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Aim To assess the frequency of reported mobbing and the association among mobbing, working environment factors, stress, health outcome, personality type, and work ability index in a sample of physicians in Bosnia and Herzegovina.

Method We conducted a questionnaire survey using a validated self-reported questionnaire among 511 physicians in national health sector of Bosnia and Herzegovina. The questions covered five major categories of mobbing behavior. Characteristics of the work, perceived work environment and its effects, stress, health, and satisfaction with work and life were assessed by the standardized abridged form of Occupational Stress Questionnaire (OSQ). A standardized questionnaire Work Ability Index (WAI) was used to determine the relation between mobbing and work ability.

Results Of 511 surveyed physicians, 387 (76%) physicians self-reported mobbing behavior in the working environment and 136 (26%) was exposed to persistent mobbing. More than a half of the physicians experienced threats to their professional status and almost a half felt isolated. Logistic regression analysis showed that lack of motivation, loss of self-esteem, loss of confidence, fatigue, and depressiveness were significantly associated with lack of support from colleagues. Intention to leave work was associated with lack of support from colleagues (OR 2.3, 95% CI, 1.065-3.535; $t = 4.296$, $P = 0.003$) and lack of support from superiors (OR 1.526, 95% CI, 0.976-2.076; $t = 5.753$; $P = 0.001$). Isolation or exclusion and threats to professional status were predictors for mental health symptoms. Persistent mobbing experience was a significant predictor for sick leave.

Conclusion Exposure to persistent threat to professional status and isolation or exclusion as forms of mobbing are associated with mental health disturbances and lack of self-esteem and confidence. Setting up a system of support for physicians exposed to mobbing may have important benefits.

Mobbing in the workplace seems to be an increasing phenomenon in Europe, even though self-reported mobbing shows wide variations across nations (1). Workplace mobbing is repetitive, unreasonable malicious behavior directed toward an employee or a group of employees, that creates risk to health and safety (2). It may manifest as intimidation, physical violence, discrimination, threats, social isolation, and destabilization. Mobbing may present itself as behavior, words, acts, gestures, or writings that affect personality, dignity, physical, or psychological integrity (2).

More than any other workplaces, health care sector provides a fertile ground for mobbing (1). Mobbing is mostly caused by deterioration in interpersonal relations and organizational dysfunction. It is characterized by repeated and enduring negative acts (3), and creates an atmosphere where communication becomes hostile, immoral, and unethical. There are five dimensions of mobbing behavior: threats to professional status, threats to personal standing, isolation, overwork, and destabilization (4).

Occupational stress is a recognized problem in health care workers and considered special health risk (5-7). How physicians perceive their workplace climate and workload is predicted by both stress and satisfaction with medicine. These characteristics are partly predictable by personality (3,8). In addition, it is known that good health means good work ability (8).

Mobbing presents considerable methodological problems for research. The main approach is descriptive, epidemiological, and based on self-reports. There are only a few publications quantifying either the effects of mobbing as a single form of stress (6) or stress at workplace on physicians (9), their psychological and somatic health or work ability. The aim of this study was to determine the extent of self-reported mobbing and assess the association between mobbing, working environment factors, stress, health outcome, personality type, and work ability index in a sample of physicians in Bosnia and Herzegovina.

Rapid organizational change in health sector in Bosnia and Herzegovina (10) has set high adaptation requirements for physicians. Some reveal that they gave consent to be subjected to mobbing and stress to survive, and some become abusers themselves to ensure personal gains.

Subjects and methods

To test the hypothesis that mobbing and stress could have a negative impact on health and work ability of physicians we conducted a questionnaire survey in Bosnia and Herzegovina in 2004 and 2005. Since exposure to mobbing must be persistent to exert the effect (11), physicians who were often or every day exposed to mobbing were considered the victims of mobbing.

