

The Impact of Supportive Leadership on Employee Outcomes during Organizational Mergers: An Organizational-Level Field Study

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Abstract

Past merger and acquisition research has reported mixed findings on the impact of mergers on workforces. To address these ambiguities and advance merger research at the organizational level of analysis, we present a natural quasi-experiment focusing on mergers in the English National Health Service. Building on Organizational Support Theory and Conservation of Resources Theory, we propose that merger events represent environmental stressors, with negative implications for employees' subjective (job satisfaction) and objective (absenteeism) outcomes. However, extending previous theorizing, we argue that by increasing their supportive leadership, mid-level management can compensate for the resource losses incurred during mergers, and in doing so, minimize the adverse impact on their workforces. We test our predictions in the context of multiple primary care trust mergers, which took place in 2006. We analyzed the annual staff surveys, combined with objective information on employee absenteeism, and compared merging organizations with non-merging organizations before (2005) and after (2007) the mergers. As expected, employees of merging (vs. not merging) organizations showed stronger decreases in job satisfaction, and these decreases in subjective outcomes were associated with increases in absenteeism over the course of the merger process. However, consistent with our propositions, we found that increases in supportive leadership during the merger period served to mitigate these negative outcomes. Our results highlight the organizational level implications of mergers and the role that mid-level management can play in compensating for the losses experienced during (stressful) merger events. We discuss the implications for dynamic models of merger integration and leadership during change.

Keywords. Mergers; Supportive leadership; Job satisfaction; Absenteeism; Quasi-experiment

Mergers and acquisitions (M&As) are a key strategic tool for many organizations to achieve economies of scale, diversification, and economic growth (Ellis et al., 2009). While economic and strategic goals are often the primary motivations for undertaking such changes, M&As are also expected to deliver wider human resource benefits. For example, within the context of health services, policymakers envisage that mergers may benefit patient and staff welfare and generate workforce improvements by enhancing best practices and resource sharing among newly merged organizational units, in addition to offering financial value (NHS improvement report, 2018). Past evaluations have provided mixed findings on whether these potential advantages are routinely realized in practice. While some studies suggest that M&As are associated with substantial human costs (Belschak et al., 2020; Kavanagh & Ashkanasy, 2006; Newman & Krzystofiak, 1993; Schweiger & Ivancevich, 1985), others offer more positive accounts of M&As' impact on organizational workforces (Lim, 2014; Teerikangas, 2012).

To establish the organizational effects of mergers and address these mixed findings in previous research, we present a unique natural quasi-experimental analysis within the context of multiple primary care trust (PCT) mergers in the English National Health Service (NHS). In doing so, we offer two explanations for the past ambiguities. First, we propose that without a quasi-experimental control group, the human impact of mergers on the organizational level cannot be determined, because we cannot know whether observed changes are really due to the merger itself or are attributable to broader factors within the organizational context, sector or environment, in the absence of appropriate comparison groups. Crucially, M&A activities are often driven by economic, regulatory and technological shocks within the respective industry (Harford, 2005). However, field research on the human costs of M&As has only focused on merging organizations and has not directly examined how the outcomes of employees in merging organizations compare with those of equivalent non-merging

workforces in the same context and time period (Amiot et al., 2007; Rafferty & Restubog, 2010). Such comparisons are, however, necessary in order to provide clear evidence of the impact of mergers on employee satisfaction and wellbeing at the organizational level. The unique design of the current study allows for such comparisons, enabling us to provide novel insights into the impact of merger events on organizational workforces.

Second, we propose that the mixed findings on the impact of M&As may be due to differences in organizations' abilities to buffer against the impact of merger events. In particular, based on Organizational Support Theory (OST; Eisenberger et al., 1986; Eisenberger et al., 1997; Shore & Shore, 1995) and Conservation of Resources Theory (COR; Hobfoll, 1989), we propose and test a compensation model of supportive leadership, which predicts that supportive leadership provided during a change may represent an essential organizational resource in minimizing the human-related costs of M&As (Cooke et al., 2021; Huy, 2002). By testing our model, we offer support for COR theory's key premise that "employment-related resource gains will take on greater meaning in the context of resource losses" (Halbesleben et al., 2014, p. 1335). Specifically, we show that by increasing their levels of supportive leadership (i.e., providing employment related resource gains), organizations can moderate the effects of M&As on workforce outcomes.

By addressing these issues, we also tackle recent criticism of past research on the human side of M&As (Dao & Bauer, 2021). First, critics point out that organizational level aspects have often been overlooked in M&A studies (Cartwright, 1998; Kempton & Sarala, 2021), and that when M&As have been studied at the organizational level they have tended to use proxy variables or have been informed by a single organizational informant who is unrepresentative of the 'average' worker. This has resulted in a "denaturalization" of humans in M&A research (Dao & Bauer, 2021, p.1). Second, previous research has often provided an intra-organizational perspective on change – either aimed at differentiating certain (e.g.,

status) subgroups and determining the impact of the MA on these subgroups' outcomes (e.g., Terry & O'Brien, 2001) or in offering evidence of merger-related antecedents of employee outcomes within an organizational setting (Sung et al., 2017). M&As have thus been investigated as self-contained processes, failing to account for the external context in which they unfold (Dao & Bauer, 2021). Third, despite calls to study change processes over time (Cartwright & Schoenberg, 2006; Seo & Hill, 2005), previous research on leadership during M&As has been almost entirely based on cross-sectional data within a specific organization undergoing an M&A process. Consequently, it has been unable to capture how organizational outcomes are shaped by changes in leadership and management over time. Such considerations have led to calls for a 'methodological rejuvenation' of M&A research (Dao & Bauer, 2021; Meglio & Risberg, 2010). By presenting a natural quasi-experimental analysis, which compares multiple merging and non-merging organizations, before and after merger events in the same context and time period, we seek to address these weaknesses in past M&A studies. In doing so, we contribute to current understanding regarding the organizational level impact of mergers, and leaders' roles in moderating these effects.

