



Occupational Health  
Clinics for Ontario  
Workers Inc.



## **Psychosocial factors at work**

**based on the NRCWE's short questionnaire for assessment  
of the psychosocial work environment**

**COPSOQ**

**2007 edition with additions**

**Results for:**

**OSSTF Brock University**

NB - this report uses colour coding extensively - if possible it would be best to print in colour or view on a screen

## Executive Summary

### method

An expanded version of the Copenhagen Psychosocial Questionnaire (COPSOQ) was provided via an online link to the members of OSSTF Brock University

Members were asked to answer the survey questions and the Occupational Health Clinics for Ontario Workers (OHCOW) managed the data collection and the analysis - this report summarizes this analysis

### response rate

first response date: **February 20, 2014**

last response date: **April 30, 2014**

number of respondents: **73**

number available to fill out survey: **230**

response rate: **32%**

A response rate of less than 50% means that either the administration of the survey was not done properly or that a large proportion of the group being surveyed did not have confidence in the process. Any results of the survey can only be considered as reflecting those who participated not the group as a whole. This can present a serious problem in interpreting the results.

### safety concern issues

The following is a list of the top 3 hazards based on the average rating provided by the respondents:

1. thermal comfort
2. air quality
3. ergonomics

### sample size

**73** responses

With more than 50 responses we can be confident that each association is statistically significant, although even in these circumstances one in 20 associations could be due to chance.

### associations

The following is a list of the top risk factors most associated with the combined symptoms:

psychosocial: **bullying**

**emotional demands**

**psychological H&S climate**

physical environment: **safety hazards**

**physical factors**

**working alone**

**These are the issues that should be focussed on for prevention purposes!**

**Please Note: The survey results should be seen as a tool for dialogue and development – not as a “report card”.**

number of respondents: **73**

number available to fill out survey: **230**

response rate: **32%**

### Comments on the response rate:

The response rate is calculated by dividing the number of responses received by the number of persons eligible to do the survey. The response rate is important to know because it indicates how confident you can be that the results are representative of the whole group.

If the **response rate is 80% or more**, then you can be confident that the results in this report are representative of the whole group (the results wouldn't change significantly even if all the eligible people had responded).

A **response rate between 67-80%** is reasonable but not as strong as over 80%; there is a bit of uncertainty about representativeness.

A **response rate between from 50-66%** suggests there may be issues among those who did not respond or else the survey was not administered well (surveys need lots of reminders (i.e. nagging) to ensure all those who are willing to participate, actually do participate). At this level of response, we cannot rule out the possibility that, if those who did not participate had been included, the results would be different.

