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Workplace mistreatment: health, working environment and social and economic factors

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ABSTRACT

Objective
To explore patterns of workplace mistreatment, relationships with health and with selected workplace, economic and social factors in 34 countries.

Methods
Secondary data analysis of the European Working Conditions Survey

Results
Patterns of ill treatment (across occupational groups, and sectors) were broadly consistent with smaller, less representative studies. Prevalence was lower than many studies but corresponds with estimates of serious mistreatment. Mistreatment increases the risk of both physical and mental ill health and is associated with a range of work environment factors. Mistreatment is more prevalent in countries with smaller gender gaps, better performance on the GINI index for income inequality and for countries with specific anti-bullying legislation.

Conclusions
Mistreatment in work is complex, and interventions are required at the level of the organization. Implementation issues need to be addressed, as specific anti-bullying legislation does not appear to provide sufficient protection.

Keywords: Workplace bullying, mistreatment

1. INTRODUCTION

The workplace has been identified as one of the priority settings for health promotion in the 21st century (1), due to its influence on the physical, psychosocial, and economic well being of workers. Changing the conditions of work is one of three principles of action identified by the World Health Organization in order to lead global action on the social determinants of health (2). How workers experience their workplace, and in particular how they are treated is an aspect of the working environment that potentially impacts on health and well-being.

Workplace mistreatment is the focus of this paper. Drawing on archived data from the European Working Conditions Survey (EWCS), the paper aims to explore mistreatment across 34 countries, and in particular its association with health and well-being, aspects of the work environment and broader economic and social factors. The four variables in the survey that measure mistreatment; verbal abuse, threats and humiliation, bullying or harassment and physical violence, are employed in the analysis.

2. WORKPLACE MISTREATMENT

Workers can be exposed to treatment in their workplace, by clients, co-workers or managers that is unsought, unwanted, distressing and harmful to health. There are a number of forms of mistreatment, most of which have been researched independently of one another. These usually include bullying, physical violence, incivility and sexual harassment or discrimination. All these forms of mistreatment are measured in the EWCS, although this paper explores only bullying, physical violence and incivility, as the prevalence of sexual and racial mistreatment was considered too low for secondary analysis.

Workplace bullying is a complex phenomenon, best understood as caused by an interplay between individual, organizational and cultural factors. Numerous definitions have been offered in its name, although that employed by Einarsen and associates is now usually well-accepted; *'the systematic mistreatment of a sub-ordinate, a colleague, or a superior, which if continued and long-lasting, may cause severe social, psychological, and psychosomatic problems in a target'* (3). Bullying is better construed a process, rather than one or more specific behaviours, and is usually characterized by the systematic intimidation and demoralization of a target. Bullying can be very subtle in nature, for example it may include unreasonable assignment of duties, applying impossible deadlines, not providing relevant information for tasks etc., in addition to what are termed person-related behaviours such as shouting, criticism,

intimidation, threats, humiliation or spreading rumors (4,5). The term has proved problematic in the literature (1,6,7), perhaps because of its early exposure in school settings, and the possibility that people associate it with 'ganging up on' or beating up a selected target, which is, relative to individualized mistreatment, infrequent in workplace settings, but also because people have real difficulty disentangling bullying from what is perceived as 'tough' management practices. Explicit and overt actions are usually not in dispute, however more subtle and covert dimensions may be viewed with less certainty and as a result go unreported.

Incivility in the workplace is defined as *'low-intensity, deviant behaviour with ambiguous intent to harm the target, in violation of workplace norms for mutual respect'* (8). It includes rude, discourteous behaviour, for example belittling or humiliating other employees in public, interrupting and disregarding the opinions of others, swearing or making disparaging remarks. Incivility is usually generalized rather than personalized; many workers may be on the receiving end of rude or discourteous behavior. However, when unambiguous intentions and expectations to harm a target are present, incivility then overlaps with psychological aggression, or bullying (9). The item measuring experience of verbal abuse is considered here to be an indicator of incivility.

Physical violence in the workplace refers to an incident or incidents where a worker is physically attacked or threatened in the workplace or the course of their work. Exposure to physical violence appears to be associated with situational factors, which in turn are linked to the type of work undertaken (10).

It is evident that there is considerable overlap between these terms, and in recent years there have been calls for conceptual clarity and synthesis, given the co-occurrence of exposure and the correspondence with regard to outcome (6, 7, 11). The ECWS data therefore offer a unique opportunity to explore prevalence, patterns of exposure and risk, simultaneously across four forms of mistreatment and across 34 countries.

