



# Workplace bullying, health and long-term consequences – Individual and organizational level

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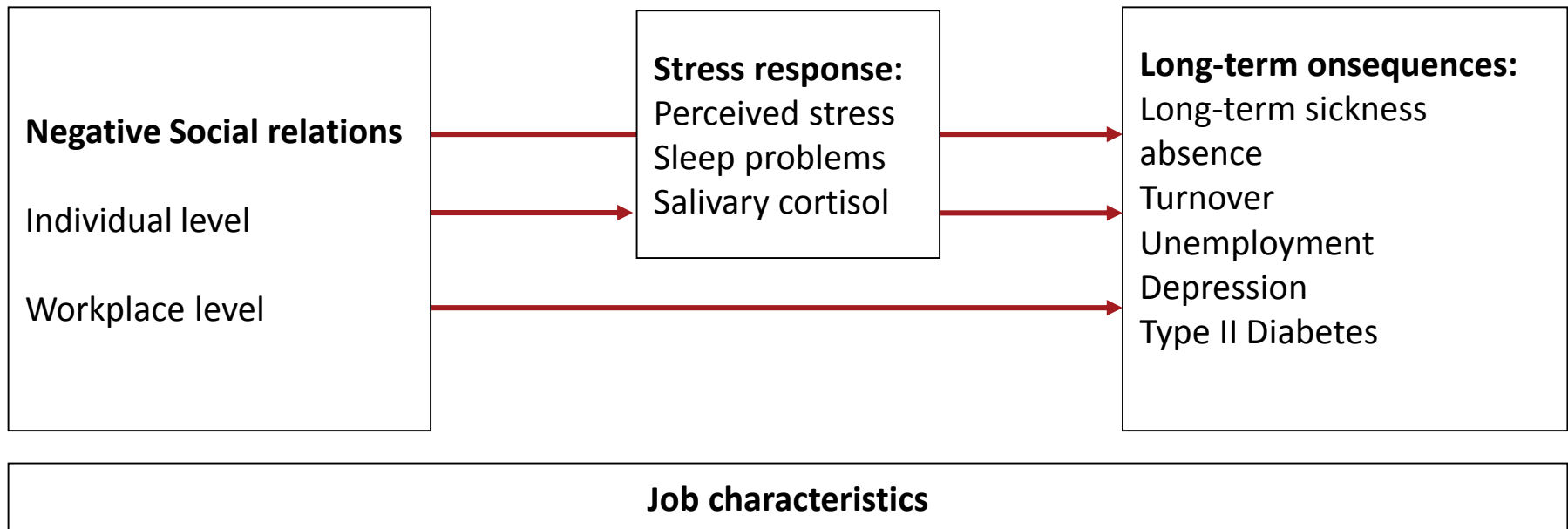
UNIVERSITY OF COPENHAGEN

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# Conceptual model for workplace bullying and long-term consequences

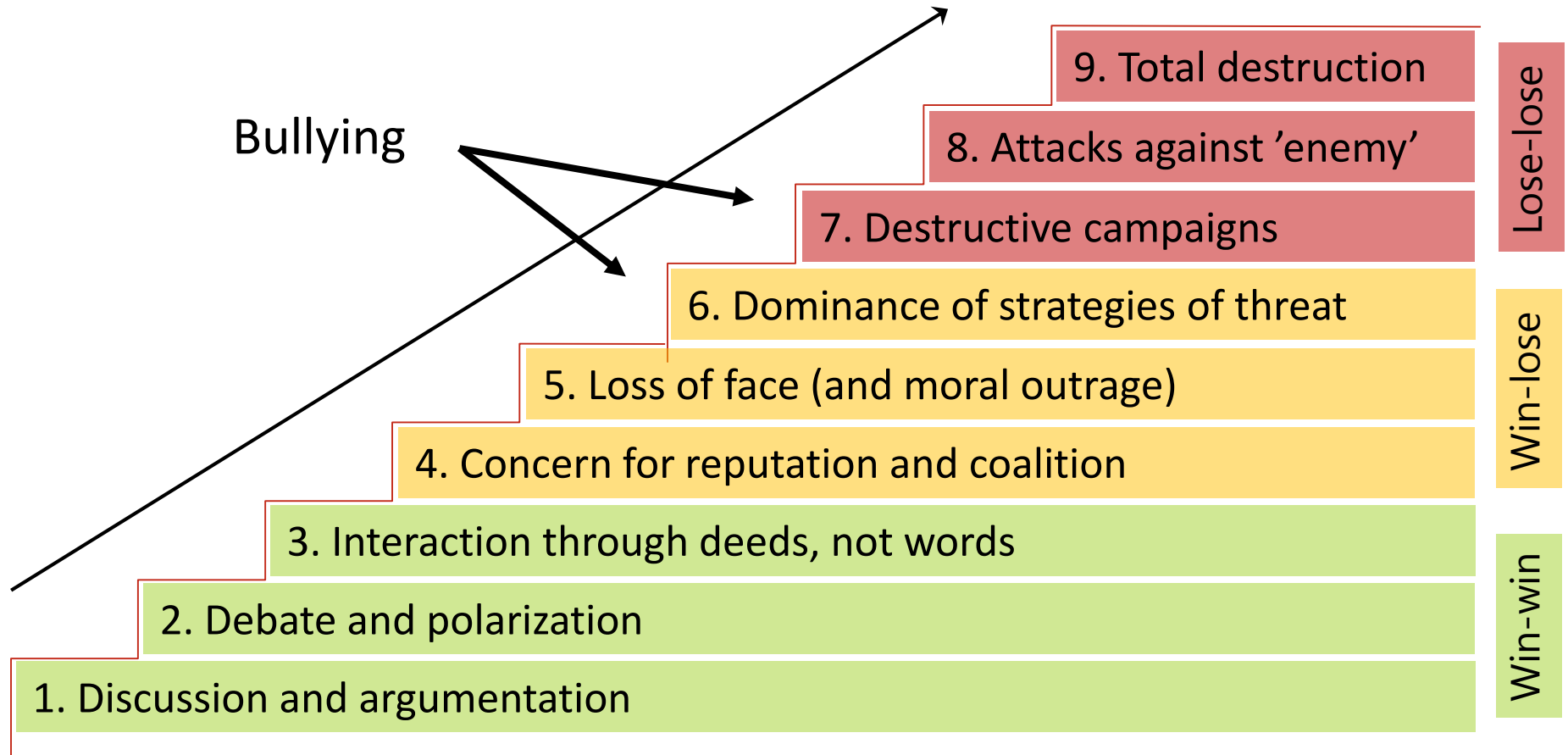


# Workplace bullying

- Bullying at work, according to most definitions, takes place when someone, repeatedly and over a long period of time (usually 6 months), is exposed to negative acts from one or several others, in a situation where he or she for different reasons may have difficulties defending him- or herself against these actions
- Friendly teasing and single conflicts are not bullying.



# Escalating a conflict



Glasl 1982; Zapf & Gross, 2001)





# Four phases in the development of bullying

## 1. Aggressive actions

Sophisticated, hidden / 'behind closed doors', difficult to confront

## 2. Bullying / stigmatization

Direct actions – humiliate, ridicule, isolate

## 3. Management act

Case – find shortcomings of the target

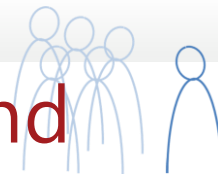
The target cannot defend him/herself anymore and has many symptoms and sickness absence days

## 4. Expulsion

Direct: dismissal, are made redundant

Indirect: 'voluntary' agreement to resign

Leymann 1996



# Risk factors of workplace bullying - Background

## Individual level

Negative social climate, many conflicts, lack of information

Lack social support from co-workers and supervisors

Høgh, Ortega, Giver, & Borg, 2007; Lakey, Tardiff, & Drew, 1994; Lee & Ashforth, 1996.

## Organizational level

Stressful and poorly organized work environments

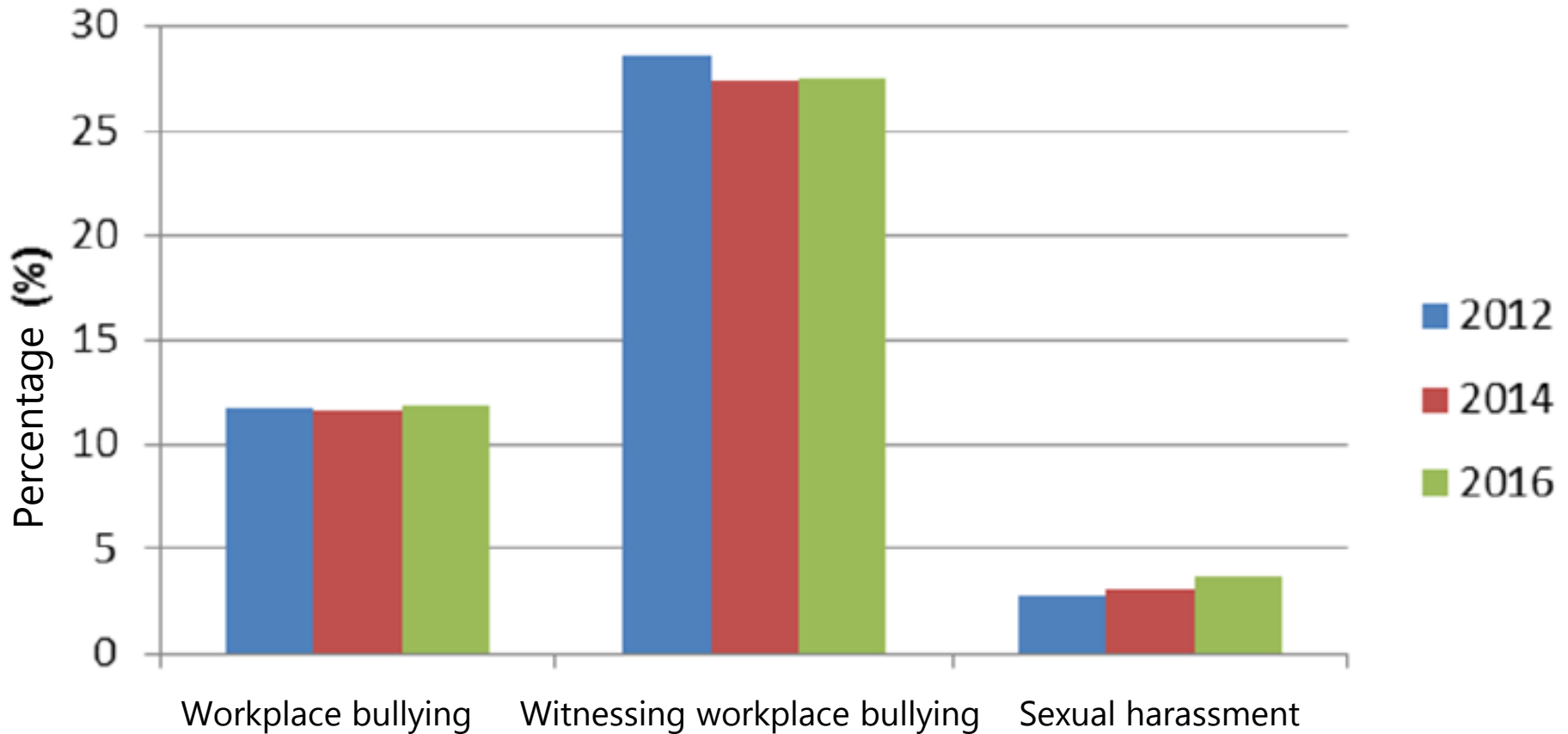
Agervold & Mikkelsen, 2004; Bowling & Beehr, 2006; Einarsen, Raknes, & Matthiesen, 1994;

Hauge, Skogstad, & Einarsen, 2007; Leymann, 1996; Rafnsdóttir & Tómasson, 2004.