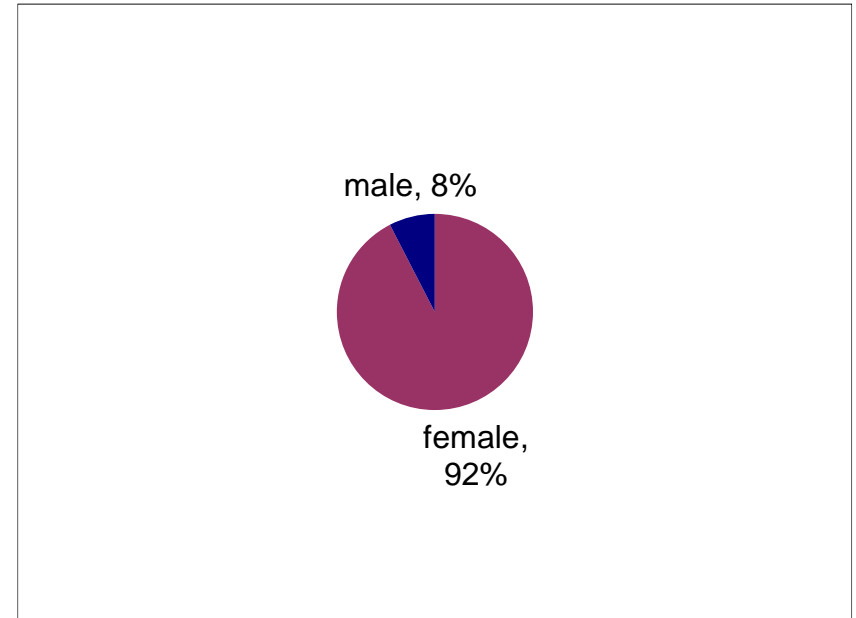
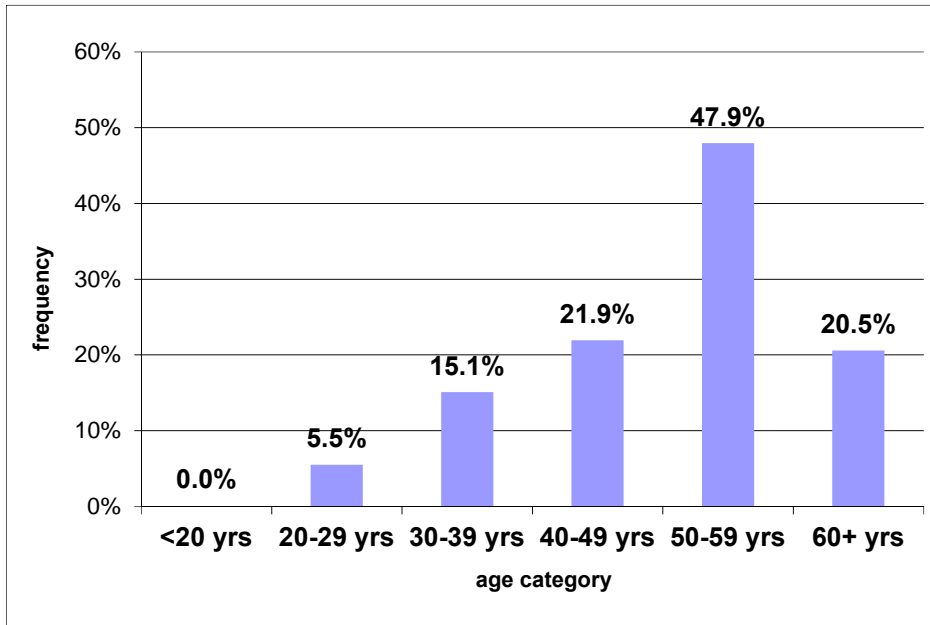
A **response rate of less than 50%** means that either the administration of the survey was not done properly or that a large proportion of the group being surveyed did not have confidence in the process. Any results of the survey can only be considered as reflecting those who participated not the group as a whole. This can present a serious problem in interpreting the results.

	<u>average</u>	<u>low</u>	<u>high</u>	
<b>scheduled hrs per week</b>	<b>33.4</b>	<b>1</b>	<b>40</b>	hrs/wk

