

1 *Presenteeism: An Introduction to a Prevailing Global Phenomenon*

MARIA KARANIKA-MURRAY AND
CARY L. COOPER

In the current economic climate and the need “to achieve more with less,” many organizations strive to maintain productivity and a competitive edge. This has a substantial impact on employee health, well-being, and work outcomes. One relatively recent phenomenon that is receiving increasing attention from a range of perspectives is presenteeism. Studies abound that not only show how prevalent presenteeism is across a range of occupations and sectors (Aronsson & Gustafsson, 2005; Baker-McCleary, Greasley, Dale & Griffith, 2010; Biron, Brun & Ivers, 2006; Vézina et al., 2011) but also position it as more costly than absenteeism (CIPD, 2016). This cost can take many forms, including financial impact, performance and productivity, and individual health and well-being (Cooper & Dewe, 2008; Kivimäki, Head, Ferrie, Hemingway, Shipley & Vahtera, 2005; Stewart, Ricci, Chee, Morganstein & Lipton, 2003b). The combination of high prevalence and high cost renders a comprehensive understanding of presenteeism and its damaging but also potentially beneficial outcomes necessary.

Because of its nature and impact, presenteeism has attracted substantial research attention from a range of disciplines and perspectives, including work psychology, business and management, occupational health, public health, and economics. Research on presenteeism has exploded in the last few years. A cursory search on Google Scholar of journal papers with “presenteeism” in the title alone yielded 236 publications in the last three years, 137 in the previous three years, and 72 in the three years before that, with the first studies emerging around 1996, when Cary Cooper (1996) first introduced the term.

This chapter offers an overview of current research and thinking on presenteeism. Because of the broad scope and high volume of available research, our exposition will necessarily be selective, focusing on the major issues that sketch the field. We draw from the rich evidence to explore

definitions, theoretical models, antecedents, and outcomes of presenteeism, and in the process pinpoint needs for future work.

Definitional Issues

The term presenteeism is used to describe “the phenomenon of people turning up at their jobs despite medical complaints and ill-health that would normally require rest and absence from work” (Aronsson, Gustafsson & Dallner, 2000: 503; also see Aronsson & Gustafsson, 2005; Vingård, Alexanderson & Norlund, 2004; Hemp, 2004; Johns, 2008). Cooper (1996: 15) first defined presenteeism 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” – essentially describing a combination of physical presence and functional incapacitation in the workplace. Johns (2010) offered a more concise definition of presenteeism as “showing up for work when one is ill.”

The proliferation of definitions that have been offered reflect two main perspectives on presenteeism (Johns, 2010). Broadly speaking, European scholars tend to focus on presenteeism as the behavior of attending work when one is sick and an outcome of job and occupational factors, whereas US scholars tend to be more concerned about productivity loss due to health problems (Schultz & Edington, 2007; Burton et al., 2004). Juxtaposed to the European perspective that defines presenteeism as “the phenomenon of people, despite complaints and ill health that should prompt rest and absence from work, still turning up at their jobs” (Aronsson, Gustafsson & Dallner, 2000: 503; also see Dew, Keefe & Small, 2005; and Johansson & Lundberg, 2004), is the definition offered by the American College of Occupational and Environmental Medicine of presenteeism as “the measurable extent to which health symptoms, conditions and diseases adversely affect the productivity of individuals who choose to remain at work” (Chapman, 2005: 2). The different approaches can be understood by looking at broader societal and economic differences. For example, the health care system in the USA places more weight on private health insurance, whereas in Europe there has been a historical emphasis on social care, with governments providing health insurance, and a focus on wellness and rehabilitation into work (e.g., Ridic, Gleason & Ridic, 2012). The range of definitions reflects the range of

disciplinary perspectives as well as research and practice priorities. As Ashby & Mahdon (2010: 13) note, “it is important to highlight that the concept of presenteeism has been understood in different ways.” A third but not popular perspective views presenteeism as “the tendency to stay at work beyond the time needed for effective performance of the job” (Simpson, 1998: S.38).

Consensus is now emerging that presenteeism describes attending work when one is unwell. Consensus in the field is important for three reasons. First, defining the behavior of presenteeism (attending work when ill) in terms of its outcomes or consequences (performance loss) risks conflating cause and effect (Johns, 2010; Karanika-Murray & Biron, under review). Association is not causation and an observed relationship between poor health and productivity loss does not imply that poor health causes productivity loss; it is possible that third factor or factors can explain this association. Such definitional ambiguities are problematic in terms of measuring productivity loss, as in most cases it is difficult to know exactly when work is not being completed and there are numerous reasons for lost productivity which cannot be attributed to health.

Second, although different perspectives can offer rich and complementary understandings in an emerging field, they also often determine the research questions and possible solutions prescribed. The risk is that without regular integration of knowledge and consensus building, this process may lead to the field splitting. It is unclear, for example, how findings from studies that use different building blocks (definitions and measures) of presenteeism can be integrated. This is also a gap that welcomes future research.

Third, definitional consensus is important for ensuing the rigor of measurement tools. Existing measures focus on the frequency of presenteeism or job productivity and also range from a single item to multiple-item scales. A popular self-report single-item measure of presenteeism, developed by Aronsson & Gustafsson (2005), asks respondents to indicate the frequency of attending work when ill within a recent time window (Hansen & Andersen, 2008; Johansson & Lundberg, 2004; Munir et al., 2009). Measures of presenteeism as the extent to which ill-health interferes with job productivity (productivity loss) reflect a number of cognitive, emotional, and behavioral aspects of accomplishing work, with reference to being ill.

Examples include the Work Limitations Questionnaire (WLQ), the Health and Work Performance Questionnaire (HPQ), the Stanford Presenteeism Scale (SPS-34 and SPS-13), the Work Productivity Short Inventory (WPSI), the Work and Health Interview (WHI), the Health and Labor Questionnaire (HLQ), and the Work Productivity and Activity Impairment Questionnaire (WPAI) (Schultz & Edington, 2007). Most popular of these are the WLQ and HPQ, both of which have strong validity and reliability and have been used in a variety of workplace settings, occupations, and health conditions (e.g., Leoppke Taitel, Haufle, Parry, Kessler & Jinnett, 2009; Schultz & Edington, 2007).

Finally, objective assessment of productivity loss has also been attempted, such as using organizational records to assess the decrease in productivity associated with health problems in a sample of telephone customer-service employees (Burton, Conti, Chen, Schultz & Edington, 1999). Although it is not our aim to review available measures of presenteeism (for a comprehensive review, see Cyr & Hagen, 2007; Schultz & Edington, 2007), it is important to note that different definitions and approaches can lead to a range of measures of presenteeism and that inconsistent measurement is not favorable to the needed integration of knowledge in the field.