The Effects of M&As on Workforce Outcomes

Although most previous research on M&As has focused on financial and strategic aspects (Datta, 1991; King et al., 2004), researchers increasingly acknowledge that managing the human side of mergers may be the key to success (Giessner et al., 2012; Hogan & Overmyer-Day, 1994; Sarala et al., 2019). Past studies on the impact of M&As have largely focused on individual level effects, with early research showing that employees tend to suffer from higher levels of stress and depression and lower levels of job satisfaction during large-scale organizational changes (Buono & Bowditch, 1989; Imberman, 1985; Rafferty & Griffin, 2006; Schweiger & DeNisi, 1991). Yet, while it is often assumed that the impact of M&As on workforces is likely to be negative, researchers have drawn attention to the

potential opportunities that M&As can provide (Teerikangas, 2012). Indeed, not all studies have reported declines in employee outcomes during M&As (Amiot et al., 2007), and some have reported initial increases in workforce outcomes following merger events (Lim, 2014).

Moreover, most M&A studies focus on a specific organizational context (i.e., $n=1$ at the merger level) and either compare the effects on merger partners (e.g., Terry et al., 1996) or subgroups within the organization (e.g., Giessner, 2011), or examine correlational relationships between theoretically relevant determinants and employee outcomes (e.g., Rafferty & Restubog, 2010). Yet, this research cannot draw any conclusion on the overall effect of the merger on the organizational level, as positive and negative effects (e.g., for different merger partners) might cancel each other out or positive effects may mask negative effects (Ostroff, 1992). Hence, the organizational level consequences of M&As are yet to be determined.

But what impact are M&As expected to have? Drawing on OST and COR theories, we propose that mergers may represent environmental stressors that cause a depletion in organizational resources (Weber & Camerer, 2003). We thus predict that M&As will incur human costs, resulting in sharper declines in both subjective and objective outcomes among workforces undergoing mergers than among those in equivalent non-merger contexts. According to OST, individuals form general beliefs about whether or not their organization values and supports them (Eisenberger et al., 1986, 1997, 2002; Shore & Shore, 1995). When individuals feel under-valued and poorly supported by their organizations, they tend to exhibit adverse outcomes, including lower levels of satisfaction and commitment and higher levels of burnout (Kurtessis et al., 2017). M&As are resource intensive and place burdens on the attentional resources of organizational management. As such, employees' beliefs about how they are valued by their organization may be undermined, as the organization's attention is diverted to dealing with the change effort.

At the same time, M&As are likely to contribute to a collective loss of resources and diminish employees' abilities to leverage key coping mechanisms. In his COR theory, Hobfoll (1989) proposes that individuals' coping resources will become depleted as they endeavor to cope with stressful and demanding situations, such as those encountered during structural change. In addition, employees' social and material support systems are likely to be undermined by such change activities (Fugate et al., 2002; Shin et al., 2012). Consequently, based on OST and COR theories, we propose that M&A activities will have adverse effects on organizational workforces, leading to a decline in the job satisfaction of employees in merging organizations relative to non-merging organizations over the merger period.

Hypothesis 1 (H1): Merging organizations will experience greater decreases in job satisfaction relative to non-merging organizations within the same context and time period.

Furthermore, we predict that M&As will have wider implications for workforces, with consequences for objective organizational outcomes such as absenteeism. Past research has shown that psychological decreases in job satisfaction may have ramifications for concrete indicators of workforce health, including turnover and absenteeism (Harrison et al., 2006). In addition, organizational mergers may have a direct impact on levels of absenteeism, with research reporting increased absence rates among organizational members undergoing such a change (Schweiger & DeNisi, 1991). The substantial impact of absenteeism on workforce performance has been clearly underlined in past studies, which have estimated that productivity losses due to employee absenteeism are circa \$225 billion a year in the US alone (Stewart et al., 2003). We predict that M&A activities play a role in these figures, having both a direct influence on the absenteeism levels of workforces in merging (vs. non-merging) organizations and an indirect role, through their impact on employee job satisfaction.

Hypothesis 2 (H2): Merging organizations will experience greater increases in absenteeism relative to non-merging organizations within the same context and time period.

Hypothesis 3 (H3): The increases in absenteeism for merging organizations relative to non-merging organizations will be (partially) mediated by decreases in job satisfaction.

The Moderating Role of Supportive Leadership at the Mid-level Management Level

Given the assumed impact of M&As on the workforce, it appears especially critical to understand how leaders can effectively manage and lead employees during merger processes. Unfortunately, only a few studies have focused on the role of leadership during M&As (Giessner et al., 2016; Sitkin & Pablo, 2005). This is surprising, given that leading change is the essence of leadership (Hollander, 1964) and the success of major organizational changes often depends on leaders' abilities to mobilize their workforces (Oreg & Berson, 2019).

Building on OST and COR theories, we propose that supportive leadership at the mid-level management level will be especially critical in merger (compared to non-merger) contexts, as it will mitigate the negative effects of M&A activities on employee outcomes. Supportive leadership can be defined as behaviors that address the socio-emotional needs of employees i.e., that show consideration, acceptance, guidance and concern for the feelings of others. Past research in the OST tradition has shown that providing support during stressful events is an effective way to increase employee job satisfaction and, hence, decrease their absenteeism (Baran et al., 2012; Rhoades & Eisenberger, 2002). In particular, such support may lessen the impact of workplace stressors on employee outcomes by reducing negative feelings about a (stressful) event, as well as bolstering employees' resources and capacity to respond to the challenge in a resilient and effective way (Buunk, 1990).