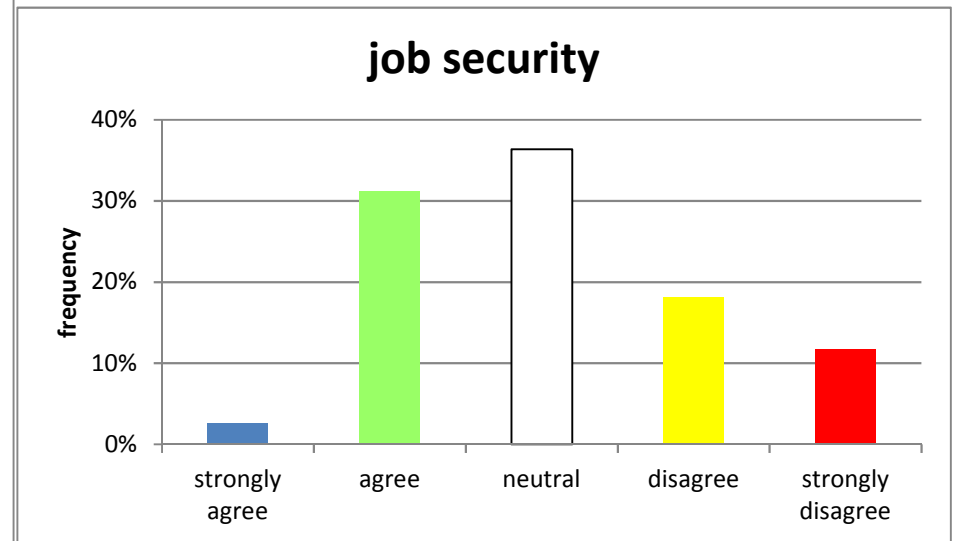
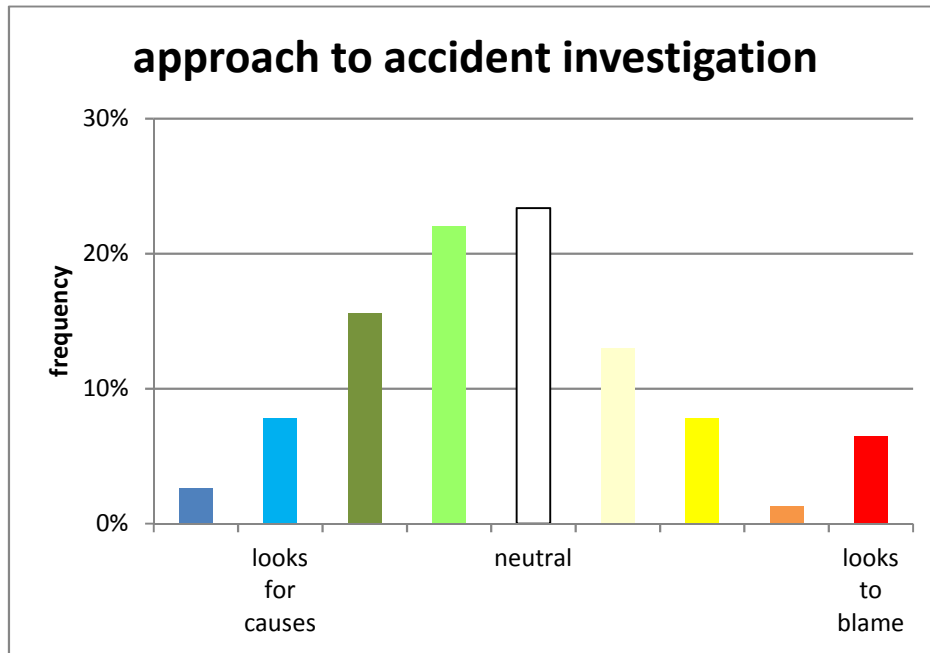
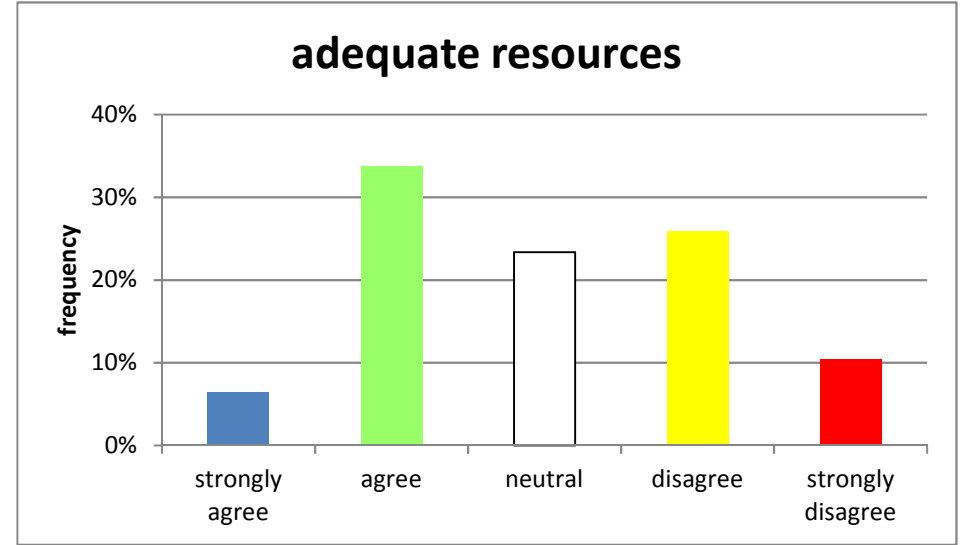
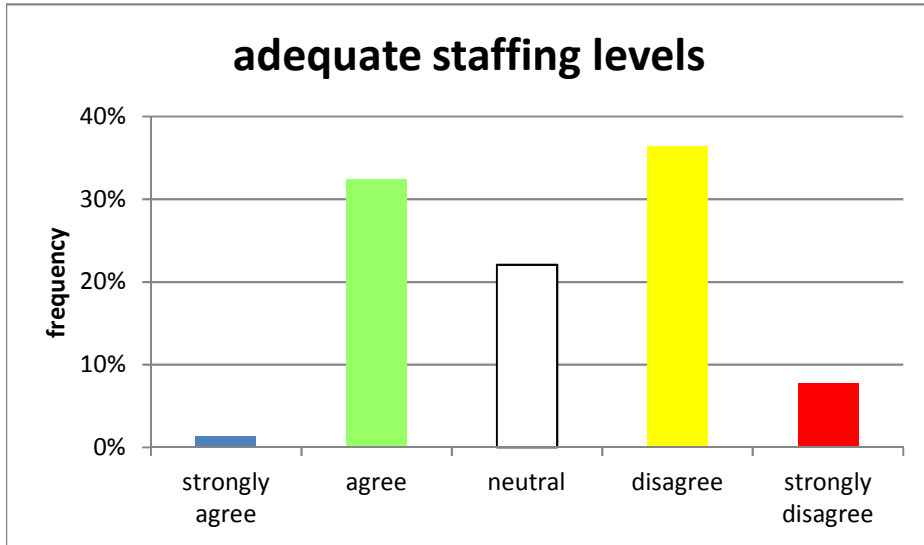
<b>department:</b>	
academics	<b>42.2%</b>
student services	<b>37.3%</b>
other	<b>20.5%</b>