Although pluralism in research is a useful and desirable way to kick-start research in any field, it can also inhibit integration of knowledge. In practical terms, agreeing a common language is essential for integrating current insights and developing solutions that can help employers and employees to address presenteeism. In the case of presenteeism, the risks that too many diverse perspectives may bring are multiplied when we consider its substantial costs for individual health and performance and for organizational efficiency and productivity.

Further Issues: Understanding Illness, Attendance and Related Decisions

The definition of presenteeism as “showing up for work when one is ill” (Johns, 2010) raises some additional considerations: (1) what does illness mean, (2) what does attending work mean, and (3) by what criteria do individuals decide whether to attend work when they are ill?

Could a deeper understanding of presenteeism, perhaps by type of illness or type of attendance, shed more light into how presenteeism is enacted? Here we explore these questions and in this way also hope to ignite further research.

Facets of Illness

The Oxford dictionary defines illness as “a disease or period of sickness affecting the body or mind.” This intimates four dimensions of illness: the occurrence (a disease) of occasional or episodic illness, a temporal dimension (period of sickness) which may imply acuteness or chronicity, and two facets of illness (physical or mental). Johns (2010) distinguishes between episodic, acute, and chronic conditions, whereas Gosselin & Lauzier (2010; in Gosselin, Lemyre & Corneil, 2013) differentiate between occasional and chronic illness and between physical and psychological health. Garrow (2016) suggests that when considering the support that individuals (or their line managers) may need to manage presenteeism we should take into account the severity, duration, and frequency of a disease. “Illness”, therefore, is not a unidimensional construct.

Understanding the nature of illness is essential for understanding its impact on work outcomes and the mechanisms through which presenteeism behavior can lead to different work outcomes. For example, compared to psychological or mental ill-health, physical ill-health affects functional capacity, concentration, or decision-making differently, and in this way places different demands on the individual. Aligning the nature of the illness with the job tasks can help to identify (1) the work limitations faced in each case, (2) what one can do within these limitations and how he or she can remain involved in work, (3) whether presenteeism is an appropriate attendance behavior, and (4) what support and resources one may need to continue to be at work or to facilitate return to work and recovery. In a recent study, Gosselin, Lemyre & Corneil (2013: 82) found that “the specific nature of the illness has a marked impact on the decision process leading to either presenteeism or absenteeism.” Specifically, they found that some health conditions, depending on their symptoms and controllability, led to presenteeism, whereas others, more debilitating conditions, led to absenteeism. Therefore, it is important to understand what illness means (or how it is perceived and experienced by the individual) and how it is linked to presenteeism behavior.

To Attend or to Absent

The second consideration relates to attendance behavior and specifically what type of response may be appropriate for different types of illness or the type or degree of debilitation from illness. At the two extremes, we have total absence during illness and regardless of the nature of the illness. In reality, complete absence for the duration of the illness spell may be neither feasible nor advisable. For a range of reasons, individuals may decide to remain involved with work tasks during illness, i.e., engage in presenteeism behavior. Of course, some attendance in the face of illness may be more desirable than complete absence, as it implies some involvement with work, some less intensive or demanding tasks being completed, and some, albeit reduced, productivity (Karanika-Murray & Biron, under review). In reality, however, there is evidence that the costs and productivity loss associated with presenteeism are greater than those of absenteeism (Goetzel, Hawkins, Ozminkowski & Wang, 2003; Hemp, 2004; Schultz & Edington, 2007).

Despite commonality between the two behaviors, and with the exception of very few conceptual papers that examine them in tandem, “absenteeism and presenteeism have developed along parallel paths without meeting despite being tied to a single decision” (Halbesleben, Whitman & Crawford, 2014: 13). The alternative to the two extremes is well-managed attendance during illness as a way to facilitate gradual return to work. As note, Whether one attendance behavior is more appropriate than another may depend on the interaction between type of illness and job tasks (Karanika-Murray & Biron, under review). For example, if the illness affects functional capacity (e.g., a broken leg) but the job tasks are mainly of a cognitive nature, do not require physical exertion, and can be performed from home, then presenteeism can help to achieve work tasks and also support rehabilitation. If, on the other hand, the illness affects psychological or mental capacity (e.g., the flu) and the nature of the work requires decision-making or face-to-face interaction with clients, then complete absence from work or temporary adjustment of the intensity or nature work demands would be advisable. In summary, and without venturing into a discussion on the management of presenteeism, the nature of the illness and nature of work tasks may require a different attendance response. Complete absenteeism and complete presenteeism are only two options to be considered, but always in light of the health condition and the work requirements.

Discretionary or Compelled Presenteeism

The final consideration relates to the process that leads to the decision to engage in presenteeism behavior. Such an enacted decision is grounded in the individuals' consideration of his or her current circumstances, including health limitations and work tasks but also broader contextual factors. As Garrow (2016: 2) notes, "decisions on whether to 'present' or 'absent' are, however, rarely based on simple health/task information. Other factors (both organizational and personal) come into play." At the individual level, people tend to ignore ill-health symptoms, ignore doctors' orders, and self-medicate (Kivimäki et al., 2005). At the same time, even seemingly irrational or risky decisions may have adaptive purposes (Mellers, Schwartz & Cooke, 1998). Individual action cannot be viewed in isolation from broader situational and contextual influences (Morgeson & Hofmann, 1999), which is especially true in the case of presenteeism. Garrow (2016: 2) also notes that "the relative dominance of these drivers is heavily context-dependent although evidence suggests that work factors tend to be more important." Therefore, it is important to understand how an one's decision-making processes around being present or absent during illness are influenced by the broader context.

Furthermore, there is also the question of how free one is to choose between presenteeism and absenteeism. For example, punitive attendance policies and procedures (Baker-McCleary et al., 2010), or line managers' misconception and misapplication of attendance and return to work procedures, or a workplace culture that encourages attending work at all costs (Dew et al., 2005) may cultivate presenteeism, even at the point where individuals substitute presenteeism for absenteeism (Caverley et al., 2007). Viewed from the lens of volitional behavior, the range of factors leading to presenteeism can be divided into discretionary or "voluntary" (e.g., work engagement) and compelled or "involuntary" (e.g., attendance policies, job insecurity). The latter may be at least as prevalent as the former, with presenteeism cases linked to involuntary causes being as high as 54 percent (Biron, Brun & Ivers, 2006). In the same vein, Baker-McCleary et al. (2010) define two types of presenteeism: institutionally-mediated presenteeism and personally-mediated presenteeism. Therefore In short, it is important to distinguish between presenteeism behavior that is "voluntary" and based on personal choice, of course within the boundaries of illness and work, and presenteeism behavior

that an individual enacts because they feel pressured to attend work even if their health may suffer.