Subjects

Out of 700 contacted physicians, 534 (76%) returned completed questionnaires. There were 23 (3%) inadequately completed questionnaires. Of 511 valid questionnaires (73% of the total sent out), 260 were completed by hospital physicians from the University Hospital Center in Tuzla, and the rest by physicians from seven health centers in the Tuzla Canton (n = 101), Brčko District (n = 36), and Banja Luka region (n = 114). Among the respondents, there were 183 (36%) general practitioners and family medicine practitioners, 67 (13%) teaching consultants, and 261 (51%) specialists. The participation in the study was voluntary.

The study was conducted in accordance with the ethical standards laid down by the Declaration of Helsinki (12). The ethical approval for this research was obtained from the appropriate research committee at the Tuzla University School of Medicine. Informed consent was obtained from all participants in the study.

Questionnaires

Mobbing Questionnaire. The questionnaire consisted of several sections, collecting demographic

data (age, gender, and marital status), work-related information (job title and working hours), and information on the relationships with superiors and colleagues, and perception of support, isolation, and overwork in the past 12 months. There were also explicit questions about participants' experience with five major categories of mobbing behavior: threat to professional status, threat to personal integrity, isolation, overwork, and destabilization (6,13). Threat to professional status was defined as exposure to belittling opinions, unjustified criticism, work monitoring, public humiliation, and intimating use of disciplinary procedures. Threat to personal integrity included undermining personal integrity, teasing, verbal threats and threatening gestures, and damaging personal possessions. Isolation included withholding necessary information, ignoring, exclusion, and unreasonable refusal of applications for leave, training, or promotion. Enforced overwork was defined as undue work pressure and impossible deadlines. Destabilization included claiming credit for another person's ideas, spreading rumors or malicious gossip, underestimating other person's efforts, removing other person's areas of responsibility without consultation, and writing letters and messages of abusive or malicious content. The frequency of mobbing behavior (never, rarely, sometimes, often, and almost daily) was a measure of intensity of exposure to mobbing. The last section of questionnaire included questions about the main symptoms of stress (13) and mobbing (loss of confidence, lack of motivation, loss of self-esteem, anger, anxiousness, depressive mood, sleeplessness, fatigue, headache, palpitations or sweating, and nausea). The extent of support from superiors, recognized effects of mobbing on personal life, effects of mobbing on work performance, intention to leave or change workplace, and absenteeism were also considered in the last section (2,6,13).

Personality Type A/B Questionnaire. Some personality types seem to be more susceptible to effects of stress than others. Type A personality has a chronic sense of time urgency, is usually busy and very competitive, even in noncompetitive situations (14). Type B has an easy-going lifestyle and is more able to sit back and relax (14). We used a structured interview to assess the personality type (13) and scored the answers according to Jenkins' quantification of behavior components from 1 to 8 (15). Structured inventory includes 8 items with yes or no answers. The total score indicated the personality type as follows: >120 – explicitly type A, 106-119 – moderate type A, 100-105 – between A and B type, 90-99 moderate type B, and <90 – explicitly type B.

Occupational Stress Questionnaire. We used the standardized abridged form of Occupational Stress Questionnaire to assess characteristics of the work; perceived work environment (demands, urgency, and distribution of work) and its effects, stress, health, and satisfaction with work and life (16). The Occupational Stress Questionnaire contains four main groups of items as follows: modifying factor (M), perceived environmental factor (E), stress (S), and satisfaction (S). Theoretical model of Occupational Stress Questionnaire is based on psychological stress theory (16). The questionnaire contained 13-item Likert-type scale.

Work Ability Index. We used the work ability index as a standardized tool for measuring work process, health, stress, work ability, and work-satisfaction (17). Work Ability Index consists of the following 7 items: current work ability compared to the lifetime's best, work ability in relation to the demands of the job, number of currently diagnosed diseases, work ability in relation to health complains or symptoms, sick leaves during the past year, own prognosis of work ability from now to next two years, mental ability related to daily work tasks, physical activity, and view of the future. Total score indicated the work ability as follows: 7-27 poor, 28-36 moderate, 37-43 good, and 44-49 excellent (17).

