Conflicts at Work —The Relationship with Workplace Factors, Work Characteristics and Self-rated Health

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Abstract: Few studies have considered the work environment in relation to workplace conflicts and those who have been published have included relatively few psychosocial work environment factors. Little research has been published on the consequences of workplace conflicts in terms of employee health. In this study, the statistical relationships between work and workplace characteristics on one hand and conflicts on the other hand are examined. In addition, the relationship between conflicts at work and self-rated health are described. The study population was derived from the Swedish Longitudinal Occupational Survey of Health (SLOSH) 2006; n=5,141. Among employees at workplaces with more than 20 employees (n=3,341), 1,126 (33.7%) responded that they had been involved in some type of conflict during the two years preceding the survey. Among the work and workplace characteristics studied, the following factors were independently associated with increased likelihood of ongoing conflicts: Conflicting demands, emotional demands, risk of transfer or dismissal, poor promotion prospects, high level of employee influence and good freedom of expression. Factors that decreased the likelihood of ongoing conflicts were: Good resources, good relations with management, good confidence in management, good procedural justice (fairness of decisions) and good social support. After adjustment for socioeconomic conditions the odds ratio for low self-rated health associated with ongoing conflict at work was 2.09 (1.60–2.74). The results provide a good starting point for intervention and prevention work.

Key words: Conflicts, Work, Work environment, Workplace factors, Work characteristics, Self-rated health

Introduction

Workplace conflict is common and widespread. In a study conducted in the 1990's by the Finnish Central Bureau of Statistics, over 50 percent of those interviewed reported that they had experienced conflicts with colleagues and over 60 percent that they had experienced conflict with superiors[1]. In Sweden, roughly one-third of persons in the labour force report that they

have been involved in conflicts with superiors in the 12 months prior to the survey, while just as large a share report that they have been involved in conflicts with workmates (Work Environment Statistics 2007, The Swedish Work Environment Authority/Statistics Sweden). This study also shows that workplace conflicts are as common among women as among men.

Conflicts are often categorized either as factual or interpersonal. Rahim[2] separates conflicts into four sub-categories: intrapersonal (within one and the same individual), interpersonal (in relationships with others), within a (work) group, and between (work)

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groups. Conflicts arising from organisational or societal structures are termed *system* or *structural conflicts*. Interpersonal conflicts at work are generally associated with three components; disagreement, interference and negative emotion[3], and may have greater or lesser effect on the state of health of those involved. However, conflicts seldom have only negative consequences[4].

Conflict is a natural part of any organisation's development, where lesser conflicts tend to pass without leaving negative traces. Conflicts should therefore not be seen as incidental happenings but rather as part of a dynamic process[5]. The consequences may also differ depending on the outcome of the conflict.

The predominant explanation for workplace conflicts has tended to be psychological factors, i.e., individual behaviour. But although psychological factors have dominated for a long time in conflict research, there are also results that point to organisational structure and other conditions within the organisation that may generate conflict. A reasonable assumption is that both psychological and organisational factors can explain the emergence of conflicts at the workplace.

The importance of workplace conditions for conflicts

Many workplaces today are characterised by more or less constant instability. Restructuring has become a natural and regular feature in the planning of most business activities[6]. Reorganisations and downsizings are often coupled with conflicts and leadership issues. Leymann[7] gives the following examples of organisational triggers of conflict situations: poor leadership, poor work supervision, unwillingness of superiors to intervene in friction/ill-feeling between workmates, and large numbers of employees of different backgrounds and ethnicity. In a meta-analysis by Spector & Jex[8], role conflict was strongly correlated to interpersonal conflicts as well as to role ambiguity and negative affectivity, the two latter factors less strongly, however. Appelberg *et al.*[9] studied the relationship between organisational and individual factors and the emergence of interpersonal conflicts among 14,578 respondents (aged 24–64). Both organisational and individual factors turned out to contribute to the emergence of workplace conflicts, where the organisational factors included monotonous, fast-paced work and white collar jobs. A recent study by De Raeve *et al.*[10] based on longitudinal data (n=9,241) also showed that workplace factors play a major role in the emergence of interpersonal conflicts both between workmates and between workers and their superiors. One year after follow up, it was observed that risk factors were role ambiguity, poor physical environment and overtime.

