![DiVA logo](http://www.diva-portal.org)
This is the published version of a paper presented at *48th Annual Conference of the Association of Canadian Ergonomists & 12th International Symposium on Human Factors in Organizational Design and Management, July 31-August 3, 2017, Banff, Alberta, Canada.*

N.B. When citing this work, cite the original published paper.

NEW LEGISLATION ON ORGANIZATIONAL AND SOCIAL WORK ENVIRONMENT: A CASE STUDY

Anette Karltun
Anette.karltun@ju.se
Johan Karltun
Martin Rydell
Dep. of Industrial Engineering and Management, Jönköping University, Sweden

KEYWORDS
road and construction industry, unhealthy workload, working hours, victimization, leadership

SUMMATIVE STATEMENT

This case study shows how a revised work environment legislation on organizational and social work environment influenced operations in a large road construction and maintenance company.

Nouvelle réglementation sur l'environnement organisationnel et social du travail : un étude de cas

MOTS-CLÉS
Industrie de la construction routière, charge de travail malsaine, heures de travail, victimisation, leadership

SOMMAIRE
La présente étude de cas démontre comment la révision d'une loi portant sur les conditions organisationnelles et sociales du milieu de travail avait influencée les activités d'une grande entreprise de construction et d'entretien des routes.

PROBLEM STATEMENT

In Sweden, a number of people are suffering from unhealthy workload andcosts every year estimated to $8 billion. In order to counteract this development, the Swedish Work Environment Authority released new provisions (Arbetsmiljöverket, 2015) on the 31st of March 2016 which clarify and emphasize the responsibility for employers to offer a sound organizational work environment. The main purpose of the provisions was formulated: 'to promote a good work environment and prevent risks of ill health due to organizational and social conditions in the work environment'. The release has gained a lot of attention and numerous educations and activities were started regarding how to manage the situation. The release has gained a lot of attention and numerous educations and activities were started regarding how to manage the situation. The release has gained a lot of attention and numerous educations and activities were started regarding how to manage the situation.

Job demands have shown to have significant physiological and psychosocial costs (Crawford et al., 2010). The quality of relationships amongst employees at a workplace has also a big impact on both job satisfaction and the level of stress perceived (Einarsen et al., 1994). However, a health promoting leadership is of utmost importance to the health of employees. Being in the formal leader role you possess a strong ability to affect occupational health. By possessing certain amount of formal organizational power to assign tasks and

punish or promote other employees, the leader-follower interaction is vital for the wellbeing of followers (Kelloway & Barling, 2010).

When approaching the work environment management, one must first understand that the work environment is ever-changing and complicated in nature (Lennér-Axelsson & Thylefors, 1991). Individual personalities, needs and ambitions result in different experiences on the same working situation. What one person perceives as stressful and tearing could be perceived as a stimulating challenging by others. This put requirements on regular and systematic assessments of the demands in the work, resources required and potential conflicts.

The construction industry is by nature a tough and hazardous workplace that requires heavy lifting, awkward postures and other forceful exertions (Schneider & Susi, 1994). Further, the construction industry work environment is characterized by risky outdoor environments, high workload, constant changing of site conditions and less formally defined processes (Reese & Eidson, 2006). Work is often performed close to ongoing traffic which adds stress and risk to the work. This environment is largely caused by the nature of the work, poor work practices of the individual and pressure from budgets and time (Holmes et al., 1999). Ill health or musculoskeletal disorders are major problems that force workers to leave the industry early (Ardnt et al., 2005).

Organizational resources such as rewards, fair treatment, appropriate equipment and training is essential for the safety of the workers within this industry (Tam et. al., 2004). To approach the risks of the construction industry, organizational, psychological and social aspects must be considered (Törner & Pousette, 2009). Djebarni (1996) and Leung et. al (2008) link stress amongst managers in construction projects with lower levels of performance. The construction industry is also a man dominated industry were men make up 90% of total employed within the business (SCB, 2013). Women only make up for 10% of the total employees which can be explained by different career choices but also, in some cases, due to a dominating male culture and victimization (Nandorf, 2015).

