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JOB STRESS, OCCUPATIONAL POSITION AND GENDER AS FACTORS DIFFERENTIATING WORKPLACE BULLYING EXPERIENCE

STRES ZAWODOWY, STANOWISKO PRACY I PŁEĆ
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ABSTRACT

Background: The results of our research broaden the knowledge concerning the correlates of mobbing. The study is aimed at finding out whether an employee's gender, his/her occupational position and level of occupational stress are related to bullying experience. **Material and Methods:** 1313 employees of a transport company participated in the study. The relationships between gender, occupational position, the level of stress and bullying were analysed. Bullying was measured by the use of the MDM Questionnaire, while work environment was assessed using the Subjective Assessment of Work Questionnaire. **Results:** It was found that women were generally more exposed to bullying than men ($Z = -1.999$; $p < 0.05$). Women experienced more bullying by their colleagues than men did ($Z = -2.712$; $p < 0.01$), in particular: bullying by colleagues that destroys the worker's image ($Z = -2.922$; $p < 0.01$) and bullying by colleagues that destroys social relations ($Z = -3.004$; $p < 0.01$). Individuals with managerial jobs experienced overall bullying ($Z = -2.762$; $p < 0.01$), bullying by colleagues ($Z = -0.014$; $p < 0.05$) and bullying by colleagues that destroys social relations ($Z = -2.260$; $p < 0.05$) more often than the individuals with non-management positions. The results of the study also indicated that employees with higher level of stress in comparison with less stressed co-workers reported more incidents of bullying behaviour (overall bullying – $Z = -8.171$; $p < 0.001$, bullying by colleagues – $Z = -7.114$; $p < 0.001$, bullying by supervisors – $Z = -6.716$; $p < 0.001$, all types of behaviour – $p < 0.001$). **Conclusions:** Comparing the results of our study to the previous research, it seems that the pattern of relationships between individual characteristics and bullying is rooted in the wider cultural context, the specificity of the company, its organisational culture as well as its situation. Therefore it's difficult to talk about irrefutable individual correlates of bullying at work. Med Pr 2013;64(3):283–296

Key words: bullying, job stress, occupational position, gender, transportation

STRESZCZENIE

Wstęp: Wyniki referowanych badań wpisują się w szeroki nurt dyskusji nad korelatami mobbingu. Głównym celem badań było uzyskanie odpowiedzi na pytanie, czy płeć pracownika, jego pozycja zawodowa w firmie oraz stresogenność środowiska pracy różnicują narażenie na mobbing pracowniczy. **Materiał i metody:** Badania przeprowadzono z udziałem 1313 pracowników spółki transportowej. Analizowano relacje między płcią, zajmowanym stanowiskiem oraz poziomem stresu a narażeniem na mobbing (w tym na różne rodzaje działań mobbingowych, z uwzględnieniem ich sprawców). Oceny poziomu narażenia na mobbing dokonano na podstawie wyników Kwestionariusza MDM, a oceny stresu w pracy z użyciem Kwestionariusza do Subiektywnej Oceny Pracy. **Wyniki:** Z przeprowadzonych analiz wynika, że kobiety były bardziej narażone na mobbing ($Z = -1,999$; $p < 0,05$). Częściej od mężczyzn doświadczały też zachowań mobbingowych ze strony kolegów ($Z = -2,712$; $p < 0,01$), w tym działań godzących w wizerunek ($Z = -2,922$; $p < 0,01$) oraz relacje społeczne ($Z = -3,004$; $p < 0,01$). Kierownicy częściej od swoich podwładnych doświadczały mobbingu ogólnie ($Z = -2,762$; $p < 0,01$), mobbingu ze strony współpracowników ($Z = -0,014$; $p < 0,05$) oraz działań kolegów, które negatywnie wpływały na relacje społeczne w pracy ($Z = -2,260$; $p < 0,05$). Ponadto okazało się, że osoby bardziej zestresowane częściej doświadczały zarówno mobbingu ogólnie ($Z = -8,171$; $p < 0,001$), jak i mobbingu ze strony kolegów ($Z = -7,114$; $p < 0,001$) i szefów ($Z = -6,716$; $p < 0,001$) oraz wszystkich poszczególnych rodzajów zachowań ($p < 0,001$). **Wnioski:** Porównując otrzymane wyniki z danymi literaturowymi wydaje się, że konstelacja stwierdzanych związków i zależności odzwierciedla zarówno kontekst kulturowy, jak i specyficzną sytuację firmy oraz że trudno mówić o pewnych indywidualnych predyktorach mobbingu. Med. Pr. 2013;64(3):283–296

