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Explaining a Dark Side: Public Service Motivation, Presenteeism, and Absenteeism

Abstract

Public service motivation (PSM) has many bright sides; but recent studies also find dark sides, connected to, for instance, higher stress and burnout. However, results on the PSM-absenteeism association are inconclusive. One reason could be that PSM increases presenteeism (going to work even when ill), which in turn increases absenteeism and counteracts – or even exceeds – PSM-based reductions of absenteeism. Based on a three-wave panel study of Danish public and private sector employees, we find a strong positive association between PSM and presenteeism and indications that the PSM-absenteeism link is mediated by presenteeism. The findings suggest that going to work even on days when employees feel ill is a potential dark side of PSM and that it may have long-term consequences for the extent to which employees are absent from their jobs due to sickness. This cautions managers not to expect that high PSM automatically guarantees high performance and low absence.

Keywords: public service motivation, presenteeism, sickness absenteeism, panel data

Explaining a Dark Side: Public Service Motivation, Presenteeism, and Absenteeism

Introduction

The intuitive expectation for employees who are highly motivated to help others and contribute to society would be for them to have lower absenteeism, because going to work seems an obvious prerequisite for making a difference for others and society. In general, public service motivation (PSM) research predominantly focuses on the bright sides of PSM (Perry & Wise, 1990; Ritz, Brewer, & Neumann, 2016), but three articles investigate the association between PSM and absenteeism directly. Wright, Hassan, & Christensen (2017) and Edwards (2014) find no relation, while Koumenta (2015, p. 346) finds a positive association between PSM and (so-called) involuntary absenteeism and a negative association between PSM and (so-called) voluntary absenteeism. Why are there so few studies, and why are their findings inconclusive? Could it be that there is no *net* association, and that bias against null findings has limited the literature? Whatever the reason, the lack of studies of this important association is problematic. Absenteeism affects both the cost and the quality of public service provision (Wright et al., 2017, p. 114), and PSM might be an important predictor. On the one hand, PSM may be able to reduce absence by reducing shirking. On the other hand, the emerging literature on dark sides of PSM suggests that PSM can increase stress and burnout and thereby potentially increase absence. In line with the dark side literature, we argue that PSM might also increase presenteeism (going to work when ill), and given that presenteeism potentially increases absenteeism in the long run, this might explain the inconclusive findings of existing studies. More generally, society might benefit more from employees' PSM if we can better understand its effects on presenteeism and absenteeism and prevent its potential dark sides.

The key argument in this article – that PSM may not be able to prevent sickness absence due to its effects on sickness presenteeism – is based on several different findings. Aronsson, Gustafsson, & Dallner (2000) note that the highest levels of presenteeism are found in occupational groups with care provision and welfare service at their core. This is consistent with Barmby, Ercolani, and Treble’s international comparison in which the sector with highest absence rates is health and social services (2002, p. F322). The reason for these findings, we argue, could be that these sectors employ highly public service motivated employees and that these employees tend to “do too much” for society and others, increasing the proclivity to go to work even when ill. While there may be short-term gains for service beneficiaries, going to work when ill can have negative effects on employees’ health, causing future sickness absence (Bergström et al., 2009).

The theoretical basis for expecting PSM to affect both absenteeism and presenteeism draws upon recent contributions within the emerging literature on dark sides of PSM (e.g., van Loon et al., 2015; Giaque, Ritz, Varone, & Anderfuhren-Biget, 2012; Giaque et al., 2013). These studies may offer some explanations for this proposed mechanism, finding that PSM is positively related to work stress (Giaque et al., 2013) and burnout and negatively correlated with job satisfaction (van Loon et al., 2015). Van Loon et al.’s (2015) interpretation is that public service motivated individuals “sacrifice” themselves too much for society and therefore potentially end up in a state of burnout.

Theoretical propositions on absence and presenteeism influencing downstream health have been proposed (Johns, 2010), and presenteeism has indeed been empirically found to increase the risk of reduced self-rated general health (Taloyan et al., 2012).

Based on longitudinal (three-wave) survey data from five different Danish public and private sector industries, we empirically address the dynamic relations between PSM, presenteeism, and absenteeism. The findings show that PSM is positively related to sickness

presenteeism, and that presenteeism and absenteeism are related, both within and across time. This is also the case when we control for employees' level of intrinsic (task-related) motivation.

Below, we discuss the conceptualization of presenteeism and absenteeism in more detail, followed by an in-depth discussion of the theoretical arguments behind the expected associations. Next, we present the research design, data and methods, and outline the empirical findings. The last section closes the article with a discussion of the key results and their implications for research and practice.

Conceptualizing absenteeism and presenteeism

Investigating motivational effects on the phenomena of absenteeism and presenteeism, we include insights from psychology, sociology, medicine and public administration (e.g., Aronsson et al., 2000; Stewart, Ricci, Chee, Morganstein, & Lipton, 2003; Hansen & Andersen, 2008; Wright et al., 2017). These literatures agree that it is highly relevant to investigate the two phenomena, since these behaviors have potential consequences at societal, organizational, and individual levels, resulting in high resource costs and potentially decreasing organizational performance (Yang & Liern, 2009; Stewart et al., 2003). Presenteeism can be even more costly than sickness absence (Stewart et al., 2003).