Workplace factors that appeared to have had a preventive effect against conflicts both between workmates and between workers and their superiors were social support and career opportunities. Other studies have suggested that openness of communication, feelings of connection and a common identity are important factors for the prevention of interpersonal conflicts[11–13].

The connection between interpersonal conflict and health

The previous studies showed that a high degree of interpersonal conflict or workplace conflicts was associated with negative feelings, counter-productive manner, work incapacity among women, stress symptoms, increased risk for mental ill health and low self-reported health[14–22].

Previous studies showed also that conflict with superiors was associated with long-term sick leave, mental ill health, physical ill-health, risk for emotional exhaustion, depressive symptoms[23–26]. In a study by Hagerty & Williams[27] conflicts had a strong negative effect on employees' feeling of connection to the workplace and were an important contributory factor to employee depressions.

As noted above, much of the research on workplace conflicts has found an explanation in psychological factors —the personality and behaviour of the individual —while far less research has aimed at clarifying the role of the workplace environment as engenderer of conflict where only a relatively few psychosocial work environment factors have been included and there is clearly a need for more research on the consequences of workplace conflicts on employee health.

Aims and issues

The intention of this study was to investigate whether and how work and workplace characteristics generate conflict and in that case, how such conflicts affect health. The study is explorative. Organisational factors were scrutinized to see which might be coupled to conflict and the effects of such conflicts on employee health. In a second step a longitudinal approach will be taken, when the second wave of the Swedish Longitudinal Occupational Survey of Health (SLOSH) is available (see below). The problem of bullying in working life was excluded in this study although it certainly constitutes an aspect of workplace conflict. Our intention is to address that problem in a separate paper.

Specific questions:
1. What were the sources of conflict? How important was the conflict? What was the result?
2. What work and workplace characteristics are associated with conflicts at work?
3. How are conflicts at work related to employees' self-rated health?

Material and Methods

The study population

The study population was derived from SLOSH[28, 29], based on the respondents from the 2003 Swedish Work Environment Survey (SWES). SWES is conducted biennially by Statistics Sweden (SCB) on a sample drawn from the Labour Force Survey (LFS). The SWES sample is a nationally representative sample of people aged 16–64 in the active labour force covering all occupational groups. In connection with the LFS telephone interviews, respondents were asked to fill out a supplementary self-completion questionnaire about the physical and psychosocial work environment, work-related morbidity, education and training, and attitudes to work. In March 2006, 9,154 of the respondents to SWES were followed up by means of two extended self-completion questionnaires, one addressed to those in gainful employment at least 30% of full time and one to those out of the labour force. A total of 5,985 individuals (65% of the eligible SWES participants) responded to the follow up, of which 5,141 used the questionnaire for persons in employment and 844 for people out of the labour force.

In the present study only those who answered the questionnaire for persons in employment were used. Some characteristics of the working population have been presented previously[29]. SLOSH contains information about the number of persons employed at each respondent's workplace. Many companies are family-owned or small businesses where there is often hardly any organisational structure to speak of. In this context social support is mostly synonymous with family solidarity. We have therefore chosen only to include respondents in workplaces with 20 employees or more (n=3,394). In addition, 50 persons had not responded to the question about conflicts. Thus, the final number of subjects in the study was 3,344. The study has been approved by the Regional Research Ethics Board in Stockholm.

Measures

Conflict was used both as an independent and as a dependent variable in the study. The question was formulated in the following way: In the past two years, have you been drawn into any kind of conflict at your workplace? Response alternatives were yes or no.