	<u>average</u>	<u>low</u>	<u>high</u>	
<b>How long have you worked here?</b>	<b>11.5</b>	<b>1</b>	<b>43</b>	years

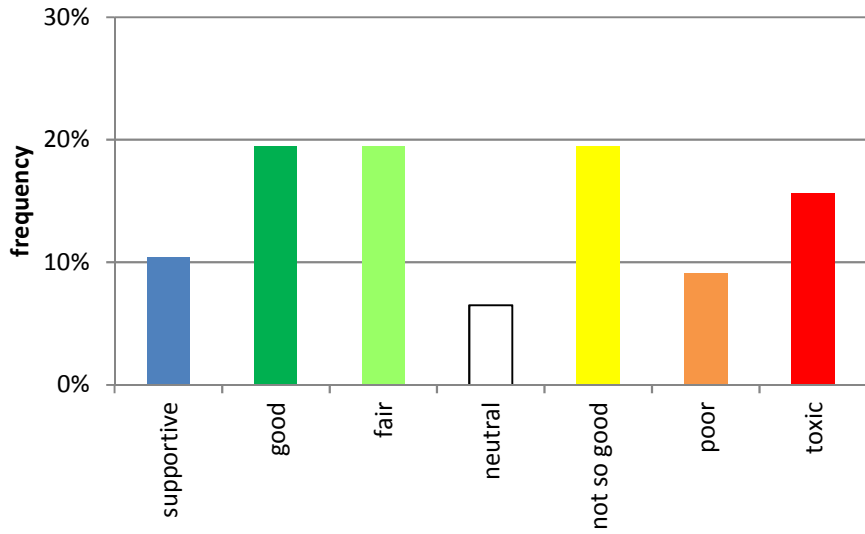
<b>employment status</b>	
permanent full time	<b>85.7%</b>
permanent part time	<b>6.5%</b>
seasonal full time	<b>2.6%</b>
seasonal part time	<b>1.3%</b>
limited term full time	<b>1.3%</b>
limited term part time	<b>0.0%</b>
temporary employment services	<b>2.6%</b>
other	<b>0.0%</b>



