve his or her goals can be considered to be a resource. Resources can be related to the person (e.g. personal health, feeling successful, status at work, self-esteem, time, energy), the group (e.g. support from colleagues or superior, getting help with tasks, role as leader), or the organization (e.g. access to career development opportunities, training, adequate equipment, salary, positive climate). Health and performance are also resources that need to be protected. The former includes mental, cognitive, and physical capacities (Hobfoll & Lilly, 1993), whereas the latter may relate to other resources that one would wish to protect, such as career opportunities, achievement, social support, job control and autonomy, recognition, etc. (Bakker & Demerouti, 2017). We posit that the presenteeism decision-making process brings a tension to protect these two types of resources: to preserve health and to protect performance but also to use resources in order to achieve functional presenteeism.

Based on COR theory principles (Hobfoll, 1989), individuals with greater resources are less vulnerable to resource loss and more capable of resource gain. This implies that resources might not be used in the same way or have the same effect for all presentees. For example, research on person–environment fit (van Vianen, 2018) has shown that high control may not be a desirable resource for all employees. Similarly, job control may have positive stress buffering effects for some workers but can accentuate the negative effects of stressors for others (Meier, Semmer, Elfering, & Jacobshagen, 2008). When other stressors are high, it is possible that for some workers, a high level of control can be perceived as a ‘necessity to make decisions’ (Meier et al. 2008: p. 254), and thus can increase the perception of being overloaded. This might explain why in their meta-analysis Miraglia and Johns (2016) found mixed effects on the association between presenteeism and job control. Under functional presenteeism, presentees may be using job control or job crafting effectively to adjust their work demands to their health situation, for example by rearranging their tasks, delegating, or working from home. Dysfunctional presentees may be more vulnerable if they have weaker resources (i.e., poorer health, poorer performance), and they may consequently underutilize available resources. For example, they may be fearful of penalties if they make use of flexible work arrangements offered at the workplace (Leslie, Tae-Youn, Si Anh, & Flaherty Manchester, 2012). Alternatively, if their cognitive ability is impaired due to illness, they may fail to see clearly how to delegate or reorganize their work differently.

These differences in how presentees utilize resources, require a person-centred approach to understand how adaptive presenteeism is enacted, how to foster functional presenteeism, and how to develop interventions to promote functional presenteeism. Of importance are the resources that can have a leavening influence on functional presenteeism and the ability to adapt to work in the face of ill-health. We argue that it is the flexibility provided by work resources that

enables the presentee to adjust their work to their health condition and move towards functional presenteeism before exiting presenteeism behaviour.

### *Self-Determination Mechanisms*

We draw from another established theory to further explain how resources are used for adaptation: self-determination theory (SDT; Deci, Olafsen, & Ryan, 2017). Applied to presenteeism, SDT suggests that work resources facilitate autonomous motivation, that the negative consequences of presenteeism can be lessened in workplaces that promote self-regulation, and that presenteeism could offer a sustainable choice for presentees.

Research on self-determination and autonomous motivation (Gagné & Deci, 2005) has delineated the characteristics of a work environment that can support functional presenteeism. *Self-determination* describes an experience of a sense of choice in initiating and regulating one's own actions whereas *autonomous motivation* refers to acting with a sense of volition and agency and being able to experience choice (Ryan & Deci, 2000). Work resources that allow flexibility to adjust to work demands under impaired health can promote this type of motivation. Indeed, we know that autonomous motivation is positively associated with wellbeing (Gagné and Deci, 2005) and that work contexts that support autonomous motivation are positively associated with wellbeing (Fernet, 2004; Karanika-Murray & Michaelides, 2015; Karanika-Murray, Michaelides, & Wood, 2017) and performance at work (Foss, Minbaeva, Pedersen, & Reinholt, 2009; Kuvaas, 2008). However, research has yet to investigate how resources that support autonomous motivation affect the trajectories between types of presenteeism.

Flexible work resources are defined as work-related resources that support adjustment to health capacities and work commitments, thereby rendering presenteeism potentially functional. Two groups of flexible work resources are relevant. First, organizational policies and practices,