Statistical analysis

We used χ^2 test to assess the differences between respondents who reported mobbing and respondents who did not report it, with respect to age, gender, marital status, job title, personality type A/B, working hours (daily), symptoms subsequent to the stress and mobbing, work ability indices, and sick leaves. Non-parametric correlation analysis (Spearman coefficient) was carried out to identify association between working environment factors and stress and self-reported mobbing, work ability indices, and personality type A/B. Multivariate analysis of variance (ANOVA; logistic regression model) was performed to test the relationships between predictive variables ("not having support from colleagues," and "not having support from superiors"), frequency of mobbing, explicit type A of person, age and dependent variables (level of stress, loss of self-esteem, depressiveness, feeling of anger, lack of motivation, loss of confidence, anxiousness, intention to leave, fatigue, sick leave, and work ability index). The results were presented as regression coefficients β (R), adjusted odds ratio (OR) with 95% confidence intervals (CI), and t values. Statistical analyses were performed with Statistical Package for Social Sciences 7.5. (SPSS, Inc., Chicago, IL, USA).

Results

Among 511 physicians included in the analysis, there were 353 (69%) women and 158 (31%) men. The median age of participants was 44 years (range, 26-68). Two hundred and forty-two (47%) physicians worked on a full time basis (8 hours a day); 206 (40%) worked shifts, including night shifts; and 63 physicians worked additional hours (>8 hours a day). Most respondents (n=378, 74%) respondents were married or cohabitating. Type A personality was identified in 69% of respondents, with 44% being explicitly type A (Table 1).

Most respondents, (n=387, 76%) reported one or more types of mobbing behavior (Table 2). The most frequent types of mobbing behavior were threats to professional status and isolation. Setting unrealistic deadlines, destructive and sarcastic comments, and taking away one's responsibilities without prior consultation were

Table 1. Characteristics of 511 physicians in Bosnia and Herzegovina surveyed for mobbing

Characteristics	No. of respondents (n=511)			*P**
	men	women	total	
Age group (years):				
26-35	29	112	141	0.001
36-45	71	157	228	
>46	58	84	142	
Marital status:				
married or cohabiting	118	265	383	0.001
single	33	50	83	
separated or divorced	5	28	33	
widowed	2	10	12	
Job title:				
general and family medicine practitioners	61	122	183	0.096
teaching consultants	13	54	67	
physicians-specialists	84	177	261	
Personality type:				
explicitly A	69	157	226	0.001
moderately A	25	45	70	
between A and B	8	47	55	
moderately B	22	42	64	
explicitly B	34	62	96	

*χ^2 test.

Table 2. Self-reported aspects of mobbing among 387 physicians who reported to have experienced mobbing

Mobbing behavior	No. (%) of respondents
Threat to professional status:	
attempts to belittle and undermine your work	275 (54.0)
unjustified criticism and monitoring of your work	284 (56.0)
attempts to humiliate you in front of your colleagues	203 (40.0)
intimidating use of discipline or competence procedures	187 (37.0)
Threat to personal standing:	
undermining your personal integrity	105 (20.0)
destructive innuendos and sarcasm	213 (42.0)
verbal threats or threatening gestures	150 (29.0)
physical violence	0
damaging personal possessions	41 (8.0)
Isolation:	
withholding necessary information from you	253 (49.0)
ignoring or excluding you	238 (47.0)
unreasonable refusal of leave of absence training, or promotion	233 (46.0)
Overwork:	
undue pressure to work	207 (40.0)
setting unrealistic or impossible deadlines	225 (44.0)
Destabilization:	
claiming credit for your ideas	165 (32.0)
rumors or malicious gossip about you	143 (28.0)
undervaluing your efforts	202 (39.0)
taking away areas of your responsibility without prior consultation	223 (44.0)
changing plans without telling you	107 (21.0)

the most frequently reported forms of mobbing in the remaining three categories of mobbing behavior. The head of the department or supervisor were reported as abusers by 320 of 387 (83%) respondents, and general manager by 55 (14%) respondents. Two hundred fifty one respondents (65%) reported that both the head of the department and colleagues of similar status were the ones who most often performed mobbing. No exposure to mobbing was reported by 124 (24%) respondents, whereas 128 (25%) were rarely, 123 (24%) were sometimes, and 111 (22%) often, whereas 25 (5%) were daily exposed to mobbing.