Conceptual Work on Presenteeism

In contrast to empirical research, conceptual work on presenteeism that can helpfully explain the “how” and “why” of the phenomenon and that systematically integrates empirical research is sparse. In other words, the volume of theorizing into presenteeism to date is disproportionately small in comparison to the empirical research. Two main groups of theoretical models have been developed, one focusing on the decision process behind presenteeism and the other on the determinants of presenteeism.

The model of illness flexibility (Johansson & Lundberg, 2004) suggests that attendance requirements (the negative consequences that employees face due to absence) and adjustment latitude (modifications in the workload of sick employees) are key determinants of both sickness attendance (presenteeism) and absence. Using survey data from 4924 workers, they found partial support for the associations between adjustment latitude and attendance requirements with work behaviors, such that high attendance requirements increased the probability of attending work whilst ill (adjustment latitude was not associated with presenteeism). Aronsson & Gustafsson (2005) suggested that presenteeism is an outcome of a decision process on whether to go to work or not. They also suggested that there are two different types of attendance demands that influence sickness presenteeism: personally related factors such as one’s financial situation and individual boundarylessness. Boundarylessness is linked to work factors such as control over pace of work, replaceability, sufficient resources, time pressure, and conflicting demands. Expanding on Aronsson & Gustafsson (2005), Hansen & Andersen (2008) outlined the impact of organizational and individual factors in the behavior choice process. Johns’s (2010) integrated model states that a health event triggers a choice between presenteeism and absenteeism. It also identifies the factors that influence this choice and consequently the occurrence of absenteeism and presenteeism behavior as the work context (e.g., ease of replacement, absence policy, or job demands) and individual factors (e.g., personality or work attitudes). It is important here to clarify the nature of this “choice” since, as noted earlier, presenteeism can have discretionary

or involuntary undertones. As an extension of this work, Miraglia & Johns (2016) proposed a more elaborate dual-path model which views job attitudes and health as the mediators of the range of personal and work-related factors that lead to presenteeism or absenteeism.

These models concur on three fronts: (1) positing presenteeism behavior as an outcome of a decision process, (2) highlighting the relational dynamics between presenteeism and absenteeism, and (3) advancing the interaction between illness, individual factors, and work-related factors as decision-making and behavior levers. The notion of adjustment latitude, whether implicit or explicit, is important here as it can help to accommodate the needs of the individual vis-à-vis the requirements of the job and the nature of the illness. In this way, adjustment latitude can help to balance the range of pressures and determinants of presenteeism in order to support individual health and performance.

In terms of determinants of presenteeism, a range of typologies have been offered. Aronsson & Gustafsson (2005) described two types of attendance demands that influence presenteeism: personal factors (e.g., financial situation and individual boundarylessness) and work factors (e.g., control over pace of work, replaceability, sufficient resources, time pressure and conflicting demands). Biron & Saksvik (2009) organized the determinants of presenteeism into work-related (e.g., difficulty in being replaced), dispositional (e.g., guilt and pressure factors), and situational (e.g., financial insecurity). Baker-McClearn et al. (2010) summarized the workplace factors that influence an individual's decision to either attend or be absent from work when ill as personal motivations (e.g., loyalty to own professional image) and workplace pressures (e.g., workplace culture). Similarly, Johns's (2010) dynamic integrated model suggests that the choice between presenteeism and absenteeism relies on evaluations of the work context (e.g., ease of replacement, absence policy, job demands) and individual factors (e.g., personality and work attitudes). Gosselin, Lemyre & Corneil (2013) proposed an integrated model of the determinants of presenteeism and absenteeism behavior, incorporating the influence of health problems, demographic characteristics, individual factors, and organizational factors. Finally, Miraglia & Johns (2016) highlighted pressure factors such as high personal or professional obligations to work, and motivational factors such as pleasure derived from work and job satisfaction.

Common in these typologies is the suggestion that there are multiple levels of determinants of presenteeism behavior and that these operate synergistically rather than in isolation. It is also worth noting that “work-related factors seem to be slightly more important than personal circumstances or attitudes in determining people’s ‘decision’ to go ill at work (Hansen & Andersen, 2008: 956), but also that “the relatively low explanatory power of these combined factors suggests that there are still many unknowns in this field of research” (Hansen & Andersen, 2008: 956).

At the time of writing this chapter, published conceptual work on presenteeism has tended to focus predominantly on understanding the process by which a range of factors determine the behavior, but very little attention has been invested in understanding the outcomes of presenteeism. Empirical work has mirrored this, as it has tended to focus on categorizing the determinants of presenteeism, essentially viewing it as static end-behavior (Karanika-Murray, Pontes, Griffiths & Biron, 2015). As a result, we have little insight into the psychological mechanisms and psychological processes that drive presenteeism behavior (Cooper & Lu, 2016; Karanika-Murray et al., 2015) and its outcomes for individuals and organizations. Indeed, for their review, Vingård, Alexanderson & Norlund’s (2004: 216) identified merely eight studies on the consequences of sickness presenteeism for the employer but failed to identify any empirical evidence focusing on its consequences for the individual, concluding that “[t]he current body of scientific literature does not provide sufficient evidence to draw conclusions on the consequences of sickness presence.” This observation still holds today.

Considering how deleterious presenteeism can be to employee health (in terms of future ill-health, well-being, or sickness absence, to name a few) and costly to organizations (in terms of productivity loss, replacement costs, colleague morale, for example) and the importance of understanding its impact in order to develop ways to mitigate deleterious effects, this lack of conceptual attention on outcomes and the mechanisms that drive presenteeism is rather odd. There are two exceptions that we are aware of at the time of writing. Karanika-Murray et al. (2015) proposed that presenteeism is a combination of physical presence and psychological absence, tapping into the notion of presenteeism as working at reduced capacity. They offered empirical evidence showing that motivational states (work engagement and work addiction) fully mediate the relationship between presenteeism behavior and job attitudes (job satisfaction), viewing presenteeism as a determinant rather than

end-behavior. In addition, Cooper & Lu (2016) developed the social cognitive model of presenteeism as an exploration of the possible psychosocial mechanisms that drive presenteeism behavior. They outlined how self-efficacy and outcome expectancy together impact on goal setting, which, in turn, impacts on presenteeism behavior and subsequently attainment of performance goals. In the process, their model also considers the influence of both person and contextual variables. This is one of the few dynamic models of presenteeism that can help to understand how decisions to attend work while ill are made and that also view presenteeism as one link in a longer chain of effects.