Absenteeism can be defined as a habitual pattern of absence from a duty or obligation (Yang & Liern, 2009), and this article focuses on absence that is reported by the employee due to sickness. Although some sickness absence is inevitable, employees might call in sick for reasons other than illness (Wright et al., 2017). The literature accordingly indicates that some absence that is reported to be due to sickness can be avoided (Wright & Pandey, 2011, p. 27). Markussen convincingly argues that “In between fit as a fiddle and halfway dead there is a grey area in which workers may be able to work or may qualify for sick leave. Within

this area, there is room for subjective judgment. In many cases, two workers with the same health problem and the same job will evaluate their ability to work differently” (2010, p. 1). Organizations can of course implement different strategies to make employees healthier (e.g., Friend & Kohn, 2014), but employee motivation is also highly relevant for absenteeism, especially when we focus on absenteeism as a behavioral pattern. In this perspective, both absenteeism and presenteeism can be seen as means through which employees can withhold their inputs. We apply a behavioral definition of sickness presenteeism as “the phenomenon of people, who despite complaints and ill health that should prompt rest and absence from work, are still turning up at their jobs” (Aronsson et al., 2000, p. 503). Presenteeism, in other words, describes employees who are physically present but functionally absent due to illness. For both absenteeism and presenteeism, we rely on employees’ self-evaluated sickness: Given that they see themselves as ill on a given day, this day counts as sickness absence if they do not go to work and as sickness presence if they do go to work. While presenteeism on the operational level can be seen as the opposite of absenteeism, i.e., the practice of coming to work when employees should not due to sickness, the two concepts share the fact that the employees classify themselves as ill. Although the concepts capture different reactions to this self-classification (staying home or going to work despite feeling ill), this shared conceptual element makes perceptions of the work environment relevant for both concepts. Ultimately, absenteeism and presenteeism can be seen as different behavioral responses to perceived sickness, which to some extent potentially relates to a perception of one’s work environment as negative (e.g., with regards to workload, relations with colleagues, etc.).

Public service motivation, absenteeism, and presenteeism: Theoretical expectations

Public service motivation (PSM) can be defined as “an individual’s orientation to delivering service to people with the purpose of doing good for others and society” (Hondeghem &

Perry, 2009, p. 6). PSM is potentially relevant for both absenteeism and presenteeism, because it could be related to employees' strategies for coping with their work environments. On the one hand, one of the reasons for being absent from work without being physically sick is indeed to avoid a stressful work environment (Wright & Pandey, 2011, p. 27), and some work environments are more stressful for high-PSM employees than for low-PSM employees (Giauque et al., 2013). In stressful environments, employees with high PSM may therefore be more absent. On the other hand, it is also possible that such employees feel an obligation to go to work even when feeling ill. This obligation may be linked to the content of the work itself (doing good for beneficiaries) and/or to characteristics of the work environment (doing good for colleagues). A felt responsibility toward beneficiaries and colleagues is especially relevant for employees working in occupations where service beneficiaries depend on them and where they feel that no one will replace them if they call in sick. These arguments suggest that PSM will increase both absenteeism and presenteeism, but there are also counterarguments to this strand of reasoning.

Until recently, there were only indirect tests of the PSM-sickness absence relationship, and they suggested that PSM could lower absenteeism by increasing mission valence and job satisfaction (Wright & Pandey, 2011). Accordingly, Wright et al. (2017) argued that public employees with higher PSM should be expected to be less frequently absent from their jobs. The absenteeism would entail missing out on opportunities to perform work that helps others or benefits society, thus deteriorating the quality of the services that public service motivated employees wish to deliver.

This argument may not, however, apply to all types of absence. Hackett and Guion (1985, pp. 341-342) distinguish between voluntary and involuntary absence, where voluntary is based on motivation and is perceived to include a choice or degree of control, and involuntary absence is beyond the control of the employee and links to the employee's ability

to go to work. When it comes to voluntary absence, Koumenta (2015) supports the assumption of a negative relation between PSM and absenteeism presented by Wright et al. (2017). Koumenta links voluntary absenteeism to a lack of commitment and understands it as a manifestation of withdrawal and discontent (*ibid.*). This corresponds to findings within organizational psychology suggesting a negative relation between job satisfaction and absenteeism (Miraglia & Johns, 2016). PSM is consequently expected to be negatively associated with voluntary absenteeism.

In contrast to the expectations for voluntary absence, Koumenta (2015) argues that PSM can be expected to be positively related to involuntary absenteeism. In line with the arguments presented by van Loon et al. (2015), PSM can be a potential source of emotional overload, and the expected positive association between PSM and involuntary absenteeism is seen as a consequence of an imbalance between perceived work pressures and work resources. If employees with high PSM strongly identify with their work, their psychological wellbeing might suffer due to their proximity to service beneficiaries or if they feel powerless in delivering real outcomes for them (Koumenta, 2015, p. 343). It has indeed been found that absenteeism can be a stress-coping strategy (Hackett & Bycio, 1996).

While theoretically very clear, the distinction between voluntary and involuntary absence is difficult to operationalize. Koumenta uses self-reported survey data of (1) voluntary absenteeism as the frequency of absences (how many episodes of absence the employee has had during the last 12 months) and (2) involuntary absenteeism as the duration of absences (how many days the employee reports having been absent from work in the last 12 months). Although it is difficult to draw firm conclusions from her results due to this operationalization, they suggest that PSM and voluntary absence are negatively correlated while PSM and involuntary absence are positively correlated.

Distinguishing between voluntary and involuntary absenteeism does not, however, tell us why the study by Wright et al. (2017) finds no association between PSM and absenteeism, and how this relate to the above-mentioned expectations to the PSM absenteeism relation. We propose that the empirical null findings may be explained by the fact that the effect of PSM on absenteeism is indirect because of increased presenteeism.