such as those supporting temporal flexibility (flexible scheduling, flexitime, annualised hours), spatial flexibility (teleworking), and contract flexibility (part-time, gradual retirement, job share) (Joyce, Pabayo, Critchley, & Bambra, 2010) may help workers balance work demands with their health condition and limitations. For example, in a prospective study (Rousculp et al., 2010) found that the flexibility to work from home when affected with influenza-like symptoms reduced the probability of showing up at the workplace with such symptoms by 29%. This was significantly higher for workers who did not have this pre-arrangement with their employer. Second, the psychosocial work environment, such as support from colleagues and managers, job control, and adjustment latitude (Johansson & Lundberg, 2004) can help to adjust work to one's capacities. Aspects of the psychosocial work environment such as workgroup conflict, lack of control, and limited colleague or managerial support can promote presenteeism (Gosselin, Lemyre, & Corneil, 2013; Miraglia & Johns, 2016) whereas increased managerial support can inhibit presenteeism (Jourdain & Vézina, 2014; Mazzetti, Vignoli, Schaufeli, & Guglielmi, 2017; Miraglia & Johns, 2016). For example, (Zhou, Martinez, Ferreira, & Rodrigues, 2016) found that supervisor support was negatively associated with productivity loss during presenteeism, and that this relationship was mediated by role ambiguity. Thus, providing clear goals and expectations to employees who work through illness allows employees to focus their resources on core-tasks and priorities, in turn reducing the productivity loss associated with presenteeism.

Thus, it is expected that functional presenteeism can be fostered when people feel able to act with a sense of agency and are supported by available resources or, consistent with COR and SDT theories, have access to resource 'caravans' (Hobfoll, 2011) or resource pool that promote autonomous motivation. Therefore, a work environment that supports flexibility and autonomy (perhaps via agency or autonomous motivation and adjustment latitude) may be conducive to

functional presenteeism. Next, we outline implications for future conceptual and empirical research and delineate recommendations for the management of presenteeism.

### **Implications for future research and practice**

In terms of implications for research, working on developing definitional and conceptual clarity can lead to more active research on the dynamic nature of presenteeism behaviour. It can also inform the development of appropriate methods and tools, such as longitudinal or diary approaches, which can advance an empirical understanding of presenteeism and contextualise the current negative views of presenteeism. The application of well-established theories such as COR (Hobfoll, 2001, Hobfoll, 1989) and SDT (Deci et al., 2017; Ryan and Deci, 2000) could help to integrate research into presenteeism, motivation, health, and performance into a unified framework. A person-based approach that considers presentees as distinct heterogeneous groups offers new perspectives for research given that so far research has been based on variable-centred perspectives. Our health-performance framework of presenteeism can provide a more cogent understanding of the dynamics underlying both the decision-process as well as movement between different types of presenteeism behaviour. Future research can also investigate the range of relevant types of resources and how they affect the trajectories among different profiles of presenteeism. Further specifying the types of work resources that are relevant to foster functional presenteeism (or ideally, complete recovery) can also offer new avenues for intervention research and the management of presenteeism. Past research has tended to consider one instead of several forms of resources at the individual, work, and organizational levels.

In terms of practical implications, knowledge on how performance and health can be balanced can inform interventions to target the higher-risk dysfunctional presentees, or to foster

functional presenteeism. To make a parallel with psychiatry, the term ‘neurosis’ was used in various ways since 1780 to describe any disease or disorder characterized by abnormal nervous or mental function and at one point included acute anxiety, obsession, compulsion, and phobias (Neve, 2004). The term is no longer used as a diagnostic category as it was eliminated in the 1980s by the third edition Diagnostic and Statistical Manual of Mental Disorders (DSM-III) due to its lack of precision and because it encompassed a too broad array of phenomena, thus losing its utility since interventions could not be targeting individuals’ needs specifically (Berk & Berk, 2013). The same could be said about the mainstream definition and approach to presenteeism. Although health, performance, and resources naturally vary over time, presenteeism has so far been treated as a monolithic and static construct. Our framework suggests that presenteeism can be considered more dynamically in terms of how resources influence movement in this adaptation process. Finally, since presenteeism is associated with key areas of human resource management (Lohaus & Habermann, 2018), namely performance, attendance patterns, and health and wellbeing (Becker & Smidt, 2016) and has the potential to greatly influence organizational productivity, but only if it is managed appropriately and effectively. Line managers have a role in identifying and supporting people with a health conditions to help them carry on with their responsibilities, or clarify and adjust responsibilities if necessary (Yen Lin, Cooper, & Lu, 2013; Zhou et al., 2016). Understanding how work resources support the needed flexibility for functional presenteeism can provide a first step toward establishing best-practices for managing presenteeism in a way that can help individuals balance their performance demands with their health constraints.

## **Conclusions**

In this conceptual paper we have presented a dynamic framework of presenteeism as an adaptive behaviour aimed at balancing health and performance demands, outlined four configurations or types of presenteeism, and explored the dynamic nature of presenteeism as presentees seek to obtain or maintain resources and enact functional presenteeism. Finally, we have provided recommendations for re-orientating research and practice in the field. We hope that the health-performance framework of presenteeism inspires scholars to move away from antecedents and costs to examine presenteeism as a dynamic adaptive behaviour.