The models outlined here form a very small part of existing work on presenteeism. The field is still “markedly atheoretical” (Johns, 2010) and in need of conceptual development (Dickson, 2013). Investment in theorizing and viewing presenteeism as one part of a chain of effects is needed in order to organize the large volume of empirical studies, move beyond a singular focus on its prevalence and determinants, and enable a more comprehensive understanding of the phenomenon.

Empirical Research on the Antecedents of Presenteeism

Next, we summarize the research on possible antecedents of presenteeism behavior.

Financial pressures and job insecurity are among the most common reasons why people go to work despite being ill (Aronsson & Gustafsson, 2005; Bierla, Huver & Richard, 2013; Barnes, Buck, Williams, Webb & Aylward, 2008; Bergstrom, Bodin, Caverley, Cunningham & MacGregor, 2007; Hagberg, Lindh, Aronsson & Josephson, 2009; Prater & Smith, 2011; Widera, Chang & Chen, 2010). However, it is possible that job insecurity indicates other underlying factors associated with presenteeism including, for example, the norms and climate of the workplace. Depression has also been linked to overall work limitations and productivity loss (Burton, Pransky, Conti, Chin-Yu & Edington, 2004; McTernan, Dollard & LaMontagne, 2013). Job satisfaction is a strong predictor of the likelihood of attending work whilst ill (Aronsson & Gustafsson, 2005; Caverley et al., 2007; Krohne & Magnussen, 2011) even among those who experience chronic nonspecific musculoskeletal pain (de Vries, Brouwer, Groothoff, Geertzen & Reneman, 2011), although not all

research studies have supported a positive link (Rosvold & Bjertness 2001). Work engagement too is closely associated with presenteeism (Admasachew & Dawson, 2011; Karanika-Murray et al., 2015). A number of job characteristics have also been implicated in presenteeism, such as job control (Aronsson & Gustafsson, 2005; Alavinia, Molenaar & Burdorf, 2009; Gosselin et al., 2013). Biron, Brun, & Ivers (2006) found that lack of control was a determinant of presenteeism but only for workers with benign health issues (for those reporting fewer than 9 days of presenteeism). Increased time pressure at work has been supported as the single most influential work-related factor in the decision to attend work when ill (Hansen & Andersen, 2008; Elstad & Vabø, 2008; Aronsson & Gustafsson, 2005). Finally, increased job demands are linked to increased likelihood of sickness presenteeism (Demerouti, Le Blanc, Bakker, Schaufeli & Hox, 2009; Kivimaki et al., 2005) and lower performance (Van den Heuvel, Geuskens, Hooftman, Koppes & Van den Bossche, 2010). Higher levels of presenteeism are associated with difficulties in staff replacement (Aronsson & Gustafsson, 2005; Biron et al., 2006; Biron & Saksvik, 2009; Dew et al., 2005; Jena, Baldwin, Daugherty, Meltzer & Arora, 2010; Widera et al., 2010) and jobs that involve higher levels of teamwork (Hansen & Andersen, 2008; Krohne & Magnussen, 2011) and specifically higher interdependence between small teams (Pauly, Nicholson, Polsky, Berger & Sharda, 2008), and an increased responsibility at work (Dellve, Hadzibajramovic & Ahlborg, 2011; Gosselin et al., 2013), which prompt employees to continue to work when unwell. Employees who attend work whilst sick often do so because their colleagues are reliant on them and because they feel an obligation towards their team (Gosselin et al., 2013; McKeivitt & Morgan, 1997). Finally, there is also research into employment contract, but this seems to be inconclusive, with some showing that employees who have a permanent employment contract are more likely to come to work whilst ill than temporary staff (Aronsson, Gustafsson & Dallner, 2000) and others showing no association between employment type and presenteeism behavior (Aronsson & Gustafsson, 2005; Hansen & Andersen, 2008).

It should be noted that drawing conclusions on an individual phenomenon from panel data (on which some these studies are based) may obscure some of the mechanisms of presenteeism that more fine-grained examinations can offer. Furthermore, although correlational research highlights the wide range of work-related factors that

can influence the decision to work while ill, it also only allows to identify rather than explain causal mechanisms. For example, if pressure to attend whilst sick is a potential mechanism, some of these factors can be viewed as salutogenic for performance and health (e.g., team cohesiveness, job satisfaction, engagement). Unfolding the psychological mechanisms by which these determinants lead to presenteeism behavior can be aided by examining moderation, mediation, and reciprocal effects. For example, experience has been found to moderate the relationship between presenteeism and performance, such that more experienced nurses tend to be less affected by presenteeism as they complete their work more accurately (Martinez & Ferreira, 2012).

Strongly implicated in presenteeism are also formal organizational policies and management practices. For example, flexible work policies allow employees who are unwell to adjust their work patterns and have a more manageable workload (Krohne & Magnussen, 2011), sick pay policies allow employees paid sick days (Irvine, 2011; Chatterji & Tilley, 2002; Heymann, Rho, Schmitt & Earle, 2010), whereas better work organization or scheduling allows for work reorganization and unplanned absence (McKevitt & Morgan, 1997) during ill-health.