Similar to Koumenta (2015), van Loon et al. (2015) and Giauque et al. (2013), our point of departure is that employees with higher PSM have higher expectations of their own contributions on the job. Their motivation to do meaningful work of (what they perceive to be) adequate quality might lead to negative employee outcomes for three reasons, two of which have already been described in the literature. The first reason is that public service motivated individuals may not be able to act on their PSM for example due to structural limitations and lack of resources. This may frustrate these employees, especially if there is a person-environment misfit between employee and organization (e.g., van Loon et al., 2015). In line with this, Giauque et al. (2012) find that individuals with high PSM tend to feel resigned in their jobs. The second reason is that individuals with high PSM may become more stressed due to a perceived difficulty in meeting their own high performance standards, which may develop into a high demand on the individual. A positive association between PSM and stress has already been demonstrated in several studies (Giauque et al., 2013; Gould-Williams, Mostafa, & Bottomley, 2013), and given that stress is an important health risk, it could represent a mechanism for the PSM-absenteeism relation. The third reason is that the combination of a (perceived) lack of replacements in case of sickness combined with considerations for the beneficiaries might make employees with high PSM feel obliged to go to work even on days when they feel ill (Johns, 2011). PSM may, in other words, increase the perceived demands and thereby sickness presenteeism – especially if these high demands are combined with low resources (no colleagues to take over). Employees with public service

motivation may thus have a strong desire for providing high quality service to beneficiaries even when it means using personal resources despite their own stressful conditions (Tummers, et al., 2015). Such coping behaviors (Lipsky, 1980) could include presenteeism.

All three reasons may be framed within the job demands resources model, which roughly divides job characteristics into two categories. Demands represent “physical, psychological, social, or organizational aspects of the job that require sustained ... effort or skills and are therefore associated with ... costs” (Bakker & Demerouti, 2007 p. 312). Resources represent “physical, psychological, social, or organizational aspects of the job that are either/or functional in achieving work goals, reduce job demands and the associated ... costs, stimulate personal growth, learning, and development” (Ibid., p. 312). Job demands will typically lead to strain and job resources to motivation. Therefore, a lack of resources (the first reason mentioned above) will most likely reduce the employees’ motivation, and high demands (discussed as the second reason) will lead to increased strain. However, demands and resources also interact to buffer and boost each other’s effects. The third reason concerns this interaction between resources and demands. It can create a high demand-low resource situation. For employees with high PSM, such a demanding job profile (van den Broeck et al. 2012) will mean extra high strain, because the employees will see themselves as needed and without replacement possibilities due to the low resources. This may intensify the risk of sickness presenteeism.

Explanations for the null findings with regard to a negative effect of PSM on voluntary absenteeism may be found in the relation between presenteeism and absenteeism. Some researchers suggest presenteeism and absenteeism to be alternative expressions of the same phenomenon (Hansen & Andersen, 2008; Leineweber, Westerlund, Hagberg, Svedberg, & Alexanderson, 2012), while others argue that they correlate positively as different yet related constructs (Aronsson et al., 2000; Caverley, Cunningham, & MacGregor, 2007; Elstad &

Vabo, 2008). Support for a causal relation has been found, suggesting that presenteeism can lead to sickness absence over time (Kivimäki et al., 2005; Bergström, Bodin, Hagberg, Aronsson, & Josephson, 2009; Bergström et al., 2009b). This causal relation can be explained as increasing withdrawal and as a health impairment process. Some work attitudes may for example give rise to a cycle of adaptation through which gradually more extended forms of work withdrawal are expressed (Johns, 2010), in our case from presenteeism to absenteeism. With regard to health impairment, van Loon et al. (2015) find that PSM and burnout are positively associated. They argue that highly public service motivated employees may sacrifice themselves too much for society, thus leading to negative effects for the employees themselves. Other existing studies also show that being over-committed to work leads to higher levels of presenteeism (e.g. Hansen & Andersen, 2008) and that emotional exhaustion and felt stress are associated with presenteeism (Miraglia & Johns, 2016). Finally, Nielsen and Daniels (2016) argue that self-sacrifice (induced by transformational leadership) may make vulnerable employees go to work while ill, leading to increased risks of sickness absence in the long term.

In sum, our main argument is that PSM increases presenteeism, which then over time increases absenteeism, thus counteracting or even overriding the theoretically expected lower level of absenteeism among employees with high PSM.

Hypothesis 1: Presenteeism mediates the association between PSM and absenteeism.

The positive correlation between presenteeism and absenteeism (Aronsson et al., 2000) may cancel out many of the positive effects of PSM, highlighting the relevance of analyzing motivation, absenteeism, and presenteeism in the same study. How we do this empirically is explained in the next section.

Research design, data and methods

In this section, we first explain the research design and the relevant control variables followed by presentations of measures and methods of analysis.

Research design

Empirically, this study uses three repeated surveys of 11,098 employees nested in 604 Danish organizations. We selected five types of comparable, but still different, public and private organizations, namely daycare centers, primary and lower secondary schools, higher secondary schools (high schools), tax units, and banks. Several contributions argue that private sector employees can also have and act upon PSM (e.g., Steen, 2008), and this is the reason for including private employees (for example from private schools and banks) in this study. While all tax units and high schools are public, and all bank units are private, we include both private and public schools and daycare centers. All analyses control for ownership status and industry, and robustness tests confirm that the associations are approximately similar for the different types of organizations, thus contributing to the generalizability of the results.

The data was collected as part of a leadership field experiment, although we do not focus on leadership in this article. For schools and daycare, we invited all relevant organizations in Denmark to participate in the project, whereas leaders from banks and tax units were invited through their HR departments. The leaders delivered lists of all their employees, including email addresses, which were used for web-based surveys (sent out on August 25, 2014, 2015, and 2016, respectively). The few employees who did not use email received a printed version of the questionnaires. The response rate was 54.1% in August 2014, 49.8% in 2015, and 40.8% in 2016. A total of 1,810 employees completed all three surveys. Attrition at the organizational level was, among other things, due to leaders changing

organizations. Participation was voluntary both at the individual and organizational level. In this article, we focus on short- and medium-term absence from work reportedly due to sickness. We therefore exclude 63 respondents with more than 19 sick days in four weeks, meaning that they were absent on all workdays in the entire period (and thus long-term absent). The total number of investigated employees was 7,804, with 3,547 providing answers to all relevant questionnaire items in both 2014 and 2015, and 1,358 employees providing complete answers to all relevant items in 2014, 2015, and 2016. Many of the employees who only participated once were only employed in the organizations in the relevant year and/or their organization was not part of the project in 2015 due to leader change. The analyses focus predominantly on the 3,547 respondents with valid answers in 2014 and 2015 and the 1,358 with valid answers for all three years. However, robustness tests do reveal similar patterns when all respondents are included, as discussed in more detail below.