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## References

- Arbesman, M., & Logsdon, D. W. (2011). Occupational therapy interventions for employment and education for adults with serious mental illness: A systematic review. *American Journal of Occupational Therapy, 65*(3), 238-246. doi:10.5014/ajot.2011.001289
- Aronsson, G., & Gustafsson, K. (2005). Sickness Presenteeism: Prevalence, Attendance-Pressure Factors, and an Outline of a Model for Research. *Journal of Occupational & Environmental Medicine, 47*(9), 958-966. doi:10.1097/01.jom.0000177219.75677.17
- Aronsson, G., Gustafsson, K., & Mellner, C. (2011). Sickness presence, sickness absence, and self-reported health and symptoms. *International Journal of Workplace Health Management, 4*(3), 228-243. doi:10.1108/17538351111172590
- Ashby, K., & Mahdon, M. (2010). *Why Do Employees Come to Work When Ill? An Investigation into Sickness Presence in the Workplace*. Retrieved from London:
- Bakker, A. B., & Demerouti, E. (2017). Job demands–resources theory: Taking stock and looking forward. *Journal of Occupational Health Psychology, 22*(3), 273. doi:10.1037/ocp0000056
- Barnes, S. (2016). Presenteeism – how it can be managed and even used to the benefit of the unwell who want to work and the employer organization. *Strategic HR Review, 15*(2), 95-97. doi:10.1108/SHR-01-2016-0002
- Barrick, M. R., Mount, M. K., & Li, N. (2013). The theory of purposeful work behavior: The role of personality, higher-order goals, and job characteristics. *Academy of management review, 38*(1), 132-153. doi:10.5465/amr.2010.0479

- Becker, K., & Smidt, M. (2016). A risk perspective on human resource management: A review and directions for future research. *Human Resource Management Review*, 26(2), 149-165. doi:10.1016/j.hrmr.2015.12.001
- Bergström, G., Bodin, L., Hagberg, J., Aronsson, G., & Josephson, M. (2009). Sickness Presenteeism Today, Sickness Absenteeism Tomorrow? A Prospective Study on Sickness Presenteeism and Future Sickness Absenteeism. *Journal of Occupational & Environmental Medicine*, 51(6), 1-10. doi:10.1097/JOM.0b013e3181a8281b
- Bergström, G., Bodin, L., Hagberg, J., Lindh, T., Aronsson, G., & Josephson, M. (2009). Does sickness presenteeism have an impact on future general health? *International archives of occupational and environmental health*, 82(10), 1179. doi:10.1007/s00420-009-0433-6
- Berk, M., & Berk, L. (2013). Is 'Depression' the new 'Neurosis'? *Australian & New Zealand Journal of Psychiatry*, 47(4), 297-298. doi:10.1177/0004867413482495
- Bierla, I., Huver, B., & Richard, S. (2013). New evidence on absenteeism and presenteeism. *The International Journal of Human Resource Management*, 24(7), 1536-1550. doi:<https://doi.org/10.1080/09585192.2012.722120>
- Biron, C., & Saksvik, P. Ø. (2010). Sickness presenteeism and attendance pressure factors: implications for practice. In J. Quick & C. L. Cooper (Eds.), *Handbook of Organizational and Work Psychology* (3rd ed., pp. 77-96). New York: John Wiley.
- Brockner, J., & Higgins, E. T. (2001). Regulatory Focus Theory: Implications for the Study of Emotions at Work. *Organizational Behavior and Human Decision Processes*, 86(1), 35-66. doi:<https://doi.org/10.1006/obhd.2001.2972>

- Burton, W. N., Conti, D. J., Chen, C.-Y., Schultz, A. B., & Edington, D. W. (2002). The economic burden of lost productivity due to migraine headache: a specific worksite analysis. *Journal of Occupational and Environmental Medicine*, 44(6), 523-529.
- Caverley, N., Cunningham, J. B., & MacGregor, J. N. (2007). Sickness Presenteeism, Sickness Absenteeism, and Health Following Restructuring in a Public Service Organization. *Journal of Management Studies*, 44(2), 304. doi:<http://dx.doi.org/10.1111/j.1467-6486.2007.00690.x>
- Collins, J. J., Baase, C. M., Sharda, C. E., Ozminkowski, R. J., Nicholson, S., Billotti, G. M., . . . Berger, M. L. (2005). The assessment of chronic health conditions on work performance, absence, and total economic impact for employers. *Journal of Occupational and Environmental Medicine*, 47(6), 547-557. doi:10.1079/01.jom.0000166864.58664.29
- Cooper, C., & Lu, L. (2016). Presenteeism as a global phenomenon: Unraveling the psychosocial mechanisms from the perspective of social cognitive theory. *Cross Cultural & Strategic Management*, 23(2), 216-231. doi:10.1108/CCSM-09-2015-0106
- Cooper, C. L. (1996). Hot under the collar. *Times Higher Education Supplement*, 21, June.
- Deci, E. L., Olafsen, A. H., & Ryan, R. M. (2017). Self-determination theory in work organizations: The state of a science. *Annual Review of Organizational Psychology and Organizational Behavior*, 4, 19-43. doi:<https://doi.org/10.1146/annurev-orgpsych-032516-113108>
- Dellve, L., Hadzibajramovic, E., & Ahlborg, G. J. (2011). Work attendance among healthcare workers: prevalence, incentives, and long-term consequences for health and performance. *Journal of advanced nursing*, 67(9), 1918-1929. doi:10.1111/j.1365-2648.2011.05630.x