To those who answered in the affirmative the question then was "What was the source of the conflict/conflicts?" Response alternatives were chosen from the open responses given by respondents in the pilot survey as follows: job conditions; resources and staffing; work demands and work pace; work tasks/duties; authorisa-tions and responsibility; leadership and your immediate superior; colleagues; patients/customers/clients/passengers/pupils; other, where several alternatives could be chosen.

The next question asked was: In general, how important was the conflict? (Responses: Completely unimportant; Quite unimportant; Quite important; Very important). Third: From your point of view, what was the result of the conflict/these conflicts? (Very good; Quite good; Quite poor; Very poor); and fourth: Is the conflict still going on? (Yes; No).

Most of these dimensions, variables and variable groups were first identified in a pilot study[30] and then to a large extent incorporated in SLOSH. The work characteristics included the dimensions Demands; Authority to make decisions, and Resources. Demands were divided into quantitative, conflicting, emotional, social, intellectual, and physical. In discussions regarding operationalisation of exposure variables we felt a need to differentiate between such "work" factors that are close to the individual on one hand ("work and individual") and the dimensions on the "workplace" level on the other hand. The latter category included: Goals; Structure; Management; Freedom; Democracy and justice; and Humanity and social support. From the dimension "conflicts and conflict management", conflict was used as outcome. A detailed description of the variables is available in the appendix (Appendix, Conflicts at work: www.stressforskning.su.se).

In the pilot survey[30] we were able to show that the Demands and Humanity & social support factors were directly correlated with the two outcome factors Health and Symptoms of stress, after adjustment for all other factors. All other associations were indirect. Since our intention was to investigate the relationships between work and workplace factors and conflict and health we maintained the theoretical division between "work and individual" and "workplace" factors including all variables and variable groups in those main divisions and added conflict and (self-rated) health as outcomes. Leadership, social support and conflicting demands (role conflict and role ambiguity) were factors shown to be important in previous studies[7, 8, 10]. Details of questions and measurement properties can be found in the Appendix. These dimensions and sub-dimensions were used as predictors of workplace conflict.

In order to give the reader an idea of the magnitude of the work conflict–health association in this particular context, we included one simple generally accepted health outcome, self rated health. A large number of studies have shown that self-rated health is a strong independent predictor of both future morbidity and mortality[31]. General health was measured with the ques-

tion: How would you rate your general state of health? (Very poor; Quite poor; Neither good nor bad; Quite good; Very good). Those who rated their general health as neither good nor bad or poor were considered to have poor general health. Additional measures derived from the questionnaire included supervisory duties (Yes; No), principal employer (private company, local government district, local government county/region, central government, other), education (compulsory school, 2-yr upper secondary school/vocational training, 3- or 4-yr upper secondary school, university or the equivalent (<3 yr), university or the equivalent (3 yr+)), marital status (single, married/cohabiting), financial situation, relationships with friends (Very poor; Poor; Noncommittal; Good; Very good), smoking (Yes daily, Yes sometimes, No), alcohol consumption (Never; Once a month or less; 2–4 times a month; 2–3 times a week or more), body mass index, and general life satisfaction. General life satisfaction was assessed by the question: All things considered, how satisfied or dissatisfied are you with your life as a whole? (Very dissatisfied; Moderately dissatisfied; A little dissatisfied; No feelings either way; A little more satisfied than dissatisfied; Moderately satisfied; Very satisfied). We further considered age (10-yr periods) and birth country (Sweden, other) by means of register data.