RESEARCH OBJECTIVE/QUESTION

The objectives of this paper are to contribute to the understanding of how current work practices in construction industry can be improved regarding organizational and social conditions in the work environment. The aim is more specifically to explore a) what measures needs to be taken in the case study company to implement the new provision and b) how the organization can support managers and other employees in fulfilling the provisions.

METHODOLOGY

A case study (Yin, 2009) was undertaken in three sites of a large Swedish road construction and maintenance company that operates throughout Sweden with a dispersed organization including many small sites and a few larger. Data were collected through document analysis, interviews and questionnaires. Nine people were interviewed based on different roles (managers, first line managers and operators) within the organization. A questionnaire was conducted at the three sites based on the interview findings. 21 respondents answered the questionnaire which represented a response rate of 53 percent. Interviews were analyzed by content analysis and questionnaires with descriptive analysis and combined with document analysis from the studied company.
Interviews and questionnaires were developed in line with the new provisions' (AFS 2015:4) content comprising the following six aspects: 1) systematic work environment management, 2) knowledge requirements, 3) social and organizational objectives, 4) workload, 5) working hours and 5) victimization.

48th Annual Conference of the Association of Canadian Ergonomists
12th International Symposium on Human Factors in Organizational Design and Management

Proceedings | Actes du congrès

RESULTS

The results are presented according to the six parts in the (AFS 2015:4) elaborated below:

1) Systematic work environment management

The provisions on systematic work environment management state rules regarding work environment policy, knowledge and directions on how employers should investigate and assess operational risks on a regular basis. The employers should in accordance take action in order to manage risks detected. (§5 AFS 2015:4)

According to interviews, questionnaire as well as the document analysis, the studied company had a well-functioning work process regarding the way they managed the work environment. Findings from interviews and questionnaire further showed that employees could participate, voice their opinions and provide suggestions most of the time. However, one exception was the setting of organizational and social objectives, which is developed in subsection 3 below. The organizational and social work environment had not received as much focus compared to the physical work environment in the past.

2) Knowledge requirements

The employers have a responsibility to make sure managers and supervisors have the right knowledge to be able to 1) Prevent and deal with unhealthy workload, 2) Prevent and handle victimization. The employer shall implement prerequisites for putting the knowledge into practice. (§6 AFS 2015:4)

The knowledge among managers and supervisors in the construction company, within this area was considered good in general by respondents. Education had been provided though a course called BAM (Better Work Environment), which aimed to develop their ability and knowledge of occupational health and safety by providing a holistic perspective on the work environment. Front-line workers who requested it were also able to attend this course. However, BAM did not include any education of e.g. handling victimization.

To prevent victimization there is a need to understand the social work place setting in order to detect problems and indications early. In order to handle these problems, knowledge of appropriate actions and prerequisites to take these actions are required.

Leadership in relation to the organizational and social work environment was considered an important success factor by the respondents and something that worked well in the construction company. It was commented by the respondents that when e.g. a new manager with well-developed leadership skills entered an operation, both the work environment and the result improved.

3) Social and organizational objectives

The employer shall have objectives for the organizational and social work environment. Employees should be able to take part in producing these objectives and it is the responsibility of the employer to give them the opportunity. If there are ten or more employees in the operations, the objectives should be in written form. (§ 6, 7 AFS 2015:4)

The company had social and organizational objectives set at a top management level, but the informants didn't perceive that they had opportunity to participate in affecting the drafting of these objectives. It was discussed that setting objectives for the organizational and social work environment at a level closer to the managers, supervisors and front-line workers would be a way to allow more employees to participate. Respondents suggested that these could be discussed as a permanent item in weekly meetings and ultimately lead to local objectives which they could identify with. This could also be a way to create interest in and lift the organizational and social work environment as an important part of the everyday work.