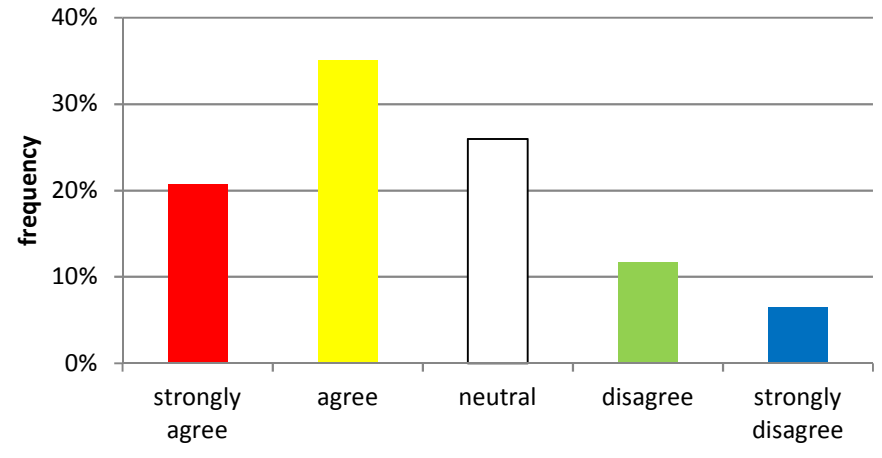
shift arrangement	
Regular - daytime schedule or shift	91%
Regular - evening shift	0%
Regular - night shift	0%
Rotating shift (change from days to ever	0%
Split shift	0%
On call	1%
Irregular schedule	2%
Other	5%



### workplace psychological H&S climate



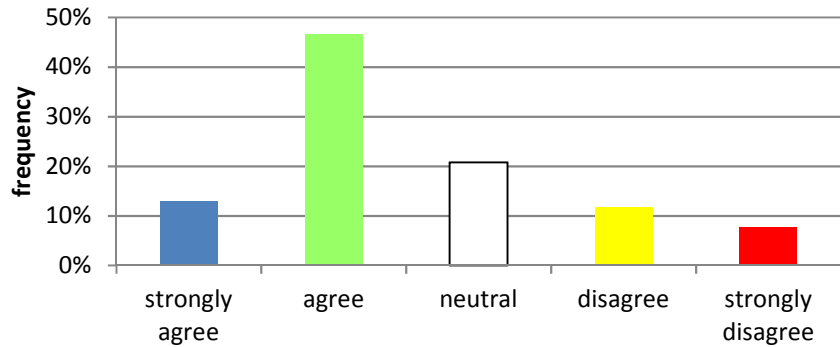
### tolerance of behaviour which is harmful to mental health



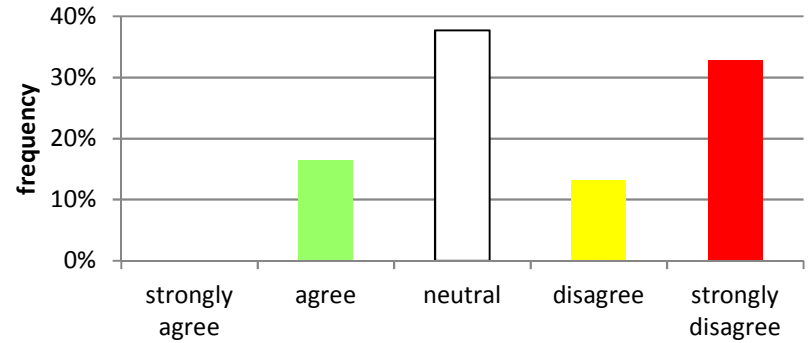
### does your workplace have a violence & harassment policy?