Research into presenteeism also differentiates between formal organizational policies and workplace culture and climate. Salient differences between occupations in the incidences of presenteeism suggest that there may be variations in workplace cultures for presenteeism (Aronsson et al., 2000). A culture for presenteeism is grounded on employees' professional values such as being responsible for vulnerable groups of people (Johns, 2010) as the work on the prevalence of presenteeism in healthcare shows (e.g., Crout, Chang & Cioffi, 2005; Dew et al., 2005; Hackett & Bycio, 1996; Karimi, Cheng, Bartram, Leggat & Sarkeshik, 2015; Martinez & Ferreira, 2012; Warren, White-Means, Wicks, Chang, Gourley & Rice, 2011; Widera et al., 2010). Workplace norms that center on responsibility, a strong work ethic, loyalty to team members, and attendance can also lead to presenteeism (McKevitt & Morgan, 1997; Baker-McCleary et al., 2010; Dew et al., 2005; Simpson, 1998). Hansson, Boström and Harms-Ringdahl (2006) found that presenteeism levels were higher in organizations that expected employees to have strong work-duty norms even when they were ill (Dew et al., 2005; Vingård et al., 2004). There is also evidence that specific groups of employees are more prone and essentially form high-risk

groups for presenteeism, highlighting circumstantial determinants of presenteeism that are specific to specific work groups. For example, higher levels of presenteeism have been detected among pregnant employees, whose fear of being considered as intellectually and physically inferior to their colleagues may lead them to higher levels of presenteeism, in this way putting their health in danger (Gatrell, 2011), blue collar workers, who may be more self-conscious about their job (in)security and experience higher “pressure to attend” than white-collar workers (De Vroome, 2006), and nurses, who when enacting presenteeism may experience a related reduction in performance, increasing the number of errors and further impacting patient safety (Martinez & Ferreira, 2012; Letvak, Ruhm & Gupta, 2012). Finally, presenteeism poses challenges in small and medium sized enterprises (SMEs), where the individual and economic consequences of presenteeism may be experienced more acutely than in larger organizations (Cocker et al., 2012, 2013). These challenges are attributable primarily to the size and structure of SMEs, impacting administrative, finance and human resource responsibilities (Rauch & Frese, 2007).

Corroborating the available conceptual models, empirical research on singular antecedents shows that presenteeism behavior is linked to an array of factors located at the individual, job, or organizational levels. Because presenteeism is highly responsive to the relationship between the individual and their work environment, it is an imperative to understand the interaction among factors at these levels that influence presenteeism decisions and behavior and the factors that moderate and mediate its effects on health and performance.

Empirical Research on the Outcomes of Presenteeism

Optimal health is important for good performance and quality of working life, whereas poor health can lead to counterproductive work behaviors. Next, we outline empirical research on the range of negative as well as positive outcomes of presenteeism.

Negative Outcomes

The volume of research on the negative outcomes of presenteeism is rich. The financial costs (Centre for Mental Health, 2011; Burton, Conti, Chen, Schultz & Edington, 2002; Levin-Epstein, 2005; CIPD, 2016; Cooper & Dewe, 2008; Stewart et al., 2003a, 2003b) of

presenteeism for organizations tend to be ascribed to productivity loss (Goetzel, Hawkins, Ozminkowski & Wang, 2003). The consensus is that employees who are present at work when sick can experience decline in their overall performance (Biron et al., 2006; Cooper & Dewe, 2008; Meerding, Ijzelenberg, Koopmanschap, Severens & Burdorf, 2005; Van den Heuvel, Geuskens, Hoofman, Koppes & Van den Bossche, 2010).

Despite the fact that presenteeism is viewed as a precursor to decreased performance, there is surprisingly little empirical research on the relationship between the two. The available but also inconclusive research has highlighted a weak or nonexistent relationship between presenteeism and performance (Johns, 2011; Munir, Jones, Leka & Griffiths, 2005). Miraglia & Johns (2016: 14) emphasize the role of the supervisor who may perceive presenteeism as something positive, encourage it, and consequently “reward it, assessing performance more positively, and this could nullify any negative relationship between presenteeism and rated job performance.” More research on the dynamic relationship between presenteeism and performance is needed.

The relationships between presenteeism, on the one hand, and physical ill-health and absenteeism, on the other, have also received substantial attention. Presenteeism can lead to a downward spiral of future health issues (Aronsson & Gustafsson, 2005; Bergström et al., 2009; Kivimäki et al., 2005). For example, Kivimäki and his colleagues (2000) found an association of sickness presence with coronary heart disease and higher prevalence of absence leave. Furthermore, present and ill employees may spread their illness to others in the workplace, potentially leading to future sickness absenteeism among colleagues (Irvine, 2011; Widera et al., 2010). Presenteeism is also a risk factor for future poor health and sickness absence two years later, even after adjustment for possible confounders at baseline (Taloyan et al., 2012). Cross-sectional studies also link presenteeism with concurrent sickness absenteeism (Aronsson & Gustafsson, 2005; Elstad and Vabo, 2008; Hansen & Andersen, 2008; Leineweber et al., 2012). Brouwer, van Exel, Koopmanschap & Rutten (2002) showed that 35 percent of employees experienced presenteeism before or after absenteeism, a finding which has also been observed in Danish (Hansen & Andersen, 2008), Nordic (Elstad & Vabo, 2008), and Canadian employees (Caverley et al., 2007).

Prospective studies also concur that presenteeism is a predictor of future sickness absenteeism (Bergström et al., 2009; Demerouti et al.,

2009). Although working whilst sick may temporarily reduce rates of sickness absence recorded, higher future sickness absence levels are likely (De Vroome, 2006; Taloyan et al., 2012; Janssens, Clays, De Clercq, De Bacquer & Braeckman, 2013). Using a follow-up period of 1.5 years, Hansen & Andersen (2009) revealed an association of sickness presence with long-term sickness absence of at least two weeks' duration and with spells lasting at least two months. Participants who had exhibited presenteeism more than six times in the pre-baseline year had a 74 percent higher risk of sickness absence for more than two months. Although the association was consistent for various symptoms and somatic conditions, it became weaker or non-significant for specific chronic conditions. In short, regular presenteeism is strongly linked to future long-term sickness absence (Hansen & Andersen, 2009) but this may depend on the specific health condition. Adjusting for previous sick leave and work-related variables, presenteeism becomes, with certainty, a critical predictor of higher future sickness absenteeism (Bergström et al., 2009; Hansen & Andersen, 2009; Kivimaki et al., 2005). For a more meticulous examination of the relationship between presenteeism and absenteeism it is important to consider the incidence and duration of sickness absence. Janssens et al. (2013) looked at different types of future sickness absence and found that high rates of presenteeism were associated with both long and short spells of sickness absence (of one to three days), moderate rates of presenteeism (two to five instances) were associated with long spells of sickness absence only for men, whereas high rates of presenteeism and high sickness frequency (at least three sick leave episodes) was demonstrated only among women.

Presenteeism has also been linked to low mental well-being and work ability (Gustafsson & Marklund, 2011). Taloyan et al. (2012) attributed the association between presenteeism and suboptimal health largely to a higher risk of emotional exhaustion. Similarly, presenteeism has been linked to reduced job satisfaction via affective-motivational states such as work engagement and work addiction (Karanika-Murray et al., 2015). There is strong evidence that the relationship between sickness absence and presenteeism may be due to burnout incurred from individuals working beyond their physical or mental capabilities (De Vroome, 2006). Burnout increases sickness absence, which in turn increases the risk of subsequent presenteeism.