2.1 Impact on Health

The negative impact of incivility, bullying and physical violence on psychological and physical health is well established. Physical violence is associated with stress and reduced well-being as well as injury (10, 12) Incivility is associated with psychological distress, (13,14) including burnout, anxiety, depression and hostility (15) and diminished emotional well-being (16).

Early studies on workplace bullying in large scale surveys found associations between being bullied at work and a poor psychological health, (17, 18), a finding to be

confirmed in many later studies. Indeed, this is one of the most consistent findings in the workplace bullying literature. Bullying has repeatedly been shown to be associated with higher levels of self-reported stress (19, 20, 21, 22, 24), depression (19, 22, 25) and with increased likelihood of taking psychoactive drugs (20, 22). Bullying has particularly negative effects for some targets, whom experience symptoms akin to post traumatic stress disorder (26, 27) and even suicide (28). Given the association with stress, it is not surprising to find that bullying ultimately impacts negatively on physical ill-health, with negative impacts on somatic problems and sleep (22, 29) and on heart disease (30). The uncontrollable nature of the process (31) and the personal directedness of it make it unique as a stressor and in the way it affects psychological well-being and functioning. The usual coping strategies for stress such as actively tackling the source do not work. Negative impacts have been recounted in respect of lowered self-confidence and self-worth, feelings of self-contempt, guilt, isolation and vulnerability (20, 32, 33). The words used by participants in qualitative studies are alarmingly graphic, for example; *'The bully may have shredded your self-confidence'* (34), *'He has left me scarred'* (33), *'She has actually cracked my health'*, ' (32). This gives voice to the claim that exposure to bullying in work is a more crippling problem for employees than all other kinds of work-related stress put together (35).

There is also evidence that those who witness the bullying of others suffer compromised health, not to the degree those who experience bullying directly do, but significantly more so than employees who are not exposed to bullying (20, 22), demonstrating the scale of costs to health as well as organizational productivity.

2.2 Environmental Influences

Theoretical approaches to the study of bullying posit an interplay of individual, situational and cultural factors (1, 10, 36, 37). Less theoretical study has been undertaken in relation to violence and incivility. Individual contributors to bullying include vulnerabilities on the part of targets or aggressive tendencies on the part of perpetrators. This is a common view amongst lay people, that targets are people who are weak or unable to defend themselves. The traits of low social competence and poor assertiveness have been identified in studies of those targeted by bullying but these constitute a small subgroup of those targeted, implying that personal vulnerability does not constitute a general explanation for the phenomenon (35). Another common interpretation of workplace mistreatment is that it occurs 'under pressure'; when various parties have heavy workloads, or have to meet tight deadlines, for example. Changes in the workplace, such as new management, cuts, re-structuring, and

technological change have been identified associated with bullying although the effects may only be moderate (38), indicating that other factors are at work.

These work environment factors form a work context that is related, in turn, to broader social, cultural and economic factors. Reviewing the evidence, Di Martino et al., find that workplace violence is associated with levels of violent crime in society, economic change in the form of downsizing and restructuring, rapid social change and the rise of the informal economic sector (10). However few studies have had the capacity to explore these factors, despite the not unreasonable assumption that factors such as economic development, legislative framework, cultural values, religion and technical development will impact on work environment and hence potentially workplace treatment.

The recent economic upheavals across the Eurozone have affected some States more than others, and given the relationship between downsizing and workplace bullying, it is possible that in countries where the economy has been particularly negatively affected, or where income inequality is high, all forms of workplace mistreatment could be more common. Similarly, given the observation that bullying is usually perpetrated by persons in positions of power over the target (3,5,7), inequality at a societal level may influence levels of mistreatment, although this is a relatively unexplored area. The role of power, although implicit in many discussions of workplace mistreatment is relatively under-researched in the literature (39).

Mistreatment, in most countries is addressed within health and safety legislation, within the general duty of care provision. However in recent years there has been a move to develop a more specific provision, in particular with regard to workplace bullying (40). It is recognized that specific legislation may contribute to the prevention of bullying, insofar as it may provide an impetus for prevention at an organizational level (41, 42) and regularize relief and compensation for targets (41). A number of European countries have introduced specific legislation to prevent and protect workers from psychological violence, six of which participated in the EWCS. It is not known if bullying or mistreatment generally is reduced as a result of anti-bullying ordinance, although difficulties have been identified in relation to developing appropriate laws (5). The ECWS (43) affords an opportunity to compare mistreatment rates in countries with and without anti-bullying legislation.