yes	69.7%
no	3.9%
not sure	26.3%

### acomodations for home responsibilities



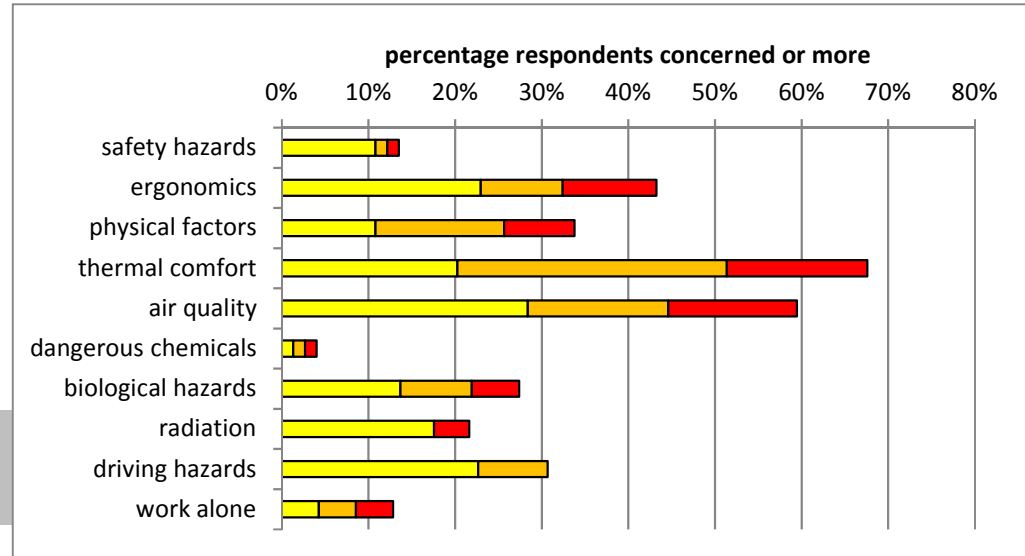
### effective violence & harassment policy



## Ratings of Workplace Hazards

workplace environmental hazards % respondents with hazard rating 3 or more (concerned, annoyed or interfering with work)

safety hazards	13.5%
ergonomics	43.2%
physical (noise, light)	33.8%
thermal comfort	67.6%
air quality	59.5%
dangerous chemicals	4.0%
biological hazards	27.4%
radiation	21.6%
driving hazards	30.7%
working alone	12.9%



### rating scale

5	exposures interfere with ability to get job done
4	exposures cause annoyance
3	exposures cause concern
2	present but not usually an issue/concern
1	well designed/controlled
0	not applicable

### statistical associations

	burnout	stress	sleep troubles	somatic symptoms	cognitive symptoms	all symptoms
safety hazards						
ergonomics						
physical factors						
thermal comfort						
air quality						
dangerous chemicals						
biological hazards						
radiation						
driving hazards						
working alone						

### top workplace hazards by frequency

1. thermal comfort
2. air quality
3. ergonomics

### top workplace hazard by symptom association

1. safety hazards
2. physical factors
3. working alone

**Statistical Associations:**

number of respondents: **73**

The following tables present the results of correlation calculations. For each psychosocial risk factor (e.g. quantitative demands, bullying, etc.) the correlation with each of the symptoms (e.g. burnout, etc.) was tested. If the correlation was judged to be statistically significant, then the corresponding cell in the table has been shaded (the darker colours indicating stronger associations).

For **less than 15 responses** the results are very uncertain . this number of responses is really too small to analyze for correlations

**Between 16-30 responses** we can calculate correlations but a fair number of these correlations may be the result of random effects, thus we need to observe the overall patterns rather than the individual associations

**Between 31-50 responses**, we still have some random %statistical noise+but the individual associations are approaching a significant degree of confidence

With **more than 50 responses** we can be confident that each association is statistically significant, although even in these circumstances one in 20 associations could be due to chance.

		burnout	stress	sleep troubles	somatic symptoms	cognitive symptoms	all symptoms
demand s	quantitative demands						
	work pace						
	emotional demands						
work organization	influence						
	possibilities for development						
	meaning of work						
	commitment to the workplace						
relationships	predictability						
	rewards (recognition)						
	role clarity						
	quality of leadership						
	social support from supervisor						
work values	trust of mgmt						
	justice & respect						

**Note:** It is important to realize that associations do not necessarily imply causes. Also, there may be interactions between risk factors that this spreadsheet cannot take into account.