Moving beyond these initial insights on the buffering effect of supportive leadership, we propose a compensation model of supportive leadership during mergers. Specifically, based on COR theory, we propose that as workforces are likely to experience threats to their support networks and organizational resource losses during merger events, resource gains will take on added significance within the context of M&As (Halbesleben et al., 2014;

Hobfoll, 1989). Consequently, we predict that by *increasing* their supportive leadership during M&As (i.e., offering employment-related resource gains), organizations can counteract the resource losses and depletion in work-related support experienced by employees, thereby enhancing organizational outcomes. Supportive leadership is thus expected to be a key moderator in determining how M&As impact upon organizational workforces.

In this paper, we focus on increases in supportive leadership provided by *mid-level* management, which we suggest will be especially important for employee adjustment. While existing research on organizational change has predominantly centered on the role of top-level managers, we propose that mid-level management may have an especially important role in providing socio-emotional support during M&A activities due to their structural proximity to employees (Guo et al., 2017; Huy, 2002). In particular, we suggest that mid-level managers can provide direct communication and support to employees and are in an ideal position to respond to any personal and emotional turmoil that arises among the workforce as a merger unfolds (Sarala et al., 2019). Drawing on OST and COR theory, we thus propose that an increase in supportive leadership by mid-level management during M&As will buffer the negative effects of M&As on employee outcomes, by partially compensating for the resource losses experienced by employees during these times of change.

Hypothesis 4 (H4). The decrease in job satisfaction for merged vs. non-merged organizations will be moderated by changes in supportive leadership at the mid-level management level, such that this relationship will be weaker for organizations with increasing levels of supportive leadership.

Furthermore, building on the above arguments, we predict that by increasing their supportive leadership, mid-level management can also buffer the indirect effect of M&As on employee absenteeism via employee job satisfaction. More particularly, we propose that the negative

impact of M&As on absenteeism through job satisfaction will be weaker when mid-level managers compensate for the resource losses associated with M&As by increasing their levels of supportive leadership. As such, a moderated mediation is proposed in Hypothesis 5.

Hypothesis 5 (H5): The increases in absenteeism for merging organizations relative to non-merging organizations as mediated by the decreases in job satisfaction will be moderated by changes in supportive leadership at the mid-level management level, such that the indirect effect of mergers on absenteeism via job satisfaction will be weaker when there is an increase in supportive leadership (see Figure 1).

Method

Setting, Sample and Procedure

The study is set within the National Health Service (NHS) in England. The NHS is a UK-wide service, funded by central taxation with the vast majority of health care provided free at the point of delivery to all UK residents. The four constituent countries of the UK – England, Wales, Scotland and Northern Ireland – all have separately run sections of the NHS, and this study focuses on the English section of it, which is by far the largest with around 1.1 million employees. The NHS in England comprises different types of local health care provider organizations, known as NHS trusts, each of which is a separate employer, and is largely autonomous but operates within a central framework (Department of Health, 2010). Since 2013 a slightly different structure of trusts has been in place due to the Health and Social Care Act of 2012, but before then the main types of employers were acute trusts (hospitals), mental health/learning disability trusts, ambulance trusts and primary care trusts (PCTs). This study focuses on the PCTs (which were replaced by Clinical Commissioning Groups in 2013). PCTs had dual functions: they operated as local budget holders that commissioned health care services from other providers on behalf of their patients, and they provided community-based care for a fixed geographical region. Although the NHS created

an umbrella structure for the PCTs, they operated as legally separate organizations, with separate leadership, accountability, employment and financial structures (NHS Act, 2006).

In 2006 the NHS underwent a significant restructuring, which chiefly affected PCTs. A long-term strategic plan was implemented aimed at reducing local variations in care decisions, and levels of bureaucracy in commissioning. Prior to 2006 there had been 289 PCTs across England; during 2006, however, 211 of these were reconfigured into 68, with groups of between two and seven smaller local PCTs joining to become a single larger PCT – often such that a city/county which previously had multiple PCTs would subsequently have only one. The other 78 PCTs did not change, and as such represent a non-randomized control group. This control group is important because a number of well-reported factors in the NHS – including the broader effects of restructuring, and redundancies in some acute trusts due to financial difficulties – may have affected the morale of all NHS staff (Parish & Agnew, 2006). The mergers were chosen so that the number of new PCTs matched the number of local authorities, and were largely coterminous with these authorities, allowing greater coordination in planning and decision making (NHS Confederation, 2011). As a result, PCTs within a single city/county generally were all either involved in mergers or not merged at all; however, the cities and counties where mergers happened were spread throughout the country. Details of the mergers were determined at a local level, but for the most part the commissioning and management functions became centralized within the new PCTs, while most healthcare professionals employed by the PCT remained working in the same roles and localities that they had previously been in (HM Government, 2006).

We used data from the annual NHS national staff survey, which has examined employees' experiences and attitudes in the NHS since 2003 (Picker Institute Europe, 2011), as well as routinely collected data on staff absence. All NHS trusts are usually obliged to take part; an exception to this was the PCTs that were being reconfigured, which were not

included in the 2006 survey due to the mergers. Therefore, we use data from the 2005 survey (several months before any restructuring started) and the 2007 survey (around a year after the mergers took place). In 2005, all 289 PCTs were included; in 2007, all 146 PCTs were included (the 78 which remained the same and the 68 newly merged PCTs).

Surveys focused on the organizational level of analysis, with a random sample of employees from each PCT invited to participate. The sample size was on a sliding scale, determined by the accuracy of a 60% response when taking the finite population correction into account (see supplement for further information). All questionnaires were paper-based and administered by mail with reply-paid envelopes provided. An overview of response rates, individual sample size, and demographics is provided in Table 1.