Data analyses

When used as the dependent variable, only ongoing conflicts were considered and contrasted with no conflicts. When used as the independent variable, all conflicts were used. In addition, we formed three categories; no conflict(s), terminated conflict(s), and ongoing conflict(s). Moreover, we used terminated conflict(s) with poor result compared with no conflict(s) as the independent variable. χ^2 tests were used to examine whether conflicts differed by sex and status. In order to create meaningful dimensions of workplace and work characteristics, factor analyses were performed and internal consistencies were calculated for some of the sub-dimensions of interest. Associations between workplace and work characteristics and conflicts, as well as between conflicts and self-rated health were estimated with multiple logistic regression analysis. The results of the logistic regression analyses were presented as standardized odds ratios (ORs) with 95% confidence intervals indicating the change in likelihood of conflict (Tables 3 and 4) and poor health (Table 5) associated with an increase of one standard deviation on the explanatory factor's scale. All work characteristics were entered into the same model for mutual adjustment. A similar model was fitted including all workplace characteristics. When studying the influence of work and workplace

characteristics on conflicts, the results were adjusted for potential confounding from age, marital status, birth country, education, and principal employer. Separate models were first fitted for men and women as well as for supervisory duties. The final analyses were, however, combined as no significant interactions were detected in regression analyses by means of including regression terms in the logistic regression models. Sex and supervisory duties were therefore included among the other covariates. When studying the relationship between conflicts and poor general health, financial situation and relationships with friends were also considered. In subsidiary models we further considered lifestyle factors (smoking, alcohol consumption, body mass index) and general life satisfaction. Finally, correlations between work characteristics and workplace characteristics and sources of conflicts were examined, and significant correlations with correlation coefficients between 0.15–0.20 are presented.

Due to missing values on separate variables not all observations could be used in the multivariate analyses. The analyses of workplace characteristics had the most excessive internal loss of observations. A separate analysis shows that missing values are dispersed among most of the variables, indicating no systematic pattern. An explanation of this could be that the questionnaire was quite long, making it easy for the respondent to overlook some question(s). A problem that arises when the researcher is using a large number of independent variables is the risk of multicollinearity. Analysis of this show that tolerance levels were above or at the lower limit usually accepted. All data analyses were carried out in SPSS 16.0.

Results

Descriptive statistics on conflicts

Among employees at workplaces with more than 20 employees, 1,126 (33.7%) responded that they had been involved in some type of conflict in the past two years (500 (31.8%) among men and 626 (34.4%) among women). This was more common among people with supervisory duties (n=441 (42.6%)) compared with other employees (n=672 (28.9%)). Among men with supervisory duties 40%, and among women with supervisory duties 47.5%, had been involved in conflicts of some kind. Among other employees the corresponding numbers were 27.8% among men and 30.4% among women.

For those who had been involved in conflict(s), the importance of the conflict(s) and whether the conflict(s) were still ongoing at the time of the survey in 2006 is presented in Table 1. Men, especially those with supervisory duties, reported important conflicts to a signifi-

Table 1. Response distribution concerning significance and duration of conflict(s) for those who in 2006 (out of 3,341 participants in workplaces with more than 20 employees) stated that they had been involved in any type of conflict in the past two years

		All			Supervisors			Other employees		
		All	Men	Women	All	Men	Women	All	Men	Women
	n=	1,126	500	626	441	223	218	672	273	399
		%	%	%	%	%	%	%	%	%
Importance	Unimportant	67	64	72	68	62	75	68	65	70
	Important	33	36	28	32	38	25	32	35	30
Duration	Terminated	61	61	61	60	58	61	61	63	60
	Still ongoing	39	39	39	40	42	39	39	37	40

Percentage (%).

Table 2. Response distribution with reference to the source of the conflicts for those who in 2006 had been involved in conflicts in the past two years

	All			Supervisors			Other employees		
	All	Men	Women	All	Men	Women	All	Men	Women
Source[1]	1,126	500	626	441	223	218	672	273	399
	%	%	%	%	%	%	%	%	%
Colleagues	36	32	40	36	36	37	37	29	42
Work tasks/duties	34	37	30	35	39	31	33	36	31
Resources and staffing	32	38	28	40	45	35	27	32	24
Job conditions, e.g. pay or working hours	29	38	22	29	37	21	29	38	22
Leadership quality and relation to immediate superior	27	29	25	26	25	28	28	32	25
Work demands and pace	24	27	22	29	32	26	21	24	19
Authorisations and responsibility	20	21	18	25	26	24	16	17	16
Patients, customers, clients, passengers, pupils	16	14	17	20	20	21	12	8	14
Other	8	8	8	9	9	9	7	8	7

[1]Several concomitant response alternatives were allowed.
Percentage (%).

cantly higher degree than women.