Control variables

Given that the theoretical argument is closely connected to the work environment and employees' perception of this environment, it is highly relevant to control for a variety of organizational-level variables. We control for industry (daycare, the different types of schools, tax and banks) to make sure that industry does not confound the relation between our main variables of interest. Importantly, we also perform robustness analyses for each industry separately to make sure that the mechanisms do not differ between employees performing different tasks. We did not expect nor find such differences, but the fact that the concepts are similarly related in different contexts increases external validity. The same arguments apply to ownership sector: Public employees within the same industry tend to be more absent than their private sector peers (Løkke, Eskildsen, & Jensen, 2006) and they also tend to have

slightly higher PSM (Andersen & Pedersen, 2013), so statistical control for ownership sector is necessary. It is also possible (although not very plausible) that the mechanisms could differ between private and public organizations within the same industry, making it relevant to investigate separately the association for each ownership sector.

In addition to these relevant variables at the organizational level, we also control for a number of variables at the individual level. Employee gender and age may be correlated with PSM as well as absenteeism and presenteeism. Some studies indicate that women tend to be more absent than men (Løkke et al., 2006) and to have higher levels of the PSM dimension of compassion (Pandey & Stazyk, 2008, p. 103), while older employees tend to have higher PSM (Pandey & Stazyk, 2008, p. 102) and less absence and presenteeism. Especially if these two concepts are seen as expressions of discontent with (perceived) unsatisfactory work environments, better person-organization fit can be expected to develop over time through both voluntary and involuntary attrition. In addition to controlling for gender and age, we also include employees' intrinsic motivation in the analyses. Intrinsic motivation can be defined as an "interest in and enjoyment of the work for its own sake" (Le Grand, 2003, p. 53). Given that intrinsic motivation is linked to feelings of joy and excitement while performing the tasks, employees with a high level of this type of motivation will tend to always come to work when they are not ill (because they enjoy being at work) and not come to work when they are ill (tasks are hardly enjoyable when you are ill). Recent results support this, finding a negative association between intrinsic motivation and sickness absence (Andersen, Kristensen, & Pedersen, 2015). Given these findings, and demonstrated positive association between PSM and intrinsic motivation (e.g., Jacobsen, Hvitved, & Andersen, 2014), intrinsic motivation constitutes a potential confounder that is important to control for.

Measures

High absence, reportedly due to sickness, is an indicator of absenteeism, which (as mentioned) is theoretically defined as a habitual pattern of absence from a duty or obligation. We focus on the type of absence that the employee reports is due to illness, and we correspondingly look at presenteeism as being present at the job while ill (again as perceived by the employees). Presenteeism is accordingly operationalized as the self-reported number of days in a given period where the employees state that they went to work while feeling ill. Since presenteeism cannot be measured through the Danish National Registers (reported by the organizations), we rely on survey data for both concepts so that the period is identical and presenteeism and absenteeism can be linked to PSM in the same period. Agreement between the number of self-reported and the number of recorded sickness absence days is also generally relatively good (Ferrie et al., 2005; Voss, Stark, Alfredsson, Vingård, & Josephson, 2008). Specifically, we asked the employees how many days they had been absent from work due to illness during the last four weeks. To measure presenteeism, we asked respondents how many days they went to work while feeling ill within the same four weeks (excluding holidays, etc.). This was done three times, always at the same time of year (August 25 to September 15 in 2014, 2015, and 2016). Asking individuals about the past four weeks minimizes recollection bias, and the identical timing of the surveys prevents bias due to seasonal variation in sickness.

PSM and intrinsic motivation were measured using items validated in existing studies (see for example Jacobsen et al., 2014). Confirmatory factor analyses (see Table A-1 in the appendix) indicate that both measurement models perform satisfactorily. For PSM, standardized factor loadings all exceed the lower recommended threshold of 0.5 and model fit indices suggest a good fit: RMSEA = 0.034, CFI = 0.900 and SRMR = 0.039. Similarly,

standardized factor loadings for intrinsic motivation are high and model fit indices satisfactory: RMSEA = 0.038, CFI = 0.900, and SRMR = 0.022. Alpha coefficients reveal adequate internal consistency (compassion = 0.713, commitment to the public interest = 0.727, self-sacrifice = 0.818, attraction to policy making = 0.704 and intrinsic motivation = 0.859). The constructs also showed discriminant validity with the average variance extracted for any of the factors far exceeding the shared variance between any two factors (Fornell & Larcker, 1981). On this basis, we generated composite measures for PSM and intrinsic motivation, respectively. Descriptive statistics including means, standard deviations, and minimum and maximum values for all variables are presented in Table 1. Table 2 reports correlations for all included variables.

Insert Tables 1-2 Here

Methods of analysis

The main results are estimated using seemingly unrelated regression (SUR) models. This technique is beneficial in our case because it takes into account cross-equation correlation of error terms. Existing studies find that absenteeism and presenteeism are correlated (e.g., Aronsson et al., 2000), and Table 2 also demonstrates that our two outcomes are indeed positively correlated ($r = 0.203$). Standard errors are clustered by organization to take into account the nesting of employees within organizations.