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[1] Based on indicators of economic participation and opportunity, educational attainment, health and survival and political empowerment

3. METHODS

The European Working Conditions surveys are undertaken by the European Foundation for the Improvement of Living and Working Conditions every five years. The 2010 survey includes 34 countries. Multi-stage, stratified, random sampling is employed, representative of those employed in each country. The 2010 survey yielded overall response rates of 44% (44). Data are collected by interview, with respondents answering approximately 100 items. The mistreatment items considered here include single item measures of experience of verbal abuse, threats and humiliating behaviour over the past month and experience of physical violence or bullying and harassment over the past 12 months, and a composite measure of these four items constructed to indicate to indicate any (bullying, incivility etc.,) event vs. no event.

The EWCS contains 13 specific health conditions, each considered here in relation to mistreatment. This paper reports on the relationships between the health variables and the mistreatment variables, using odds ratios. Additionally two new variables, constructed as a 'physical event' index (backache, muscular pains in upper limbs, lower limbs and headaches) and a mental event index (depression or anxiety, fatigue and insomnia) have been added to the data set.

In terms of broader social, cultural and economic factors, mistreatment in the EU 15 was compared to all other countries. The Global Gender Gap Index (GGI), developed by the World Economic Forum as a way of capturing the magnitude and scope of gender-based disparities[1] (45) was employed as an indicator of equity and efficiency. The GGI for each country was identified and then the sample was dichotomized (above/below median) and the risk of mistreatment calculated for each grouping. The 34 countries were similarly divided, using the median, for the GINI Index, commonly used as a measure of inequality of income or wealth (46), and the risk of mistreatment considered for each group. Finally mistreatment risk was calculated for six countries with specific anti-bullying legislation (Belgium, France, Finland, Norway, Netherlands and Sweden) compared to countries without such ordinance.

4. RESULTS

The weighted data set, obtained from the UK data archive contained 43,816 cases, across 34 countries. The overall response rate was 44%, with some variation across

countries. Country-level response rates are shown in Table 1. Response rates range from 31% (Spain) to 74% (Latvia).

For the purposes of this study, analysis was conducted on a sub sample of 35,142 employed respondents (i.e. selecting out self employed and other). Overall, 14.4% (n=5,053) of respondents experienced at least one adverse 'event', i.e. either physical violence, verbal abuse, bullying/harassment or threats and humiliating behaviour. Of these, verbal abuse was the most common at 10.8%, followed by threats/humiliation and bullying at 5% and 4.2% respectively. Physical violence was experienced by less than 2% of the population. Female respondents were slightly but significantly more likely to experience mistreatment in the form of bullying and harassment (see Table 1) (OR= 1.71, CI= 1.05-1.30). The likelihood of experiencing any type of mistreatment declines with age.

Table 1: Mistreatment levels

	Index Adverse behaviour	Verbal Abuse	Threats & humiliating behaviours	Bullying or harass-ment	Physical Violence
ALL	5,053 14.4%	3,784 10.8%	1,770 5%	1,404 4.2%	661 1.9%
Male	2,589 13.6%	2,055 10.8%	942 4.9%	739 3.9%	330 1.9%
Female	2,464 15.3%	1,729 10.8%	828 5.2%	725 4.5%	331 1.9%
	OR=1.15	OR=1, ns	OR =1, ns	OR= 1.71	OR=1.02, ns

Mistreatment for occupational groups and sector are reported. Occupational groups are based on the ISCO-08 categories, re-grouped to 5 categories. Similarly, the NACE Rev.2 sectoral classification was condensed to 10 categories for ease of use, as per the EWCS main study (44). A comparison was also made between the health sector and all other sectors, and between public and non-public sector workers (see Table 2). Clerical, services and sales workers and professional, technical and associated professional workers appear to be consistently at greatest risk for all forms of mistreatment, while agricultural and craft workers are at lowest risk. Workers in the health sector are clearly and consistently most likely to report mistreatment, being almost twice as likley to experience verbal abuse, bullying and threats and almost six times more likley to experience physical violence (see Table 2). The transport sector and public administration and defense also report very high levels of mistreatment, with Agriculture, Fishing and Forestry consistently reporing lowest levels. The risk of mistreatment is greater in the public sector than the private and NGO sector, and in the case of physical violence, over four times more likley (OR= 4.47, CI= 3.82-5.24). Employees on apprenticeships, fixed term or temporary contracts report slightly higher levels of each form of ill treatment than those on indefinite contracts or without contracts (see Table 2).