# Workplace bullying in Denmark 2012 - 2016

## Workplace bullying and sexual harassment





# Measuring workplace bullying







# Measuring workplace bullying I

## Self-labelling item

Preceded by a definition '*Bullying takes place when employees are exposed to negative or offensive acts repeatedly over a longer period of time, which it is difficult to defend oneself against*'. Zapf et al 1995

- Have you been subjected to bullying at work within the past 6 months?

Response options: Never, now and then, monthly, weekly, and daily

- Occasionally bullied= now and then and monthly
- Frequently bullied= weekly and daily





# Measuring workplace bullying II

Negative acts questionnaire (22 items) Einarsen et al 2009

Examples of items:

- Someone withholding information which affects your performance
- Spreading of gossip and rumors about you
- Being shouted at or being target of spontaneous anger
- Repeated reminders of your errors or mistakes
- Persistent criticism of your work and effort

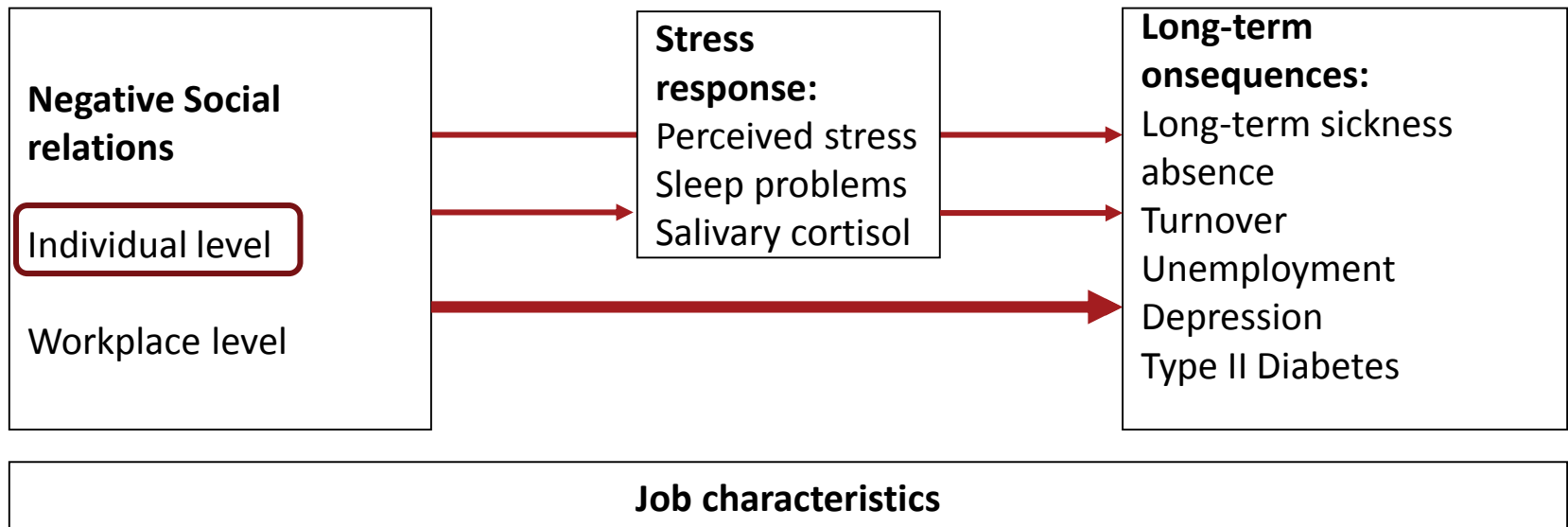
...

Response options: Never, now and then, monthly, weekly, and daily



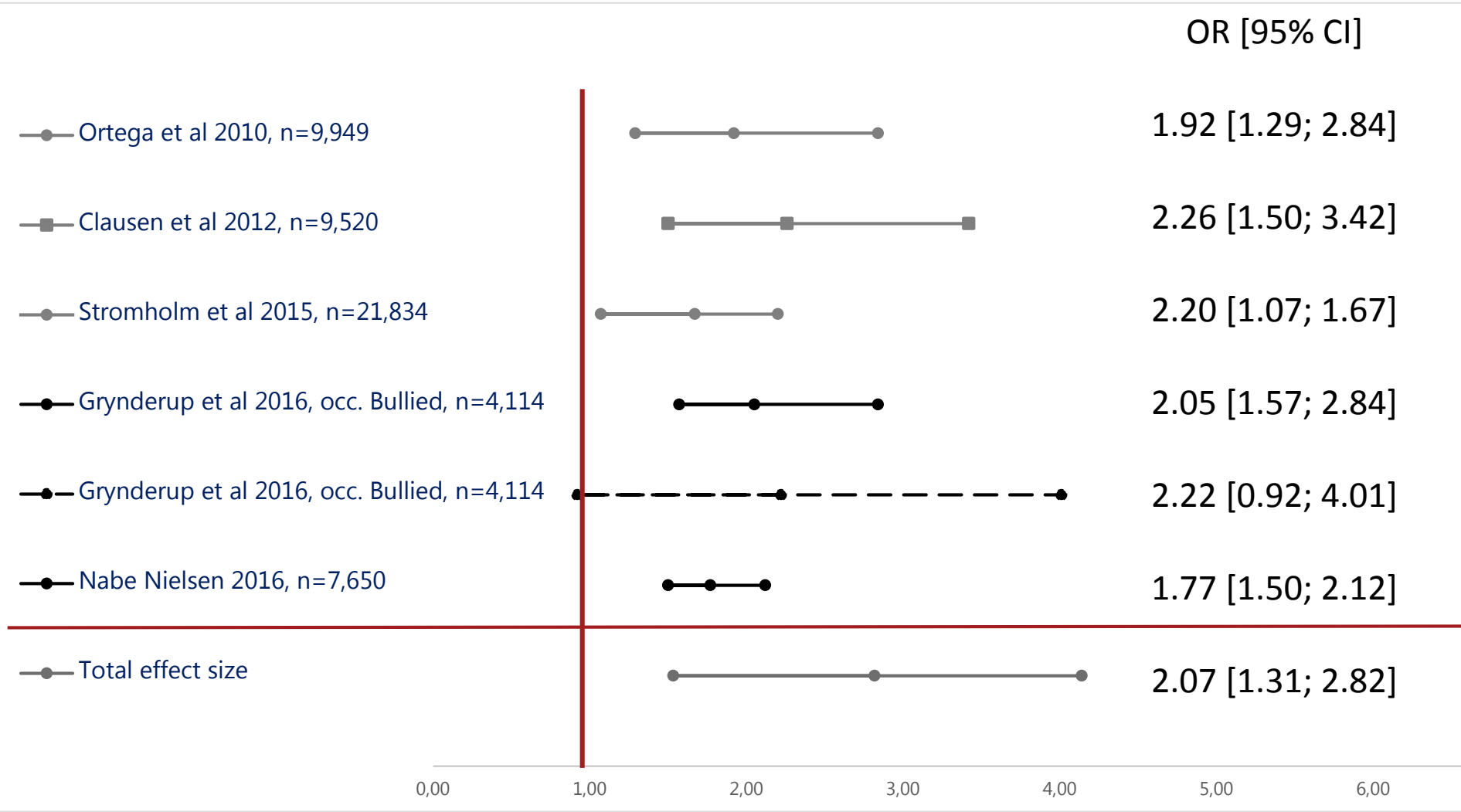
# Workplace bullying and long-term consequences