Measures

The surveys included a range of topics relating to experiences at work, as determined by stakeholders including the Department of Health and Healthcare Commission, who commissioned the survey. Many of the measures, including those we use in this study, were adapted from existing validated constructs by a mixture of cognitive interviews with NHS employees and discussion amongst a range of stakeholders. Some questions remained unchanged, some had language altered to fit with common language conventions adopted by NHS employees, some were shortened to allow more constructs to be included, and some were developed for the survey specifically. In this study we focus on two constructs from the survey, namely job satisfaction and supportive leadership.

Job satisfaction was measured using seven items from Warr et al.'s (1979) scale. This included questions asking to what extent respondents were satisfied with different aspects of their job (e.g., recognition for good work, opportunities to use abilities, amount of responsibility given, with anchors; “1 = *Very dissatisfied*” to “5 = *Very satisfied*”). A small number of people (1.3%) were excluded as they did not respond to at least six of the items.

Supportive leadership reflected support from respondents' mid-level managers and included five items (see Appendix 1) selected and adapted from other related scales during development of the original survey in 2003 (Healthcare Commission, 2004), with anchors; “1 = *Strongly disagree*” to “5 = *Strongly agree*”). A small number of people (1.7%) did not respond to at least four of the items, meaning their score was excluded from the aggregation.

Staff absenteeism was taken from routinely collected data, published by NHS Digital (2020) and its predecessor organizations. This was captured by the Electronic Staff Record, which is an electronic HR management information system used by the majority of NHS organizations that reports the total percentage of available working hours that were lost to sickness absence by each organization (PCT) for each month (and year).

Transparency, Openness and Analytical Strategy

We adhered to JAP's methodological checklist throughout this study. Because of the access that the authorship team has to the original data, the dataset we used was created from individual level data that is not publicly available. However, all of the data (other than some of the participant demographic characteristics) is available online in different formats (e.g., NHS Staff survey, 2022; Staff absenteeism data is available from www.digital.nhs.uk¹). Due to the requirements of ethical approval and of the research contract held, this dataset cannot be deposited in a repository. However, to aid transparency we are happy to share this with other researchers, subject to a data sharing agreement between the researcher's institution and the second author's institution specifying the purpose of the sharing. Analysis code is available in the supplemental material.

We began by aggregating data to the PCT level. In addition, as we needed to compare

¹ We are only aware of one other article that has used data from these same organizations (PCTs) in the same years (2005 or 2007): King, E., Dawson, J. F., Kravitz, D., & Gulick, L. (2012). A multilevel study of the relationship between diversity training, ethnic discrimination and job satisfaction in organizations. *Journal of Organizational Behavior*, 33(1), 5-20.

data before and after mergers, we aggregated all responses to the 2005 survey of individuals working for PCTs that would subsequently become the same PCT: this meant that the analysis would be conducted at the (post-merger) PCT level, with a sample size of 146 organizations, including 68 which underwent mergers. Because each hypothesis pertained to the change in an outcome (job satisfaction or absenteeism), analysis used the latter (2007) measurement of this outcome as the dependent variable, controlling for the earlier (2005) measurement. Change in supportive leadership was measured as the difference in the aggregate level between 2005 and 2007. We used ordinary least squares regression analysis (general linear model) for H1, H2 and H4, with H4 involving the testing of a moderation effect within that. Hypotheses 3 and 5 involved mediation and moderated mediation and were therefore tested using PROCESS models 4 and 7, respectively (Hayes, 2013). Post-merger PCT size (N of employees) was included as a control variable in all analyses, and analyses with the moderator (change in supportive leadership) controlled for the 2005 level of supportive leadership. SPSS version 26 was used for all these analyses.

We also conducted a latent change score (LCS) analysis (Matusik et al., 2021), using Mplus version 8.2, as a robustness check for Hypotheses 1, 2 and 3². It was not possible to do this for Hypotheses 4 and 5, and therefore it was not chosen as the main method of analysis, because the moderation hypotheses would require latent interaction effects that could not be estimated with our sample size.

Aggregation

In order to test organizational level effects, it was necessary to aggregate both job satisfaction and supportive leadership to the (post-merger) PCT level. Although there would

²Please note. One limitation of LCS analysis is that, for the mediation, both the mediator and the dependent variable are change scores. The prediction of one change score by another is slightly inconsistent with our other analyses. However, this is a feature of this type of model that it is not possible to circumvent within this framework.

be good reasons to believe that there may be relatively high agreement between respondents on these measures within a single PCT – due to, for example, organizational culture and climate determining the role played by managers and the general morale of employees – there is no reason to assume that there would be comparable responses between employees in separate PCTs that were due to merge. Therefore, in terms of Chan's (1998) typology of composition models, it would be inappropriate to apply a direct consensus model in this case; rather, an additive model, in which the organizational level score is "a summation of the lower-level units regardless of the variance among these units" (Chan, 1998, p. 236), is appropriate. In this situation, it is necessary only to demonstrate that there is reliability of the average score, which can be done using ICC(2) (Bliese, 2000). In the 2005 data ICC(2) was 0.81 for job satisfaction and 0.77 for supportive leadership; in the 2007 data these figures were 0.79 and 0.76 respectively. As all of these are clearly above the 0.70 level usually considered acceptable for reliability, this indicates that aggregation produces reliable organizational level scores even despite the combination of merging PCTs.

For those situations where the data aggregated were responses from within a single organization (i.e., non-merging PCTs in 2005, and all PCTs in 2007), it is also appropriate to examine inter-rater agreement. This was done using the $r_{wg(j)}$ index (James et al., 1993). The mean $r_{wg(j)}$ scores in 2005 were 0.89 for job satisfaction and 0.83 for supportive leadership (with minima of 0.86 and 0.76); in 2007 they were 0.89 for job satisfaction and 0.81 for supportive leadership (with minima of 0.83 and 0.68). Although there is some debate about the usefulness of $r_{wg(j)}$ as an absolute measure of agreement, these are clearly amongst the higher values found in the literature (LeBreton & Senter, 2008). In aggregating the pre-merger data from PCTs that merged, the pre-merger PCT sizes were used to weight the overall pre-merger score, thus ensuring that data from smaller PCTs did not count disproportionately when being merged with larger PCTs (as the sample sizes may have been

similar even if the PCT sizes were not).