In relation to health problems, reported levels of mistreatment were considered against the presence/absence of 13 conditions (see Table 3), the composite physical and mental event indices and perceived degree to which work posed a risk to health and safety, self reported absenteeism and presenteeism. Those who experienced mistreatment were more likely to report physical and mental health problems. Of the forms of mistreatment bullying posed the greatest risk, with those who were bullied/harassed report being more than 3 times more likely to experience a physical (OR= 3.36, CI=2.63-3.55) or mental health difficulty (OR=3.36, CI=3.00-3.77). Specifically, skin problems, headaches and eye strain, injuries, and insomnia were about twice as likely for those experiencing mistreatment, with anxiety /depression being three – four times more likely (see Table 3). Of the forms of mistreatment, bullying/harassment posed the greatest risk.

Those who experienced mistreatment were more likely to consider their health and safety to be at risk due to work, especially those who were threatened, humiliated, bullied/harassed or experienced physical violence. Those ill-treated and were also more likely to be sick from work and work while sick, with the risk of presenteeism being greater than absenteeism.

The EWCS contains a range of items considered to be indicators of psychosocial risk to health and well-being including poor leadership (see Table 4). Generally, those who experienced mistreatment were significantly less likely to experience a supportive work environment, as evidenced by being consulted about targets, having supportive colleagues, flexibility and clarity regarding role and expectation. The greatest risk was an environment perceived to be stressful, especially with regard to experiencing threats, humiliating behaviours and bullying/harassment. Risks were considerably greater for mistreatment when leadership was poor. Those ill-treated were significantly and substantially less likely to think they were treated respectfully by their manager, or that their manager was good at planning or at resolving conflicts (see Table 4).

Table 2: Ill-treatment by sector and ISCO Occupational category

	Index adverse behaviour	Verbal abuse	Threats and humiliating behaviours	Bullying or harassment	Physical Violence
Managers	263 14.4%	207 11.3%	103 5.6%	87 4.7%	24 1.8%
Professional, Technical and Associated Professional	1,564 14.4%	1,250 11.5%	615 5.7%	520 4.8%	252 2.3%
Clerical Service and Sales	1,717 16.1%	1,375 12.9%	702 6.6%	585 5.5%	280 2.6%
Skilled Agri, Craft & Trades	414 9.7%	332 7.8%	131 3.1%	146 3.4%	27 0.6%
Operators, Elementary, Armed Forces	897 12.3%	701 9.6%	346 4.8%	310 4.3%	74 1%
Agri, Fish, Forestry	61 8.2%	4 5.9%	17 2.3%	20 1.2%	5 0.7%
Industry	642 10.4%	461 7.5%	220 3.6%	217 3.5%	31 0.5%
Construction	232 10.5%	194 8.8%	74 3.4%	76 3.4%	18 0.8%
W/Sale, Retail, Food & Accomodation	1,123 16.2%	833 12%	363 5.2%	332 4.8%	84 1.2%
Transport	365 19.3%	289 15.4%	145 7.7%	111 5.9%	41 2.2%
Financial	186 13.7%	137 10.1%	57 4.2%	69 5.1%	8 0.6%
Public Administration & Defence	492 17.3%	375 13.2%	235 8.3%	154 5.4%	90 3.2%
Education	576 15.7%	433 11.9%	194 5.3%	153 4.2%	57 1.6%
Health	918 24.4%	647 17.2%	355 9.5%	262 7.9%	262 7%
Other services	642 12.3%	446 8.6%	230 4.4%	207 4%	61 1.2%
Health sector	878 24.4%	647 17.2%	355 9.5%	296 7.9%	262 7%
All other sectors	4,155 13.4%	3,207 10.4%	1,534 5%	1,337 4.3%	394 1.3%
	OR=1.99	OR=1.77	OR=1.98	OR=1.88	OR=5.74
Public Sector	19.7%	15.2%	7.8%	5.5%	4.4%
All other (Private, joint PP, NGO)	9.3%	9.3%	4.1%	3.7%	1%
	OR = 1.70	OR = 1.76	OR= 1.96	OR= 1.51	OR= 4.47
Indefinite Contract	3,790 14.2%	3,032 11.3%	1,456 5.4%	1,290 4.8%	535 2%
Fixed, temp or apprenticeship	762 15.1%	598 11.8%	304 6%	266 5.2%	90 1.8%
No contract	298 13.9%	235 7.7%	133 5.4%	89 2.9%	34 1.1%