Słowa kluczowe: mobbing, stres zawodowy, stanowisko pracy, płeć, transport

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INTRODUCTION

Over the last few decades, the literature concerning the safety of employees has focused more and more on the various adverse aspects of human relationships. In the 80s of the past age, in Scandinavian countries, and in the 90s, almost all over the world, studies concerning the so-called occupational bullying started. The first person who paid attention to this phenomenon, a Swedish psychiatrist and psychologist – Heinz Leymann, described it as: “Psychological terror or mobbing in working life involving hostile and unethical communication, which is directed in a systematic way by one or a few individuals mainly towards one individual who, due to mobbing, is pushed into a helpless and defenseless position, being held there by means of continuing mobbing activities. These actions occur on a very frequent basis (statistical definition: at least once a week) and over a long period of time (statistical definition: at least six months of duration). Because of the high frequency and long duration of hostile behavior, this maltreatment results in considerable psychological, psychosomatic, and social misery” (1, p. 168).

Researchers, apart from analyzing the frequency of this phenomenon and its negative effects, more and more often look for the answer to the question of what conditions and factors are conducive to its occurrence. Contemporarily, it is assumed that bullying is a self-supporting process functioning on the same principles as a vicious circle, in which, the behavior of a perpetrator generates specific reactions of the victim, and these, in turn, determine the next moves of the perpetrator (2). A wide spectrum of factors influence this process; they may interact with one another and contribute to the explanation of the bullying phenomenon in its various stages, starting from the first incidents of hostile behaviors and finishing with violence escalation.

On the basis of the so-far conducted studies, reasons for bullying can be divided, in the most general way, into 3 groups: the features of the environment of work, the characteristics of the perpetrator as well as the characteristics of the harassed individual (2). The current publication has focused on three variables which may potentially determine experiencing bullying by employees, i.e. gender, occupational position and occupational stress. The main objective of the reported study is to answer the question whether the worker’s gender, his/her occupational position and experienced job stress differentiate exposure from occupational bullying.

The choice of gender, job position and the level of perceived job stress among other possible antecedents

of bullying were based on theoretical considerations and empirical data.

According to work environment, hypothesis for situational factors (understood as deficiencies in the work environment), rather than personality characteristics, are main causes of workplace bullying (2–4). We believe that the level of experienced job stress can serve as a good indicator of the work environment quality. Similarly, the position held in the organization (managerial/non-managerial) may describe the situational context of individuals functioning within the organization in terms of work conditions, power, job decision latitude and control. The mechanisms of relationship between the quality of work environment and the incidences of bullying can be explained within stressor-emotion model (5) which is a variation of aggression-frustration hypothesis developed by Berkowitz (6). According to this model, bullying, as a form of counterproductive behavior, is an emotion-based response to work stressors. Thus, people who feel high psychological tension at work may tend to reduce it by involvement in bullying behaviors. In our study, focused on targets’ experiences, we assumed that the experience of stress at work may negatively affect employees’ performance and social behavior (e.g. violation of social norms and expectations, showing irritability, annoying others, mistakes, loss of productivity) and this may provoke co-workers and supervisors to aggression. Such way of thinking is in accordance with the social-interactionist explanation of aggression occurrence (7). In this approach, bullying can be seen as goal oriented behaviors which may be presented to obtain justice or regain control over “deviants”. We also decided to include the gender issue into our study. First, we assumed that gender may be related to work stress experience. In the majority of studies, women experience more occupational stress than men do. They also differ from men in the types of stressor they are exposed to (8). Higher level of stress, stress according to social-interactionist approach to aggression, makes women more prone to behaviors and performance which provoke others to aggression towards them. Secondly, the study was aimed to check if the sex ratio hypothesis is of value in traditionally masculine profession in the modern Polish society. In our sample of the railway transportation workers, women are a minority group and they relatively rarely perform typical railway tasks.

The need to tackle this issue results both, from the lack of reliable data concerning this subject in Polish scientific literature and from the fact that the results of the world studies on the subject turn to be ambiguous.