- Demerouti, E., Le Blanc, P. M., Bakker, A. B., Schaufeli, W. B., & Hox, J. (2009). Present but sick: a three-wave study on job demands, presenteeism and burnout. *Career Development International*, 14(1), 50-68. doi:<http://dx.doi.org/10.1108/13620430910933574>
- Dew, K., Keefe, V., & Small, K. (2005). "Choosing" to work when sick: workplace presenteeism. *Social Science Medicine*, 60, 2273-2282. doi:10.1016/j.socscimed.2004.10.022
- Fernet, C., Guay, F., & Senécal, C. (2004). Adjusting to job demands: The role of work self-determination and job control in predicting burnout. *Journal of Vocational Behavior*, 65(1), 39-56. doi:10.1016/S0001-8791(03)00098-8
- Ferreira, A. I., & Martinez, L. F. (2012). Presenteeism and burnout among teachers in public and private Portuguese elementary schools. *The International Journal of Human Resource Management*, 23(20), 4380-4390. doi:<https://doi.org/10.1080/09585192.2012.667435>
- Foss, N. J., Minbaeva, D. B., Pedersen, T., & Reinholt, M. (2009). Encouraging knowledge sharing among employees: How job design matters. *Human Resource Management*, 48(6), 871-893. doi:10.1002/hrm.20320
- Freedy, J., & Hobfoll, S. E. (2017). Conservation of resources: A general stress theory applied to burnout *Professional burnout* (pp. 115-129): Routledge.
- Gagné, M., & Deci, E. L. (2005). Self-determination theory and work motivation. *Journal of Organizational Behavior*, 26, 331-362. doi:10.1002/job.322
- Godøy, A. (2016). Profiting from presenteeism? Effects of an enforced activation policy on firm profits. *Labour Economics*, 43, 122-128. doi:<https://doi.org/10.1016/j.labeco.2016.06.012>
- Goetzl, R. Z., Hawkins, K., Ozminkowski, R. J., & Wang, S. H. (2003). The health and productivity cost burden of the "top 10" physical and mental health conditions affecting six large

- US employers in 1999. *Journal of Occupational and Environmental Medicine*, 45(1), 5-14.
- Gosselin, E., Lemyre, L., & Corneil, W. (2013). Presenteeism and absenteeism: Differentiated understanding of related phenomena. *Journal of Occupational Health Psychology*, 18(1), 75-86. doi:10.1037/a0030932
- Griffiths, M. D., & Karanika-Murray, M. (2012). Contextualising over-engagement in work: Towards a more global understanding of workaholism as an addiction. *Journal of Behavioral Addictions*, 1(3), 87-95. doi:<https://doi.org/10.1556/JBA.1.2012.002>
- Gustafsson, K., & Marklund, S. (2011). Consequences of sickness presence and sickness absence on health and work ability: a Swedish prospective cohort study. *International Journal of Occupational Medicine and Environmental Health*, 24(2), 153-165. doi:10.2478/s13382-011-0013-3
- Halbesleben, J. R. B., Whitman, M. V., & Crawford, W. S. (2014). A dialectical theory of the decision to go to work: Bringing together absenteeism and presenteeism. *Human Resource Management Review*, 24(2), 177-192. doi:<http://dx.doi.org/10.1016/j.hrmr.2013.09.001>
- Halonen, J. I., Solovieva, S., Pentti, J., Kivimäki, M., Vahtera, J., & Viikari-Juntura, E. (2016). Effectiveness of legislative changes obligating notification of prolonged sickness absence and assessment of remaining work ability on return to work and work participation: a natural experiment in Finland. *Occupational and Environmental Medicine*, 73(1), 42-50. doi:10.1136/oemed-2015-103131
- Hirsch, B., Lechmann, D. S., & Schnabel, C. (2015). *Coming to work while sick: An economic theory of presenteeism with an application to German data*. (0030-7653). Working paper,

Universität Erlangen-Nürnberg, Lehrstuhl für VWL, insbes. Arbeitsmarkt- und  
Regionalpolitik, No. 96.

Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American psychologist*, 44(3), 513.

