Harassment in Workplace Among School Teachers: Development of a Survey

Andrea Russo[1], Ranko Milić[2], Bojana Knežević[3], Rosanda Mulić[4], Jadranka Mustajbegović[5]

[1]University Center for Professional Studies, University of Split, Split, Croatia
[2]Split Healthy City Association, Split, Croatia
[3]University Hospital Center Zagreb, Zagreb, Croatia
[4]Department of Public Health, School of Medicine, University of Split, Split, Croatia
[5]Department for Environmental and Occupational Health, School of Medicine, University of Zagreb, Zagreb, Croatia

Aim To develop a questionnaire on harassment in the workplace among teachers at primary and secondary schools.

Methods We analyzed the existing questionnaires on harassment in the workplace and developed a new one was to specifically address harassment of teachers in the public education sector. The questionnaire was then experimentally applied to a sample of 764 primary and secondary school teachers in Split Dalmatia County, Croatia. It included three scales –exposure to harassment, witnessing harassment, and disturbance by harassment. Validity of the three scales was examined by factor analysis.

Results All three scales showed satisfactory metric characteristics: Cronbach α coefficient was 0.93 for exposure scale, 0.95 for witnessing scale, and 0.97 for disturbance scale. Out of 764 teachers surveyed, 164 (22.4%) were exposed to and 192 (31.7%) witnessed different kinds of harassment in the previous 12 months. There were significantly more of those who experienced harassment as witnesses ($\chi^2_1 = 249.301$; $P < 0.001$) than as direct victims. Eighty-six teachers (11.5%) reported having psychological and 76 (10.1%) physical health problems caused by their work. Exclusion as a consequence of harassment disturbed women more than men ($\chi^2_1 = 5.27$; $P = 0.022$). Those who were exposed to harassment had significantly lower median age (42; range 23-68) than those who were not exposed (45; range 23-65) (U = 31401.50; $z = 2.129$; $P = 0.033$).

Conclusion The questionnaire registered wide spectrum of harassment types, indicating the need for continuous monitoring and systematic work on the prevention of these phenomena. The study showed that exposure to harassment is associated with age, indicating that younger teachers should be the target population for detection and prevention of workplace harassment.

> **Correspondence to:**
Andrea Russo
University of Split
University Centre for Professional Studies
Kopilica 5
21000 Split, Croatia
arusso@oss.unist.hr

> **Received:** July 8, 2008
> **Accepted:** July 29, 2008

> **Croat Med J. 2008;49:545-52**
> doi: 10.3325/cmj.2008.4.545

Far-reaching changes that have taken place in the world of work during recent decades have resulted in emerging risks in the field of occupational safety and health. These changes have led to not only physical, biological, and chemical, but also to psychosocial risks (1,2). Prevention of harassment and inter-personal hostility in the workplace is becoming increasingly important to both managers and organizational researchers (3), largely because of the growing number of extremely negative consequences associated with this phenomenon (3). What is more, inter-personal hostility may also lead to high costs for organizations, in the form of increased absenteeism and higher turnover of personnel, decreased commitment and productivity, and negative publicity (4,5). The Fourth European Working Conditions Survey in 2005 showed that 20% of workers from the 15 old European Union members (EU-15) and 30% from the 10 new members believed that their health was at risk because of work-related stress (2). In 2002, the annual economic cost of work-related stress in the EU-15 was estimated at €20 billion (2). Violence or violence threats are becoming more and more frequent, especially in public service sector, with an emphasis on education, health, and social sector (6-9). Surveys show that the frequency of harassment in the workplace in most of countries, including Croatia (9,10), is between 5% and 10% (2-4,11). European Foundation for the Improvement of Living and Working Conditions made a survey in 2000, which showed that about 12% of the employed in education and health sector in EU member states experienced some form of harassment at work (12). This makes these two sectors have the second largest percentage of harassment, just below the state government and defense (14%) (2).