Results

Table 2 shows the means, standard deviations, correlations, and reliabilities of the two survey variables and staff absenteeism in each year, along with the merger status and the control variable, PCT size. The large correlations between job satisfaction and supportive leadership are noteworthy, if not surprising: at the individual level the correlation between these variables, which would be expected to be high, is .66, and this increases when considered at the organizational level due to the well-known ecological effect of data aggregation (Ostroff, 1992). Nevertheless, with correlations of this size, it is important to be able to distinguish between the constructs, and so a test for discriminant validity was run via multilevel confirmatory factor analysis using Mplus. A two-factor model using the 2007 data yielded a substantially better fit, CFI = .88, RMSEA = .09, SRMR = .07, than a single factor model, CFI = .81, RMSEA = .11, SRMR = .10 ($\Delta\chi^2 = 21303$, 1df, $p < .001$); additionally, the standardized factor loadings at the organizational level all exceeded .90, whereas the inter-factor correlation was .85, showing discriminant validity according to Fornell and Larcker's (1981) conditions.

Table 3 shows results of regression analyses to test H1 to H3. For H1, there was a highly significant effect of merging on subsequent job satisfaction, $b = -.06$, $p < .001$. That is, on average the change in job satisfaction from 2005 to 2007 was more negative by .06 in PCTs that had merged than in PCTs that had not merged, all else being equal, supporting H1. This value of .06 represents roughly two-thirds of a standard deviation in job satisfaction in 2007, and so this represents a moderately large effect. For H2, the effect of merging did not have a significant association with change in absenteeism, $b = .08$, $p = .56$. Therefore H2 was not supported. Nevertheless, it was worth testing H3 because it is possible for there to be an indirect effect between merging and absenteeism via job satisfaction even if the direct effect

is not significant. Table 3 shows that there was a significant relationship between job satisfaction and absenteeism, $b = -2.22$, $p = .006$, and a bootstrapped test of the indirect effect reveals that this is indeed significant (.14, 95% CI [.03, .30]). Therefore H3 is supported. The robustness check using LCS analysis similarly revealed significant results for H1 and H3 (H1: association between merging and job satisfaction change = $-.029$, $p = .005$; H3: indirect effect = $.002$, $p = .004$). However, for H2 the LCS analysis also revealed a significant result, unlike the main analysis. This suggested that merging organizations had absenteeism rates that were .24 percentage points higher than non-merging organizations (association between merging and absenteeism change = $.241$, $p = .016$). Therefore, not only were our predictions for H1 and H3 confirmed, but we also found some support for H2 as well.

Table 4 shows results of moderated regression analysis to test H4. There was a significant interaction between merger status and change in supportive leadership, $b = .23$, $p = .004$ (see Figure 2). When supportive leadership decreased, there was a substantial decrease in job satisfaction in merged PCTs compared with non-merged PCTs; When supportive leadership stayed the same, there was a significant but small decrease in job satisfaction in merged PCTs compared with non-merged PCTs (difference = $-.034$, $p = .00$); however, when supportive leadership increased, this mitigated that effect, with no discernable difference in job satisfaction between merged and non-merged PCTs. Therefore H4 was supported.

H5 brought together the previous two hypotheses, with the interaction between change in supportive leadership and merger status predicting job satisfaction, which in turn predicted absenteeism. Regression results from both stages of the analysis (in addition to a model excluding the mediator, job satisfaction) are shown in Table 4. The model tested whether the indirect effect between merger status and absenteeism via job satisfaction differed according to change in supportive leadership. The analysis confirmed that this was the case: the index of moderated mediation was $-.48$ (95% CI [-1.22, -.10]). Specifically, when there was a

moderate increase in supportive leadership, there was no significant indirect effect (-.02, 95% CI [-.10, .01]). However, when there was no change in supportive leadership, there was a small but significant indirect effect (.04, 95% CI [.00, .12]), and when there was a small decrease in supportive leadership, there was a larger significant indirect effect (.07 (95% CI [.01, .18])). This suggests that to negate the negative effects of merging on absenteeism via job satisfaction, supportive leadership needs to increase during the merger process. H5 is supported.³

Discussion

Following recent calls to address the collective impact of organizational change and explore M&As at the organizational level (Kempton & Sarala, 2021; Rafferty et al., 2021), we present a natural quasi-experiment examining the impact of mergers on workforce outcomes. Integrating insights from OST and COR theories, we predicted that M&A activities may represent environmental stressors contributing to declines in employee outcomes. However, we also proposed that by increasing their supportive leadership, mid-level management could compensate for the negative effects of such M&A activities on employees' subjective (job satisfaction) and objective (absenteeism) outcomes. We find support for our predictions in an organizational level field study of the English NHS.

In doing so, we advance merger research and address ambiguities in past M&A studies. Previous research has reported mixed findings on the impact of M&As on workforces (Schweiger & DeNisi, 1991; Teerikangas, 2012). Our study shows that the job satisfaction of employees in merging organizations decreased over time in comparison to natural control groups, and that these decreases were related to increases in staff absenteeism. Without control groups it is impossible to judge whether changes in employee outcomes are really due

³ While it was not possible to run robustness checks using LCS analysis for H4 and H5 as explained previously, we do provide an alternative robustness check in the supplemental material.

to a merger event or are instead due to some general circumstances within the organizational context in which the change is taking place. The current study provides unique data allowing for a direct comparison of merging versus non-merging organizations, thus providing compelling evidence of the adverse impact of mergers on organizational workforces.