offensive behaviours broken down by sources		burnout	stress	sleep troubles	somatic symptoms	cognitive symptoms	all symptoms
undesired sexual attention	colleagues	too few	too few	too few	too few	too few	too few
	manager/superior	too few	too few	too few	too few	too few	too few
	sub-ordinates	too few	too few	too few	too few	too few	too few
	clients/customers/patients	too few	too few	too few	too few	too few	too few
threats of violence	colleagues	too few	too few	too few	too few	too few	too few
	manager/superior	too few	too few	too few	too few	too few	too few
	sub-ordinates	too few	too few	too few	too few	too few	too few
	clients/customers/patients	too few	too few	too few	too few	too few	too few
physical violence	colleagues	too few	too few	too few	too few	too few	too few
	manager/superior	too few	too few	too few	too few	too few	too few
	sub-ordinates	too few	too few	too few	too few	too few	too few
	clients/customers/patients	too few	too few	too few	too few	too few	too few
bullying	colleagues						
	manager/superior						
	sub-ordinates	too few	too few	too few	too few	too few	too few
	clients/customers/patients						
discrimination	colleagues						
	manager/superior						
	sub-ordinates	too few	too few	too few	too few	too few	too few
	clients/customers/patients	too few	too few	too few	too few	too few	too few
vicarious offensive behaviours	colleagues						
	manager/superior						
	sub-ordinates	too few	too few	too few	too few	too few	too few
	clients/customers/patients						

		burnout	stress	sleep troubles	somatic symptoms	cognitive symptoms	all symptoms
offensive behaviours	undesired sexual attention	too few	too few	too few	too few	too few	too few
	threats of violence	too few	too few	too few	too few	too few	too few
	physical violence	too few	too few	too few	too few	too few	too few
	bullying						
	discrimination						
	vicarious offensive behaviours						

types of vicarious offensive behaviours		
note: more than one could be selected	undesired sexual attention	1.4%
	threats of violence	1.4%
	physical violence	1.4%
	bullying	40.6%
	discrimination	13.0%

sums of psychosocial factor categories

		burnout	stress	sleep troubles	somatic symptoms	cognitive symptoms	all symptoms
	demands_sum						
	workorg_sum						
	relationship_sum						
	workvalues_sum						
	offensive behaviour sum						
	0.205479452						

Top correlations with Burnout

- psychological H&S climate
- rewards (recognition)
- bullying
- staffing levels
- BBS sum

Top correlations with Stress

- emotional demands
- bullying
- psychological H&S climate
- BBS sum
- fear of sanctions

Top correlations with Sleep Troubles

- emotional demands
- bullying
- discrimination
- fear of sanctions
- psychological H&S climate

Top correlations with Somatic Symptoms

- emotional demands
- bullying
- psychological H&S climate
- intolerance of harmful behaviour
- workplace has sufficient resource

Top correlations with Cognitive Symptoms

- emotional demands
- bullying
- fear of sanctions
- BBS sum
- predictability

Top correlations with total Symptom Score

- bullying
- emotional demands
- psychological H&S climate
- staffing levels
- BBS sum

## Ideas for Addressing Top 3 Issues Related to Total Symptom Score

### bullying

OPSEU has a guidebook available online (<http://www.opseu.org/hands/pdf/Workplace%20Violence%20Booklet.pdf>) titled %Violence and Harassment at Work+which is a 50 page document with ideas on how to prevent violence and harassment in the workplace.

Also the Occupational Health and Safety Council of Ontario (OHSCO) have a Workplace Violence Prevention Tools available online ([http://www.labour.gov.on.ca/english/hs/pubs/wvps\\_toolbox/extracts.php](http://www.labour.gov.on.ca/english/hs/pubs/wvps_toolbox/extracts.php)).

Between these two resources, the workplace should have a number of tools to assess and develop controls for preventing workplace bullying.