To bolster our confidence in the main results, a number of robustness analyses are made (in addition to the already mentioned separate analyses for industries and ownership sectors). First, we included the lagged dependent variable in seemingly unrelated regressions (otherwise similar to the main models) to account for autoregressive components (see Table A-2). This approach is quite conservative in the sense that a strong autoregressive component

(e.g., in case past absenteeism is a powerful predictor of present absenteeism) confines the variation in our outcomes. Second, the main results are replicated using Poisson models (cf. Table A-3). This is due to the two issues that arise when linear regression models are used to analyze count data: 1) The number of days away from the job reportedly due to sickness or days on the job while feeling sick are both discrete variables taking on only nonnegative integer values, and 2) its distributions are skewed (Cameron & Trivedi, 2010). The Poisson regressions with clustered standard errors for each outcome (sickness absenteeism and presenteeism, respectively; cf. Table A-3) are used to assess whether discreteness and nonlinearity influence our main results. However, a common issue in Poisson models is one of ‘overdispersion’ in data, that is, when the conditional variance exceeds the condition mean (see for example Allison, 2009, p. 50). It seems reasonable to expect that instances of sick absenteeism increase the probability of future absence from the job (e.g., due to personal health characteristics), and we therefore also estimate negative binomial models to test the robustness of our findings. Fourth, we estimate random effects models on the full sample (employees who had completed the survey in one or two waves, cf. Table A-4). Finally, we restrict the absenteeism variable to a maximum of 14 and 10 days, respectively, instead of 19 days and replicate the main analysis (cf. Table A-5). Results from these robustness checks are discussed alongside the main findings in the next section.

Results

Table 3 reports the coefficient estimates for the regressions of PSM on sickness absenteeism and presenteeism, respectively. Coefficients can be given an additive interpretation such that a one-point change in the scale for intrinsic motivation provides a change in the number of days employees on average go to work even though they are sick by the size of negative 0.007 (controlled for all other variables in the model).

Recalling our theoretical expectations, public service motivated employees are expected to feel motivated to go to work even when they are sick in order to help other people and society, and higher PSM would therefore imply higher sickness presenteeism. Such a positive association between PSM and sickness presenteeism may cancel out any positive effects of PSM on sickness absenteeism.

Insert Table 3 Here

Consistent with our expectation for the PSM-presenteeism associations, Table 3 shows a positive and statistically significant association between PSM and sickness presenteeism (Model 4: $\beta = 0.011$, $p < 0.001$). High-PSM employees do indeed more often go to work when they feel ill, compared to their lower-PSM peers, although the substantial effect size is not very large. Table 3 further shows a positive regression coefficient estimate for the PSM-absenteeism relation, but it is not statistically significant at the 0.05 level. Turning to the control variables, all associations are in line with findings in existing studies, although the associations are not necessarily statistically significant. Intrinsic motivation is negatively correlated with both presenteeism and absenteeism, public employees are more absent than private sector employees, and older employees have lower levels of both absenteeism and presenteeism. The coefficients for gender are positive for both absenteeism and presenteeism, indicating that women score higher, controlling for the other included variables. These last-mentioned coefficients are not, however, statistically significant.

Robustness checks yield very similar results to the key findings in Table 3. The associations do not seem to differ across ownership sector (public versus private) or industry (daycare, schools, high schools, tax, and banks) (these results are not shown, but can be acquired from the authors). In the lagged dependent seemingly unrelated regression models

(cf. Table A-2 in the appendix), the only slight deviation is that the negative regression coefficient estimates for intrinsic motivation are no longer statistically significant at the 0.05 level. PSM is still positively related to presenteeism, and this result is statistically significant. The results also hold up when modeled using Poisson regressions to account for the discreteness and skewed distributions of our outcome measures (cf. Table A-3 in the appendix) and these results are virtually identical when estimated using negative binomial models (results can be retrieved from the corresponding author). In the random effects models, the positive regression coefficient estimate for the PSM-absenteeism relation even becomes statistically significant (likely due to the increased statistical power from the much larger number of observations, cf. Table A-4 in the appendix). The last robustness test (Table A-5) uses seemingly unrelated regressions like the main results, but restricts sickness absence to 10 and 14 days, respectively (while the main analysis restricts the variable to maximum 19 days and thus excludes only employees who have had no working days in the relevant four weeks). Concerning presenteeism, these results are very similar to the main results, but the positive coefficient for the PSM-absenteeism association is bigger and becomes statistically significant in the analysis restricted to maximum 10 sickness days. This is in line with Koumenta's (2015) argument about a positive association for voluntary absence, since short-term absence must be assumed to be of a more voluntary nature than long-term absence.

To evaluate the validity of our theoretical argument that PSM increases presenteeism which in turn increases subsequent absenteeism, we restricted our sample to employees who provided complete answers to the surveys in all three years (2014, 2015, and 2016). Structural equation modelling allows for simultaneous estimation of the direct and indirect paths, and we therefore used this technique to estimate three direct paths: $PSM_{2014} \rightarrow Presenteeism_{2015}$, $PSM_{2014} \rightarrow Absenteeism_{2016}$, and $Presenteeism_{2015} \rightarrow Absenteeism_{2016}$. Table 4 reports the estimated standardized path coefficients and corresponding standard

errors. Consistent with our argument, PSM in 2014 is positively associated with presenteeism in 2015 (Path A: $\beta = 0.024$, $p < 0.001$), while presenteeism in 2015 is in turn positively associated with absenteeism in 2016 (Path B: $\beta = 0.028$, $p < 0.1$). It is also worth noting that PSM measured in 2014 is not correlated with subsequent absenteeism measured in 2016, lending more support to our interpretation of the reason behind the mixed results of existing studies of the PSM-absenteeism link. Finally, a test of the indirect effect Path A \times Path B yields a statistically significant result ($\beta = 0.01$, $p < 0.1$), indicating that the association between PSM and absenteeism indeed seems to be mediated by presenteeism. The effect sizes are rather small, but the significance tests support Hypothesis 1, given that they indicate that presenteeism systematically mediated the association between PSM and absenteeism. In the next section, we discuss these findings in light of existing research and our main question, namely whether PSM can also have a dark side in organizations.