## Individual level





# Workplace bullying and long-term sickness absence

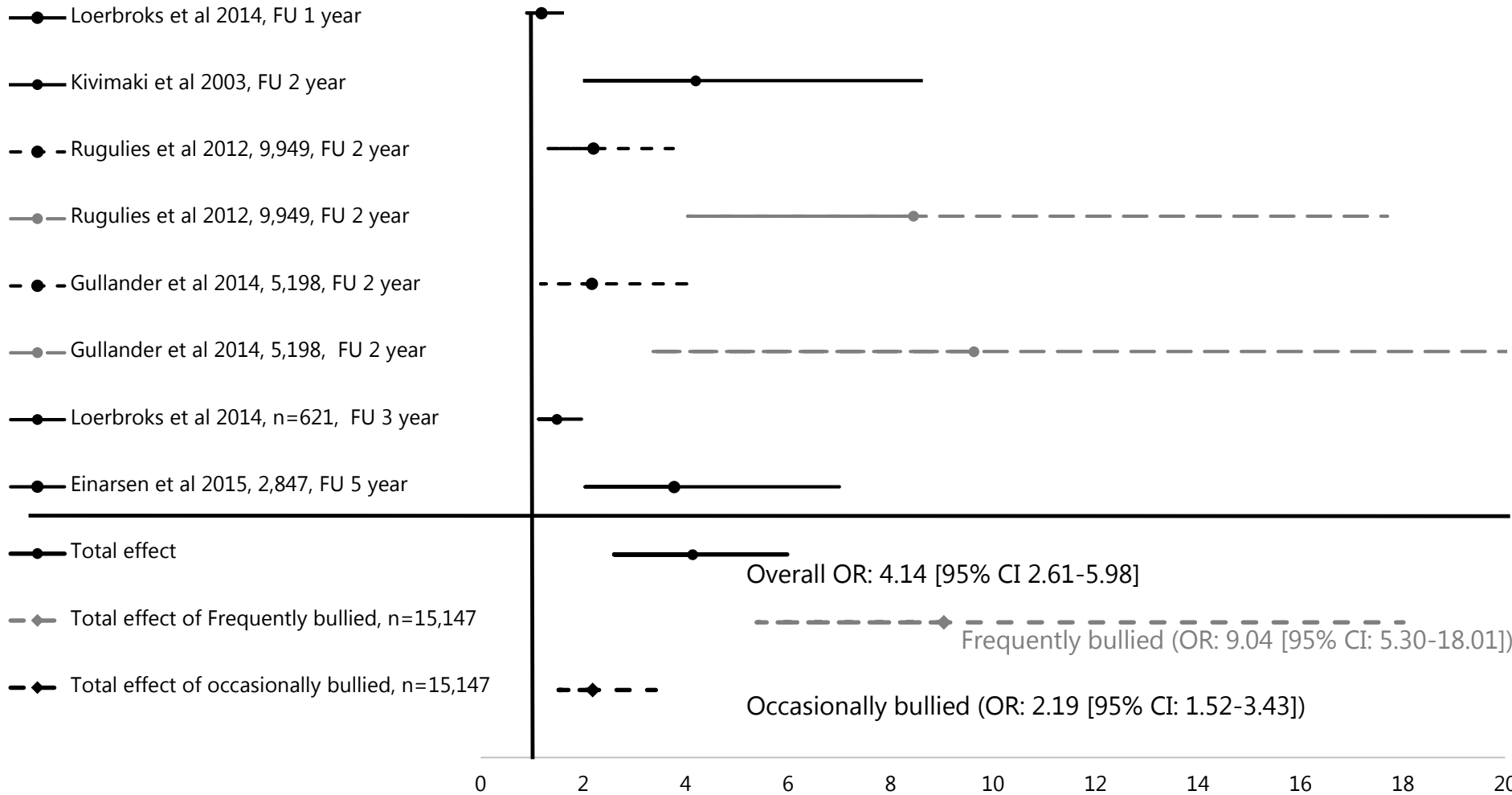




# Workplace bullying and labour market affiliation

- Unemployment (Glambek et al. 2015)
- Turnover (Glambek et al. 2015, Hogh et al. 2011, Hogh 2012, Berthelsen et al 2011, Clausen et al. 2013, Clausen et al. 2016)
- Intention to leave the job (Berthelsen et al 2011, Houshmand et al. 2012, Moreno-Jimenez et al. 2012, Glamsbek et al. 2014)

# Workplace bullying and depression





# Workplace bullying and CVD

Please find the reference



# Workplace bullying and type II diabetes



<https://doi.org/10.1007/s00125-017-4480-3>

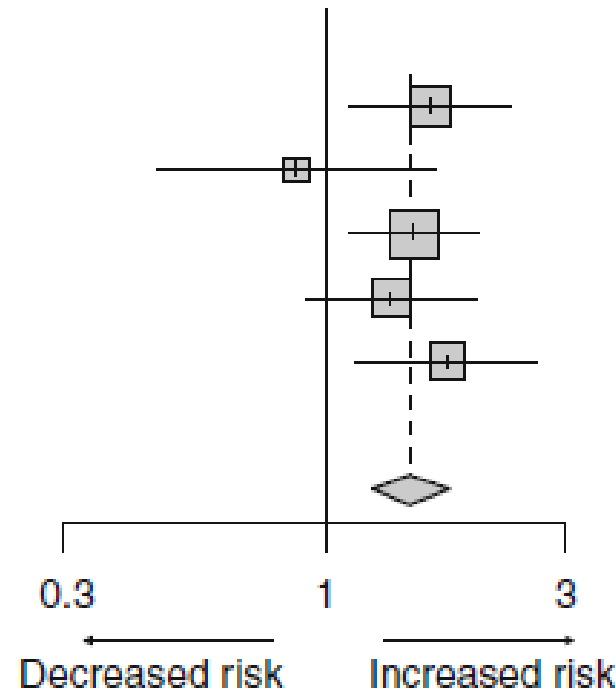
ARTICLE

## Workplace bullying and violence as risk factors for type 2 diabetes: a multicohort study and meta-analysis

Tianwei Xu<sup>1,2</sup> · Linda L. Magnusson Hanson<sup>2</sup> · Theis Lange<sup>3,4</sup> · Liis Starkopf<sup>3</sup> · Hugo Westerlund<sup>2</sup> · Ida E. H. Madsen<sup>5</sup> · Reiner Rugulies<sup>1,5,6</sup> · Jaana Pentti<sup>7,8</sup> · Sari Stenholm<sup>7,8</sup> · Jussi Vahtera<sup>7,8</sup> · Åse M. Hansen<sup>1,5</sup> · Mika Kivimäki<sup>9,10,11</sup> · Naja H. Rod<sup>1,2</sup>

Study	Total ( <i>n</i> )	Events ( <i>n</i> )	HR (95% CI)
SWES95-01 [17]	22,104	283	1.60 (1.11, 2.30)
SWES07 [17]	4596	131	0.87 (0.46, 1.65)
SLOSH [18]	7807	294	1.49 (1.10, 2.01)
FPS [19]	6145	297	1.34 (0.90, 1.99)
DWECS [20]	4995	218	1.73 (1.15, 2.62)
Summary	45,647	1223	1.46 (1.23, 1.74)

Heterogeneity:  $I^2=0\%$ ,  $\tau^2=0$ ,  $p=0.46$





# Workplace bullying and type II diabetes

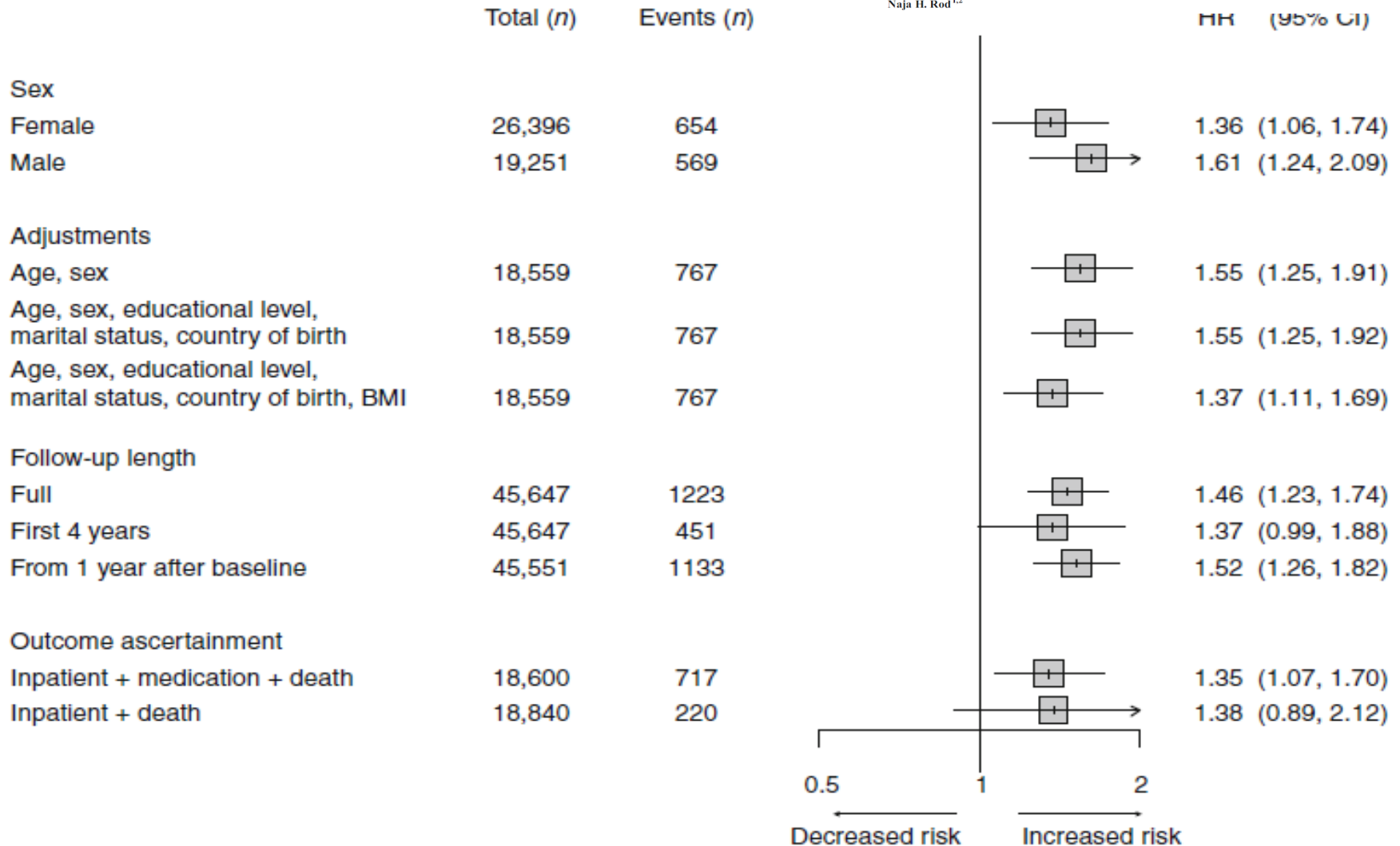
<https://doi.org/10.1007/s00125-017-4480-3>