In Table 2, the sources of the conflict(s) according to the respondents are presented. Job conditions, resources and staffing, and work tasks/duties were the most frequent sources of conflicts for men, whereas for women it was conflicts with colleagues. Furthermore, people with supervisory duties were significantly more often than others in conflict about resources and staffing, work demands and work pace, authorisations and responsibility, as well as about patients, customers, clients, passengers, or pupils.

Concerning the result of the conflict(s), a significantly higher proportion of employees with non-supervisory duties reported poor results. The result of conflicts that were terminated prior to the 2006 survey was reported as poor by 14.7% of the men and 15.8% of the women with supervisory duties and by 25.4% of the men and 19.4% of the women with non-supervisory duties.

We observe that patients, customers, clients, pupils, and passengers, i.e. persons not belonging to the organisation, were the most uncommon source of workplace conflicts (15.9%).

Relationship with workplace and work characteristics

Table 3 presents odds ratios and 95% confidence intervals from the multiple regressions assessing the relationships between work characteristics and ongoing conflicts (n=2,482). A higher degree of conflicting demands, emotional demands and lack of resources as well as risk of transfer or dismissal was relatively strongly associated with ongoing conflicts. A weak relationship was also noted for poor promotion prospects in the adjusted model. Further adjustment for principal employer did not notably affect the estimates (data not shown). The corresponding analysis regarding workplace characteristics is presented in Table 4

Table 3.   Associations between work characteristics and ongoing conflicts (n=2,482). Multiple logistic regression. Standardized odds ratios with 95% confidence limits

Dimensions		Mean (Min/Max)/%	OR[1]	95%CI[1]
Demands	Quantitative demands	2.95 (1/4)	1.03	0.83–1.28
	Conflicting demands	2.58 (1/4)	**1.62**	**1.36–1.94**
	Emotional demands	2.68 (1/4)	**1.57**	**1.30–1.90**
	Social demands	3.41 (1/4)	0.87	0.71–1.07
	Intellectual demands	85.9 %	1.02	0.68–1.52
	Physical demands	2.07 (1/6)	1.00	0.91–1.09
Decision authority	Decision authority	3.04 (1/4)	0.93	0.79–1.10
Resources	Resources	82.0 %	**0.49**	**0.38–0.64**
Security of employment	Risk of transfer or dismissal	28.8 %	**1.56**	**1.22–2.00**
Career opportunities	Poor promotion prospects	2.49 (1/5)	**1.15**	**1.05–1.27**

[1]Adjusted for age, sex, education, and supervisory duties.

Table 4.   Associations between workplace characteristics and ongoing conflicts (n=2,086). Multiple logistic regression. Standardized odds ratios with 95% confidence limits