4) Workload

In order to make sure unhealthy workloads do not arise, the demands in the work should be met by appropriate and adapted resources. It is the responsibility of the employer to make sure employees have the knowledge of: 1) tasks they are to perform, 2) results to be achieved with the work, 3) particular methods with which the work is to be performed, and if so how, 4) which work tasks are to be prioritized when available time is not enough for all work tasks to be performed, 5) whom they can turn to in order to receive help and support in carrying out the work. To counteract work tasks and situations that are mentally stressful, the employer should take measures necessary to prevent illness caused by mental stress amongst employees. (§ 9, 10 AFS 2015:4)

The data collected on workload indicated a high workload especially for managers but also supervisors and front-line workers. The demands in the work could include the amount of workload, time limitations, degree of difficulty and physical and social conditions. The demands could be cognitive, physical and emotional in nature. The resources attained at the construction company were generally considered good but they could have been better. Even if some respondents felt it was manageable other found it challenging. However, there should be routines to make sure no one suffers ill due to a high workload. One thing which worked very well was the employer to employee communication where an open dialogue was enabled.

5) Working hours

The employer shall take all steps necessary to counteract illness amongst employees caused by the scheduling of working hours. Some examples of scheduling of working hours that could result in illness are: 1) shift work, 2) night work, 3) split shifts, 4) large extent of overtime work, 5) long work shifts, 6) far-reaching probabilities of having to work at different times and places, with expectations of being constantly reachable. (12 § (AFS 2015:4)

The empirical findings indicated three main extensions of the regular working hours: overtime work, long work shifts and expectations of being constantly reachable. The most frequent occurring was the last mentioned. In addition, some respondents had on-call services at times which then occurred every 5th night. The findings suggest that extending the regular working hours happened quite frequently in in the company. Furthermore, one manager had been working almost 60 hours every week on a regular basis which may work for a limited time but is not sustainable in the long run.

6) Victimization

It shall be made clear by the employer that victimization is not acceptable. The employer shall take actions to counteract conditions that could give rise to victimization in the work environment. The employer shall make sure that there are procedures for handling victimization. The procedures should indicate: 1) who receives information that victimization is occurring, 2) what happens with the information, what the recipient is to do, and 3) how and where those who are subjected to it can quickly find help. It is the employers' responsibility that the procedures of handling victimization are known to all employees. (13, 14 § AFS 2015:4)

There was a variation of knowledge among employees regarding procedures to prevent victimization. This could be explained by that the company introduced new procedures only a few months earlier. However, in practice, actions to prevent victimization was generally perceived as well functioning among the respondents which most likely was related to the few perceived cases of victimization within the organization.

DISCUSSION

The findings indicated that the organization had made major efforts in systematic work environment management. Typically for the business, risks related to accidents and physical workload were considered to be most important. However, it was found that the company

48th Annual Conference of the Association of Canadian Ergonomists
12th International Symposium on Human Factors in Organizational Design and Management

Proceedings | Actes du congrès

would benefit from making organizational and social work environment a permanent item on the agenda. In the studied company, such issues showed to have a potentially large influence on the work environment and likely affect also the physical work environment. To meet the new provisions, further education was requested to improve knowledge and implementation into practice. Additional development demanded was to create a plan to address high mental workload and working hours through discussions involving both managers and employees. It was found that the company also would gain from including a perspective on ethical leadership and emphasize the importance of leadership for a good work environment. A follow-up one year later indicated that the company started several of the suggested activities to improve the situation like specific education on the subject, workshops regarding diversity, new routines to handle victimization and using a new cell phone application for safety during solitary work.

Moreover, the introduction of new provisions regarding organizational work environment issues did have effects on the company's focus regarding work environment. Clarifications on responsibilities and how to handle the different aspects of organizational issues were brought into the agenda in a much clearer way than earlier. The requested training regarding these issues is a sign of this. Another sign is the request for more participation in setting goals for organizational work environment and a third sign is the unawareness of how to handle victimization issues.

It must however also be concluded that the studied company was well organized regarding work environment management and that it had extensive, standardized ongoing educational activities. The company also had national experts regarding work environment that continuously worked with improving management work and educational activities.

CONCLUSIONS

It is apparent that the new provisions affected the company to revise their work environment regarding organizational and social issues, which provided some noteworthy improvements. By that, the Work Environment Authority has reached some intended outcomes in the studied company. However, this study suggests that the following measures are further developed to implement the new provision.