Positive Outcomes

Although there is an implicit assumption that presenteeism is implicitly “bad” and inevitably deleterious for health and performance, there are also suggestions that presenteeism may not always be taxing. Rather, there are indications that presenteeism can sometimes be beneficial for performance, well-being, and return to work, contradicting views that it is a risk factor for absenteeism (cf. Bergström et al., 2009) and health (cf. Bergström et al., 2009; Kivimäki, Head, Ferrie, Hemingway, Shipley & Vahtera, 2005). Presenteeism can be beneficial for preventing accumulation of workload, gaining esteem from colleagues and managers (Vézina et al., 2011), and achieving a sense of accomplishment, gradual recovery or citizenship behavior (Miraglia & Johns, 2016).

Presenteeism can reduce negative psychosocial effects of short or long-term absence from work. In cases where the health problem is benign, presenteeism may be used as an attempt for individuals to maintain their work performance during an illness (Demerouti et al., 2009). Employees who show up at work during illness may also feel more in control over their workload (Biron & Saksvik, 2009). Furthermore, presenteeism may yield personal motivational benefits such as a sense of accomplishment that can help individuals adjust to work and cope with demands.

In terms of performance outcomes, working on less demanding tasks or with a lowered output can prevent the accumulation of work engendered by an absence, therefore potentially making the return to work less abrupt (Johns, 2008). As such, presenteeism may be a good strategy for maintaining well-being and facilitating recovery after long-term absence due to ill-health or injury (Ashby & Mahdon, 2010). For example, Howard, Mayer and Gatchel (2009) found that the presenteeism group of chronic disabling musculoskeletal disorder patients who followed a functional restoration program were more likely to return to fulltime work one year after the treatment, compared to the absentee group, and that presentees with chronic pain reported lower levels of depressive symptoms than absentees.

Presenteeism can also indirectly benefit teams and organizations because it can indicate commitment to colleagues and the organization, in turn create camaraderie within the workplace (Dew et al., 2005), impose less burden on colleagues who may otherwise be required to cover the absentee’s work (Caverley et al., 2007), and generate approval

from colleagues and managers (Biron & Saksvik, 2009). In addition, presenteeism may also lead to reduced economic deprivation that would otherwise be due to absence from work (Barnes, Buck, Williams, Webb & Aylward, 2008). Nevertheless, It is unknown whether these effects are short-term; the findings do not preclude longer-term exhaustion and depersonalization (see Demerouti et al., 2009), highlighting the possibility of concurrent positive and negative outcomes.

The identified range of positive outcomes of presenteeism supports the observation that, if well managed, presenteeism can be beneficial for longer term health and for maintaining performance and other desirable work outcomes (Karanika-Murray & Biron, in preparation). As Miraglia & Johns (2016: 16) write, “going to work while ill can represent a ‘sustainable’ choice.” Occasions when presenteeism behavior can have beneficial outcomes render the understanding of this “tipping point” (Biron & Karanika-Murray, 2011) or “trade-off” (Miraglia & Johns, 2016) a worthwhile pursuit.

Conclusions

In this chapter we have examined the prevailing phenomenon of presenteeism, with the aim to unravel and provide answers to some of the major questions and issues in the field. In need of attention are: alignment of the measurement of presenteeism with accepted definitions, examination of how types of illness and attendance options co-determine presenteeism behavior, appreciation of its complex range of outcomes and, even more importantly, its potentially beneficial outcomes for health and performance, and integration of research evidence to decipher the “how,” “why,” and “when” of presenteeism behavior. We hope to have inspired needed innovative and rigorous research into presenteeism.

References

- Admasachew, L. & Dawson, J. (2011). The association between presenteeism and engagement of National Health Service staff. *Journal of Health Services Research and Policy*, 16(suppl 1), 29–33.
- Alavinia, S. M., Molenaar, D. & Burdorf, A. (2009). Productivity loss in the workforce: associations with health, work demands, and individual characteristics. *American Journal of Industrial Medicine*, 52(1), 49–56.

- Aronsson, G. & Gustafsson, K. (2005). Sickness presenteeism: Prevalence, attendance-pressure factors, and an outline of a model for research. *Journal of Occupational and Environmental Medicine*, 47(9), 958–966.
- Aronsson, G., Gustafsson, K. & Dallner, M. (2000). Sick but yet at work. An empirical study of sickness presenteeism. *Journal of Epidemiology and Community Health*, 54(7), 502–509.
- Ashby, K. & Mahdon, M. (2010). *Why Do Employees Come to Work When Ill: An Investigation into Sickness Presence in the Workplace*. London: The Work Foundation.
- Baker-McCleary, D., Greasley, K., Dale, J. & Griffith, F. (2010). Absence management and presenteeism: The pressures on employees to attend work and the impact of attendance on performance. *Human Resource Management Journal*, 20(3), 311–328.
- Barnes, M. C., Buck, R., Williams, G., Webb, K. & Aylward, M. (2008). Beliefs about common health problems and work: A qualitative study. *Social Science & Medicine*, 67(4), 657–665.
- 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.
- Bierla, I., Huver, B. & Richard, S. (2013). New evidence on absenteeism and presenteeism. *International Journal of Human Resource Management*, 24(7), 1536–1550.
- Biron, C. & Karanika-Murray, M. (2011). Presenteeism and absenteeism: Critical points on a continuum. Paper presented at the 15th conference of the European Association of Work & Organisational Psychology, 25–28 May, Maastricht.
- Biron, C. & Saksvik, P. Ø. (2009). Sickness presenteeism and attendance pressure factors: Implications for practice. *International Handbook of Work and Health Psychology*, 3.
- Biron, C., Brun, J.-P. & Ivers, H. (2006). At work but ill: Psychosocial work environment and wellbeing determinants of presenteeism propensity. *Journal of Public Mental Health*, 5(4), 26–37.
- Brouwer, W. B., Van Exel, N., Koopmanschap, M. & Rutten, F. (2002). Productivity costs before and after absence from work: As important as common? *Health Policy*, 61(2), 173–187.
- Burton, W. N., Conti, D. J., Chen, C., Schultz, A. B. & Edington, D. W. (1999). The role of health risk factors and disease on worker productivity. *Journal of Occupational and Environmental Medicine*, 41(10), 863–877.