As a result, several countries have adopted or are planning to adopt laws promoting dignity at work or banning different forms of work harassment (1). In Croatia, a harassment law is in preparation (13). The law introduces punitive proceedings for violators, employers, and companies in which harassment takes place (13). The aim of this study is to support these positive efforts and prevent possible fraud by creating an adequate objective measuring instrument and its experimental implementation

In order to achieve this, our questionnaire should be able to: 1) examine the prevalence and the level of recognition of harassment in the workplace in the chosen target groups; 2) examine the levels of psychological impact of these phenomena on the respondents; and 3) identify behaviors that are recognized by respondents as harassment and the level of disturbance by the phenomenon.

Methods

Development of questionnaire

The questionnaire (web-extra) was designed, implemented, and analyzed by studying the existing questionnaires on workplace harassment (4,12,14-21). We adapted the existing instruments to be applicable by a wide spectrum of potential users. The new questionnaire assessed three levels of harassment: 1) personal experience; 2) witnessing; and 3) impact of the experience on the respondent. We presumed that investigating all the three levels would provide more information on the incidence of harassment and its effects on the target populations.

The questionnaire has 67 questions, 55 of which are directly related to the issues of inter-personal relations and harassment in workplace. The first part includes general data as follows: sex, age, marital status, number of children, level of education, profession, length of service, specific working environment, working hours, type of formal working engagement (full-time, part-time), level of engagement and cooperation, incidence of in-

ter-personal problems, psychological or physical problems caused by the work, length of the sick-leave in the previous 12 months, and availability of the sick-leave.

In the second part, 132 statements are grouped into three survey sections (subscales), each consisting of 44 questions as follows: direct personal experience, indirect experience, and psychological influence of the experience on the respondent. Respondents are asked to rate their experience using a 5-point Likert-type scale with the following answers: 1 – not at all; 2 – 3-4 times in 12 months/slightly; 3 – 1 time a month/medium; 4 – 2 times a week/considerably; and 5 – every day/extremely influenced. At the end of the questionnaire, there are 3 questions examining the relationship of the respondents with their superiors, colleagues, and inferiors on a scale from 1 – unfair to 5 – fair.

The validity of the three scales was examined by factor analysis. Three factor analyses were made, one for each section. In all three cases, principal axis factoring was performed. Also, Scree test (22) was used as a criterion for the extraction of a sufficient number of factors. Factor analysis made at a correlation matrix of the items related to exposure showed that in the basis of covariations among all 44 items there was a common factor which explained 26.5% of the common variance (the first five eigen values were 12.33, 3.09, 2.28, 1.94, 1.73). Internal consistency reliability of the exposure scale (Cronbach α coefficient) was 0.93. Factor analysis made at a correlation matrix of the items related to witnessing harassment also showed a common factor (the first five eigen values were 15.62, 3.53, 2.10, 1.78, 1.58). This factor explained 34.22% of the common variance and all the items were saturated by it in the range from 0.19 to 0.80. Internal consistency reliability of the witnessing scale (Cronbach α) was 0.95. Factor analysis of the items related to disturbance by harassment also showed a single common factor (the first five values were 18.92, 4.23, 1.85, 1.70, 1.48), which explained 41.7% of the common variance. All items were saturated by it in the range from 0.50 to 0.77; internal consistency reliability of the disturbance scale (Cronbach α) was 0.97.

Subjects

The survey was conducted in 27 primary and secondary schools in Split Dalmatia County, with a total of 1022 teachers. The schools and teachers were chosen by the method of a random stratified sample. The sample was stratified as follows: 1) schools were stratified into primary and secondary schools; 2) primary schools were stratified into urban, suburban, and island schools; and 3) secondary schools were stratified into urban, suburban, island schools and into schools providing general education and others. The response rate was 74.7%, with 764 completed questionnaires. We received no questionnaires from one school, which allegedly had problems with the school principal and disturbed inter-personal relations. From another school with similar alleged problems, we received only 14 (40.0%) completed questionnaires. The respondents were informed that the survey was anonymous.