ARTICLE

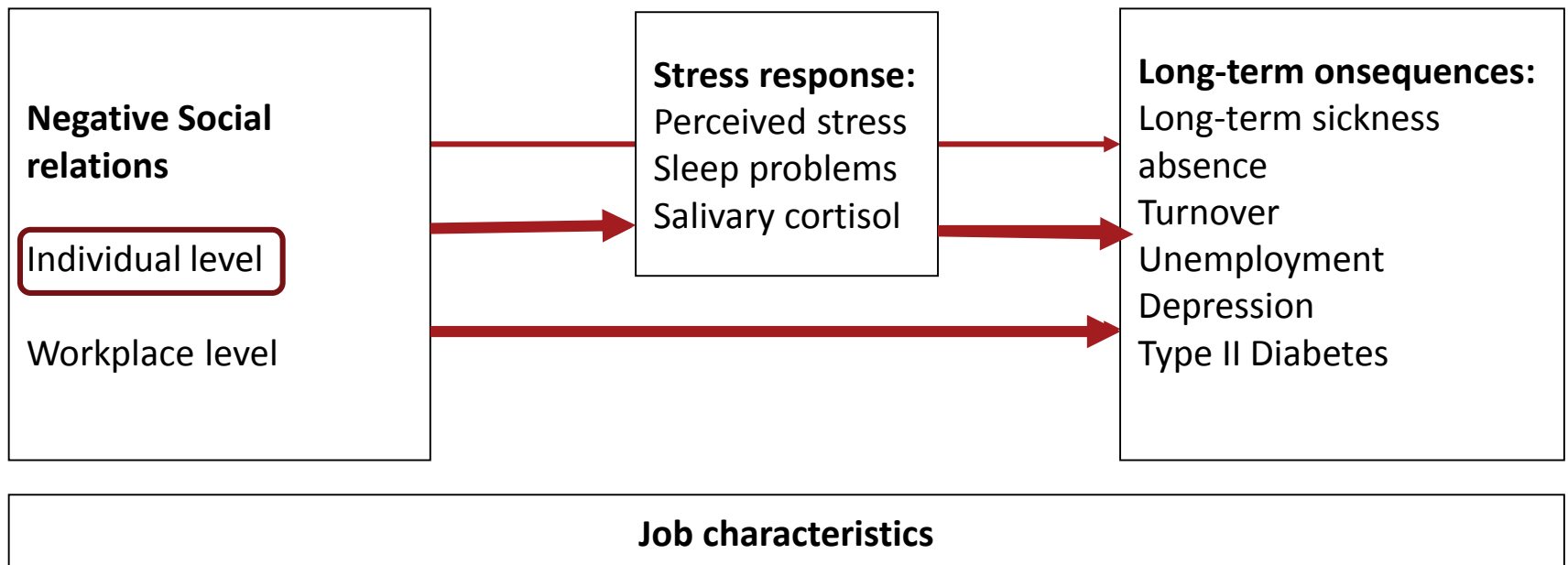
## Workplace bullying and violence as risk factors for type 2 diabetes: a multicohort study and meta-analysis

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# Workplace bullying and health - three possible mechanisms Individual level

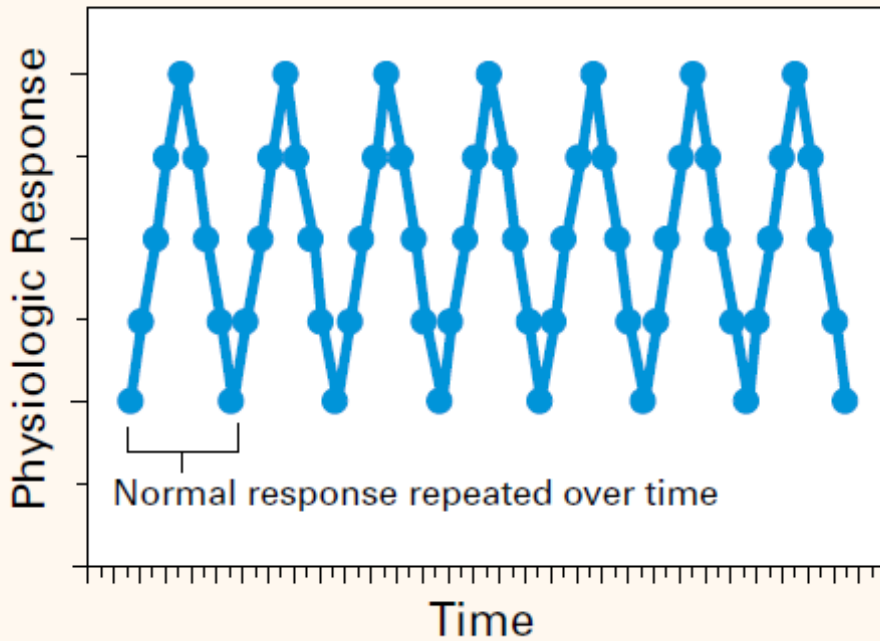


# Workplace bullying is a serious stressor

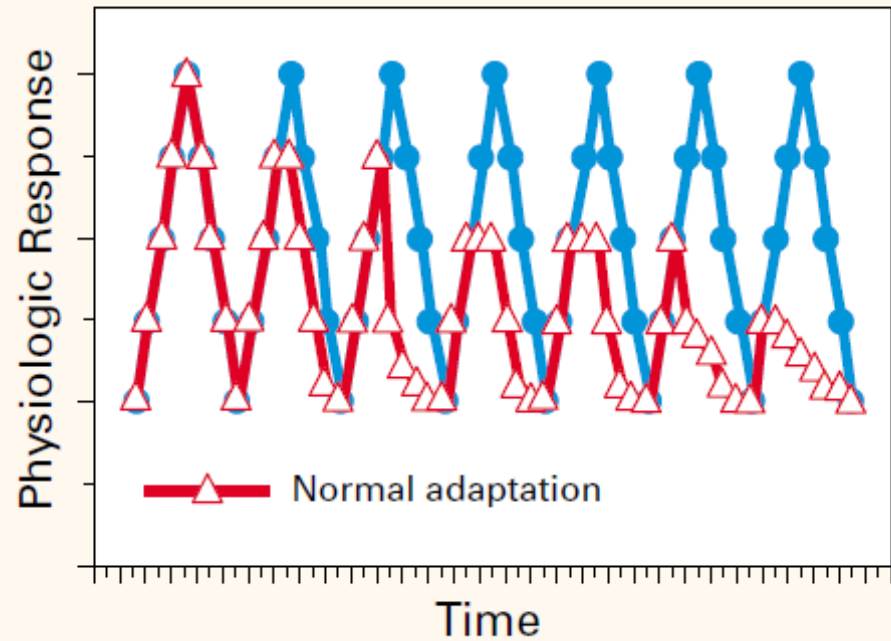
- ... a potent social stressor. (Hauge et al. 2010)
- ... similar to, or even more severe than other stressors .....  
Hauge et al. 2010
- ... workplace bullying is systematically and persistently directed towards a targeted individual. Hauge et al. 2010
- Bullying may result in severe stress reactions ...  
Einarsen and Mikkelsen 2003
- Stressors constantly challenge a complex dynamic equilibrium in the body (homeostasis). Chrousos 2009

# Chronic stress responses

Repeated "hits"



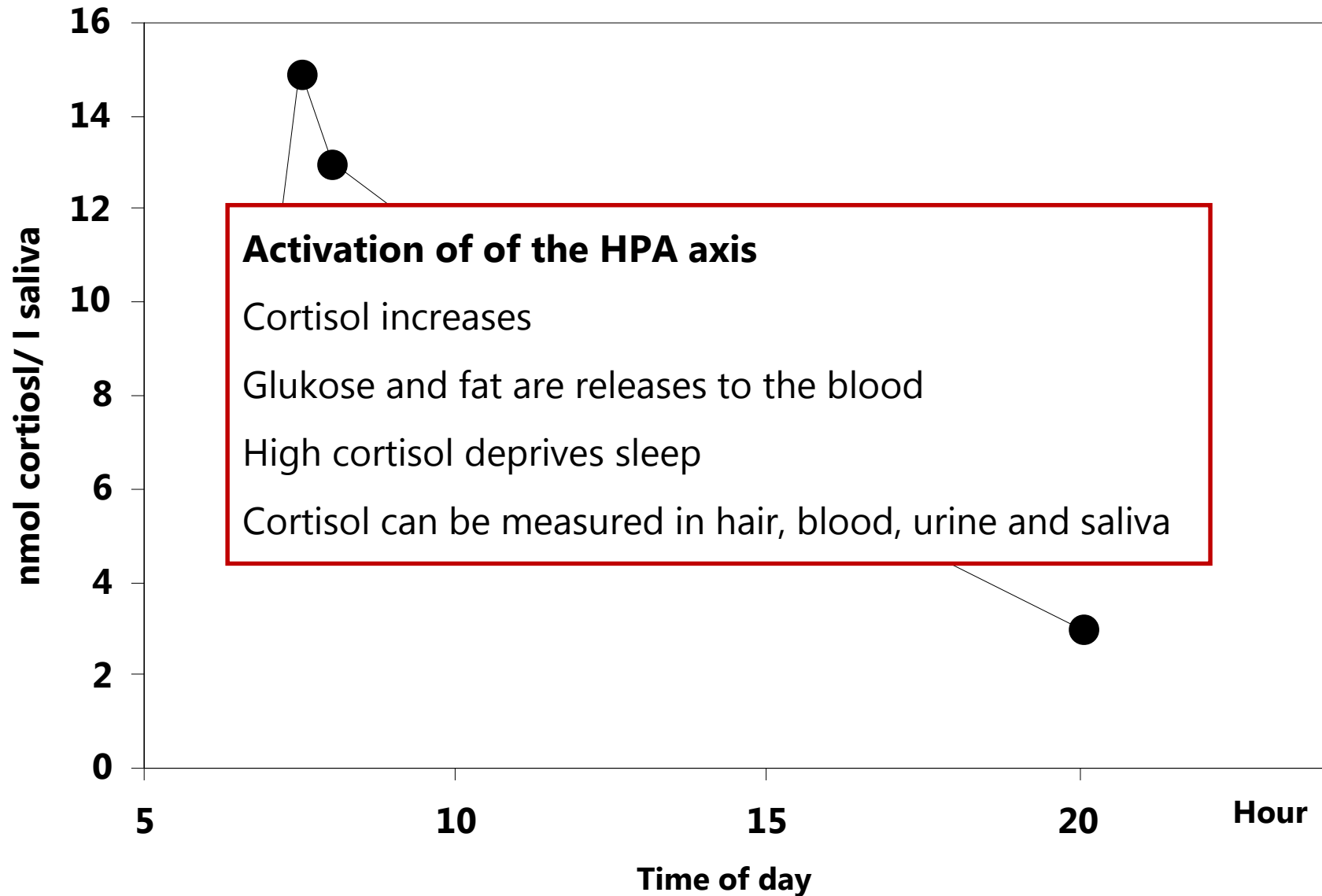
Lack of adaptation



McEwen and Stellar 1993; Schulkin et al 1998; McEwen 1998.