We also confirm and extend COR (Hobfoll, 1989) and OST (Eisenberger et al., 1986; Eisenberger et al., 1997) theories by demonstrating the crucial compensatory impact of supportive leadership during M&A events. In particular, we find support for COR theory's central proposition that resource gains (i.e., increases in supportive leadership) take on greater significance within the context of the resource losses encountered during a merger. Previous research has highlighted the applicability of COR theory to situations of organizational change (Schumacher et al., 2016; Shin et al., 2012). However, this research has largely relied upon cross-sectional designs, resulting in calls for field studies that examine how changes in the provision of organizational resources influence changes in key outcomes (Halbesleben et al., 2014). We offer this perspective in our study.

By focusing on organizational level phenomena and a sample-level moderator, we also contribute to OST. Past meta-analytic research on OST has suggested that sample-level moderators may play an important and underexplored role in shaping outcomes, warranting further research aimed at understanding contextual influences on OST (Kurtessis et al., 2017), while it has also called for research to move beyond micro-level investigations of this theory (Baran et al., 2012). In this field study, we offer these contributions by explicitly incorporating a contextual factor (merger v non-merger) in our analysis and showing how supportive leadership shapes organizational level outcomes in these different contexts. In addition, we provide novel insights into the under-appreciated topic of leadership during M&As (Steigenberger, 2017), with a particular focus on the role of mid-level management. Specifically, we find that by increasing their supportive leadership during M&As, mid-level

managers can compensate for the resource losses encountered during major structural changes and minimize the adverse effects on their staff.

As Kurtessis et al (2017) point out, research on OST has largely failed to demonstrate the practical or tangible implications of organizational support for employee outcomes. Our study contributes to this goal by elucidating the real and substantial implications of supportive leadership for both subjective (job satisfaction) and (indirectly) objective (absenteeism) outcomes within M&A contexts. It is important to note that, in view of the size of the English NHS, even relatively modest increases in staff absenteeism can be consequential. For example, the observed increase in staff absenteeism reported in the current study would equate to the loss of more than nine million work hours in 2007 compared to 2005, if applied across the 1.1 million strong workforce employed by the NHS⁴. The actions of mid-level managers aimed at preventing such declines may thus be crucial.

From a more general perspective, our findings suggest the need to move beyond static models of organizational leadership, especially within the context of organizational change (Yukl, 2010). Past research has predominantly examined cross-sectional models and has thus been unable to capture how *changes* in leadership over the course of an M&A shape employee adjustment. In our study we proposed and found that *increases* in supportive leadership were crucial in predicting staff satisfaction and absenteeism. We thus suggest that greater consideration should be given to the dimension of time, and to explicating how *changes* in leader support/behavior may influence key outcomes during structural change.

From a methodological perspective, the current study addresses many of the weaknesses of past M&A research by adopting a natural quasi-experimental design (Dao & Bauer, 2021). Yet, at the same time, every research has its weaknesses and ours is no exception. First, our study may raise questions of generalizability. This study was conducted

⁴ This calculation is based on staff working an average of 40 hours per week for 48 weeks per year.

in a public sector organization that has unique characteristics. In particular, mergers in such contexts involve multiple stakeholders and are often politicized (Fulop et al., 2005), as was the case in our study (BBC News, 05/16/2006). Employees might thus have been influenced by this political involvement. In addition, the mergers were among organizations operating within the same umbrella structure (the NHS). Hence, while the organizations were separate legal entities, the mergers may have taken on a slightly different character than mergers between organizations that did not share common overarching structures. Similarly, unlike some M&As, the focal mergers did not involve layoffs, which may impact employees' outcomes in other settings (Grønstad et al., 2019). Further tests of the applicability of our findings to other organizational and merger contexts, therefore, appear warranted.

Second, we only found support for H2 in our robustness check using LCS analysis. These mixed findings on H2 may lead to questions concerning the predicted mediation, given the (potential) absence of a main effect on the dependent variable. Shrout and Bolger (2002) argued that if the direct effect is between more distal variables, a direct effect is not required for the test of mediation, and absenteeism can be seen as a rather distal outcome in our study (as the mergers might not have had immediate effects on absenteeism). Further, the observed relationship is similar to the findings of a meta-analysis that tested the relationship between work strain (a proxy of merger context) and absenteeism (Darr & Johns, 2008). Thus, we may argue that the hypothesized mediating mechanism of job satisfaction may be valid but may not be the only process influencing objective absenteeism.

In conclusion, mergers are disruptive for workforces, and can have severe consequences for employee outcomes, including absenteeism, through their impact on job satisfaction. Indeed, in the current (health) context, merger events were shown to be extremely impactful. However, we also show that organizations can minimize these negative effects if they focus on increasing their supportive leadership to compensate for the losses

incurred during change events. These results suggest the need to shift our mindsets and think more dynamically about merger integration and the role that mid-level management can play during these turbulent times of change.

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Tables

Table 1

Overview of response rates, sample sizes and demographics

Year	2005	2007
Response rate average [range within organizations]	62% [35% to 81%]	59% [32% to 77%]
N of individual responses for analyses	98,943	47,039 ¹
Gender	89% women	89% women
Age (in years)	12% <30 24% 31-40 35% 41-50 29% >50	7% <30 21% 31-40 37% 41-50 34% >50
Ethnicity	93% white 3% Asian/Asian British 3% Black/Black British 1% mixed 1% other	91% white 4% Asian/Asian British 4% Black/Black British 1% mixed <1% other
Professional background	42% nursing staff 4% medical or dental 18% other healthcare professionals 5% public health/commissioning staff 4% general managers 21% administrative/clerical staff 3% maintenance/ancillary staff 4% other	40% nursing staff 4% medical or dental 20% other healthcare professionals 6% public health/commissioning staff 3% general managers 22% administrative/clerical staff 3% maintenance/ancillary staff 2% other
Job tenure	11% <1 year 19% 1-2 years 25% 3-5 years 15% 6-10 years 10% 11-15 years 20% >15 years	0% <1 year 0% 1-2 years 34% 3-5 years 25% 6-10 years 14% 11-15 years 27% >15 years

*Notes.*¹The full sample size is actually 59,285. There are far fewer individual responses in 2007 due to the smaller number of organizations. For the 2007 questionnaire, to ensure scores bore comparison with pre-merger data, we only used the responses of employees who had been in post for at least two years (i.e., since the 2005 survey or before), reducing the total number of responses used to 47,039.