Statistical analysis

Metric characteristics of the questionnaire were analyzed by the principal axis factoring for each of the three survey sections. A Scree test (22) showed that all three scales were unidimensional. Distributions of the scores deviated very much from a normal distribution (large number of answer "1," Table 1), requir-

Table 1. Descriptive statistics of data obtained for all questions in three survey sections

Answers on the subscale	No. of answers		Median (range)
	valid	missing	
Exposure to harassment	607	157	1.046 (1.00-3.11)
Witnessing harassment	472	292	1.046 (1.00-4.55)
Emotional disturbance by harassment	409	355	1.046 (1.00-3.14)

ing the use of non-parametric tests. All distributions were thus divided into two parts – those who responded with one (not at all) and all others (yes). Chi-square test was used for the calculation of statistical significance of the differences.

Statistical analyses were performed with Statistical Package for the Social Sciences, version 16.0 (SPSS Inc., Chicago, IL, USA). The ethical approval for this research was obtained from the Ethics Committee of the University of Zagreb School of Medicine.

Results

Of 764 teachers, there were 598 women (78.3%), 164 men (21.5%), and 2 questionnaires did not contain data on the sex of the respondent. The median age of the participants was 44 years (range, 23-70). Median length of service was 16 years (range, 0-43). Of 764 respondents, 535 (70.6%) were married or cohabitating and most had children (503 or 65.8%). There were 238 (31.5%) teachers with vocational college education, 509 (67.3%) with university education, and 9 (1.2%) with postgraduate education.

Most of the teachers (n = 589, 78.7%) worked at just one school, 53 teachers (7.1%) worked at one school with a few district schools, and 106 (14.2%) teachers worked at more than one school (Table 2).

According to the type of the educational institution, 397 (53.6%) teachers were primary school teachers, 111 (15.0%) were teachers in secondary school providing general education, 89 (12.0%) in vocational secondary schools, 130 (17.0%) in technical secondary school, and 14 (1.8%) in art secondary schools. Of the examined teachers, 423 (57.1%) were involved in extracurricular activities and 188 (44.1%) performed these activities alone. When these activities included cooperation with one or more colleagues, 251 teachers (40.9%) reported problems in cooperation and 2 (0.3%) of them reported physical conflicts.

Eighty-six teachers (11.5%) reported that they had psychological and 76 (10.1%) that they had physical health problems caused by their work. Furthermore, 105 (14%) of teachers thought they were not able to take a sick-leave without problems and 205 (27.4%) did not know if they could take a sick-leave. Teachers were most satisfied with their relations with superiors, a little less satisfied with their relations with their colleagues, and least satisfied with their relations with pupils (Table 3).

There were 164 (22.4%) teachers who were exposed to harassment at least once in the previous 12 months and 192 (31.7%) who witnessed it at least once in the previous 12 months (Table 4). Of 578 teachers who answered the question on the level of emotional disturbance, 199 teachers (34.5%) expressed moderate, high, or very high level (3-5 on the Likert scale) of emotional disturbance.

Table 2. Type of employment contract of respondents from surveyed schools

	No. (%) of respondents working in	
Type of contract	surveyed schools	other schools*
Full time, permanent	518 (68.2)	19 (15.0)
Part time, permanent	132 (17.4)	83 (65.4)
Full time, temporary	71 (9.3)	2 (1.6)
Part time, temporary	39 (5.1)	23 (18.1)

*Respondents who also worked in schools other than the surveyed one.

Table 3. Assessment of the quality of relationship of the respondents with their superiors, colleagues, and pupils

Teachers' relationship with	No. (%) of respondents who assessed the quality of relationship as		
	not so fair/unfair (= 1-3)	almost fair (= 4)	fair (= 5)
Superiors	71 (9.4)	137 (18.3)	541 (72.2)
Teachers	68 (9.1)	191 (25.4)	494 (65.5)
Pupils	109 (14.5)	231 (30.7)	413 (54.8)

Table 4. Frequency of psychological harassment in the workplace in the last 12 months

	No. (%) of respondents who reported psychological harassment		
Type of experience	every day or often (scale items 3-5)	yes, but rarely (scale item 2)	never (scale 1)
Exposed to harassment	58 (7.9)	106 (14.5)	566 (77.5)
Witnessed harassment	83 (13.0)	119 (18.7)	435 (68.3)

*The scale had 5 possible answers: 1 – not at all, 2 – 3-4 times in 12 mo/slightly, 3 – once a month/medium, 4 – 2 times a week/considerably, 5 – every day/extremely influenced.