- Burton, W. N., Conti, D. J., Chen, C., 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.
- Burton, W. N., Pransky, G., Conti, D. J., Chen, C. & Edington, D. W. (2004). The association of medical conditions and presenteeism. *Journal of Occupational and Environmental Medicine*, 46(6), S38–S45.
- 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), 304–319.
- Centre for Mental Health, J. (2011), Managing Presenteeism: A Discussion Paper. Centre for Mental Health & Business in The Community. Retrieved from www.centreformentalhealth.org.uk/Handlers/Download.ashx?IDMF=e10f060c-4cb0-439e-9216-f80426b12d57.
- Chapman, L. S. (2005). Presenteeism and its role in worksite health promotion. *American Journal of Health Promotion*, 19(4), 1–8.
- Chatterji, M. & Tilley, C. J. (2002). Sickness, absenteeism, presenteeism, and sick pay. *Oxford Economic Papers*, 54(4), 669–687.
- CIPD (2016). Absence management survey 2016. Available online at: www.cipd.co.uk/knowledge/fundamentals/relations/absence/absence-management-surveys
- Cocker, F., Martin, A., Scott, J., Venn, A. & Sanderson, K. (2012). Psychological distress and related work attendance among small-to-medium enterprise owner/managers: Literature review and research agenda. *International Journal of Mental Health Promotion*, 14(4), 219–236.
- Cocker, F., Martin, A., Scott, J., Venn, A. & Sanderson, K. (2013). Psychological distress, related work attendance, and productivity loss in small-to-medium enterprise owner/managers. *International Journal of Environmental Research and Public Health*, 10(10), 5062–5082.
- Cooper, C. (1996). Hot under the Collar. *Times Higher Education Supplement*, (June), 15.
- Cooper, C. & Dewe, P. (2008). Well-being-absenteeism, presenteeism, costs and challenges. *Occupational Medicine*, 58(8), 522–524.
- 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.
- Crout, L. A., Chang, E. & Cioffi, J. (2005). Why do registered nurses work when ill?. *Journal of Nursing Administration*, 35(1), 23–28.

- Cyr, A. & Hagen, S. (2007). Measurement and quantification of presenteeism. *Journal of Occupational and Environmental Medicine*, 49(12), 1299–1300.
- De Vries, H. J., Brouwer, S., Groothoff, J. W., Geertzen, J. H. & Reneman, M. F. (2011). Staying at work with chronic nonspecific musculoskeletal pain: a qualitative study of workers' experiences. *BMC Musculoskeletal Disorders*, 12(1), 126.
- de Vroome, E. (2006). Prevalence of sickness absence and “presenteeism.” European Foundation for the Improvement of Living and Working Conditions (Eurofound). Available online at: www.eurofound.europa.eu/observatories/eurwork/articles/working-conditions/prevalence-of-sickness-absence-and-presenteeism.
- Dellve, L., Hadzibajramovic, E. & Ahlborg Jr, G. (2011). Work attendance among healthcare workers: prevalence, incentives, and long-term consequences for health and performance. *Journal of Advanced Nursing*, 67(9), 1918–1929.
- 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.
- Dew, K., Keefe, V. & Small, K. (2005). Choosing to work when sick: workplace presenteeism. *Social Science and Medicine*, 60, 2273–2282.
- Dickson, V. V. (2013). Presenteeism among older workers (≥ 45 years) with coronary heart disease: an integrative literature review. *Ohio Public Health Journal*, 6, 31–41.
- Elstad, J. I. & Vabo, M. (2008). Job stress, sickness absence and sickness presenteeism in nordic elderly care. *Scandinavian Journal of Public Health*, 36(5), 467–474.
- Garrow, V. (2016). Presenteeism: A review of current thinking. Institute for Employment Studies Report 507.
- Gatrell, C. J. (2011). “I’m a bad mum”: Pregnant presenteeism and poor health at work. *Social Science and Medicine*, 72(4), 478–485.
- Goetzel, R. Z., Hawkins, K., Ozminkowski, R. J. & Wang, S. (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.
- 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.
- Hackett, R. D. & Bycio, P. (1996). An evaluation of employee absenteeism as a coping mechanism among hospital nurses. *Journal of Occupational and Organizational Psychology*, 69(4), 327–338.
- Halbesleben, J. R., 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.
- Hansen, C. D. & Andersen, J. H. (2008). Going ill to work – What personal circumstances, attitudes and work-related factors are associated with sickness presenteeism? *Social Science & Medicine*, 67(6), 956–964.
- Hansen, C. D. & Andersen, J. H. (2009). Sick at work – a risk factor for long-term sickness absence at a later date? *Journal of Epidemiology and Community Health*, 63(5), 397–402.
- Hansson, M., Boström, C. & Harms-Ringdahl, K. (2006). Sickness absence and sickness attendance – what people with neck or back pain think. *Social Science and Medicine*, 62(9), 2183–2195.
- Hemp, P. (2004). Presenteeism: At work – but out of it. *Harvard Business Review*, 82(10), 49–58.
- Heymann, J., Rho, H. J., Schmitt, J. & Earle, A. (2010). Ensuring a healthy and productive workforce: Comparing the generosity of paid sick day and sick leave policies in 22 countries. *International Journal of Health Services*, 40(1), 1–22.
- 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.
- 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.
- Janssens, H., Clays, E., De Clercq, B., De Bacquer, D. & Braeckman, L. (2013). The relation between presenteeism and different types of future sickness absence. *Journal of Occupational Health*, 55(3), 132–141.
- Jena, A. B., Baldwin, D. C., Daugherty, S. R., Meltzer, D. O. & Arora, V. M. (2010). Presenteeism among resident physicians. *Journal of the American Medical Association*, 304(11), 1166–1168.
- 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.
- Johns, G. (2008). Absenteeism or presenteeism? Attendance dynamics and employee well-being, in S. Cartwright & C. L. Cooper (Eds.), *The Oxford Handbook of Organizational Well-Being* (pp. 7–30). Oxford: Oxford University Press.
- Johns, G. (2010). Presenteeism in the workplace: A review and research agenda. *Journal of Organizational Behavior*, 31(4), 519–542.
- Johns, G. (2011). Attendance dynamics at work: The antecedents and correlates of presenteeism, absenteeism, and productivity loss. *Journal of Occupational Health Psychology*, 16(4), 483.
- Karanika-Murray, M. & Biron, C. (under review). *Development of a taxonomy of presenteeism behaviour: Balancing health and performance demands*.
- Karanika-Murray, M., Pontes, H. M., Griffiths, M. D. & Biron, C. (2015). Sickness presenteeism determines job satisfaction via affective-motivational states. *Social Science and Medicine*, 139, 100–106.
- Karimi, L., Cheng, C., Bartram, T., Leggat, S. G. & Sarkeshik, S. (2015). The effects of emotional intelligence and stress-related presenteeism on nurses' well-being. *Asia Pacific Journal of Human Resources*, 53(3), 296–310.
- Kivimäki, M., Head, J., Ferrie, J. E., et al. (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.
- Kivimäki, M., Vahtera, J., Pentti, J. & Ferrie, J. E. (2000). Factors underlying the effect of organisational downsizing on health of employees: Longitudinal cohort study. *British Medical Journal (Clinical Research Education)*, 320(7240), 971–975.
- Krohne, K. & Magnussen, L. H. (2011). Go to work or report sick? A focus group study on decisions of sickness presence among offshore catering section workers. *BMC Research Notes*, 4, 70–0500-4–70.
- Leineweber, C., Westerlund, H., Hagberg, J., Svedberg, P. & Alexanderson, K. (2012). Sickness presenteeism is more than an alternative to sickness absence: Results from the population-based SLOSH study. *International Archives of Occupational and Environmental Health*, 85(8), 905–914.
- Letvak, S. A., Ruhm, C. J. & Gupta, S. N. (2012). Nurses' presenteeism and its effects on self-reported quality of care and costs. *American Journal of Nursing*, 112(2), 30–38.