Mobbing was more reported by physicians who were explicitly type A personality than by physicians who were explicitly type B personality (179/46 vs 65/17, $\chi^2_1 = 74.47$, $P = 0.001$; Table 3).

Table 3. Characteristics of physicians who reported and those who did not report mobbing

Characteristics	No. (%) respondents who reported mobbing (n = 387)	No. (%) respondents who did not report mobbing (n = 124)	P*
Job title:			
general and family medicine practitioners	129 (71.0)	54 (29.0)	0.152
teaching consultants	57 (85.0)	10 (15.0)	
physicians-specialists	201 (77.0)	60 (23.0)	
Gender:			
men	124 (78.0)	34 (22.0)	0.105
women	263 (74.0)	90 (26.0)	
Age groups (years):			
26-35	99 (26.0)	42 (34.0)	0.184
36-45	172 (44.0)	56 (45.0)	
>46	116 (30.0)	26 (21.0)	
Hours of work:			
8-h workday	176 (73.0)	66 (27.0)	0.101
shift work	211 (78.0)	58 (22.0)	
Type of person:			
explicitly A	179 (46.0)	47 (38.0)	0.001
moderately A	56 (14.0)	14 (11.0)	
between A and B	38 (10.0)	17 (14.0)	
moderately B	49 (13.0)	15 (12.0)	
explicitly B	65 (17.0)	31 (25.0)	

*χ^2 test.

Work environment, mobbing, and stress at workplace

There were significant correlations between all modifying and perceived factors of Occupational Stress Questionnaire (help and support from superiors and workplace social climate), work demands (possibility to use one's knowledge at work), work strain (whether work is physically or mentally strenuous), feeling of stress, mobbing experience, work ability index, and personality types A/B, except for possibility to use one's knowledge and skills at work ($P = 0.091$; Table 4). Mobbing is significantly associated with all occupational stressors except using knowledge and skills at work ($\rho = 0.091$, $P = 0.060$). The lack of support from superiors at work and stress negatively influenced Work Ability Index scores ($P = 0.001$).

Multiple regression analysis showed that the frequency of exposure to mobbing from sometimes (OR 2.098; 95% CI, -1.534-2.628), to often (OR 2.203; 95% CI, -1.242-2.231), to every day (OR 1.672; 95% CI, 1.178-2.173) predicted levels of the stress at workplace ($P = 0.001$ for all). The physicians who had been exposed to mobbing sometimes, often, or every day had almost the same risks to be stressed.

Mobbing and health

Out of 387 physicians who experienced mobbing, 238 (61%) reported lack of motivation for work, 199 (51%) reported loss of confidence, 119 (31%) reported sleeplessness as a typical sign of depressive syndrome, and 88 (23%) reported anxiousness. Feeling of anger was reported by 150 (39%), depressiveness by 75 (19%), and fatigue by 191 (49%) physicians (Table 5).

Multivariate logistic regression analysis showed that lack of motivation was associated with selected cases of "not having support from colleagues" when physicians were confronted with isolation/exclusion behavior ($P = 0.007$). Lack of motivation in some cases of lack of support from superiors (n = 65) when they were confronted with isolation/exclusion behavior ($P = 0.001$) and threat to professional status ($P = 0.001$). All mental symptoms were significantly related to the lack of support from superiors. All mental symptoms except depression and lack of motivation were significantly related to the lack of support from colleagues. In all these

Table 4. Non parametric associations between each modifying factor; each perceived environment factor; stress and mobbing experience, work ability index and type of person A or B (personal variations of perception of mobbing and stress) among 511 physicians