Table 2

Means, Standard Deviations and Intercorrelations of Study Variables

	Mean	Standard deviation	Correlations								
			1.	2.	3.	4.	5.	6.	7.	8.	9.
1. Merger status ¹	0.47	0.50									
2. PCT size ²	1429	850	0.56***								
3. Supportive leadership 2005	3.62	0.08	0.04	-0.07	(.90)						
4. Supportive leadership 2007	3.67	0.10	-0.18*	-0.01	0.49***	(.91)					
5. Change in supportive leadership	0.04	0.09	-0.23**	0.05	-0.36***	0.64***					
6. Job satisfaction 2005	3.57	0.08	0.17*	-0.06	0.87***	0.41***	-0.32***	(.86)			
7. Job satisfaction 2007	3.48	0.09	-0.16	-0.04	0.48***	0.86***	0.51***	0.47***	(.86)		
8. Absenteeism 2005 (%)	4.15	0.85	-0.04	0.01	-0.21*	-0.09	0.09	-0.22**	-0.13		
9. Absenteeism 2007 (%)	4.59	0.73	-0.02	0.06	-0.18*	-0.25**	-0.10	-0.11	-0.23**	0.28***	
10. Change in supportive leadership*merger status	0.01	0.05	0.20**	0.21**	-0.24**	0.28**	-0.51***	-0.14	0.31***	0.04	-0.03

Notes. ¹1 = Merged, 0 = Non-merged

²Measured as number of employees in 2007 (i.e., post-merger)

* p < .05; ** p < .01; *** p < .001; Aggregated scores for job satisfaction ranged from 3.29-3.79 in 2005 and 3.23-3.73 in 2007. Aggregated scores for supportive leadership ranged from 3.23-3.90 in 2005 and 3.37-3.96 in 2007.

Table 3

Hypotheses 1-3 Testing Results

	H1	H2	H3
Dependent variable	Job satisfaction 2007	Absenteeism 2007	Absenteeism 2007
Intercept	1.28 (0.70, 1.86)***	3.53 (2.92, 4.14)***	7.63 (1.49, 13.76)***
PCT size ²	0.02 (0.00, 0.04)*	0.00 (-0.01, 0.00)	0.00 (0.00, 0.00)
Job satisfaction 2005	0.62 (0.46, 0.78)***		1.03 (-0.81, 2.87)
Merger status ¹	-0.06 (-0.09, -0.03)***	0.08 (-0.36, 0.20)	-0.21 (-0.51, 0.09)
Absenteeism 2005		0.24 (0.10, 0.37)***	0.23** (0.09, 0.36)
Job satisfaction 2007			-2.22** (-3.79, 0.64)
Supportive leadership 2005			
Change in supportive leadership			
Merger status * Change in supportive leadership			
R ²	.308	.084	.133

Notes. Figures in central section of table are unstandardized regression coefficients (with 95% confidence interval)

¹1 = Merged, 0 = Non-merged

²Measured as number of employees in 2007 (i.e., post-merger). * p < .05; ** p < .01; *** p < .001

Table 4

Hypothesis 4 Testing Results

Dependent variable	H4	H5	H5	
	Job satisfaction 2007	Job satisfaction 2007	Absenteeism 2007	Absenteeism 2007
Intercept	0.33 (-0.01, 0.67)**	0.38 (0.02, 0.74)*	8.17 (2.11, 14.24)**	10.24 (4.61, 15.87)***
PCT size ²	0.00 (0.00, 0.01)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Job satisfaction 2005	0.35 (0.17, 0.54)***	0.35 (0.16, 0.53)**	3.94 (0.97, 7.09)*	
Merger status ¹	-0.02 (-0.04, 0.00)*	-0.02 (-0.04, 0.00)*	-0.27 (-0.57, 0.03)	-0.20 (-0.50, 0.11)
Absenteeism 2005		-0.00 (-0.01, 0.00)	0.22 (0.08, 0.35)**	0.22 (0.08, 0.35)**
Job satisfaction 2007			-2.08 (-3.64, -0.52)**	
Supportive leadership 2005	0.52 (0.35, 0.69)***	0.51 (0.34, 0.68)***	-3.14 (-5.91, -0.37)*	-1.80 (-3.31, -0.29)*
Change in supportive leadership	0.63 (0.53, 0.72)***	0.63 (0.53, 0.72)***		-1.98 (-3.57, -0.39)*
Merger status * Change in supportive leadership	0.23 (0.07, 0.38)*	0.23 (0.07, 0.38)*		0.527 (-2.09, 3.14)
R ²	.787	.788	.163	.163

Notes. Figures in central section of table are unstandardized regression coefficients (with 95% confidence interval)

¹1 = Merged, 0 = Non-merged

²Measured as number of employees in 2007 (i.e., post-merger). * p < .05; ** p < .01; *** p < .001