Dimensions		Mean (Min/Max)/%	OR[1]	95%CI[1]
Goals	Guided by organisational goals	3.98 (1/5)	1.09	0.91–1.30
	Matching basic values	3.83 (1/5)	1.06	0.85–1.32
Structure	Effective cooperation between departments	2.61 (1/4)	**0.73**	**0.59–0.92**
	Organisational structure	2.99 (1/4)	0.92	0.70–1.22
	Change of manager, group or tasks	1.55 (1/4)	1.19	0.88–1.42
	Expansion	2.74 (1/4)	1.04	0.92–1.17
	Downsizing and transferral	1.78 (1/4)	1.02	0.86–1.20
	Demoted	4.2 %	1.49	0.84–2.66
	Promoted	16.9 %	0.77	0.53–1.11
Management	Relations with immediate manager	2.78 (1/4)	**0.56**	**0.42–0.75**
	Confidence in the management	2.61 (1/4)	**0.58**	**0.46–0.73**
Freedom	Freedom of decision–making	3.13 (1/4)	0.84	0.64–1.11
	Influence	2.26 (1/4)	**1.82**	**1.46–2.27**
	Freedom in working hours	67.1 %	0.88	0.65–1.19
	Freedom in time off	3.71 (1/5)	0.88	0.76–1.02
Democracy	Manifest freedom of expression	3.05 (1/4)	**1.51**	**1.25–1.81**
	Workplace democracy	1.85 (1/3)	1.38	0.94–2.03
	Procedural justice/Fairness of decision	3.41 (1/5)	**0.75**	**0.61–0.92**
Humanity and social support	Social support	3.20 (1/4)	**0.41**	**0.29–0.59**
	Humanity	3.14 (1/4)	1.08	0.81–1.43
	Attitude of expendability	2.43 (1/4)	1.14	0.96–1.34

[1]Adjusted for age, sex, education, and supervisory duties.

(n=2,086). Among the workplace characteristics, lacks relating to level of influence and manifest freedom of expression, procedural justice, social support, confidence in the management, a good relation with the immediate manager and effective cooperation between departments were significantly related to ongoing conflicts. Further adjustment for principal employer did not influence the estimates much, nor did the estimates change much even after adjusting for work characteristics (data not shown).

This study has also inquired into the relations between sources of workplace conflict and risk and inhibiting factors (Table 2). The results are not shown here in their entirety, but the significant correlations (R 0.15–0.20) have been included in the matrix below.

Relationship with self-rated poor health

Table 5 shows odds ratios and 95% confidence intervals estimating the relationship between conflicts and poor general health. There was a significant relation between conflicts in general and poor general health (n=2,903), after adjusting for age, sex, marital status,

Table 5.   Associations between conflicts and poor general health (n=2,903). Multiple logistic regression. Standardized odds ratios

Conflicts	Cases (%)	OR[1]	95%CI[1]	OR[2]	95%CI[2]
Any	290 (25.9)	**1.61**	**1.32–1.97**	**1.28**	**1.03–1.59**
Terminated	148 (22.0)	**1.34**	**1.05–1.70**	1.17	0.91–1.50
Ongoing	137 (31.3)	**2.09**	**1.60–2.74**	**1.45**	**1.08–1.95**

[1]Adjusted for age, sex, marital status, birth country, education, financial situation, relationships with friends, and supervisory duties.

[2]Adjusted for age, sex, marital status, birth country, education, financial situation, relationships with friends, supervisory duties, as well as workplace and work characteristics (conflicting demands, emotional demands, resources, risk of transfer or dismissal, poor promotion prospects, effective cooperation between departments, relations with immediate manager, confidence in the management, influence, manifest freedom of expression, procedural justice, social support).

birth country, education, financial situation, relationships with friends, and supervisory duties. This relation remained significant even after adjustment for work- and workplace characteristics. When the conflicts were categorised into two groups (ongoing/terminated), the analysis showed that the relation was mainly attributable to ongoing conflicts (n=2,895). The odds ratio for ongoing conflicts remained 1.45 (CI 1.08–1.95) after adjustment for work- and workplace characteristics as well. We also adjusted for lifestyle factors and general life satisfaction which only changed the estimates marginally. In an additional analysis including 2,022 individuals, those with terminated conflicts with poor result had an unadjusted odds ratio of 2.50 (CI 1.66–3.76). This was reduced to 1.94 (CI 1.26–3.00) when adjusted for age, sex, marital status, birth country, education, economic stress, social contacts and supervisory duties, and to 1.40 (CI 0.88–2.22) in the fully adjusted model (corresponding to model 2 in Table 5). The corresponding analysis of terminated conflicts with good result resulted in adjusted ORs of 1.17 (CI 0.89–1.53) and 1.09 (CI 0.82–1.45) respectively. These data are not shown here.