NB: Shaded areas denote highest ▨ and 2nd highest ☐ prevalence

Table 3: Self reported Health Problems and Mistreatment

	Index adverse behaviour	Verbal abuse	Threats and humiliating behaviours	Bullying or harassment	Physical Violence
No event/any Physical [a]	8.5%/17.2% OR=2.23	6.8%/12.8% OR=2.10	2.7%/6.2% OR=2.59	1.8%/5.3% OR=3.36	1.1%/2.2% OR=2.02
No event/any Mental event [b]	10.1%/20.2% OR=2.25	7.7%/15% OR=2.10	3.1%/7.7% OR=2.59	2.2%/6.9% OR=3.36	1.2%/2.7% OR=2.26
Hearing problems	22% OR=1.9	17% OR=1.71	10.2% OR=2.11	9.6% OR=2.31	4.2% OR=2.49
Skin problems	25.4% OR=2.24	20.5% OR=2.27	12.1% OR=2.73	10.2% OR=2.59	4.1% OR=2.49
Backache	17.9% OR=1.78	14% OR=1.71	7.3% OR=1.98	6.6% OR=1.78	2.5% OR=1.88
Muscular pains, shoulder neck upper limbs	18.1% OR=1.73	21.4% OR=1.69	7.5% OR=2.03	6.8% OR=2.30	2.4% OR=1.71
Muscular pains in lower limbs	18.5% OR=1.61	14.5% OR=1.62	7.8% OR=1.91	6.9% OR=1.92	2.4% OR=1.46
Headaches, eye strain	18.6% OR=2.09	14.7% OR=1.84	17.9% OR=2.23	6.8% OR=2.20	2.4% OR=1.56
Stomach ache	23.1% OR=2	18.2% OR=2.01	10.5% OR=2.42	9.2% OR=2.43	3.2% OR=1.95
Respiratory difficulties	23% OR=1.82	17.6% OR=1.79	10.6% OR=2.23	9.5% OR=2.30	3.9% OR=2.32
Cardiovascular difficulties	21.1% OR=1.74	17.2% OR=1.74	9.1% OR=1.82	7.9% OR=1.82	2.5% OR=1.35
Injuries	24.9% OR=2.21	20.4% OR=2.26	11.7% OR=2.60	11.3% OR=2.96	5% OR=3.29
Anxiety or depression	29.9% OR=3.60	23.6% OR=2.95	15% OR=4.01	13.3% OR=4.08	3.8% OR=2.39
Fatigue	18.9% OR=2.06	14.9% OR=1.93	8.2% OR=2.45	7.2% OR=2.60	2.4% OR=1.62
Insomnia sleep difficulties	24.1% OR=2.63	18.8% OR=2.33	11.1% OR=3.05	10.2% OR=3.35	3.3% OR=2.27
Yes my H&S is at risk because of my work/no	24.8%/11.1% OR=2.69	19.3%/8.1% OR=2.74	11.8%/3.2% OR=3.65	9.2%/2.6% OR=3.80	4.5%/1.1% OR=4.42
Yes worked when sick /No did not (presenteesism)	21.8%/10.8% OR=2.29	16.5%/8.1% OR= 2.24	8.7%/3.3% OR=2.81	7%/2.8% OR=2.65	2.9%/1.5% OR=2.00
Yes took days(s)due to health problems/No (absenteeism)	17.8%/11.3% OR=1.70	13.4%/8.4% OR=1.69	6.5%/3.8% OR=1.77	5.5%/3% OR=1.91	2.3%/1.4% OR=1.61

[a]Backache, muscular pains in upper limbs, muscular pains in lower limbs, headaches, eyestrain
[b] Depression or anxiety, fatigue, insomnia
NB: Shaded areas denote highest ▨ and 2nd highest ▢ prevalence