Hobfoll, S. E. (2001). The Influence of Culture, Community, and the Nested-Self in the Stress Process: Advancing Conservation of Resources Theory. *Applied Psychology*, 50(3), 337-421. doi:10.1111/1464-0597.00062

Hobfoll, S. E. (2011). Conservation of resource caravans and engaged settings. *Journal of occupational and organizational psychology*, 84(1), 116-122. doi:10.1111/j.2044-8325.2010.02016.x

Hobfoll, S. E., & Lilly, R. S. (1993). Resource conservation as a strategy for community psychology. *Journal of Community Psychology*, 21(2), 128-148. doi:10.1002/1520-6629(199304)21:2<128::AID-JCOP2290210206>3.0.CO;2-5

Howard, K. J., Mayer, T. G., & Gatchel, R. J. (2009). Effects of presenteeism in chronic occupational musculoskeletal disorders: stay at work is validated. *Journal of Occupational and Environmental Medicine*, 51(6), 724-731.  
doi:<https://doi.org/10.1097/JOM.0b013e3181a297b5>

Irvine, A. (2011). Fit for Work? The Influence of Sick Pay and Job Flexibility on Sickness Absence and Implications for Presenteeism. *Social Policy & Administration*, 45(7), 752-769. doi:10.1111/j.1467-9515.2011.00795.x

Johansson, G., & Lundberg, I. (2004). Adjustment latitude and attendance requirements as determinants of sickness absence or attendance. Empirical tests of the illness flexibility model.

*Social Science & Medicine*, 58(10), 1857-1868. doi:[https://doi.org/10.1016/S0277-9536\(03\)00407-6](https://doi.org/10.1016/S0277-9536(03)00407-6)

Johns, G. (2008). Absenteeism and presenteeism: Not at work or not working well. In J. Barling & C. C. L. (Eds.), *The Sage Handbook of Organizational Behavior* (Vol. 1). London: Sage.

Johns, G. (2010). Presenteeism in the workplace: A review and research agenda. *Journal of Organizational Behavior*, 31(4), 519-542. doi:10.1002/job.630

Jourdain, G., & Vézina, M. (2014). How psychological stress in the workplace influences presenteeism propensity: A test of the Demand–Control–Support model. *European Journal of Work and Organizational Psychology*, 23(4), 483-496.  
doi:10.1080/1359432X.2012.754573

Joyce, K., Pabayo, R., Critchley, J., & Bambra, C. (2010). Flexible working conditions and their effects on employee health and wellbeing. *Cochrane Database Syst Rev*, 17(2), CD008009.

Karanika-Murray, M., & Cooper, C. (2018). Presenteeism: An introduction to a prevailing global phenomenon. In L. Lu & C. L. Cooper (Eds.), *Presenteeism at work*. Cambridge: Cambridge University Press.

Karanika-Murray, M., & Michaelides, G. (2015). Workplace design: Conceptualizing and measuring workplace characteristics for motivation. *Journal of Organizational Effectiveness: People and Performance*, 2(3), 224-243. doi:<https://doi.org/10.1108/JOEPP-08-2014-0048>

- Karanika-Murray, M., Michaelides, G., & Wood, S. J. (2017). Job demands, job control, psychological climate, and job satisfaction: A cognitive dissonance perspective. *Journal of Organizational Effectiveness: People and Performance*, 4(3), 238-255.  
doi:<https://doi.org/10.1108/JOEPP-02-2017-0012>
- Karanika-Murray, M., Pontes, H. M., Griffiths, M. D., & Biron, C. (2015). Sick absence determines job satisfaction via affective-motivational states. *Social Science & Medicine*, 139, 100-106. doi:<http://dx.doi.org/10.1016/j.socscimed.2015.06.035>
- Kasl, S. V., & Cobb, S. (1966). Health behavior, illness behavior and sick role behavior: I. Health and illness behavior. *Archives of Environmental Health: An International Journal*, 12(2), 246-266.
- Kendall, N., Burton, A., Kim, A., Lunt, J., Mellor, N., & Daniels, K. (2016). *Developing an Intervention Toolbox for the Common Health Problems in the Workplace - Research Report 1053*. London: HSE Books.
- Kivimäki, M., Forma, P., Wikstrom, J., Halmeenmaki, T., Pentti, J., Elovainio, M., & Vahtera, J. (2004). Sick absence as a risk marker of future disability pension: the 10-town study. *J Epidemiol Community Health*, 58(8), 710-711. doi:10.1136/jech.2003.015842
- Kivimäki, M., Head, J., Ferrie, J. E., Hemingway, H., Shipley, M. J., & Vahtera, J. (2005). Working while ill as a risk factor for serious coronary events: the Whitehall II study. *American Journal of Public Health*, 95(1), 98-102.  
doi:<https://doi.org/10.2105/AJPH.2003.035873>
- Kivimäki, M., Leino-Arjas, P., Kaila-Kangas, L., Luukkonen, R., Vahtera, J., Elovainio, M., . . . Kirjonen, J. (2006). Is incomplete recovery from work a risk marker of cardiovascular