Discussion

Strengths and limitations of the study

Our study has the general limitations of a cross-sectional study, which means that it is impossible to conclude anything about causal directions. For instance, it is not known whether conditions that allow employees to speak up at the workplace will cause conflicts or whether the direction of the relationship is the opposite one, that conflicts make people speak up; or whether both directions exist at the same time. It may be that conflicts at the workplace "corrupt" fairness of decisions (organisational justice) but it may also be the other way around, that lack of fairness of decisions will cause conflicts. Do emotional demands cause conflicts

or do conflicts generate emotional demands? Do people rate their health as poor because of conflicts they are involved in or do conflicts arise when people consider themselves to be in poor health? These questions cannot be answered in this study. In a future study based upon the same cohort a prospective design will be used.

Another limitation is the large number of variables in the study, which increases the likelihood of randomly occurring significance. This also results in a large number of missing values, since listwise deletion was employed. On the other hand, we have included factors previously not studied (see Appendix), which is a strength. A further major strength of the present study is that the results are representative for all workplaces with 20 or more employees in Sweden and that all kinds of jobs are represented.

Patterns in the main results

Since research on the importance of work and the workplace itself for the occurrence of workplace conflict is scarce and the studies that exist are difficult to compare, we chose not to discuss in detail the results of this investigation in relation to other results in the research area of conflicts. It is worth pointing out, however, that the present results are quite in line with those of at least one previous study[10]. The major difference between the present investigation and previous research efforts is the large number of variables examined, with 21 "workplace" and ten "work (eight) and individual (two)" factors. As indicated above this taxonomy which has been introduced for this project by our group has a theoretical basis in previous literature (for a discussion see 30). Decision authority –according to the demand control model –and quantitative demands did not establish significant associations with workplace conflict. Goals and structure (apart from the variable co-operation between sections/work groups) were also two dimensions that turned out not to be of much importance. Also surprising is that working hours were not a source of conflict,

Table 6. The Matrix

Level		Sources of conflict	Risk factors	Protective factors
Workplace factors	Group 1	Leadership	Involvement in decision-making	Fairness of decisions
	Group 2			Effective co-operation between departments
	Group 3	Leadership Leadership Colleagues	Manifest freedom of speech	Confidence in management Relationship with immediate manager Social support
Work factors	Group 4	Resources Demands and pace Patients	Conflicting demands Emotional demands	Resources
Individual factors	Group 5		Employment insecurity Small career chances	

Blank cells in the matrix indicate that we have not measured occurrences in these areas.

possibly because conflicts regarding long working hours are more or less taken for granted. It was also expected that traditional workplace democracy would be an inhibiting factor, but this turned out not to be the case. Twelve of the factors investigated turned out to be significant in the context of workplace conflict. However, since the results are both extensive and complex we have also here chosen not to discuss these factors individually, the idea rather being to distinguish some form of structure by attempting to group the results. The question posed was whether any pattern could be discerned among factors that increased or decreased the likelihood of conflict, shown in Tables 3 and 4.

The question about "small career chances" and the questions regarding "risk of being transferred to other tasks against one's will" and "threat of being laid off or being given notice to quit" were formulated in such a way that the responses may have been less 'objective' than most other questions and hence more 'subjectively flavoured'. We labelled the factors "Employment insecurity" and "Small career chances". A new sublevel was therefore created and labelled "Individual factors".

In a next step the 12 significant variables were separated into a risk category and a protective category, and the workplace factors were divided into three strata or groups. This allowed the risk factors and the inhibiting factors to be sorted by pairs into the matrix created. Finally, the significant correlations between the 12 variables and the sources of conflicts in Table 2 were added to the matrix. Correlations in the order of 0.15–0.20 obviously account for a very small part of the variance but we nevertheless decided to keep these results in the matrix. Our choice in this matter was guided by logic and not by the statistical strength of the correlations, since the aim of the matrix is to provide an overview of the results and a first basic framework for the generation of hypotheses for future research. Causality cannot be inferred because of the cross-sectional nature of the study.