Teachers who were not exposed to harassment in the workplace had significantly higher age (median, 45; range 23-65) than those who were (median, 42; range 23-68, U = 31401.50; $z = 2.129$; $P = 0.033$; Mann-Whitney test).

However, there was no significant difference in the length of service between the exposed and non-exposed teachers (U = 34991.00; $z = 1.521$; $P = 0.128$). There was no significant difference in the age or length of service between teachers who witnessed and teachers who did not witness harassment in the workplace (age: U = 18967.00; z = 1.818; $P = 0.069$; length of service: U = 21676.50; z = 1.191; $P = 0.234$).

Similarly, there was no significant difference in the age or length of service between teachers who were disturbed and those who were not disturbed by harassment (age: U = 14443.50, z = 1.563, $P = 0.118$; length of service: U = 16175.50, z = 1.373, $P = 0.170$).

Teachers who were exposed to harassment reported significantly more harassment in the workplace than those who only witnessed it ($\chi^2_1 = 249.301$; $P < 0.001$). Correlation coefficient (ϕ) between these two variables was 0.75 ($P < 0.001$). Also, correlation coefficient between exposure and disturbance was 0.73 ($P < 0.001$) and between witnessing and disturbance 0.84 ($P < 0.001$). Teachers who were not exposed to harassment in the workplace rated the quality of inter-personal relations with superiors, colleagues, and pupils higher. Similarly, those who did not witness harassment or those who were not disturbed by it higher quality of inter-personal relations with their superiors, colleagues, and pupils: standard normal deviates (Z, Mann-Whitney test) for the relationship with superiors were 7.570 for exposure scale, 5.595 for witnessing, and 5.983 for disturbance; for relations with subordinates they were 8.972 for exposure, 5.802 for witnessing, and 5.803 for disturbance; and for relationship with pupils they were 8.121 for exposure, 6.684 for witnessing, and 7.292 for disturbance. For all three scales and for all relationships, P value was lower than 0.001.

Discussion

Our results confirmed the expected levels of harassment in the workplace in schools in Split Dalmatia County, which may be compared with European averages (12).

Although the incidents in two schools, publicly known for having negative inter-personal relations, where suspicious school principals prevented data collection, could have influenced the final results, they also indicated a need for a systematic and continuing work on the prevention of harassment in public institutions in Croatia.

The survey showed that more teachers witnessed violence than were exposed to it. This may be interpreted in several ways. One explanation would be that teachers witnessed harassment among pupils or other staff (23). Another would be that larger group of teachers witnessed harassment that happened to one person or a narrow group. It seems that assessing witnessed, and not only experienced, violence enables obtaining more objective information, especially when the victims are not physically or psychologically able to respond or are not included in the study.

Contrary to some other studies (24), our results showed that younger teachers were significantly more exposed to harassment in the workplace than older teachers. This is supported by some other studies in education sector (25). Younger teachers are most probably harassed by their older colleagues, possibly because of cultural norms that still place younger employees in a subordinate position. Also, it is possible that younger teachers are more harassed by pupils because of their lack of experience and lower ability to cope with harassment (age difference between young teachers

and pupils in some cases is very small). Also, according to local regulations and written or unwritten rules of employment in schools, older employees have better and safer job positions (if there are less pupils in a new generation, younger teachers are made redundant first, since it is justly believed that they will find a new job more easily than their older colleagues). Older teachers also establish stronger social and power networks in schools, while, due to the job insecurity, younger colleagues compete more among themselves.

It was also interesting that some types of harassment in the workplace (eg, exclusion) were less disturbing for male than for female teachers. This may again be connected with patriarchal culture, where men are perceived as individual players. So far, contradictory findings have been reported on bullying and sex (3). However, there have been no gender-related surveys on emotional disturbance caused by harassment in the workplace and our results highlight the need for further studies in this direction.