Table 4: Psychosocial Risks and Mistreatment

% reporting most or all of the time/sometimes, rarely or never	Index adverse behaviour	Verbal abuse	Threats and humiliating behaviours	Bullying or harassment	Physical Violence
My colleagues help and support me	13.6%/16.1% OR=1.21	10.3%/11.9% OR=1.71	4.5%/6.5% OR=1.41	3.5%/5.7% OR=1.66	2.1%/1.3% OR=1.71
My manager helps and supports me	11.4%/18.3% OR=1.73	8.6%/13.7% OR=1.69	3.8%/6.7% OR=1.84	2.6%/6.2% OR=2.43	1.9%/1.8% OR=1.01, ns
I am consulted before targets for me work are set	11.8%/16.3% OR=1.46	8.8%/12.3% OR=1.46	4%/5.8% OR=1.46	2.9%/5.1% OR=1.80	2%/1.8% OR=1.09, ns
I can take a break when I wish	11.8%/16.2% OR=1.43	8.6%/12.3% OR=1.49	4%/5.8% OR=1.48	3.2%/4.8% OR=1.54	1.5%/2.1% OR=1.43
I have enough time to get the job done	11.9%/20.9% OR=1.95	9%/15.6% OR=1.87	3.7%/8.7% OR=2.49	3%/7.3% OR=2.59	1.4%/3% OR=2.09
My job gives me the feeling of a job well done	12.3%/22.5% OR=2.06	9.2%/17.3% OR=2.06	4.1%/8.9% OR=2.31	3.3%/7.7% OR=2.52	1.8%/2.2% OR=1.24
I know what is expected of me at work	14.2%/16.1% OR=1.15	10.7%/11.5% **OR=1.08, ns**	4.9%/7.2% OR=1.50	4.1%/4.8% **OR=01.18, ns**	1.9%/1.1% OR=1.82
I experience stress at work	24.2%/10.6% OR=2.68	18.9%/7.7% OR=2.77	10.6%/2.9% OR=3.94	8.1%/2.7% OR=3.17	3.4%/1.3% OR=2.74
I can influence decisions that are important in my work	13.8%/14.7% **OR=1.08, ns**	10.6%/10.9% **OR=1.02, ns**	5.2%/5% **OR=1.03, ns**	3.7%/4.4% OR=1.19	2.5%/1.6% OR=1.55
My immediate manager….					
….provides me with feedback on my work	13.8%/16.6% OR=1.24	10.5%/12.2% OR=1.18	4.8%/6.1% OR=1.29	3.8%/5.4% OR=1.43	2%/1.7% OR=1.15 ns
….respects me as a person	12.8%/37.1% OR=4.01	9.6%/27.8% OR=3.63	4%/20.9% OR=6.32	3.1%/20.2% OR= 7.98	1.8%/3.2% OR=1.82
…is good at planning and organizing the work	12.2%/25.4% OR=2.45	9.3%/18.3% OR=2.18	3.9%/10.9% OR=3.01	3%/9.9% OR=3.60	1.8%/2.4% OR=1.29
…is good at resolving conflicts	11.2%/28.9% OR=3.22	8.4%/12.7% OR=3	3.8%/12.6% OR=3.98	2.5%/11.8% OR=5.18	1.7%/2.9% 1.66%
….encourages me to participate in important decisions	11.8%/19.5% OR=1.80	8.5%/15.3% OR=1.94	3.8%/7.6% OR=2.05	2.8%/6.7% OR=2.49	2%/1.6% OR=1.26

Table 5: Cultural and Economic Factors and Mistreatment

	Index adverse behaviour	*Verbal abuse*	*Threats and humiliating behaviours*	*Bullying or harassment*	*Physical Violence*
EU 15	15.7%	11.6%	5.5%	5%	2.1%
All other countries	10.8%	8.5%	3.7%	1.9%	1.1%
	OR= 1.54	*OR= 1.41*	*OR=1.52*	*OR=2.74*	*OR=1.97*
GINI Index[a] above Median (Income inequality)	12.9%	9.6%	5%	4%	1.8%
GINI Index below Median (Income equality)	17.3%	13.1%	5.1%	4.6%	1.9%
	OR=1.41	*OR=1.42*	*OR=1 ns*	*OR=1.17*	*OR=1.05 ns*
Global Gender Gap Index [b] above median (Equality & Equity)	16.4%	12.3%	5.8%	5.2%	2.3%
Global Gender Gap Index below Median (Inequality & Inequity)	8.9%	6.7%	3%	1.5%	0.7%
	OR=1.97	*OR=1.95*	*OR=1.95*	*OR =3.60*	*OR=3.48*
Countries (n=6) with specific ordinance	18.6%	13%	6.7%	8.3%	3%
All other countries	13.8%	10.2%	4.6%	3.1%	1.6%
	OR=1.42	*OR=1.31*	*OR=1.49*	*OR=2.80*	*OR=1.89*