- Levin-Epstein, J. (2005). Presenteeism and Paid Sick Days. Center for Law and Social Policy. Available online at: www.clasp.org/sites/default/files/public/resources-and-publications/publication-1/0212.pdf.
- Loeppke, R., Taitel, M., Haufler, V., Parry, T., Kessler, R. C. & Jinnett, K. (2009). Health and productivity as a business strategy: A multiemployer study. *Journal of Occupational and Environmental Medicine*, 51(4), 411–428.
- Martinez, L. F. & Ferreira, A. I. (2012). Sick at work: presenteeism among nurses in a Portuguese public hospital. *Stress and Health*, 28(4), 297–304.
- McKevitt, C. & Morgan, M. (1997). Illness doesn't belong to us. *Journal of the Royal Society of Medicine*, 90(9), 491–495.
- McTernan, W. P., Dollard, M. F. & LaMontagne, A. D. (2013). Depression in the workplace: An economic cost analysis of depression-related productivity loss attributable to job strain and bullying. *Work & Stress*, 27(4), 321–338.
- Meerding, W., 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.
- Mellers, B. A., Schwartz, A. & Cooke, A. D. J. (1998). Judgement and decision making. *Annual Review of Psychology*, 49, 447–477.
- Miraglia, M. & Johns, G. (2016). Going to work ill: A meta-analysis of the correlates of presenteeism and a dual-path model. *Journal of Occupational Health Psychology*, 21(3), 261.
- Morgeson, F. P. & Hofmann, D. A. (1999). The structure and function of collective constructs: Implications for multilevel research and theory development. *Academy of Management Review*, 24(2), 249–265.
- Munir, F., Jones, D., Leka, S. & Griffiths, A. (2005). Work limitations and employer adjustments for employees with chronic illness. *International Journal of Rehabilitation Research*, 28(2), 111–117.
- Munir, F., Yarker, J., Haslam, C. et al. (2007). Work factors related to psychological and health-related distress among employees with chronic illnesses. *Journal of Occupational Rehabilitation*, 17(2), 259–277.
- Pauly, M. V., Nicholson, S., Polsky, D., Berger, M. L. & Sharda, C. (2008). Valuing reductions in on-the-job illness: “presenteeism” from managerial and economic perspectives. *Health Economics*, 17(4), 469–485.

- Prater, T. & Smith, K. (2011). Underlying factors contributing to presenteeism and absenteeism. *Journal of Business & Economics Research*, 9(6), 1–14.
- Rauch, A. & Frese, M. (2007). Let's put the person back into entrepreneurship research: A meta-analysis on the relationship between business owners' personality traits, business creation, and success. *European Journal of Work and Organizational Psychology*, 16(4), 353–385.
- Ridic, G., Gleason, S. & Ridic, O. (2012). Comparisons of health care systems in the United States, Germany and Canada. *Materia Socio-Medica*, 24(2), 112.
- Rosvold, E.O. & Bjertness, E. (2001). Physicians who do not take sick leave: hazardous heroes? *Scandinavian Journal of Public Health*, 29(1), 71–75.
- Schultz, A. B. & Edington, D. W. (2007). Employee health and presenteeism: A systematic review. *Journal of Occupational Rehabilitation*, 17(3), 547–579.
- Simpson, R. (1998). Presenteeism, power and organizational change: Long hours as a career barrier and the impact on the working lives of women managers. *British Journal of Management*, 9(s1), 37–50.
- Stewart, W. F., Ricci, J. A., Chee, E., Hahn, S. R., & Morganstein, D. (2003a). Cost of lost productive work time among US workers with depression. *Journal of the American Medical Association*, 289(23), 3135–3144.
- Stewart, W. F., Ricci, J. A., Chee, E., Morganstein, D., & Lipton, R. (2003b). Lost productive time and cost due to common pain conditions in the US workforce. *Journal of the American Medical Association*, 290(18), 2443–2454.
- 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.
- Van den Heuvel, S. G., Geuskens, G. A., Hoofman, W. E., Koppes, L. L. & Van den Bossche, S. N. (2010). Productivity loss at work; health-related and work-related factors. *Journal of Occupational Rehabilitation*, 20(3), 331–339.
- Vézina, M., Cloutier, E., Stock, S. et al. (2011). *Enquête québécoise sur des conditions de travail, d'emploi et de SST (EQCOTESST) (No. R-691)*. Montréal: IRSST.

- Vingård, E., Alexanderson, K. & Norlund, A. (2004). Sickness presence. *Scandinavian Journal of Public Health*, 32(63 suppl.), 216–221. Available online at: www.eurofound.europa.eu/observatories/eurwork/articles/working-conditions/prevalence-of-sickness-absence-and-presenteeism
- Warren, C. L., White-Means, S. I., Wicks, M. N., Chang, C. F., Gourley, D. & Rice, M. (2011). Cost burden of the presenteeism health outcome: diverse workforce of nurses and pharmacists. *Journal of Occupational and Environmental Medicine*, 53(1), 90–99.
- Widera, E., Chang, A. & Chen, H. L. (2010). Presenteeism: A public health hazard. *Journal of General Internal Medicine*, 25(11), 1244–1247.