- death? Prospective evidence from industrial employees. *Psychosomatic Medicine*, 68(3), 402-407. doi:<https://doi.org/10.1097/01.psy.0000221285.50314.d3>
- Knani, M., Biron, C., & Fournier, P.-S. (2018). Presenteeism revisited: A critical review of existing definitions and measures In L. Lu & C. L. Cooper (Eds.), *The Cambridge companion to presenteeism at work* (pp. 35-68). Cambridge: Cambridge University Press.
- Kuster, P. A., & Merkle, C. J. (2004). Caregiving stress, immune function, and health: implications for research with parents of medically fragile children. *Issues in Comprehensive Pediatric Nursing*, 27(4), 257-276.
- Kuvaas, B. (2008). A test of hypotheses derived from self-determination theory among public sector employees. *Employee Relations*, 31(1), 39-56.  
doi:<http://psycnet.apa.org/doi/10.1108/01425450910916814>
- Leslie, L. M., Tae-Youn, P., Si Anh, M., & Flaherty Manchester, C. (2012). Flexible work practices: a source of career premiums or penalties? *Academy of Management Journal*, 55(6), 1407-1428. doi:10.5465/ami.2010.0651
- Levin-Epstein, J. (2005). Presenteeism and paid sick days: Center for Law and Social Policy.
- Lewin, K. (1939). Field theory and experiment in social psychology: Concepts and methods. *American journal of sociology*, 44(6), 868-896.
- Lohaus, D., & Habermann, W. (2018). Presenteeism: A review and research directions. *Human Resource Management Review*, Advance online publication.  
doi:<https://doi.org/10.1016/j.hrmr.2018.02.010>
- Løkke Nielsen, A.-K. (2008). Determinants of absenteeism in public organizations: a unit-level analysis of work absence in a large Danish municipality. *The International Journal of Human Resource Management*, 19(7), 1330-1348. doi:10.1080/09585190802110158

- Love, J., Grimby-Ekman, A., Eklof, M., Hagberg, M., & Dellve, L. (2010). "Pushing oneself too hard": performance-based self-esteem as a predictor of sickness presenteeism among young adult women and men--a cohort study. *Journal of Occupational and Environmental Medicine*, 52(6), 603-609. doi:10.1097/JOM.0b013e3181dce181
- Mazzetti, G., Vignoli, M., Schaufeli, W. B., & Guglielmi, D. (2017). Work addiction and presenteeism: The buffering role of managerial support. *International Journal of Psychology*. doi:<https://doi.org/10.1002/ijop.12449>
- McGregor, A., Iverson, D., Caputi, P., Magee, C., & Ashbury, F. (2014). Relationships Between Work Environment Factors and Presenteeism Mediated by Employees' Health: A Preliminary Study. *Journal of Occupational and Environmental Medicine*, 56(12), 1319-1324. doi:10.1097/jom.0000000000000263
- Meerding, W.-J., IJzelenberg, W., Koopmanschap, M., Severens, J. L., & Burdorf, A. (2005). Health problems lead to considerable productivity loss at work among workers with high physical load jobs. *Journal of clinical epidemiology*, 58(5), 517-523. doi:10.1016/j.jclinepi.2004.06.016
- Meier, L. L., Semmer, N. K., Elfering, A., & Jacobshagen, N. (2008). The double meaning of control: Three-way interactions between internal resources, job control, and stressors at work. *Journal of Occupational Health Psychology*, 13(3), 244–258. doi:10.1037/1076-8998.13.3.244
- Miraglia, M., & Johns, G. (2016). Going to Work III: A Meta-Analysis of the Correlates of Presenteeism and a Dual-Path Model. *Journal of Occupational Health Psychology*, 21(3), 261-283. doi:10.1037/ocp0000015