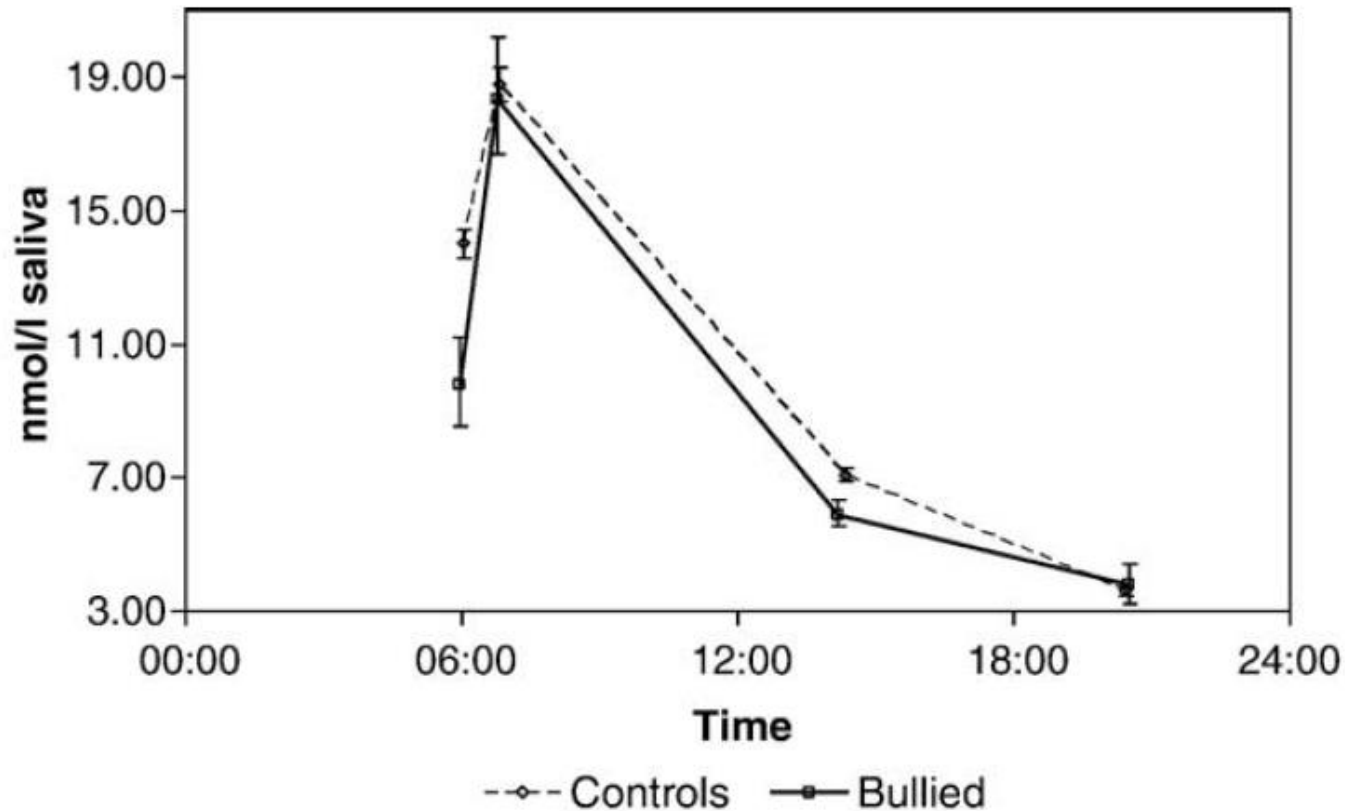
# Salivary cortisol, known as a stress hormone





## Bullying at work, health outcomes, and physiological stress response

Åse Marie Hansen<sup>a,\*</sup>, Annie Hogh<sup>a</sup>, Roger Persson<sup>b</sup>, Björn Karlson<sup>b</sup>,  
Anne Helene Garde<sup>a</sup>, Palle Ørbæk<sup>a,b</sup>

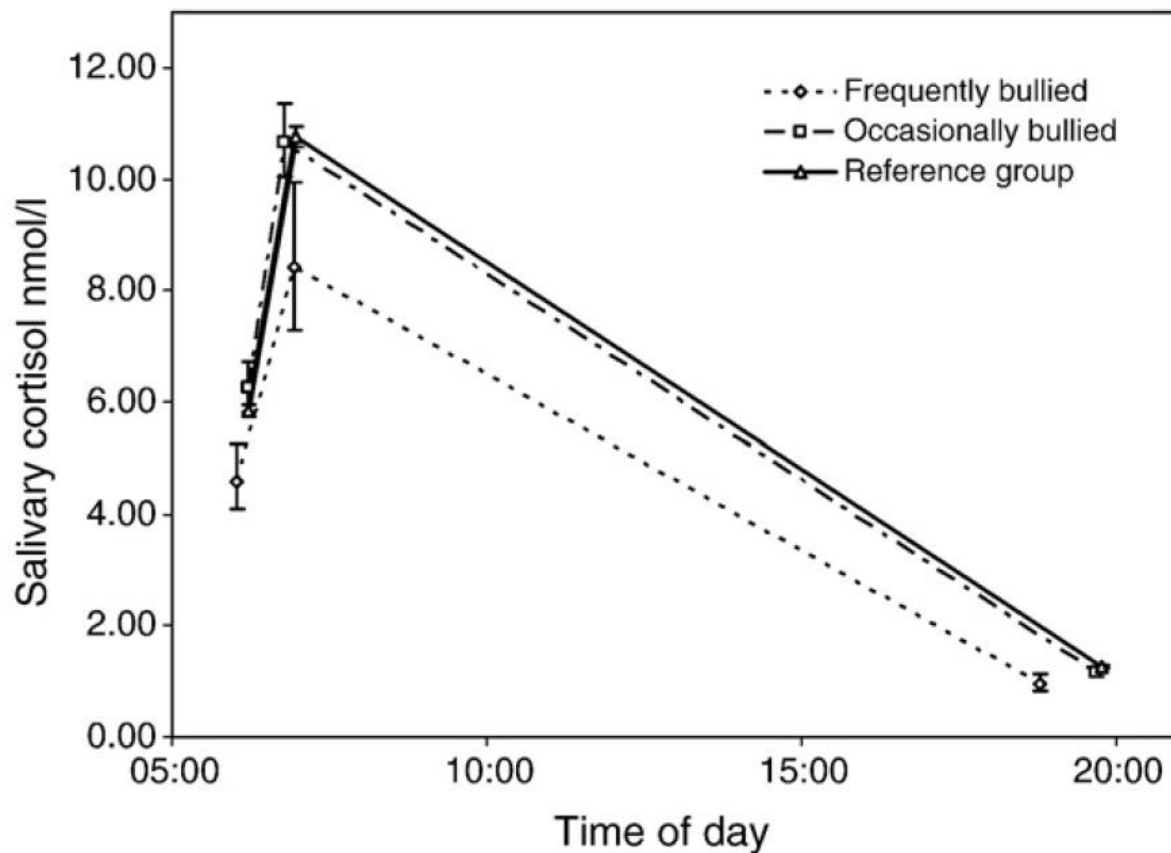




# Workplace bullying and cortisol

Frequency of bullying at work, physiological response,  
and mental health<sup>☆</sup>

Åse Marie Hansen<sup>a,b,\*</sup>, Annie Hogh<sup>a,c</sup>, Roger Persson<sup>a,c</sup>



# Negative behaviour at work and salivary cortisol



Journal of Psychosomatic Research 73 (2012) 47–52



Contents lists available at SciVerse ScienceDirect

Journal of Psychosomatic Research



Exposure to negative acts at work, psychological stress reactions and physiological stress response

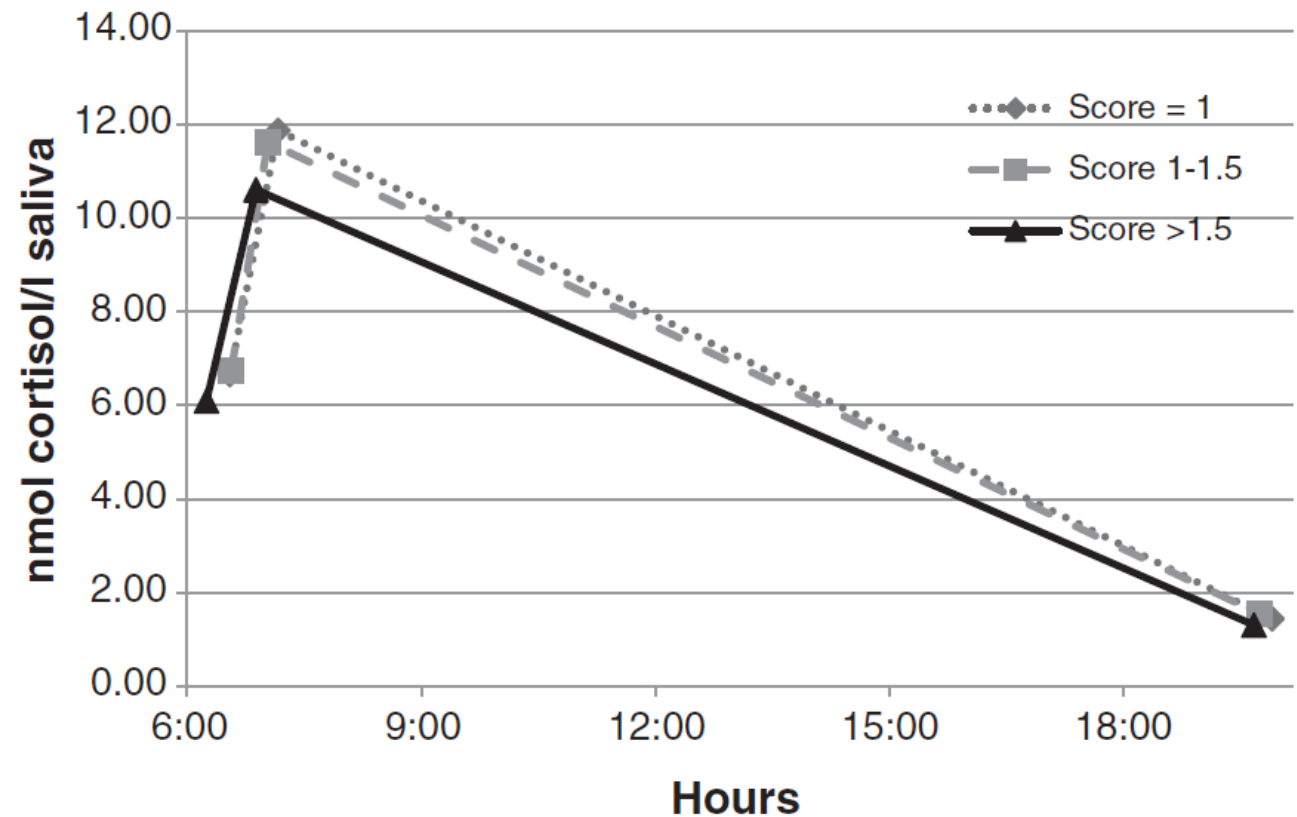
Annie Høgh <sup>a,\*</sup>, Åse M. Hansen <sup>a,b</sup>, Eva G. Mikkelsen <sup>c</sup>, Roger Persson <sup>a,b</sup>

