

Exploring Work-Related Attributions of Sickness Absence during Organizational Change: A Scoping Review

Abstract

Purpose: The present article reviews the literature on the relationship between organizational change and sickness absence and seeks to map and describe the prevailing “trends” in the field. In particular, the paper focuses on the indirect links between change and sickness absence and identifies knowledge gaps and novel research opportunities.

Design/Methodology/Approach: A scoping review was conducted seeking to generate a wide-ranging overview of relevant studies. To this end, research articles were collected through different sources of landmark articles, bibliographies and databases.

Findings: The association between organizational change and sickness absence is often explained by adverse changes in work characteristics. Such potential mediation or moderation effects, however, are rarely statistically tested. Including such variables in the analyses may represent an important avenue for future research. Additionally, earlier studies have mainly emphasized organization-wide episodic changes. Recently however, researchers have focused on smaller and frequently implemented changes. Accordingly, the field of organizational change and occupational health may advance by incorporating greater diversity of change type.

Originality/Value: The article demonstrates that attention to the potential health effects of organizational change will remain important as the field of workplace health management proceeds. Research needs to develop beyond attributions of the relationship between change and sickness absence and focus more on statistical testing of linking variables. The unique contribution of this review is therefore that it identifies knowledge gaps and novel avenues for prospective research.

Keywords: Organizational change, sickness absence, employee health, adverse health effects

Paper type: Scoping review

Introduction

Towards the end of the millennium Gould (1998) published an article about the British health system entitled “Danger: change at work can damage your health”. More recently, research has found that organizational change often leads to increased health problems and more frequent sickness absence (Westgaard and Winkel, 2011). What is more, researchers have observed that employees experiencing substantial change have higher levels of long-term sickness absence compared to employees working in more stable conditions (Røed and Fevang, 2007). Härenstam *et al.* (2004) observed that organizations not undergoing change build the best work environment. Concurrently, the labour market has become more turbulent with intensified competition and pressures to improve efficiency and adaptability. In response to such challenges, organizations increasingly implement organizational change (Røed and Fevang, 2007; Hansson *et al.*, 2008). As organizational change has become an ever-present characteristic of contemporary organizations (Robinson and Griffiths, 2005), its potential

adverse effects on employee health suggest that organizations, practitioners and researchers may benefit from increased knowledge about this complex relationship and its potential mediators and moderators. However, organizational change is a wide-ranging concept extending from single-event major changes to everyday minor changes (Walker *et al.*, 2007). Past research has mainly focused on adverse consequences of episodic changes such as mergers and downsizing (Østhus, 2007; Kiefer, 2005). Additional types of change, however, take place more rapidly (Walker *et al.*, 2007; Bernstrøm and Kjekshus, 2015) thus suggesting a growing impact of the effects of recurrent changes. For example, research has found that change frequency relates to fatigue, stress, withdrawal and increased sickness absence among employees (Bernerth *et al.*, 2011; Stensaker *et al.*, 2002; Bernstrøm and Kjekshus, 2015). Such effects may indicate a need to better understand the consequences arising from different types of change.

To this end, the following questions are discussed;

- *What kinds of organizational change constitute the scope of the recent literature?*
- *What factors explain the association between organizational change and sickness absence?*

Methods

The paper employs a “scoping review methodology” which is appropriate when the goal is to map a wide range of literature within a field (Arksey and O’Malley, 2005), and to “...envisage where gaps and innovative approaches may lie” (Ehrich *et al.*, 2002:28). As scoping review relies on dynamic rather than linear processes, a set of predefined criteria limitations regarding search terms, identification of relevant studies or selection of studies is not essential (Arksey and O’Malley, 2005). Although scoping review has certain weaknesses, such as a lack of clarity in terms, definition and methodology guidelines (Colquhoun *et al.*, 2014; Davis *et al.*, 2009; Whitemore *et al.*, 2014), the extensive pace at which research on organizational change emerges indicates that knowledge consolidation is important to advance future research and practice. Among the array of methods for knowledge syntheses, scoping review has become increasingly popular because it propels research and practice by identifying knowledge gaps and it can help improve evidence-based decision making (Colquhoun *et al.*, 2014; Davis *et al.*, 2009; Levac *et al.*, 2010). As scoping reviews allow the extent, range and nature of a research field to surface, they are very useful in clarifying complex concepts, such as organizational change (Levac *et al.*, 2010). The present review was

performed in line with Arksey and O'Malley's five recommendations (2005): (i) determine the research question; (ii) identify relevant studies; (iii) select studies; (iv) charting the data; and (v) collate and summarize the results.