Insert Table 4 Here

Discussion and conclusion

This article seeks to remedy prior inconclusive results concerning the PSM-absenteeism association. We argue that previous studies have neglected the intermediate effect of PSM on presenteeism, and that an increasing willingness to go to work even though one feels ill acts as a mediating factor in the PSM-absenteeism association. Consistent with our argument, analyses of a longitudinal dataset of Danish public and private sector employees indeed show evidence of a positive mediation effect, implying that high PSM employees are more likely to go to work when feeling ill, in turn increasing the likelihood of subsequently being absent from one's jobs due to sickness.

Our article contributes to the growing number of studies on a “dark side” of PSM, which from our perspective is fruitful – and necessary. It does not change the fact that PSM has been shown to have many positive sides (Ritz et al., 2016), but it contributes to a more balanced understanding of the concept and a more reflective use of the research findings in practice. Prior studies, for example, have demonstrated that public service motivated individuals favor jobs that emphasize service to others (Christensen & Wright, 2011) and disfavor jobs that provide poor opportunities for actualizing their prosocial motives (Neumann, 2016). Our findings complement these studies by demonstrating that an initial “fit” between the individual and one’s job (for instance, allowing the individual to provide meaningful service to other people), is no guarantee that such individuals stay engaged in the job over time. While high PSM can be one driver of selecting into jobs emphasizing service to others, the very same underlying motive seems to drive people to go to work even when they are ill. In this light, our findings challenge an assumption that a strong person-job fit always is conducive to effort and performance. This is particularly the case if high PSM individuals, in their efforts to serve others, end up depleting their personal resources to an extent where they have to abstain from their work due to sickness.

We explain why PSM can increase the risk of sickness presenteeism, especially if the job profile is demanding, that is, when a job situation combines high demands and low resources (Van den Broeck, et al., 2012). PSM can then contribute increase the (perceived) job demands, which may not be met by sufficient resources. Seen from this theoretical perspective, the composition of the work environment determines whether public service motivation becomes a stressor. High demands are not necessarily bad – as long as they are met by adequate resources. In addition, existing literature (Lipsky 1980; Tummers et al. 2015) suggests that public employees can potentially meet high demands with a variety of coping strategies. One such strategy is indeed to use personal resources to maintain high

quality service even during high demands. Personal resources are, however, limited, and such a coping strategy can therefore contribute to burnout and work-related stress.

The association between PSM and sickness presenteeism offers an explanation to the prior inconclusive results regarding the PSM-absenteeism association. In other words, our results indicate that the association between PSM and absenteeism is mediated by presenteeism, and therefore that there is a positive relation (within and across time) between presenteeism and absenteeism. Our assumed relation between PSM and absenteeism builds on research showing positive associations between PSM and both burnout and stress. Both these conditions constitute important health risks. We suggest that presenteeism is an intermediate step through which PSM as a determinant of over-commitment and self-sacrifice can reduce individual health for employees with demanding job profiles. While presenteeism may be motivation-driven, especially for public service motivated employees, our argument suggests that this type of motivation can – in the long run – lead to ill health and consequently absenteeism.

Our empirical test supports the theoretical arguments, but it is not without limitations. While we come closer to causal estimation, the variation in our predictive variables is not experimentally induced. The reader should therefore take this aspect of our research design into account when interpreting the results. Similarly, although the organizations in our sample are very different (and still show similar patterns), there is no variation in the national context. It is our hope that future research will add to this aspect of the external validity.

The results in our study - combined with those in van Loon et al. (2015) and Giaque et al. (2012; 2013) - indicate that managers could benefit from trying to counteract PSM dark-side mechanisms related to stress, burnout, and a felt obligation to go to work even on days when employees feel ill. In other words, high PSM among employees does not mean that managers can be passive – on the contrary. Especially in demanding job contexts, managers

should consider counterbalancing the drive of their high-PSM employees to go to work when feeling ill. This might prevent stress, burnout and (long-term) sickness absence. What may seem to be a short-term benefit to the organization (high presenteeism) may have negative long-term consequences at both individual and organizational levels and be an indication of working conditions that need adjustment.

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Appendix

Table A-1 Confirmatory Factor Analyses of Public Service Motivation and Intrinsic Motivation.

Constructs and Items	Standardized Factor Loadings
Public Service Motivation	
<i>Compassion</i>	
It is difficult for me to contain my feelings when I see people in distress	.638
For me, considering the welfare of others is one of the most important values	.760
I feel sympathetic to the plight of the underprivileged	.646
<i>Commitment to the public interest</i>	
It is important for me to contribute to the common good	.798
I consider public service my civic duty	.727
It is important for me that public services contribute to the common good	.598
<i>Self-sacrifice</i>	
I believe in putting duty before self	.721
I am willing to risk personal loss to help society	.818
I am prepared to make sacrifices for the good of society	.783
<i>Attraction to policy making</i>	
I generally associate politics with something positive	.948
I do not care much for politicians (R)	.577
Intrinsic motivation	
I very much enjoy my daily work	.847
A rather large part of my tasks at work are boring (R)	.631
My work is very exciting	.856
I like performing most of my work processes	.811

Note: All factor loadings are statistically significant at the 0.001-level. Confirmatory factor analyses performed as multiple indicator multiple causes (MIMIC) models to account for heterogeneity in latent factor due to time period and industry. R “reversed”.

Table A-2 Public Service Motivation and Intrinsic Motivation on Employee Self-Reported Sickness Absenteeism and Presenteeism. SUR with Lagged Dependent Variables (Standard Errors in Parentheses).

	Absenteeism	Presenteeism
Public Service Motivation (0-100)	.001 (.003)	.012 ** (.004)
Intrinsic Motivation (0-100)	-.001 (.002)	-.004 (.003)
Absenteeism (Lagged)	.064 ** (.021)	
Presenteeism (Lagged)		.186 *** (.046)
Sector (1 "Public")	.179 (.099)	.266 (.170)
Industry (<i>Ref. = Day Care</i>)		
Schools	-.155 * (.079)	.072 (.127)
High Schools	-.255 ** (.084)	-.214 * (.142)
Tax	-.371 *** (.089)	-.076 (.194)
Banks	.227 (.266)	.058 (.267)
Organization Size	-.001 (.001)	-.001 (.001)
Employee Gender (1 "Female")	.030 (.070)	.090 (.115)
Employee Age	-.006 * (.003)	-.010 * (.005)
Intercept	.680 (.262)	.468 (.474)
N	2,665	2,665
R ²	.017	.043

Note: * $p < .05$, ** $p < .01$, *** $p < .001$. Seemingly Unrelated Regressions with lagged dependent variables. Standard errors are clustered by organization (no. of organizations = 388).