**Table 3**  
Association between

Isolation
Direct harassment
Intimidating behav
Work-related

<sup>a</sup> Models were adjusted for general health  
<sup>b</sup> Adjusted for general health

## Direct person related negative acts







# Workplace bullied at any time and salivary cortisol

Journal of Psychosomatic Research 79 (2015) 435–442

Contents lists available at ScienceDirect

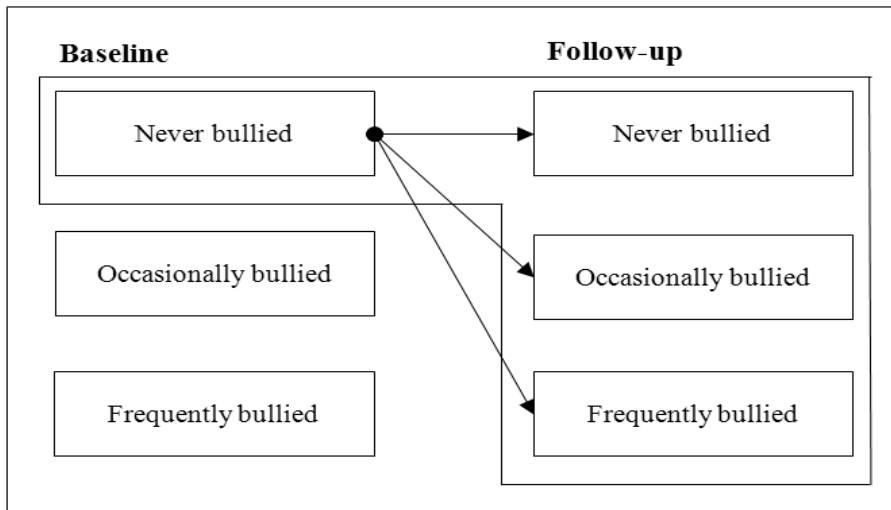
Journal of Psychosomatic Research



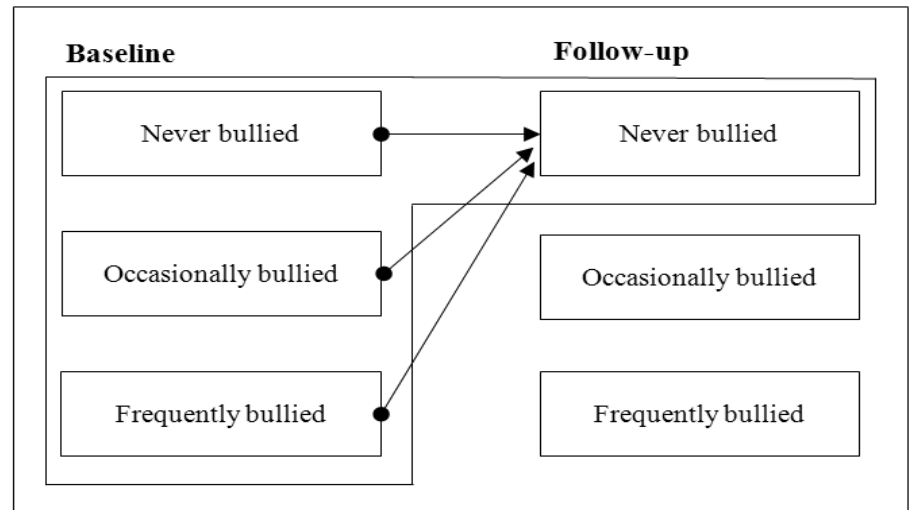
Are changes in workplace bullying status related to changes in salivary cortisol? A longitudinal study among Danish employees

Maria Gullander <sup>a</sup>, Matias Grynderup <sup>b</sup>, Åse Marie Hansen <sup>b,c,e</sup>, Annie Hogh <sup>d</sup>, Roger Persson <sup>e</sup>, Henrik Albert Kolstad <sup>f</sup>, Ole Mors <sup>g</sup>, Linda Kaerlev <sup>h,i</sup>, Jens Peter Bonde <sup>a</sup>

## Onset of workplace bullying



## Discontinuance of workplace bullying





# Workplace bullied at any time and salivary cortisol

Journal of Psychosomatic Research 79 (2015) 435–442

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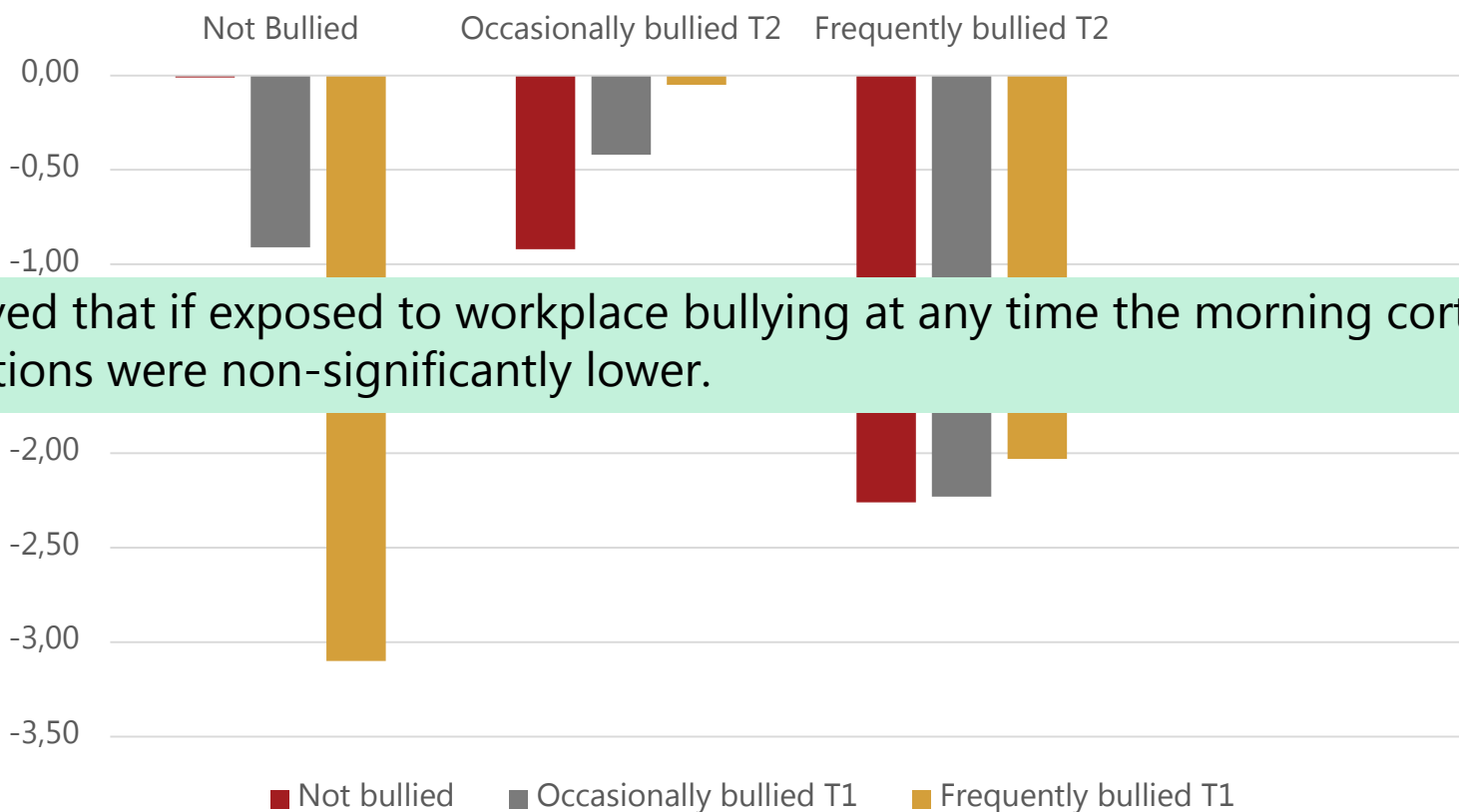
Journal of Psychosomatic Research



Are changes in workplace bullying status related to changes in salivary cortisol? A longitudinal study among Danish employees

Maria Gullander <sup>a</sup>, Matias Grynderup <sup>b</sup>, Åse Marie Hansen <sup>b,c,e</sup>, Annie Hogh <sup>d</sup>, Roger Persson <sup>e</sup>, Henrik Albert Kolstad <sup>f</sup>, Ole Mors <sup>g</sup>, Linda Kaerlev <sup>h,i</sup>, Jens Peter Bonde <sup>a</sup>

Diagramtitel



We observed that if exposed to workplace bullying at any time the morning cortisol concentrations were non-significantly lower.



# Workplace bullying and salivary cortisol in Danish studies



- We found an association between reporting workplace bullying the past 6 month (Hansen et al 2006, 2011, and 2012).
- We found no changes in salivary cortisol with onset of workplace bullying and no changes in salivary cortisol with discontinuance of bullying (Gullander et al 2015).
- This may indicate that workplace bullied do not differ from not bullied in salivary cortisol two years before and after workplace bullying.