- Muraven, M., & Baumeister, R. F. (2000). Self-regulation and depletion of limited resources: Does self-control resemble a muscle? *Psychological bulletin*, *126*(2), 247.  
doi:10.1037/0033-2909.126.2.247
- Neve, M. (2004). Neurosis. *The Lancet*, *363*(9415), 1170. doi:[https://doi.org/10.1016/S0140-6736\(04\)15924-2](https://doi.org/10.1016/S0140-6736(04)15924-2)
- Nisbet, E. K., & Gick, M. L. (2008). Can health psychology help the planet? Applying theory and models of health behaviour to environmental actions. *Canadian Psychology/Psychologie canadienne*, *49*(4), 296. doi:<http://psycnet.apa.org/doi/10.1037/a0013277>
- Prater, T., & Smith, K. (2011). Underlying factors contributing to presenteeism and absenteeism. *Journal of Business & Economics Research*, *9*(6), 1.
- Ramesh, S., Ireson, R., & Williams, A. (2017). International synthesis and case study examination of promising caregiver-friendly workplaces. *Social Science & Medicine*, *177*(Supplement C), 52-60. doi:<https://doi.org/10.1016/j.socscimed.2017.01.052>
- Rosenstock, I. M. (1974). The health belief model and preventive health behavior. *Health education monographs*, *2*(4), 354-386.
- Rosso, B. D., Dekas, K. H., & Wrzesniewski, A. (2010). On the meaning of work: A theoretical integration and review. *Research in Organizational Behavior*, *30*, 91-127.  
doi:10.1016/j.riob.2010.09.001
- Rousculp, M. D., Johnston, S. S., Palmer, L. A., Chu, B.-C., Mahadevia, P., & Nichol, K. (2010). Attending Work While Sick: Implication of Flexible Sick Leave Policies. *Occupational and Environmental Medicine*, *52*(10), 1009–1013. doi:10.1097/JOM.0b013e3181f43844
- Ryan, R. M., & Deci, E. L. (2000). Self-Determination Theory and the Facilitation of Intrinsic Motivation, Social Development, and Well-Being. *American psychologist*, *55*(1), 68-78.

- Sainsbury Centre for Mental Health. (2007). *Mental Health at Work: Developing the Business Case*. (Policy Paper 8). Retrieved from <https://www.centreformentalhealth.org.uk/Handlers/Download.ashx?IDMF=4c278a50-8bd6-4aff-9cf3-7667c0770288>
- Sampere, M., Gimeno, D., Serra, C., Plana, M., Martinez, J. M., Delclos, G. L., & Benavides, F. G. (2011). Organizational Return to Work Support and Sick Leave Duration: A Cohort of Spanish Workers With a Long-Term Non-Work-Related Sick Leave Episode. *Journal of Occupational & Environmental Medicine*, 53(6), 647-679.  
doi:10.1097/JOM.0b013e31821f2ad4
- Sanderson, K., Hobart, J. N., Graves, N., Cocker, F., & Hobart, B. O. (2008). *Presenteeism and mental health: can the problem be part of the solution?* Paper presented at the 7th APA-NIOSH-SOHP International conference on occupational stress and health Washington, D.C.
- Sherman, R., & Dinkmeyer, D. (2014). *Systems of family therapy: An Adlerian integration*: Routledge.
- Skagen, K., & Collins, A. M. (2016). The consequences of sickness presenteeism on health and wellbeing over time: A systematic review. *Social Science & Medicine*, 161, 169-177.  
doi:<http://dx.doi.org/10.1016/j.socscimed.2016.06.005>
- Stewart, W. F., Ricci, J. A., Chee, E., Hahn, S. R., & Morganstein, D. (2003). Cost of lost productive work time among US workers with depression. *Journal of American Medical Association*, 289(23), 3135-3144. doi:10.1001/jama.289.23.3135
- Stewart, W. F., Ricci, J. A., Chee, E., Morganstein, D., & Lipton, R. (2003). Lost productive time and cost due to common pain conditions in the US workforce. *Journal of American Medical Association*, 290(18), 2443-2454. doi:10.1001/jama.290.18.2443

- Strömberg, C., Aboagye, E., Hagberg, J., Bergström, G., & Lohela-Karlsson, M. (2017). Estimating the Effect and Economic Impact of Absenteeism, Presenteeism, and Work Environment-Related Problems on Reductions in Productivity from a Managerial Perspective. *Value in Health, 20*(8), 1058-1064. doi:<https://doi.org/10.1016/j.jval.2017.05.008>
- Taloyan, M., Aronsson, G., Leineweber, C., Hanson, L. M., Alexanderson, K., & Westerlund, H. (2012). Sickness presenteeism predicts suboptimal self-rated health and sickness absence: a nationally representative study of the Swedish working population. *PLoS ONE, 7*(9), e44721. doi:<https://doi.org/10.1371/journal.pone.0044721>
- Urtasun, A., & Nuñez, I. (2018). Healthy working days: The (positive) effect of work effort on occupational health from a human capital approach. *Social Science & Medicine, 202*, 79-88. doi:<https://doi.org/10.1016/j.socscimed.2018.02.028>
- Vahtera, J., Pentti, J., & Kivimaki, M. (2004). Sickness absence as a predictor of mortality among male and female employees. *Journal of Epidemiology and Community Health, 58*(4), 321-326. doi:10.1136/jech.2003.011817
- Van den Broeck, A., Ferris, D. L., Chang, C.-H., & Rosen, C. C. (2016). A review of self-determination theory's basic psychological needs at work. *Journal of Management, 42*(5), 1195-1229. doi:<http://psycnet.apa.org/doi/10.1177/0149206316632058>
- van den Heuvel, S. G., Geuskens, G. A., Hooftman, W. E., Koppes, L. L. J., & van den Bossche, S. N. J. (2010). Productivity Loss at Work; Health-Related and Work-Related Factors. *Journal of occupational rehabilitation, 20*(3), 331-339. doi:10.1007/s10926-009-9219-7
- van Vianen, A. E. M. (2018). Person-Environment Fit: A Review of Its Basic Tenets. *Annual Review of Organizational Psychology and Organizational Behavior, 5*(1), 75-101. doi:10.1146/annurev-orgpsych-032117-104702