	Spearman correlation coefficient (ρ)*		
Working environment	mobbing experience	work ability index	personality type A/B
Do you have any influence on matters at work, which concern you?	0.175	-0.159	-0.106
Is there anyone else who you can openly discuss personal matters and problem with?	0.987	-0.127	-0.127
Is your superior providing help and support when needed?	0.279	-0.538	-0.244
How do colleagues get along at your workplace?	0.253	-0.084	-0.244
Can you use knowledge and skills in your work?	0.091	-0.205	-0.001
Do you have to hurry to get your work do?	0.138	-0.296	-0.083
Does your work have too difficult phases?	0.247	-0.382	-0.308
Is your work mentally strenuous?	0.289	-0.274	-0.096
Do you feel stress these days?	0.352	-0.518	-0.230

*$P<0.001$ for all modifying and perceived factors associated with mobbing except using knowledge and skills at work; with work ability index, except relationship with colleagues; and with personality type except using knowledge and skills at work time for the job and mentally strenuous work.

Table 5. Prevalence of physical and psychological symptoms of physicians who reported and those who did not report mobbing

	No. (%) of respondents who		
Health symptoms	reported mobbing (n = 387)	did not report mobbing (n = 124)	P*
Physical symptoms:			
nausea	99 (26.0)	17 (14.0)	0.001
palpitation/sweating	41 (11.0)	4 (3.0)	0.004
headache	145 (37.0)	18 (14.0)	0.001
fatigue	191 (49.0)	33 (27.0)	0.002
Psychological symptoms:			
lack of motivation	238 (61.0)	27 (22.0)	0.001
loss of confidence	199 (51.0)	18 (15.0)	0.001
loss of self-esteem	19 (5.0)	3 (2.0)	0.206
anxiousness	88 (23.0)	10 (8.0)	0.001
sleeplessness	119 (31.0)	31(25.0)	0.645
feeling of anger	150 (39.0)	7 (6.0)	0.001
depression	75 (19.0)	20 (16.0)	0.278

*χ^2 test.

cases, physicians experienced a threat to professional status or isolation/exclusion behavior (Table 6).

Threat to professional status predicted the feeling of anger, depressiveness, and anxiousness, lack of motivation, loss of confidence, fatigue, and loss of self-esteem in explicit type A person (Table 7).

Mobbing and work ability index

Eight out of 124 (6%) physicians who did not report mobbing and 84 out of 387 (21%) of physicians who reported mobbing frequently took sick leave ($P=0.001$). The median duration of sick leave was 5 days (range, 1-180). Sick leave in the past year was not associated with age (OR 0.700; 95% CI, -0.643 to 1.353, $t=1.264$, $P=0.226$). In multivariate analysis, persistent mobbing experience was a significant predictor for taking sick leave in the previous year (OR 3.422; 95% CI, 3.091 to 3.753, $t=20.474$, $P=0.001$, Table 6).

Intention to leave work was strongly associated with "not having support from colleagues" ($P=0.003$) and "not having support from superiors" if physicians experienced threat to professional status ($P=0.001$) or isolation/exclusion behavior ($P=0.001$). When threat to professional status was taken as a predictor, fatigue was associated with "not having support from superiors" and "not having support from colleagues." Having often been exposed to mobbing behavior was strongly associated with fatigue ($P=0.001$); sick leave ($P=0.001$), and work ability index ($P=0.001$). All physicians with poor work ability index reported mobbing (Table 8).

Discussion

In our study, over three-quarters of physicians in Bosnia and Herzegovina reported exposure to one or more types of mobbing behavior in the previous year. The number of self reported mobbing cases in our study was higher than the number reported previously for health care sector (2,13,18,19). A questionnaire survey in the national health sector in England found that 38% of employees reported being mobbing victims in the previous year and 42% had witnessed mobbing of others (13). Similar rates were found among junior hospital physicians in the UK

Table 6. Multivariate associations of the most frequent types of mobbing behavior (independent variable) and mental health symptoms; intention to leave; sick leave; work ability indexes (dependent variables) among 511 physicians