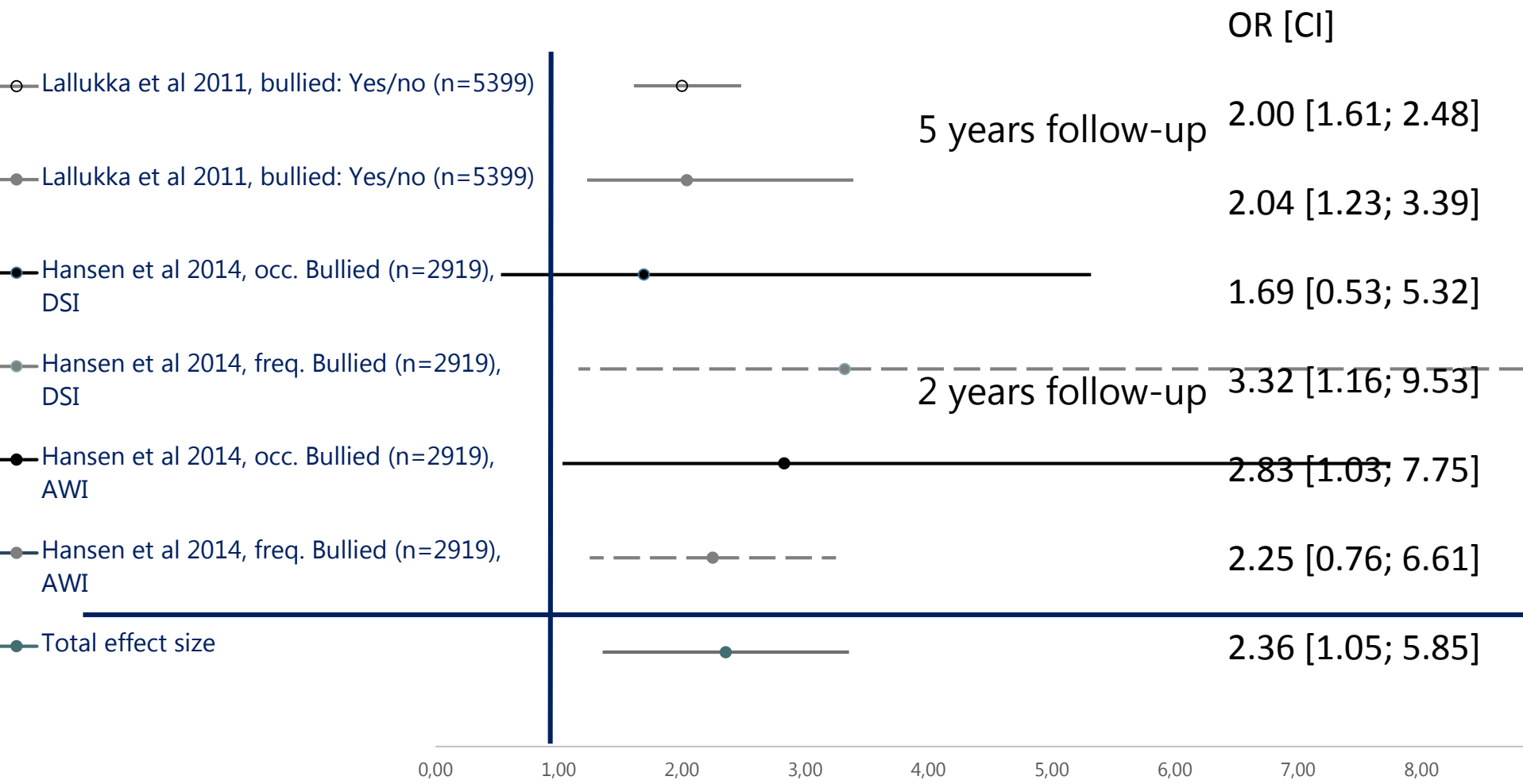


# Workplace bullying and salivary cortisol all studies

- In 2004 one pilot study found a flatter cortisol profile during a workday compared to a day off (Kudielka et al. 2003)
- Three Danish studies showed lower morning cortisol among the bullied respondents (Hansen et al 2006 and 2011; Hogh et al 2012)
- In 2012 a case control showed no difference between workplace bullied (Le Lac et al. 2012)
- In 2015 a cohort study found no difference in salivary cortisol between bullied and non-bullied (Gullander et al 2015)



# Sleep problems in longitudinal studies





# Workplace bullying, sleep and long-term sickness absence

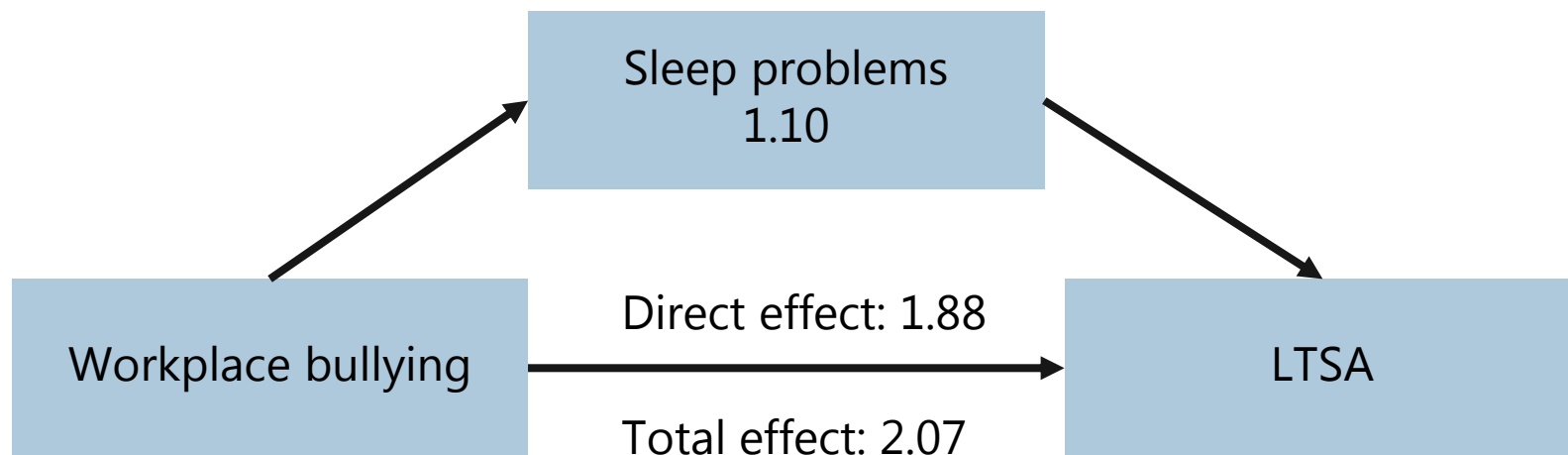
Int Arch Occup Environ Health (2016) 89:967–979  
DOI 10.1007/s00420-016-1136-4



ORIGINAL ARTICLE

## The role of poor sleep in the relation between workplace bullying/unwanted sexual attention and long-term sickness absence

Kirsten Nabe-Nielsen<sup>1</sup> · Matias Brødsgaard Grynderup<sup>1</sup> · Theis Lange<sup>1,2</sup> ·  
Johan Hviid Andersen<sup>3</sup> · Jens Peter Bonde<sup>4</sup> · Paul Maurice Conway<sup>5</sup> ·  
Anne Helene Garde<sup>1,6</sup> · Annie Høgh<sup>5</sup> · Linda Kaerlev<sup>7,8</sup> · Reiner Rugulies<sup>1,5,6</sup> ·  
Åse Marie Hansen<sup>1,6</sup>



Sleep problems explained 13 % of association between workplace bullying and long-term sickness absence

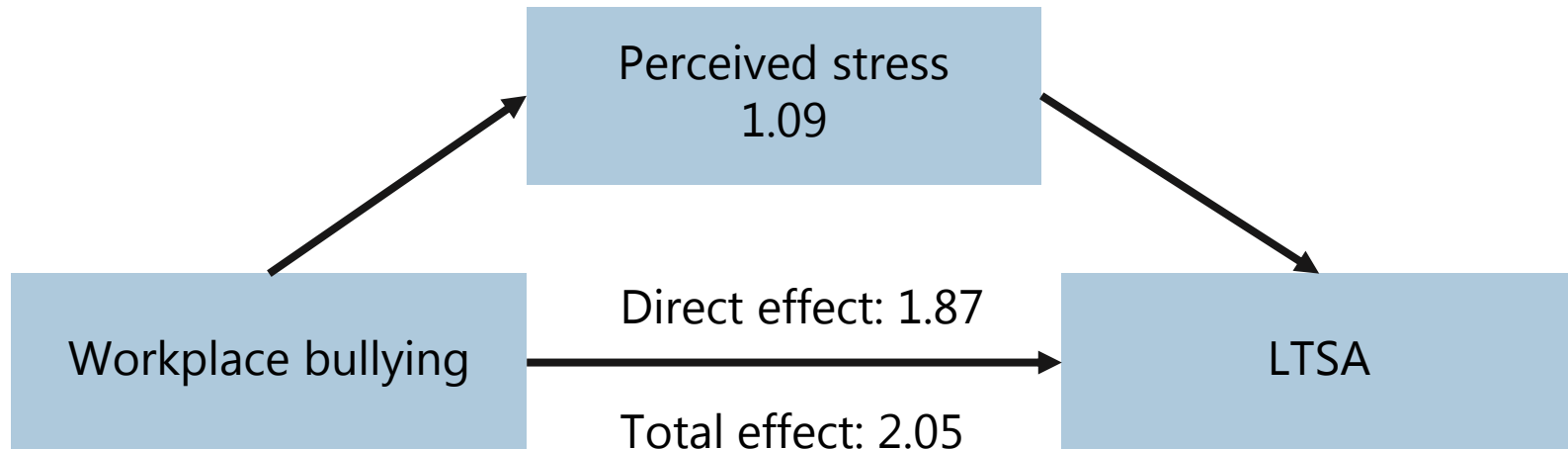


# Workplace bullying, perceived stress and long-term sickness absence

JOEM • Volume 58, Number 6, June 2016

## Does Perceived Stress Mediate the Association Between Workplace Bullying and Long-Term Sickness Absence?

*Matias Brødsgaard Grynderup, PhD, Kirsten Nabe-Nielsen, PhD, Theis Lange, PhD, Paul Maurice Conway, PhD, Jens Peter Bonde, PhD, Laura Francioli, PhD, Anne Helene Garde, PhD, Linda Kaerlev, PhD, Reiner Rugulies, PhD, Marianne Agergaard Vammen, MSc, Annie Høgh, PhD, and Ase Marie Hansen, PhD*