Table A-3 Public Service Motivation and Intrinsic Motivation on Employee Self-Reported Sickness Absenteeism and Presenteeism. Poisson Regressions with Standard Errors in Parentheses.

	Absenteeism	Presenteeism
Public Service Motivation (0-100)	.004 (.004)	.012 ** (.004)
Intrinsic Motivation (0-100)	-.006 * (.003)	-.008 ** (.003)
Year (1 "2015")	-.078 (.087)	.013 (.066)
Sector (1 "Public")	.586 ** (.168)	.193 (.143)
Industry (<i>Ref.</i> = <i>Day Care</i>)		
Schools	-.247 * (.117)	.135 (.101)
High Schools	-.569 *** (.136)	-.325 * (.133)
Tax	-.752 ** (.219)	-.360 * (.168)
Banks	-.017 (.264)	-.881 *** (.251)
Organization Size	-.003 * (.001)	-.002 (.001)
Employee Gender (1 "Female")	.227 (.120)	.077 (.120)
Employee Age	-.019 *** (.004)	-.014 *** (.004)
Intercept	-.025 (.350)	.234 (.421)
N	5,591	5,525
Pseudo R ₂	.030	.024

Note: * $p < .05$, ** $p < .01$, *** $p < .001$. Poisson regressions with clustered standard errors by organization (no. of organizations = 413/414).

Table A-4 Public Service Motivation and Intrinsic Motivation on Employee Self-Reported Sickness Absenteeism and Presenteeism. Random Effects Models with Standard Errors in Parentheses.

	Absenteeism	Presenteeism
Public Service Motivation (0-100)	.004 *** (.001)	.009 *** (.002)
Intrinsic Motivation (0-100)	-.004 *** (.001)	-.007 *** (.002)
Year (1 "2015")	-.046 (.030)	-.009 (.048)
Sector (1 "Public")	.176 *** (.050)	-.013 (.115)
Industry (<i>Ref.</i> = <i>Day Care</i>)		
Schools	-.183 *** (.045)	.040 (.070)
High Schools	-.358 *** (.048)	-.311 *** (.076)
Tax	-.337 *** (.061)	-.420 *** (.086)
Banks	-.186 ** (.063)	-.171 (.394)
Organization Size	.000 (.001)	-.000 (.001)
Employee Gender (1 "Female")	.067 * (.031)	.160 ** (.058)
Employee Age	-.010 *** (.001)	-.010 *** (.002)
Intercept	1.01 *** (.127)	1.35 *** (.256)
N (Individuals)	10,248	10,177
N (Groups)	7,804	7,758
R ₂ Overall	.019	.012
R ₂ Within	.001	.000
R ₂ Between	.024	.014
Sigma _u	.556	1.23
Sigma _e	1.34	2.00
Rho	.147	.274

Note: * $p < .05$, ** $p < .01$, *** $p < .001$. Random effects regressions with clustered standard errors by organization (no. of organizations = 592).

Table A-5 Public Service Motivation and Intrinsic Motivation on Employee Self-Reported Sickness Absenteeism and Presenteeism. Seemingly Unrelated Regressions with Standard Errors in Parentheses.

	Absenteeism: Max 14 Days in Past Month			Absenteeism: Max 10 Days in Past Month		
	Absenteeism	Presenteeism		Absenteeism	Presenteeism	
Public Service Motivation (0-100)	.002 (.001)	.011 *** (.003)		.003 * (.001)	.011 *** (.003)	
Intrinsic Motivation (0-100)	-.003 ** (.001)	-.007 ** (.003)		-.004 ** (.001)	-.007 ** (.002)	
Year (1 "2015")	-.070 * (.034)	.003 (.053)		-.087 (.031)	.000 (.053)	
Sector (1 "Public")	.170 ** (.061)	.202 (.122)		.124 * (.057)	.202 (.120)	
Industry (<i>Ref. = Day Care</i>)						
Schools	-.099 * (.046)	.131 (.088)		-.140 ** (.041)	.134 (.089)	
High Schools	-.186 *** (.050)	-.215 * (.094)		-.184 *** (.046)	-.221 * (.090)	
Tax	-.270 *** (.069)	-.232 * (.113)		-.231 *** (.064)	-.229 * (.111)	
Banks	-.048 (.102)	-.362 ** (.135)		-.072 (.096)	-.361 ** (.135)	
Organization Size	-.001 (.000)	-.001 (.001)		-.001 (.000)	-.001 (.001)	
Employee Gender (1 "Female")	.095 ** (.034)	1.00 (.085)		.078 * (.030)	.097 (.087)	
Employee Age	-.008 *** (.002)	-.013 *** (.003)		-.010 *** (.002)	-.013 *** (.003)	
Intercept	.885 *** (.132)	1.04 ** (.337)		.960 *** (.125)	1.04 ** (.336)	
N	5,437	5,437		5,427	5,427	
R ₂	.017	.015		.024	.015	

Note: * $p < .05$, ** $p < .01$, *** $p < .001$. Seemingly Unrelated Regressions (SUR) with clustered standard errors by organization (no. of organizations = 412).