Those reporting being bullied were 2 or 3 times less likely to feel encouraged by their manager to participate in important decisions or that their manager is good at planning and organization. This group were five times less likely to feel their manager could resolve conflicts (OR=5.18, CI=4.65-5.79) and almost 8 times less likely to be respected as a person (OR=7.98, CI=7.01-9.08). Of the forms of mistreatment, those reporting being threatened, humiliated bullied or harassed were at greatest risk. The risk of experiencing poor leadership was lowest for those reporting physical violence (see Table 4).

With regard to the risk of mistreatment and broader economic and cultural factors, increased risk is apparent (see Table 5). Those in the EU 15 were at greater risk than other countries for all forms of mistreatment, and almost three times greater for bullying/harassment (OR= 2.74, CI= 2.33-3.21). Income inequality, at population level, posed a small but significant risk for verbal abuse and bullying/harassment, while equality and equity posed a greater risk, again particularly for bullying/harassment and physical violence. Finally, reported experience of bullying and harassment was two and half times higher in the two countries where anti-bullying legislation exists (OR=2.49, CI=2.20-2.81), while the other forms of mistreatment were marginally more likely in these countries (see Table 5).

5. DISCUSSION

The EWCS data indicate that of the three forms of mistreatment at work, verbal abuse is the most common at 10.8%, followed by bullying at 4.2%. Physical violence is the least common, experienced by only 1.9%. These prevalence rates are lower than other recorded rates of physical violence, incivility, and bullying, although do not map identically onto the constructs measured elsewhere. Verbal abuse for example was used here as an indicator of incivility. However estimates of incivility are usually based on several items including teasing, criticism, or being put down or excluded (6,14), and converge around one fifth of workers; e.g. 23% (14), 17% (47) and 20% (8). Similarly, other studies have employed longer scales measuring physical violence. Fevre et al., reported a level of 5% used a two item measure (6), Schacht et al., a level of 6% using a four item measure (16), and Sprigg et al., (47) a level of 3.7% for inside organizations using an 8 item measure. It may be the case that these longer, more specific measures allow respondents report experience of behaviours that they would not immediately or without prompting class as violence, and hence yield higher estimates.

Bullying/harassment was reported by 4.2% of

respondents and threats and humiliation by 5%. Threats and humiliation are usually considered part of the bullying experience, although the responses cannot be combined here, given the likely overlap. Wide variation in prevalence estimates for workplace bullying has been at least partly explained by methodology. Estimates are lowest when the method employed requires respondents to indicate if they have been bullied in a direct question (i.e. self label), when a definition of bullying is supplied (10.6%), higher with behavioural checklists (14.7%) and highest again with self-labeling where no definition is supplied (18%) (48), implying that the prevalence recorded in the EWCS, by either item, is particularly low. However the method employed here offered only a yes/no response option, while most other studies offer a 4 or 5-point frequency scale. It may be that respondents in the ECWS only responded in the positive if they were certain about bullying having taken place, and there is evidence that people are far from certain when it comes to classifying what is and is not workplace bullying (5, 6, 37, 49). The estimates here in fact do correspond with those for serious bullying (4-5%) compiled by Zapf et al., (50).

The various patterns of mistreatment reported in the EWCS for gender, age, sector and occupation correspond with those reported in many other studies, lending validity to the findings. Mistreatment is, when measured in large representative samples, similar for men and women (6, 49-51), and more common in the public sector (50, 52). The high risk associated with the health sector for all mistreatment but particularly for physical violence is also a common finding (6, 10, 52).

Similarly the risk of poorer health reinforces previous studies. What is of note is the extent of the phenomenon; each form of mistreatment increased the risk of every health condition measured. Health conditions more traditionally associated with occupational risk (injuries, gastric, hearing and skin problems) were over twice as likely for bullying, threats and abuse as well as physical violence. Overall however depression, anxiety, fatigue and insomnia were three to four times more likely, underscoring the way in which mistreatment effects self esteem and self worth. Addressing mistreatment in the workplace could offer an important focus for reducing depression and improving mental health at work at work. Problems associated with mental health are the fourth most frequent cause of incapacity for work (53) and mental health promotion in the workplace has been highlighted as a priority are by both the World Health Organization (1) and the European Commission (54).