Determine the research question

The paper maintained a wide approach and defined broad research questions seeking to generate an extensive coverage of the literature. Further selection considerations were established *after* the commencement of the identification process because a better understanding of the overall scope of the literature was obtained (Arksey and O'Malley, 2005).

Identify relevant studies

Research articles were identified through different sources including landmark articles, bibliographies and databases. By combining different search strategies it was hoped to justify some of the selection bias associated with a scoping review, and to address the vulnerability and risk of making errors linked to a selective search strategy (Whittemore *et al.*, 2014). However, purposively identifying articles can also be very useful, particularly when the goal is to uncover meaning and synthesize evidence. In the present study, emphasis was placed on two databases; PsychINFO and PubMed. The searches were anchored in the research questions by using broad terms and key concepts identified in the literature, such as “organizational change and sickness absence” and “organizational change and employee health” (Levac *et al.*, 2010).

Select studies

When selecting articles, I began by reading titles, abstracts and keywords. Some articles focused on the relationship between change-related issues, such as job insecurity, and sickness absence – and not on the relationship between change and sickness absence (Bohle *et al.*, 2001). Interesting as these papers are, the decision was made not to include them in the review because they did not respond specifically to the research questions. Such difficulties might be a reflection of the initial aim of scoping review, seeking range rather than depth (Arksey and O'Malley, 2005). As I became more familiar with the literature, I felt more confident in the selection strategy to include only those articles explicitly treating change as the predictor. All articles that seemed to suit the research questions were read in full. There were, however, moments of doubt on whether to include or deny an article based on the title,

abstract and keywords alone. In such cases, these articles were also read in full (Arksey and O'Malley, 2005).

Charting the data

Drawing on Arksey and O'Malley's (2005) recommendations, the following information was extrapolated:

- Authors, year of publication, location of study
- Organization type
- Change type
- Methodology
- Main results
- Moderators
- Mediators

Collation and summarization of the results

The incorporation of more critical assessments of the literature is considered a means of strengthening and improving a scoping review (Anderson *et al.*, 2008; Daudt *et al.*, 2013). Specific consideration has therefore been made to synthesize the available literature with the aim of showcasing what is known and *not* sufficiently known about the topic (Levac *et al.*, 2010). By summarizing the data in tables, providing clear headings for each column and being precise in presenting the information, the goal was to make it easy for the reader to discover and follow the discussion. For example, a main finding is the lack of statistical testing of situational mediators and moderators. This is visually illustrated in the table, as the majority of the columns are marked "N/A". What is more, the incorporation of a specific column dedicated to change type was hoped to provide a clear and concise overview of the kinds of change most researched.

Results

What kinds of organizational change constitute the scope of the recent literature?

To a large extent, earlier studies on the effects of change on sickness absence have emphasized episodic and large-scale organizational change including downsizing, reorganization and mergers. A detailed overview is presented in Appendix 1. For example, the longitudinal Raisio study, containing several studies conducted on Finnish municipalities

show that sickness absence increased after downsizing (Vahtera *et al.*, 1997, 2004; Kivimäki *et al.*, 2000; 2001a). Similar findings are also established elsewhere (Bourbonnais *et al.*, 2005b; Røed and Fevang, 2007; Westerlund *et al.*, 2004). Contradicting these findings, Østhus and Mastekaasa (2010), Theorell *et al.* (2003) and Westerlund *et al.* (2004) observed minor or no increase in sickness absence following downsizing.

In addition to downsizing, some studies also examine reorganization. Burke and Greenglass (2000), for example, observed that full-time nurses had a higher probability of being absent, reported increased exhaustion and indicated deteriorated life-style and physical health. In a qualitative study, Eriksson *et al.* (2008) found that nurses who experienced various reorganization efforts such as transfer to another employer (i.e. from hospital to municipality), introduction of lean thinking and cutbacks also experienced long-term sickness absence. In a similar vein, Kjekshus *et al.* (2014) found a higher risk of long-term sickness absence following hospital mergers. Likewise, Lindberg and Rosenqvist (2005) examined two recently merged hospitals and observed that sickness absence rose far more quickly in the merged hospital than in the general Swedish population and that there was a dramatic rise in sickness absence lasting >90 days. Similar findings of adverse health effects following organizational change are also established elsewhere. For example, in a systematic review of the literature, Westgaard and Winkel (2011) observe that organizational change is associated with more frequent sickness absence. They accentuate changes in work characteristics as important factors in the organizational change-sickness absence relationship. They recognized work-related stress as an important linking variable and considered variables such as influence, resonant leadership, information, participation, social support, meaningful work, predictability, reward, trust, and justice modifiers for health outcomes.