### emotional demands

Ideas for managing emotionally challenging work:

- Specific objectives for work (when is the work result good enough/success criteria?)
- Feedback, talking about issues/concerns and acknowledgement from peers and supervisors
- Possibility of withdrawing (place for privacy) after intense emotional encounter
- Education/continuous training appropriate to customers/patients/clients with special needs
- Ensure breaks are taken (encourage workers to leave building for lunch breaks)
- Establish critical response and debriefing protocols
- Procedure for communication between shifts and persons with responsibility for the same customer/patient/client

### psychological H&S climate

The question about psychological health and safety climate is a "global" rating which asks participants to rate the psychological H&S climate on a continuum stretching from "supportive" to "toxic". If this question is associated with symptom experience (as it would be if this text box appears), it can be interpreted that the rating is indicative of conditions which are either protective (i.e those selecting the supportive end of the scale having less symptoms), or indicating conditions are troubling (i.e. those selecting the "toxic" end of the scale experiencing stress symptoms). The presence of this item in the top 3 issues as a negative term is an indication of a "climate"/"culture" problem in the workplace.

## background

The Mental Injuries Tool group was established out of a stakeholder sub-committee of worker representatives and the Occupational Health Clinics for Ontario Workers who were charged with supporting worker representatives in taking action on prevention and workers compensation. In February 2011 members of the working group and other interested people attended a workshop which reviewed the theory behind common psychosocial measurement tools. Participants were walked through the content of a number of surveys, filled them out, and reviewed the scored results. Based on many contacts and deliberations, the group decided to pilot test the COPSQ survey at upcoming union events. We contacted Tage Kristensen, the author of the COPSQ survey and received permission to use instrument (all the materials associated with the survey are freely available online at: <http://www.arbejdsmiljoforskning.dk/en/publikationer/spoergeskemaer/psykisk-arbejdsmiljoe>). No changes were made to the English language version of the COPSQ questions.

Based on these successful pilot administrations of the survey, the feed-back we received from the pilot respondents, and discussions within the MIT group it was decided to adopt the COPSQ survey as the basis for our assessment tool. For the symptoms however, we included extra questions from a longer version of the survey. Five symptom categories were included (burnout, stress, sleep troubles, cognitive and somatic symptoms). With respect to the questions about offensive behaviours, two questions concerning discrimination and vicarious offensive behaviours were added. We did not include any questions regarding an individual's history of mental illness or depressive symptoms since we were concerned the worker representatives using the survey might be able to trace an individual's responses and label or diagnose the person (even though the surveys are anonymous).

In response to the feedback received during the union conferences and discussions during MIT meetings/calls, questions were considered about exposures to other health and safety workplace hazards. These questions address issues similar to the Supportive Physical Environment, which was added as a 13th Workplace Factor in the CSA Z1003 national standard on Psychological Health and Safety in the Workplace. Furthermore, various preliminary and demographic questions (often customized to the union or workplace) were also added. The decision to include the exposure questions was made by the MIT group whereas the decision to include various demographic and other questions (e.g. shift work), was left to the discretion of the parties using the survey for their particular workplace. Any additional questions (like the shift question) were usually taken from established sources (such as the Canadian Community Health Survey) so that the results will be comparable to published data/studies. The questions regarding behaviour based safety programs were taken from the Nordic Occupational Safety Climate Questionnaire (NOSACQ-50) (<http://www.arbejdsmiljoforskning.dk/en/publikationer/spoergeskemaer/nosacq-50>).

## methodology

To test for possible associations between psychosocial risk factors and symptoms, a correlation matrix was constructed to identify those risk variables that have statistically significant associations with symptoms. From this matrix we select the top risk factors associated with the sum of all the symptoms (as measured by the coefficient of determination ( $r^2$ )). These top risk factors are then presented as the main issues for the H&S reps to work on. The correlation matrix is also a part of the spreadsheet analysis tool. This list of risk factors for further attention is based on an internal comparison of only the respondents data and thus, does not rely on the comparison with the Danish reference data for this selection.

For large data sets we have performed additional multi-level regression analyses to check the performance of the spreadsheet in identifying the top three issues. So far the performance of the spreadsheet tool has been reasonable but not perfect. There are interactions between risk factors which are not accounted for by the bivariate statistical calculations in the spreadsheet which the more sophisticated multi-level regression analysis is able to detect and account for.