Strong correlation of the quality of interpersonal relations with superiors, colleagues, and pupils on the one hand with exposure, witnessing, and disturbance on the other indicates that teachers who were not exposed to or witnessed harassment or were less disturbed by it, were more psychologically and socially robust and thus less susceptible to exposure to negative situations or more able to cope with them. However, the survey confirmed that there was no correlation of witnessing harassment and the level of emotional disturbance by it with either age or length of service. Since the three-level-approach to harassment investigation used in this study is new, more studies are needed to confirm our findings.

We noticed many limitations of the existing questionnaires. Majority of questionnaires were concentrated only on measuring direct experience of harassment and only one of the surveys measured witnessed harassment (3). Also, the psychological impact of an either personally experienced or observed harassment on the respondent was not measured. Thus, the existing questionnaires excluded large amounts of relevant data. Finally, most of the questionnaires were created to register only the existence of the phenomenon without scaling or rating the results (eg, by using Likert-type scale) and there was no systematization of the results. This made them inappropriate for estimating inter-personal relations quality in the working environment and detecting subtle irregularities.

Hence, this study introduced the questionnaire with three levels (scales) of measurement: incidence of personal exposure to different forms of harassment, incidence of witnessing of different forms of the harassment among colleagues, and a level of disturbance by either of the two experienced harassment situations. All three scales from the questionnaire showed satisfactory metric characteristics. Their factor structure was simple, ie, at the basis of every scale there was a single factor of relatively high internal consistence reliability (Cronbach α). Although further studies are needed to assess the validity of these scales, especially their predictive and discriminative validity, the initial results obtained by factor analysis and item analysis showed that the content of all three scales was very homogenous. Therefore, it can be concluded that the exposure, witnessing, and disturbance by harassment in the workplace were measured in a valid and reliable way. There were three major limitations of the study: 1) a single measure instrument (self-rated questionnaire) was used; more measure instruments and more sources would provide more reliable data; 2) all the data were collected at the same time, instead of using a longitudinal design which would also include the consequences of the harassment; 3) measurements could not be compared to any of the existing

referent questionnaires due to the substantial differences between the existing questionnaire and this one.

In conclusion, our study indicated a wide variety of harassment situations and poor inter-personal relations in schools in Split Dalmatian County, which were perceived to affect teachers' health. The survey also showed that exposure to harassment was correlated with age, meaning that younger teachers were more exposed to harassment than the older ones. The questionnaire may be used for different types of organizations. However, not all of the questions are applicable to other organizational settings, so some adaptations should be considered for future applications. Further testing is needed to create an instrument useful for effective prevention of harassment at workplace in the primary and secondary education sector.

Acknowledgments

We thank all teachers, schools, and school principals, Ministry of Science, Education, and Sports, State Office for Education and Culture in Split Dalmatia County, and the staff in Split Healthy City Association who supported this research.

References

1 Brun E, Milczarek M; European Agency for Safety and Health at Work. Expert forecast on emerging psychosocial risks related to occupational safety and health. European Risk Observatory Report. Luxembourg: Office for Official Publications of the European Communities; 2007.

2 European Foundation for the Improvement of Living and Working Conditions. Fourth European working conditions survey. Available from: *http://www.eurofound.europa.eu/pubdocs/2006/52/en/1/ef0652en.pdf*. Accessed: 6 July, 2008.

3 Salin D. Workplace bullying among business professionals: prevalence, gender differences and the role of organizational politics. Pistes. 2005. Available from: *http://www.pistes.uqam.ca/v7n3/pdf/v7n3a2en.pdf*. Accessed: July 7, 2008.

4 Salin D. Prevalence and forms of bullying among business professionals: a comparison of two different strategies for measuring bullying. European Journal of Work and Organizational Psychology. 2001;10:425-41. doi:10.1080/13594320143000771

5 Einarsen S, Hoel H, Zapf D, Cooper C. The concept of bullying at work: the European tradition. In: Einarsen S, Hoel H, Zapf D, Cooper C, editors. Bullying and emotional abuse in the workplace: international perspectives in research and practice. London: Taylor & Francis; 2003. p. 3-30.