Vänni, K., Neupane, S., & Nygård, C.-H. (2017). An effort to assess the relation between productivity loss costs and presenteeism at work. *International Journal of Occupational Safety and Ergonomics*, 23(1), 33-43. doi:10.1080/10803548.2016.1197578

Waddell, G., & Burton, A. K. (2006). *Is work good for your health and well-being?* London: The Stationery Office.

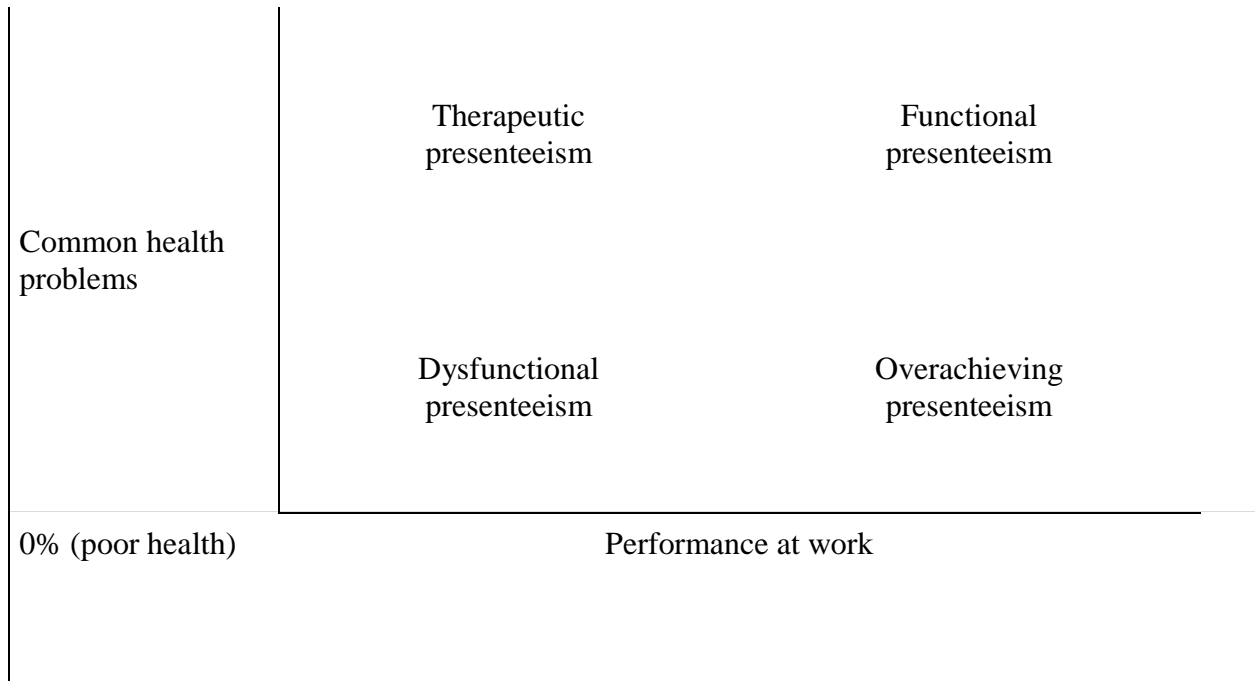
Yen Lin, H., Cooper, C. L., & Lu, L. (2013). A cross-cultural examination of presenteeism and supervisory support. *Career Development International*, 18(5), 440-456.  
doi:10.1108/CDI-03-2013-0031

Zhou, Q., Martinez, L. F., Ferreira, A. I., & Rodrigues, P. (2016). Supervisor support, role ambiguity and productivity associated with presenteeism: A longitudinal study. *Journal of Business Research*, 69(9), 3380-3387. doi:<https://doi.org/10.1016/j.jbusres.2016.02.006>

100% (excellent health)

No presenteeism (healthy)

The health-performance framework of presenteeism



**Figure 1. Presenteeism as a function of health and performance**