The review of the literature reveals that earlier studies largely investigated the adverse effects of episodic and organization-wide organizational changes (Tetrick *et al.*, 2012). In contrast, smaller changes such as alterations in the work environment or mid-level changes in the organizational structure have received less scholarly attention. Interested in other types of change, Head *et al.* (2006) found that changes in psychosocial work factors, projected occurrences of long-term sickness absence. In a similar vein, Bernstrøm and Kjekshus (2015) and Ingelsrud (2014) reported that a higher frequency of mid-level structural organizational change was associated with significantly higher risk of entering long-term sickness absence. The results of such studies suggest that the field of organizational change and occupational health may advance by incorporating greater diversity of change type because a high

frequency of change is indeed associated with adverse health effects (Tetrick *et al.*, 2012; Bernerth *et al.*, 2011).

What factors may explain the association between organizational change and sickness absence?

As argued by Robinson and Griffiths (2005) and Schweiger and DeNisi (1991), there is not necessarily a direct association between organizational change and employee health. Rather, they found that employees reported adverse changes in their work environment as the principal source of stress during change and not the change *per se*. Similar arguments are identified in the related field of resistance to change (Dent and Goldberg, 1999). Also, it is unlikely that all employees respond to change in the same manner. Therefore, the present review opts to illuminate the prevailing mediators and moderators that lend weight to the association between organizational change and sickness absence.

Mediating factors.

Several studies attribute sickness absence and ill-health during or after organizational change to adverse changes in the work environment (Bourbonnais *et al.*, 2005b; Ferrie *et al.*, 1998), but fewer studies have actually statistically tested the associations (see Appendix 1 for details). Among those who have tested them are Kivimäki *et al.* (2000, 2001a, 2001b) who included various work characteristics in the analyses and reported that more physical demands and job insecurity, decreased participation in decision making, skill discretion and control acted as mediators in the association between downsizing and sickness absence. Similarly, Verhaeghe *et al.* (2006), found that occurrence of change was not directly linked to sickness absence. Instead, a predictor of sickness absence –distress- was influenced by change. Hence, they accentuate the need for more attention to the potential mediating role of distress in the relationship between changes in the work environment and sickness absence. Potential mediating variables have also been highlighted in qualitative interviews. For example, Baltzer *et al.* (2011) observed that unregulated work was an explanation for increased sickness absence during change. Eriksson *et al.* (2008) reported that the participants were exposed to extensive organizational change prior to illness. These changes, consequently, led to insecure and deteriorated relationships at work, increased job demands, emotional stress, decreased trust towards colleagues and finally burnout and sickness absence.

Moderating factors.

In a study on the effects of changes in psychosocial work characteristics on sickness absence, Head *et al.* (2006) obtained support for a moderating effect of longstanding illness at baseline. In a similar vein, Väänänen *et al.* (2004) statistically tested the potential moderating effect of social support and reported two significant interactions between job change during merger, social support and health indicators. When including employment status (white- or blue-collar) as a moderator, however, no moderating effect was observed. What is more, Vahtera *et al.* (2004) observed that downsizing was associated with a rise in sickness absence among those permanently employed compared to temporary employees. Additionally, Vahtera *et al.* (1997) observed a moderating effect of household size as the risk of musculoskeletal disorders increased among those living in households consisting of less than four people, compared to larger households. The association between downsizing and long-term sickness absence was also moderated by age because individuals older than 44 years and people employed in organizations with a high number of older employees had the highest risk of long-term sickness absence (Vahtera *et al.*, 1997).

Discussion

The overarching goal of this review was to provide avenues for future research by identifying gaps in the literature on organizational change and sickness absence. Based on the review, three areas for future research endeavours are identified.