Table 1 Descriptive Statistics

Variable	Description	N	Mean	SD	Min	Max
Absenteeism	No. of days away from job due to sickness.	7,094	.404	1.36	0	19
Presenteeism	No. of days on job while sick.	7,094	.755	2.09	0	28
Intrinsic Motivation	Summative index: 4 items.	7,094	79.44	16.36	0	100
Compassion (COM)	Summative index: 3 items.	7,094	77.05	15.51	0	100
Commitment to the Public Interest (CPI)	Summative index: 3 items.	7,094	77.56	14.01	0	100
Self-Sacrifice (SS)	Summative index: 3 items.	7,094	52.04	19.41	0	100
Attraction to Policy Making (ATP)	Summative index: 2 items.	7,094	52.89	12.02	0	100
Public Service Motivation	Composite index of COM, CPI, SS and ATP.	7,094	63.97	10.72	14.77	98.86
Gender	1= Female	5,586	.749	.434	0	1
Age	Age in number of years.	5,449	46.71	9.73	19	75
Sector	1 = Public	7,094	.900	.300	0	1
Industry						
Day Care	1 =Day Care (public and private)	7,094	.290	.454	0	1
Schools	1= Schools (public and private)	7,094	.246	.431	0	1
High Schools	1 = High schools (public)	7,094	.185	.388	0	1
Tax	1 = Tax units (public)	7,094	.243	.429	0	1
Banks	1= Bank units (private)	7,094	.036	.185	0	1

Table 2 Intercorrelations

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1.Absenteeism	1														
2.Presenteeism	.203***	1													
3.Intrinsic Motivation	-.023	-.029*	1												
4.Compassion	.023	.066***	.168***	1											
5.Public Interest	.018	.057***	.198***	.483***	1										
6.Self-Sacrifice	-.023	.020	.088***	.241***	.318***	1									
7.Policy Making	-.006	.002	-.005	.043***	.055***	.049***	1								
8.PSM	.002	.057***	.179***	.699***	.721***	.718***	.367 ***	1							
9.Gender (1 "Female")	.043**	.030*	.105***	.188***	.082***	-.059***	-.088***	.046***	1						
10.Age	-.062***	-.056***	.016	.024	.052***	.081***	.010	.071***	.016	1					
11.Sector (1 "Public")	.023	.016	-.017	-.015	.048***	-.004	-.016	.004	.030*	.116***	1				
12.Day Care	.074***	.041***	.164***	.139***	.102***	-.009	-.047***	.073***	.272***	-.067***	.034***	1			
13.School	.003	.064***	.017	.095***	.050***	.068***	.047***	.103***	-.043**	-.025	-.120***	-.365**	1		
14.High School	-.038**	-.034**	.028*	.022	.017	.073***	.036**	.062***	-.201***	.042**	.159***	-.304***	-.273***	1	
15.Tax	-.038**	-.058***	-.192***	-.220***	-.119***	-.103***	-.023	-.187***	-.033*	.120***	.189***	-.362***	-.324***	-.271***	1
16.Bank	.020	-.043***	-.055***	-.097***	-.127***	-.052***	-.016	-.114***	-.086***	-.064***	-.576***	-.123***	-.110***	-.092***	-.109***

Note: Pairwise correlations. *** $p < .001$, ** $p < .01$, * $p < .05$.

Table 3 Public Service Motivation and Intrinsic Motivation on Employee Self-Reported Sickness Absenteeism and Presenteeism. Seemingly Unrelated Regressions with Standard Errors in Parentheses.

	Absenteeism				Presenteeism			
	Model 1		Model 2		Model 3		Model 4	
Public Service Motivation (0-100)	-.000		.002		.010	***	.011	***
	(.002)		(.002)		(.002)		(.003)	
Intrinsic Motivation (0-100)	-.003	**	-.003	**	-.007	**	-.007	**
	(.001)		(.001)		(.002)		(.002)	
Year (1 "2015")	-.048		-.039		-.022		.001	
	(.030)		(.038)		(.043)		(.051)	
Sector (1 "Public")	.189	**	.232	***	.150		.208	
	(.064)		(.065)		(.110)		(.118)	
Industry (<i>Ref.</i> = <i>Day Care</i>)								
Schools	-.120	*	-.118	*	.101		.131	
	(.055)		(.057)		(.088)		(.089)	
High Schools	-.242	***	-.231	***	-.283	**	-.217	*
	(.054)		(.058)		(.083)		(.096)	
Tax	-.321	***	-.342	***	-.404	***	-.239	*
	(.056)		(.072)		(.076)		(.112)	
Banks	-.190	*	-.057		-.478	***	-.364	**
	(.089)		(.101)		(.114)		(.133)	
Organization Size	-.001	*	-.001	*	-.001		-.001	
	(.001)		(.001)		(.001)		(.001)	
Employee Gender (1 "Female")			.076				.101	
			(.043)				(.086)	
Employee Age			-.008	***			-.012	***
			(.002)				(.003)	
Intercept	.742	***	.873	***	.757	**	1.05	**
	(.142)		(.155)		(.270)		(.327)	
N	7,094		5,448		7,094		5,448	
R ²	.010		.015		.014		.015	

Note: * $p < .05$, ** $p < .01$, *** $p < .001$. Seemingly Unrelated Regressions (SUR) with clustered standard errors by organization (no. of organizations = 417).

Table 4 Mediation Test: Standardized Direct and Indirect Path Coefficients for the Effect of Public Service Motivation on Absenteeism Through Presenteeism. Structural Equation Model with Standard Errors in Parentheses.

Direct Paths	Path A	Path B	Path C
Public Service Motivation ₂₀₁₄ → Presenteeism ₂₀₁₅	.024 *** (.007)		
Presenteeism ₂₀₁₅ → Absenteeism ₂₀₁₆		.028 † (.015)	
Public Service Motivation ₂₀₁₄ → Absenteeism ₂₀₁₆			.002 (.002)

Note: † $p < .1$, * $p < .05$, ** $p < .01$, *** $p < .001$. N = 1,358. SEM model with bootstrapped standard errors. Clusters: 299 organizations. 2,000 repetitions.