Figures

Figure 1
Moderated Mediation Effect of Hypothesis 5

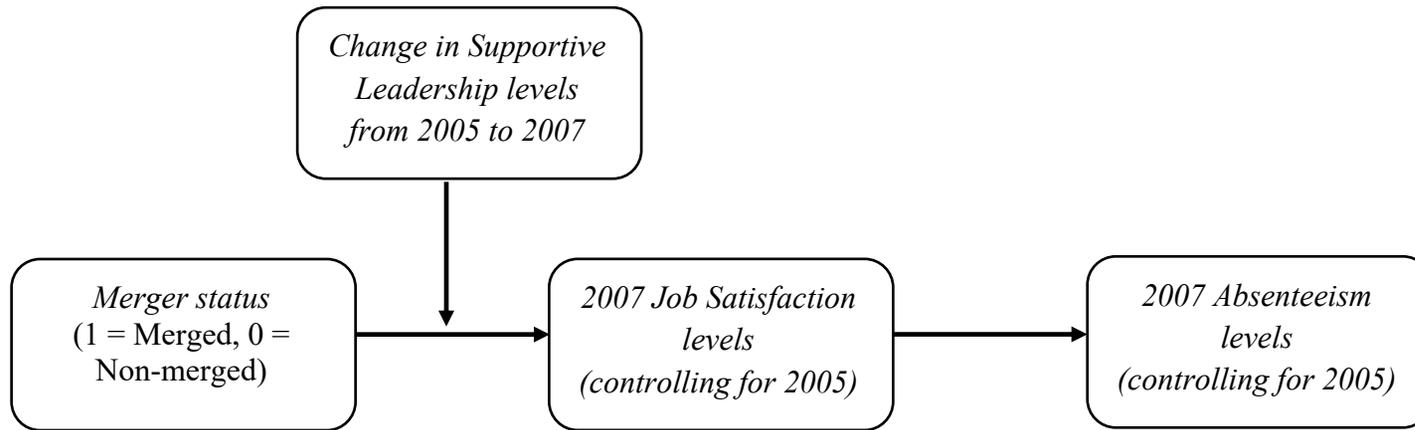
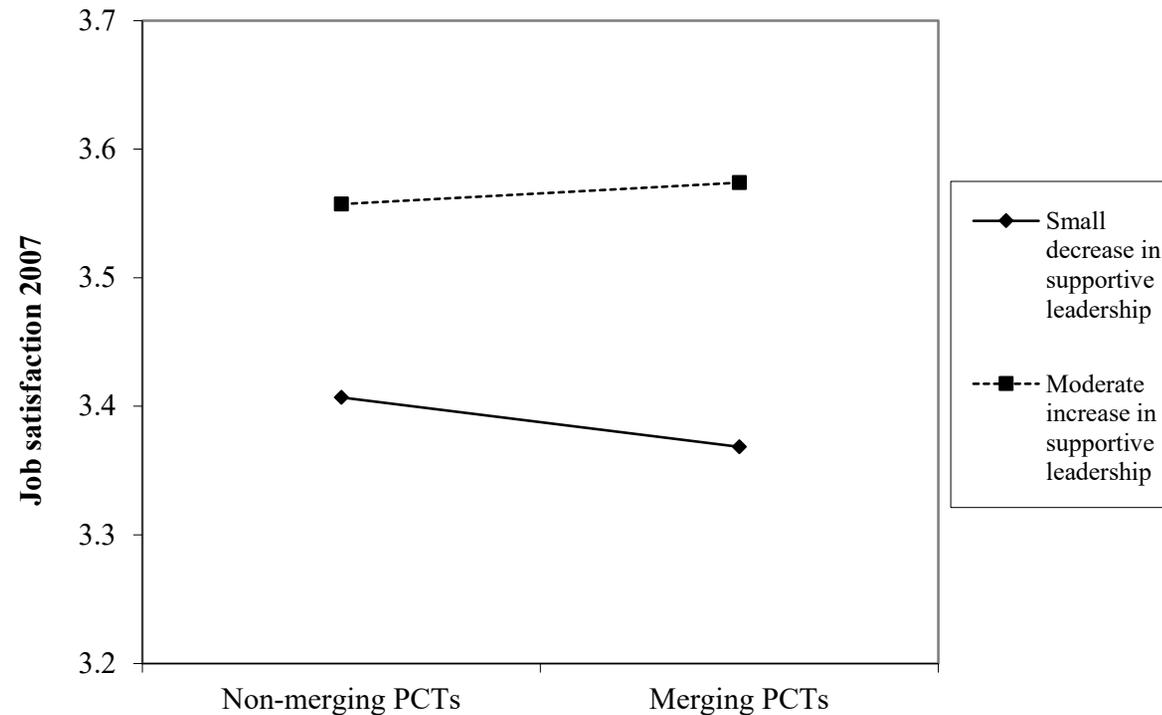


Figure 2

Change in Job Satisfaction by Merger Status



Note. This figure is plotted such that the lower line, a small decrease in supportive leadership represents the 10th percentile (an average decrease of .08 on the supportive leadership scale with all else being equal, or about one standard deviation), and the upper line, a moderate increase in supportive leadership represents the 90th percentile (an average increase of .16 on the scale all else being equal – just under two standard deviations). Percentiles were used due to the moderator being slightly asymmetrical. Analysis showed that for small decreases in supportive leadership, job satisfaction was on average 0.038 lower in merging PCTs (95% confidence interval [0.013, 0.064], $p = .003$), while for moderate increases in supportive leadership, job satisfaction was on average 0.017 higher in merging PCTs (95% confidence interval [-0.010, 0.043], $p = .217$).

Appendix 1

Supportive leadership scale

My immediate manager...

- (a) ...encourages those who work for her/him to work as a team.
- (b) ...can be counted on to help me with a difficult task at work.
- (c) ...gives me clear feedback on my work.
- (d) ...asks for my opinion before making decisions that affect my work.
- (e) ...is supportive in a personal crisis.