That those who experience mistreatment perceive their health and safety to be at risk because of work comes as no surprise, however the fact that presenteeism is more likely than absenteeism is of note. This adds to the

emerging picture of victimization and stress for those who are badly treated. They may be less inclined to present stigmatized conditions such as depression, anxiety and insomnia to managers or occupational health specialists, fearing that it may add to perceptions of personal weakness or vulnerability. It is also possible that not being given leave when struggling with illness may be part of the experience of those ill-treated, a possibility uncovered by Fevre et al in their survey of mistreatment in UK workplaces (6).

The influence of the working environment has been explored extensively in relation to workplace bullying, although somewhat less so for incivility and physical violence. A criticism of much of the work undertaken is that it is limited to associations, rather than within longitudinal studies, where cause and effect can be demonstrated. The ECWS data reinforce previous findings of association between bully/harassment and an unsupportive, inflexible, pressurized work environment, but also demonstrate that these associations stretch across each of the forms of mistreatment.

The increased risk for stress, particularly for threats and humiliation, is again unsurprising, as poor social relationships have been demonstrated to be source of stress at work (55, 56). However as Hogh et al., point out, bullying and abuse are no ordinary stressors, as targets often find that they cannot apply emotion or problem-focus coping. As such organization-wide approaches to stress reduction, such as the Management Standards Approach (57) may be useful to consider.

The risks for the poor leadership items were higher, with those ill-treated being between 4 and 6 times less likely to think their immediate manager treats them with respect, is good at planning or at resolving conflicts. This suggests that organizational-level interventions have greater potential in addressing mistreatment than individual, and that leadership in particular could provide a focus for such interventions. The data add to the emerging evidence that bullying is more commonly experienced by workers from those higher in the hierarchy (58, 59), and are consistent with research on the role of destructive leadership in bullying and harassment (60).

The data highlight the possibility that broader, structural factors also play a role in workplace mistreatment. Mistreatment and in particular bullying, is often viewed as dysfunctional interpersonal aggressive behaviour, analyzed and addressed at the level of individual behaviour. Even when organizational factors are implicated, the perception can be of workplaces with vulnerable workers, in unstable organizations, with predominantly unskilled workers. This construction of mistreatment was question by Fevre et al, based on their

findings; *'there is no odour of the backstreet about unfair treatment. We find it, in fact, in modernity's shop window'* (p.59) (6). The data here demonstrate that the risk of mistreatment across the board is greater in the EU 15 countries than later accession countries, and for bullying/harassment and verbal abuse, in countries above the median GINI index. It is interesting that gender equality, at the population level, does not seem to contribute to lowered chances of mistreatment, in fact that both bullying and physical violence are more than three times more likely in the countries that score above the median for the Gender Gap index. The countries, which, at the time of data collection, had anti-bullying legislation, had higher risks.

Taken together, these findings could indicate a greater tendency in stronger economies, or more egalitarian societies to identify and report mistreatment. The existence of ordinance could in fact raise awareness and expectation, leading to higher levels of self reported victimization. In this context it is worth noting that some intervention studies that focus on negative behaviour awareness classes, find higher rates of bullying (61, 62) although results of the few interventions that exist are quite inconsistent. Consistent with this is the finding, from a qualitative study conducted in Sweden of poor implementation of legislation at an organizational level, and the insufficient willingness by employers to acknowledge their role in prevention (42).

Conclusions
The exploration of the mistreatment data from the EWCS study demonstrate that, although single item measures, the reported patterns of mistreatment (across occupational groups, sectors) are broadly consistent with other studies. Although prevalence is lower than many studies, especially given the use of the self-labeling method, it does correspond with estimates of serious mistreatment.

The data in the ECWS add to the accumulating evidence that mistreatment increases the risks of a range of illnesses and health conditions, and that the risk of mental health being compromised is particularly high. Mistreatment is also seen to be associated with negative features of the working environment and thus organizational intervention, for example such as the Management Standards Approach offer opportunities for the development of intervention. There are very few evaluated interventions addressing mistreatment but the data show here that those directed at support and leadership may be fruitful route to follow.

The data demonstrate that mistreatment is a complex phenomenon. The fact that is more common in the stronger and more equitable economies indicates that structure and expectations may play a role in determining

self reported prevalence, but also that equity at the level of the population may not translate into specific protections for employees at the organizational level.

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