Predictor variable*	Dependent variable	Independent variable	β	Odds ratio (95% confidence interval)	t	*P**
Not having support from colleagues	loss of self esteem	isolation/exclusion	0.772	1.022 (0.509-1.535)	4.591	0.002
Not having support from colleagues	loss of self esteem	threat to professional status	-0.020	1.700 (0.206-3.194)	2.623	0.031
Not having support of superior	loss of self esteem	isolation/exclusion	-0.057	1.828 (1.421-2.235)	9.340	0.001
Not having support of superior	loss of self esteem	threat to professional status	-0.190	1.971 (1.524-2.418)	9.146	0.001
Not having support from colleagues	depression	isolation/exclusion	0.772	1.022 (0.509-1.535)	4.591	0.002
Not having support from colleagues	depression	threat to professional status	0.563	0.700 (-0.535-1.935)	1.307	0.227
Not having support of superior	depression	isolation/exclusion	0.066	1.683 (1.250-2.116)	8.083	0.001
Not having support of superior	depression	threat to professional status	0.046	1.797 (1.312-2.282)	7.686	0.001
Not having support from colleagues	feeling of anger	isolation/exclusion	-0.344	2.098 (1.601-2.594)	9.743	0.001
Not having support from colleagues	feeling of anger	threat to professional status	-0.430	2.400 (1.517-3.283)	6.276	0.001
Not having support of superior	feeling of anger	isolation/exclusion	-0.306	1.968 (1.535-2.401)	9.451	0.001
Not having support of superior	feeling of anger	threat to professional status	-0.312	2.010 (1.508-2.512)	8.304	0.001
Not having support from colleagues	lack of motivation	isolation/exclusion	0.032	1.272 (0.464-2.079)	3.633	0.007
Not having support from colleagues	lack of motivation	threat to professional status	-0.258	1.713 (1.179-2.247)	6.654	0.001
Not having support of superior	lack of motivation	isolation/exclusion	-0.161	1.590 (1.106-2.073)	6.836	0.001
Not having support of superior	lack of motivation	threat to professional status	0.282	0.800 (-0.634-2.234)	1.287	0.234
Not having support from colleagues	loss of confidence	isolation/exclusion	0.060	1.543 (0.682-2.405)	4.129	0.003
Not having support from colleagues	loss of confidence	threat to professional status	-0.264	2.100 (0.559-3.641)	3.142	0.014
Not having support of superior	loss of confidence	isolation/exclusion	-0.265	1.734 (1.258-2.210)	7.576	0.001
Not having support of superior	loss of confidence	threat to professional status	-0.289	1.794 (1.259-2.328)	6.957	0.001
Not having support from colleagues	anxiety	isolation/exclusion	0.393	1.674 (1.188-2.160)	7.939	0.001
Not having support from colleagues	anxiety	threat-professional status	0.282	0.800 (-0.634-2.234)	1.287	0.234
Not having support of superior	anxiety	isolation/exclusion	0.138	1.622 (1.192-2.052)	7.846	0.001
Not having support of superior	anxiety	threat to professional status	0.325	1.423 (0.964-1.882)	6.427	0.001
Not having support from colleagues	fatigue	isolation/exclusion	0.772	1.022 (0.509-1.535)	4.591	0.002
Not having support from colleagues	fatigue	threat to professional status	0.031	1.700 (0.206-3.194)	2.623	0.031
Not having support of superior	fatigue	isolation/exclusion	-0.268	1.862 (1.398-2.327)	8.334	0.001
not having support of superior	fatigue	threat to professional status	-0.708	1.755 (1.208-2.301)	6.661	0.001
Not having support from colleagues	intention to leave	isolation/exclusion	-0.516	2.196 (1.592-2.800)	7.660	0.001
Not having support from colleagues	intention to leave	threat to professional status	-0.323	2.300 (1.065-3.535)	4.296	0.003
Not having support of superior	intention to leave	isolation/exclusion	-0.353	1.774 (1.315-2.232)	8.047	0.001
Not having support of superior	intention to leave	threat to professional status	-0.095	1.526 (0.976-2.076)	5.753	0.001
Often exposed to mobbing	fatigue	threat to professional status	-0.312	2.203 (1.439-2.966)	5.719	0.001
Often exposed to mobbing	sick leave	threat to professional status	-0.325	3.422 (3.091-3.753)	20.474	0.001
Often exposed to mobbing	work ability index	threat to professional status	-0.430	4.745 (4.144-5.347)	15.625	0.001

*Logistic regression analysis.