6 Cassitto MG, Fattorini E, Gilioni R, Rengo C, Gonik V. Raising awareness of psychological harassment at work. protecting workers' health Series No 4. Geneva: World Health Organization; 2003.

7 Kauppinen T, Heikkila P, Lehtinen S, Lindstrom K, Nayha S, Seppala A, et al. Work and health in Finland in year 2000. [in Finish]. Helsinki: Finnish Institute of Occupational Health; 2000.

8 Pranjic N, Males-Bilic L, Beganlic A, Mustajbegovic J. Mobbing, stress, and work ability index among physicians in Bosnia and Herzegovina: survey study. Croat Med J. 2006;47:750-8. Medline:17042067

9 Medanić I. Study of some aspects of mobbing in organizations [in Croatian]. Graduate work. Zadar: Sveučilište u Zadru; 2004.

10 Jokić-Begić N, Kostelić-Martić A, Nemčić-Moro I. 'Mobbing' – moral abuse at the workplace [in Croatian]. Socijalna Psihijatrija. 2003;31:25-33.

11 Koić E, Filaković P, Mužinić L, Matek M, Vondraček S. Mobbing [in Croatian]. Rad i sigurnost. 2003;7:1-20.

12 Paoli P, Merllič D. Third European survey on working conditions 2000. Dublin: European Foundation for the Improvement of Living and Working Conditions; 2001.

13 Parliament C. Gender Equality Committee. Law proposal for combating harassment at the workplace [in Croatian]. Available from: *http://www.sabor.hr/fgs.axd?id=7137*. Accessed: July 7, 2008.

14 Elo A-L, Leppanen A, Lindstrom K, Ropponen T. Occupational Stress Questionnaire: user's instruction. Helsinki: Finnish Institute for Occupational Health; 1992.

15 International Labour Office/International Council of Nurses/World Health Organisation/Public Service International. workplace violence in the health sector, country case studies – research protocol. Geneva: World Health Organisation; 2003.

16 Stebbing J, Mandalia S, Portsmouth S, Leonard P, Crane J, Bower M, et al. A questionnaire survey of stress and bullying in doctors undertaking research. Postgrad Med J. 2004;80:93-6. Medline:14970297 doi:10.1136/pmj.2003.009001

17 Westhues K, editor. Workplace mobbing in academe: reports from twenty universities. Lewiston (NY): The Edwin Mellen Press; 2004.

18 Adult bullying: examples of useful facilitative questions. Report of a Working Party chaired by Helen Cowie, University of Surrey Roehampton. Available from: *http://old.gold.ac.uk/tmr/reports/aim2_surrey1_examples.html*. Accessed: July 4, 2008.

19 European Foundation for the Improvement of Living and Working Conditions. Violence, bulling and harassment in the workplace. Available from: *http://www.eurofound.europa.eu/ewco/reports/TN0406TR01/TN0406TR01.pdf*. Accessed: July 4, 2008.

20 ICN. Guidelines on coping with violence in the workplace. Geneva: International Council of Nurses; 1999.

21 Questionnaire S. (on line). Internet research on stress and disease in collaboration with European Academy of Social Sciences [in Italian]. Available from: *http://www.psicologia-dinamica.it/psysito/stress/stress.htm*. Accessed: 4 July 2007.

22 Tabachnick BG, Fidell LS. Using multivariate statistics, 3rd ed. New York (NY): HarperCollins College Publisher; 1996.

23 Cemaloglu N. The exposure of primary school teachers to bullying: an analysis of various variables. Soc Behav Pers. 2007;35:789-802.

24 Seiffge-Krenke I, Welter N. Mobbing, bullying and other forms of aggression among pupils as a source of stress in school. How far the "victims" are involved? [in German]. Prax Kinderpsychol Kinderpsychiatr. 2008;57:60-74. Medline:18361185

25 Burke RJ, Greenglass E. Work stress, role conflict, social support, and psychological burnout among teachers. Psychol Rep. 1993;73:371-80. Medline:8234588