If workplace conflicts are regarded not as occasional events but as part of a dynamic process there should be a balance between risk factors and protective factors; a balance that can be maintained during shorter or longer periods but can also easily be lost. The reason for this may be changes in the world outside the organisation. In order to survive in the long term, the organisation – seen as an open system – must adapt or in some other way take a position with regard to the new conditions. The balance can also be disturbed by changes within the organisation. Reorganization and managerial training are examples of such changes. These may result in corrective movements. Our results give the picture of a dynamic situation where some of the risk factors and the protective factors are tied together like horses of a pair (see Groups 1, 3 and 4 in Table 6) and where there is also a dynamic relation between the levels.

The paired relationships in Table 6 (Groups 1, 3 and 4) may be thought of as follows: If the organisation develops its decision-making practices so that employees become more involved in the decision making, there will be more conflicts unless procedural justice at the workplace is concurrently improved (Group 1). There will be more conflicts at the workplace if employees tell their managers what they think, feel and want. Confidence in management and good relations with immediate managers may improve the process of handling conflicts; conflicts may therefore become more constructive. A positive change in the management's attitude to criticism from employees can facilitate the feeling among staff that they can express their true opinions and feelings. Improving social relationships and creating trust thus provides protection against the risk of conflicts arising because employees speak up (Group 3).

Emotional demands and conflicting demands (role ambiguity) are potential risk factors that are probably

linked to the amount of resources the employee has access to. Adequate resources may reduce the amount of conflicts, therefore, or make it possible for the employees to handle more and harder emotional and conflicting demands (Group 4).

It is not known, from the results of the present study, whether there are specific risk factors involved when employees have to work together across borders within an organisation. What our results do indicate, however, is that good management may protect employees from conflict situations with other parts of the organisation by structuring the co-operation in a way that minimises conflicts (Group 2).

Small chances of career advancement can be a source of conflict, in particular in the situation where several persons within the organisation are trying to be promoted to the same position. The risk of being involuntarily transferred to new duties and the threat of dismissal may arise during reorganisation and downsizing. Our results indicate that this might be a risk factor for conflict. But strict principles and procedures for recruiting staff, respect for the legislation regulating employment conditions, and solid information about the actual situation of the business and what applies in the event of shortage of work could be important protective factors (Group 5).

Such an interpretation of our results would make it self-evident for all employees to work for improvement of the balance. But the prevailing state of balance can be desirable from the viewpoint of some parties, while others may view it as undesirable.

The outcome of a conflict is likely to depend partly on the actors' power resources and their chances of achieving a positive result. Relationships are often asymmetrical, so even in organisations. One part may on the whole lack any chance of changing the situation if the opposite part has all the line organisational power and can make all decisions regarding allocation of resources with the result that one part will experience itself as the loser and the other as the winner. However, both parties may also experience themselves as winners or as losers.

Workplace conflict and health issues

That conflicts arise is a fact of life, but 1) not necessarily unavoidable (there are risk factors to monitor as well as protective factors to enhance) and 2) not necessarily in themselves the causes of health problems. Health problems arise when conflict outcomes are negative for the affected employee(s).Our results show that self-rated health was estimated as worse among employees who reported that conflicts had ended in negative outcomes than among those without conflicts. The

association between conflict and various measures of health has been demonstrated in several studies. After adjustment for a large number of social conditions that affected the results only marginally, the increased likelihood of self-reported poor health was in the order of 100%. After further adjustments for work and workplace factors this increase in likelihood was reduced to about 50%. These results suggest that other work and workplace factors may exist within the context in question and that there may be an effect from psychological factors as well, for example individual personality traits. Keeping in mind the serious consequences that workplace conflicts appear to have for employee health in cases with negative outcomes for the employee, the observed risk factors and protective factors provide a good starting point for effective intervention and prevention work.

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