(19). However, in Finland, only 5% of the hospital employees reported being victims of mobbing (20). The wide variations observed across studies indicate difficulty in measuring mobbing and differences in interpretation and definition of mobbing.

In our study, mobbing was defined as persistent, abusive, intimidating, malicious behavior, which made the recipient feel upset, threatened, humiliated, or vulnerable, which undermined their self-confidence, and caused stress (13). In this context, over a quarter of physicians reported being exposed to mobbing behavior persistently, ie, often and every day. We found that female and male physicians were equally affected by mobbing, which is in accordance with findings by Leyman et al (21). The same authors also reported that employees might become mobbing victims regardless of their age, social origin, educational background, or professional role (21).

Physicians who experienced mobbing increasingly reported fatigue, which is in accordance with previous reports (22,23). Depression, on the other hand, was not more frequent among physicians who experienced mobbing than among those who did not experience it, probably because exposure to mobbing should last for some time to produce cumulative psychological effect that would manifest in a form of depression. Most physicians who reported mobbing were type A personality. They were more susceptible to the effects of stress and mob-

Table 7. Multivariate associations of the threat to professional status as mobbing behavior (independent variable) and mental health symptoms (dependent variables) among 225/511 explicit type A persons

Dependent variable	B	Odds ratio (95% confidence interval)	t	*P**
Feeling of anger	-0.432	2.136 (2.00-2.271)	31.17	0.001
Depression	-0.179	1.986 (1.875-2.097)	35.37	0.001
Anxiousness	-0.236	1.952 (1.811-2.093)	27.36	0.001
Lack of motivation	-0.494	2.033 (1.886-2.181)	27.26	0.001*
Loss of confidence	-0.230	1.889 (1.729-2.049)	23.32	0.001
Fatigue	-0.409	2.072 (1.934-2.209)	29.78	0.001
Loss of self esteem	-0.079	1.953 (1.856-2.051)	39.63	0.001

*Logistic regression analysis.

Table 8. Work ability index scores of respondents who reported mobbing (n = 387) and respondents who did not report mobbing (n = 124)

Work ability index*	No. (%) respondents who reported mobbing	No. (%) respondents who did not report mobbing
Excellent work ability	53 (14.0)†	63 (51.0)
Good work ability	194 (50.0)	56 (45.0)
Moderate work ability	125 (32.0)†	5 (4.0)
Poor work ability	15 (4.0)	0

*Total score indicated the work ability as follows: 7-27, poor; 28-36, moderate; 37-43, good; and 44-49, excellent (17).
†χ^2 test, $P = 0.001$

bing and most often felt anger and other mental symptoms than physicians with type B personality. These results are in accordance with results of other studies (14,15).

Long-term unsatisfactory working conditions result in a negative self-perception of one's health and work ability and in a complete loss of interest in remaining in medical profession (24,25). In our study, a significant association was identified between the Work Ability Index and perception of all personal, clinical, and occupational aspects. The physicians who reported mobbing took sick leave 3.5 times more often in the previous year than physicians who did not report mobbing. This finding is in accordance with previous studies (2,20,26,27) and confirms the conclusion that the prevalence of absenteeism, as a health indicator is higher in unstable health institutions.

The number of self-reported mobbing cases in our study is more than twice as high as the number reported previously for health care sector, and there is a lack of reported data on superiors who experienced mobbing. This suggests that the differences between conflict, stress at work, and mobbing are not quite clear, as well as requires additional education on communication.

In conclusion, the exposure to persistent threat to professional status and isolation or exclusion, as forms of mobbing, are associated with mental health disturbances and lack of self-esteem and confidence. Therefore, setting up a system of support for physicians exposed to mobbing may have important benefits.

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