- Make the organizational and social work environment a standing item on the agenda of weekly frontline meetings.

- Set objectives for the organizational and social work environment allowing everyone to participate in the process.

- Provide training to raise the competence and knowledge of managers, supervisors and safety representatives through e.g. education and case- exercises, preferably coupled together.

- Enable and encourage objectives for the organizational and social work environment to be set starting at a work place level.

- Make clear where employees shall turn if experiencing ill health.

- Spread and make clear the procedures for handling victimization throughout the organization.

- Include a perspective on organizational and social work environment and ethical leadership when educating leaders.

48th Annual Conference of the Association of Canadian Ergonomists
Proceedings | Actes du congrès
12th International Symposium on Human Factors in Organizational Design and Management

ACKNOWLEDGEMENTS

REFERENCES

Arbetsmiljöverket. (2015). Organizational and social work environment. (Arbetsmiljöverkets Författningssamling, AFS 2015:4). Stockholm

Arndt, V., Rothenbacher, D., Daniel, U., Zschenderlein, B., Schuberth, S., Brenner, H., (2005). Construction work and risk of occupational disability: a ten year follow up of 14 474 male workers. Occup. Environ. Med, 62, 559-566

Crawford, E. R., LePine, J. A., & Rich, B. L. (2010). Linking job demands and resources to employee engagement and burnout: A theoretical extension and meta-analytic test. Journal of Applied Psychology, 95, 834–848.

Djebarni, R. (1996). The impact of stress in site management effectiveness. Construction Management and Economics, 14, 281–293.

Einarsen, S., Raknes, B. I., Matthiesen, S. B. (1994). Bullying and Harassment at Work and Their Relationships to Work Environment Quality: An Exploratory Study. European Work and Organisational Psychologist, 4(4), 81-401.

Holmes, N., Lingard, H., Yesilyurt, Z., De Munk, F. (1999). An exploratory study of meanings of risk control for long term and acute effect occupational health and safety risks in small business construction firms. Journal of Safety Research, 30(4), 251−261.

Kelloway, K., Barling, J. (2010). Leadership as an intervention in occupational health psychology. Work and Stress, 24, 260-279.

Kohlberg, L. (1969). State and sequence: The cognitive-development approach to socialization. In D. Gosilin (ED.) Handbook of socialization theory and research, 347–480

Lennér- Axelsson, B, Thylefors, I. (1991). Work group psychology. Stockholm: Bonniers Fotosätteri (in Swedish)

Leung, M.-Y., Chan, Y.S., Olomolaiye, P. (2008). Impact of stress on the performance of construction project managers. ASCE Journal of Construction Engineering and Management, 134, 644–652.

Nandorf, T. (2015, February 15). New proposals shall make more to feel good at work, Dagens Nyheter. Retrieved 2016-04-15 from http://www.dn.se/arkiv/jobb/fler- ska-ma-bra-pa-jobbet-med-nytt-forslag (in Swedish)

Reese, C., Eidson, J. (2006). Handbook of OSHA Construction Safety and Health (2nd Ed). CRC Press, London, UK.

Schneider, S., Susi, P. (1994). Ergonomics and construction: a review of potential hazards in new construction. American Industrial Hygiene Association Journal, 55, 635- 649.

SCB. (2013). Females and males in employment, Statistics Sweden (in Swedish).

Stouten, J., Baillien, E., Van den Broeck, A., Camps, J., De Wiette, H., Euwema, M. (2010). Discouraging Bullying: The Role of Ethical Leadership and its Effects on the Work Environment. Journal of Business Ethics, 95, 17-27.

Tam, C.M., Zeng, S.X., Deng, Z.M. (2004). Identifying elements of poor construction safety management in China. Safety Science, 42(7), 469–586.

Törner, M., Pousette, A. (2009). Safety in construction – a comprehensive description of the characteristics of high safety standards in construction work, from the combined perspective of supervisors and experienced workers. Journal of Safety Research, 40, 399–409.

Yin, R. K. (2009). Case study research: design and methods. (5th ed.) Thousand Oaks: Sage Publications, Inc