First, the results show that previous research has mainly focused on the health effects of major episodic changes, such as downsizing, reorganization and mergers (Tetrick *et al.*, 2012; Østhus, 2007; Kivimäki *et al.*, 2000, 2001a; Røed and Fevang, 2007). Less is therefore known about how frequent and mid-level structural changes may affect employee health. Although efforts have been made to emphasize the effects of smaller changes (Ingelsrud, 2014; Bernstrøm and Kjekshus, 2015), the tendency remains that the term organizational change often refers to episodic, organization-wide change rather than continuous smaller-scale change projects (Saksvik *et al.*, 2007; Kiefer, 2005; Robinson and Griffiths, 2005; Marks, 2006). Understanding the ways in which organizational change may contribute to adverse health effects and sickness absence continues to be important and a stronger attention to the effects of different change types might hold an important key to better understand this relationship. Following Head and colleagues' (2006) and Bernstrøm and Kjekshus' (2015) argument, the paper therefore agrees that more research on the effects of smaller, mid-level

changes is necessary in order to capture the broadness and diversity embedded in the relationship between organizational change and sickness absence.

Second, many theories and articles portray dynamic mediated and often multilevel relationships; yet most empirical research has refrained from hypothesizing and testing such relationships (Pitariu and Ployhart, 2010). Hence, a great deal of the research originates from an *assumption* that the relationship between organizational change and sickness absence may be explained by negative employee experiences (Jimmieson *et al.*, 2004; Kiefer, 2005; Østhus, 2007; Rafferty & Griffin, 2006; Robinson & Griffiths, 2005) including job demands, job insecurity and a mismatch between effort and reward. These are central variables in strain theories such as the demand-control model (Karasek, 1979; Karasek and Theorell, 1990) and the effort-reward-imbalance model (Siegrist, 1996). In line with Pitariu and Ployhart (2010), the paper argues that there is a need to hypothesize and test dynamic mediation in which the mediator, dependent and independent variable are measured repeatedly in order to enhance the statistical power of the analyses.

What is more, the articles that do test potential linkages usually draw on the well-known strain theories and test the potential mediation of psychosocial risk factors (Kivimäki *et al.*, 2000, 2001a). Despite being prominent theories on occupational health, these theories neglect the potentially positive effects of work. Some researchers have pointed out that change also contains a wide array of opportunities for skill development and advancement (Kiefer, 2005; Boswell *et al.*, 2009). For example, studies of job change have indicated that opportunities to learn and acquire new skills could be important mediating factors (Boswell *et al.*, 2009); yet such positive experiences are seldom statistically tested as potential mediators in studies of organizational change and employee health and sickness absence. As suggested by Tetrick *et al.* (2012), awareness of both positive and negative features of the work environment is important in order to develop and execute interventions aimed at promoting employee well-being and avoiding adversity. Increased attention to this positive-negative duality may offer an important lens through which research on organizational change and sickness absence may advance because conventional signs of organizational health, such as economic viability, in addition to indicators such as absence rates, are inextricably linked to the organization's psychosocial and physical environment (Tetrick *et al.*, 2012).

Seeking to include positive variables, Demerouti *et al.* (2001) emphasized the job demands-resources model. The JD-R model focuses on both potentially negative and positive work

characteristics and is applicable to a wide range of occupations (Bakker and Demerouti, 2007). They argue that when people encounter heavy workloads, job resources - or health-protecting factors - are important. Job resources such as social and psychological aspects of work may reduce job demands and foster a motivational process that drives job-related learning, work engagement and organizational commitment (Demerouti *et al.*, 2001). People may acquire new skills, climb the “career-ladder” and develop valuable insights into prevailing aspects of organizational life. According to Head *et al.* (2006), employers who succeed in enhancing these kinds of psychosocial working conditions are likely to benefit from lessened sickness absence. Following Schaufeli *et al.* (2009), then, the paper agrees that to further our understanding of occupational health, research needs to include positive experiences, in addition to the focus on psychosocial risk factors.

Third, research does not always account for individual and group differences in coping with uncertain situations. Although organizational change has been related to adverse health and elevated sickness absence, the results are mixed. It is unlikely that all employees respond to organizational change in a similar manner. Therefore, more information on what moderates the relationship between organizational change and employee health is vital in order to understand why some employees, while being exposed to the same change, are more affected than others. The majority of articles that statistically test moderating variables in the relationship between organizational change and sickness absence emphasize demographic variables such as age, employment contract and health status prior to the change to a much larger extent than they emphasize employee experiences. Including positive employee experiences and health promoting aspects of work as moderators may therefore represent an important key to better understand the relationship. Support, control, participation and experienced justice constitute work environment factors expected to make employees more capable of handling possibly straining situations (Westgaard and Winkel, 2011). Generating more information on what moderates the relationship between organizational change and sickness absence may therefore be paramount in order to understand why some employees are more affected than others.