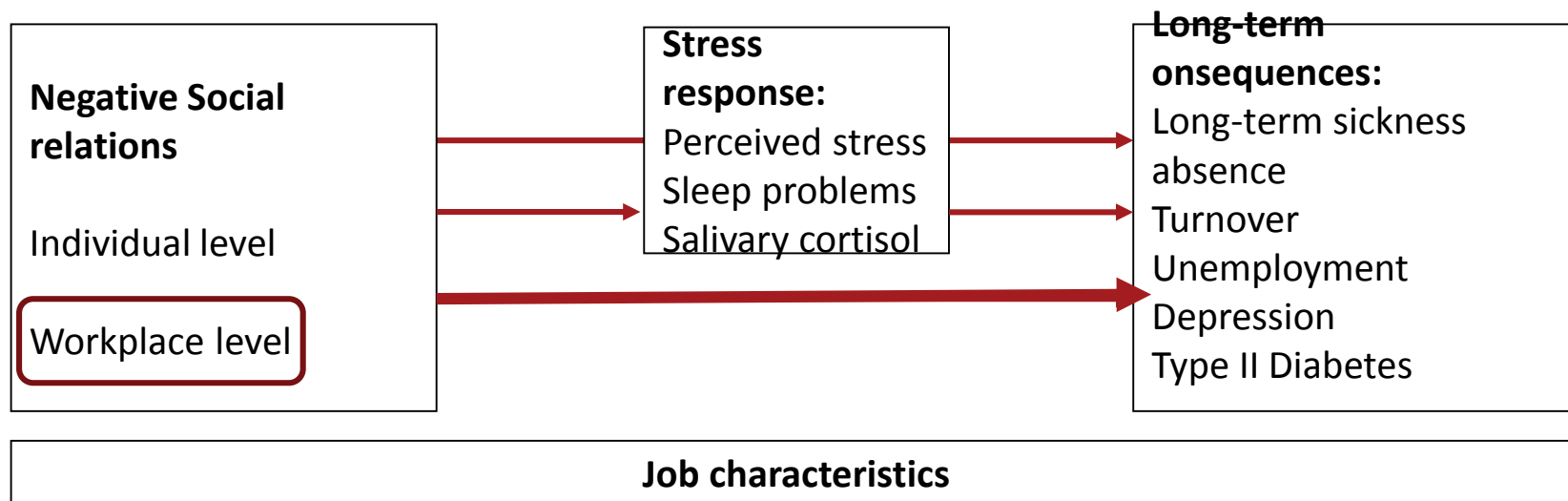


Perceived stress explained 13% of the association between workplace bullying and long-term sickness absence (LTSA) (Grynderup et al 2016)



# Workplace bullying and long-term consequences

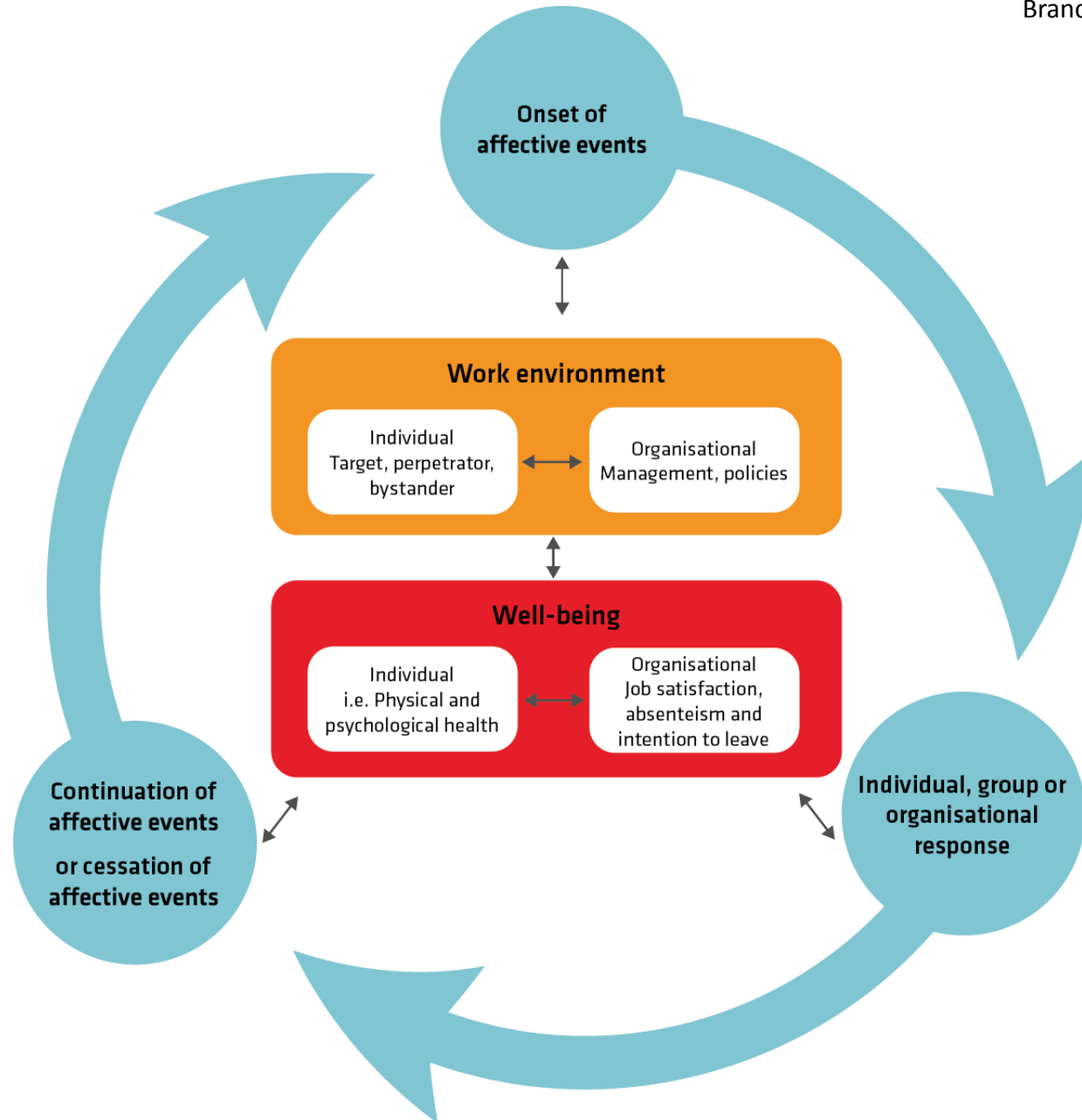
## Workplace level





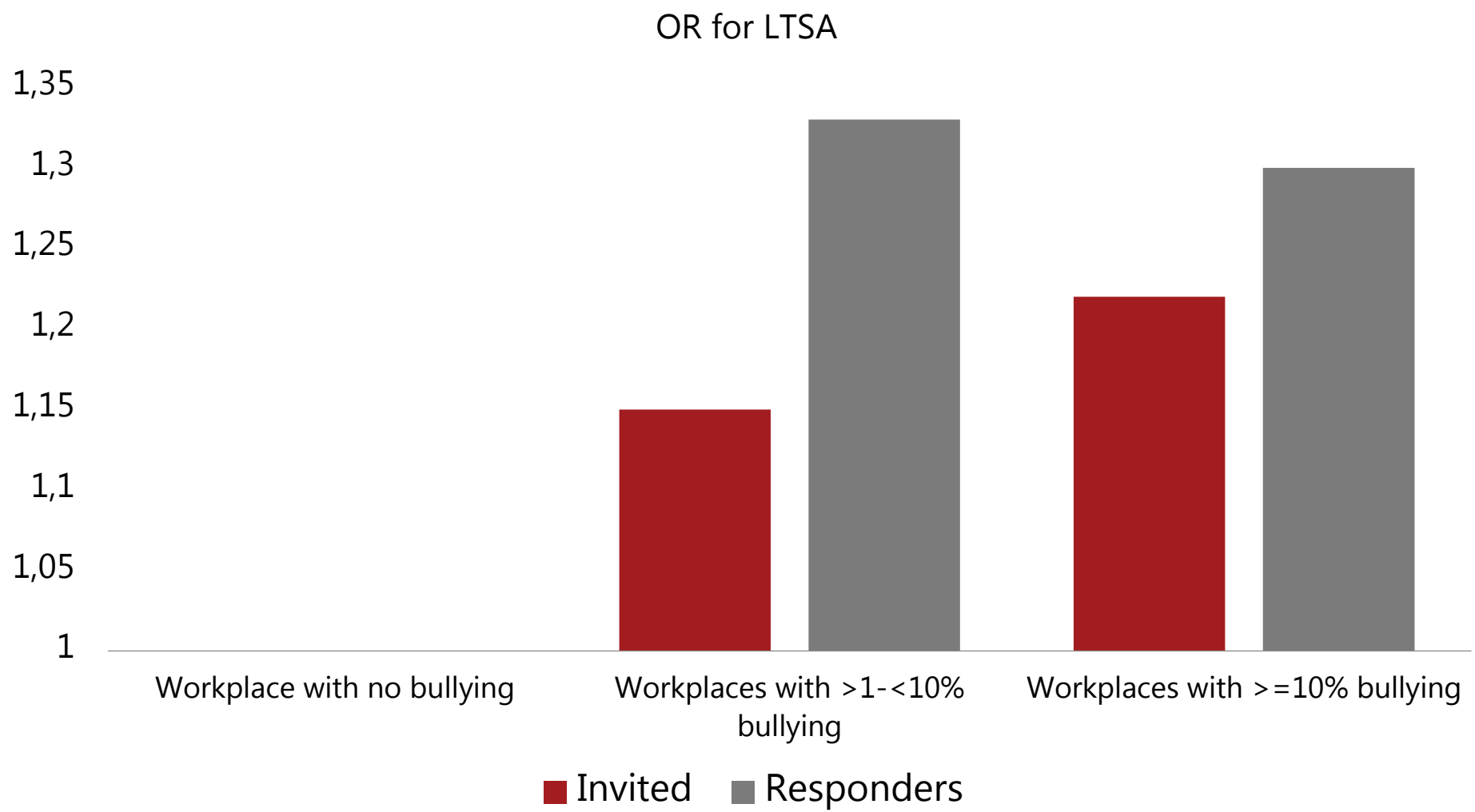
# Cyclic framework of workplace bullying

Branch et al 2013





# Workplace bullying and Long-term sickness absence among non-bullied coworkers



# Exposure to WU level of bullying and depression - Workplace level

**TABLE 6.** Risk of Newly Onset Depression by Percentage of Employees Witnessing Bullying

Percentage Witnessing Workplace Bullying	Number of Observations	New cases of Depression/Depressive Symptoms by SCAN/MDI		OR	OR adj*	95% CI
			%			
<b>Depression</b>						
0	1,159	19	1.6	1.0	...	...
1%–20%	3,872	63	1.6	0.99	0.91	0.51–1.64
21%–30%	2,276	34	1.5	0.91	0.81	0.43–1.53
>30%	1,539	29	1.9	1.15	0.89	0.46–1.73

\*Adjusted for age, sex, earlier depression, depressive symptoms, family history of depression, higher education, alcohol, smoking.



# Summing up on Workplace bullying, health and long-term consequences – Individual level

- Some evidence for an association to low cortisol
- Evidence for a prospective association to sleep
- An association to perceived stress
- Evidence for a prospective association to depression
- Evidence for a prospective association to CVD
- Evidence for a prospective association to Diabetes Mellitus type II
- Evidence for a prospective association to long-term sickness absence
- Evidence for a prospective association to unemployment, turnover, and intention to leave the job





# Summing up on Workplace bullying, health and long-term consequences – Workplace level

- Some evidence for a prospective association to long-term sickness absence among non bullied colleagues