For example, motivation and rewards might represent interesting moderating variables. During organizational change, workload may increase. While the majority of the research reports an association between increased workload during organizational change and deteriorated health, future research may contribute to the field by nuancing this association. It is possible that a potential stressor, such as high workhours and workload, is considered an

opportunity by highly motivated employees who experience satisfaction and control over their work. Accordingly, some people might *choose* to work long hours because they experience strong intrinsic and/or extrinsic motivation through high workloads (Brett and Stroh, 2003).

Additionally, rewards may be an interesting moderating variable. For example, the risk of sickness absence has been shown to diminish among employees exposed to job strain, who simultaneously experienced high rewards (Bourbonnais *et al.*, 2005b). In a similar vein, studies have discovered an association between low rewards and short- and long-term sickness absence, and low rewards and frequency of absence spells (Peter and Siegrist, 1997). Although the potential moderating effect of rewards in the association between organizational change and sickness absence is yet to be tested, its effect on similar associations offers promise and indicates that it could be considered when conducting moderation analyses.

What is more, organizational interventions may offer a relevant perspective on occupational health by accentuating the importance of the process rather than the content of change and attending to the individual and local aspects of change. For example, a change process may be enhanced by acknowledging that employees appraise and perceive change differently (Tvedt and Saksvik, 2012). By emphasizing such diversity, Tvedt and Saksvik (2012) highlight the importance of attending to differing change resilience and aptitude among employees because these generate different settings for process work. Seeking to promote employee well-being through interventions, Tvedt and Saksvik (2012) suggest that assessing employees' resilience is vital in order to tailor process management.

Practical implications for workplace health management

The results from this scoping review suggest some potentially important practical implications for managers and practitioners working with organizational change, occupational health and sickness absence. Previous studies reveal the adverse effects of major organization-wide change on employee health and sickness absence (Østhus, 2007; Kjekshus *et al.*, 2014). As organizational change has become an omnipresent characteristic of contemporary organizations (Robinson and Griffiths, 2005), the potential hazards to employee health and well-being are particularly prominent. The results of the present review, however, indicate that managers and practitioners may benefit from being increasingly aware of the potential consequences arising from smaller, frequent change initiatives when making decisions on whether to initiate change. Simultaneously, managers and practitioners might find it useful to consider the potential benefits associated with emphasizing employee health during

“everyday” changes (Bernstrøm and Kjekshus, 2015; Head *et al.*, 2006). This review also indicates that increased attention to the diversity of employee experiences during change may hold an important key to better understand why employees respond differently to change. Managers and practitioners may inspire healthy organizational change processes by taking into consideration the multiplicity among employees, and improving psychosocial working conditions accordingly may reduce sickness absence and promote well-being (Tvedt and Saksvik, 2012; Head *et al.*, 2006). At the same time, managers and practitioners might benefit from paying more attention to the potential for change to have a positive impact on employees. For example, by portraying and redefining change as an avenue for professional growth and development, managers and practitioners may instigate a motivational process among employees that enables knowledge development, work engagement and organizational commitment (Demerouti *et al.*, 2001).

Conclusion

The majority of available research focuses on the effects of organization-wide episodic changes on sickness absence. Less is therefore known about the effects of continuous and mid-level changes that occur more frequently. By including and distinguishing between broader varieties of change types one may be enabled to investigate, in greater detail, the antecedents of employee responses to organizational change, and the effects following different change types. What is more, the majority of the research focuses on strain variables. As a consequence, less is known about the potential for change to elicit positive employee experiences. Variables such as motivation and rewards, for example, may encapsulate a more positive outlook on organizational change. This view may provide novel avenues for both positive and negative consequences to surface. In order to advance the research field, then, it is suggested that future research should focus more on different *types* of change and include statistical testing of potential mediating and moderating effects in the relationship between organizational change and sickness absence.

KEY MESSAGES

- **The majority of research focuses on major episodic organizational change and sickness absence, and the association is often explained by adverse changes in the work environment.**

- **Including potential mediating or moderating effects of such adverse changes in statistical analyses may represent a fruitful way forward in terms of advancing the field and capturing more of the diversity embedded in organizational change.**
- **Less is known about the potential for change to elicit positive experiences. As change may represent opportunities to learn and acquire new skills, the paper suggests that including positive employee experiences may further our understanding of organizational change and occupational health.**
- **The majority of articles that include moderating effects focus on demographic variables. Collecting more data on non-demographic moderators may be paramount in understanding why some employees are more affected than others.**

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