Gender, job position and occupational stress as antecedents of bullying

Reports concerning the relationship between gender and experienced bullying are diverse. On the one hand, we have to do with data which indicates significant prevalence of women among the group of harassed individuals (9–11), on the other, there is quite a large number of studies, in which the correlation between the gender and exposure to bullying was not found. The first, clearly noticeable difference between these reports, is the size of the study groups. In general, the studies, in which no significant differences between exposure to bullying among both genders were found, included considerably more numerous groups of employees and/or met the criteria of representativeness (1,12–16). It is also worth mentioning that only in few studies (e.g. 17) was it indicated, that these are men, rather than women, who experience bullying more frequently.

The majority of researchers agree that more frequently, these are men who are the perpetrators of bullying, and that men are more often bullied by other men, whereas women both by men and by women (1,3,16,18). However, the issue of the relationship between the gender of an employee and the exposure to bullying is not that clear. The above diversity of the results may be associated with the over-representation of one of the genders in the examined sample, the analyzed sector or occupational group. Thus, for example, in the studies including the representative samples of employees from Denmark (15), Sweden (1) and Great Britain (12), in which the gender ratio distributed almost evenly (respectively: 52% women in the first group, 55% in the second and 48% in the third) – the differences between the exposure of men and women to bullying were statistically insignificant. However, e.g. in the group of nurses (17), where women comprise majority (96%), these were men who turned to be the group in which the risk of exposure to bullying was higher (10% of them were objects of bullying, while, among women, this percentage amounted to 4%), whereas, in the groups where men comprised majority, these were women who were most exposed to bullying (e.g. 19).

Nonetheless, not all of the differences reported in the studies can be explained by the gender ratio among the given population of respondents. It turns out, that in spite of the fact that in some studies there was a relative balance of genders, women were still more exposed to occupational bullying (e.g. 1). On the one hand, it may be assumed that methodological aspects may be the reason of the obtained differences (the tool used to

diagnose bullying, the selection of the study groups). On the other hand, the relationship between gender and experiencing widely understood violence and aggression is a considerably more complex issue. It seems that the gender variable in social studies has a wider meaning, not limited to the simple difference of biological nature, and it is an indirect expression of the status of women and men in the given society, organization as well as of social expectations related to the performance of a specific gender role. It can be assumed that in the organizations where differences between the status of men and women are blurred, no significant intergender differences concerning the exposure to bullying will occur, whereas in the organizations where the prevalence of one gender is clearly manifested (both, in terms of the status as well as the number) those differences will persist (11,15,18).

It is also emphasized that the type of work women do and the style of occupational task performance play significant role in the occurrence of bullying, as well as other forms of aggression towards women – the more remote they are from social expectations associated with the gender role, the higher the risk of being an object of harassment (2,20,21). The results presented by Hoel, Cooper and Faragher (22), demonstrating that among employees working at the lower levels of an organization men are more often bullied than women, whereas the opposite trend occurs among management at medium and higher levels, support this assumption. At this hierarchy level, these are women who are harassed more frequently – therefore, going beyond the traditional stereotype of a subordinated and submissive woman contributes to the increase in the risk of being bullied.

As regards the relationship between the occupational position and exposure to bullying, in the light of the cited studies, regardless of the gender, the line employees, in comparison to managers, experience bullying more frequently. Occupational position also differentiates the type of hostile behaviors: the first ones are more frequently exposed to humiliation and excluding activities, while the second ones more often experience behavior concerning extreme pressure associated with the performed work. Generally speaking, the majority of the published studies indicate that the risk of being bullied is reduced along with the status within the organization – the highest risk of being bullied concerns the employees who are not qualified and the individuals with temporary contracts, while the lowest risk occurs among the higher managing personnel with stable occupational positions (2,9,15,23). Nevertheless, there are such reports, which do not indicate statistically

significant differences between the exposure to bullying among employees with various positions in the organizational hierarchy (12,24). Therefore, the discussion concerning the relationship between the position within the organization and the risk of being exposed to bullying still continues.

Another factor, when paying attention to considering the determinants of bullying, are the characteristics of the place of work in terms of the broadly understood psychosocial factors which prevail in it. Researchers tend to agree that the level of job stress is related to experiencing workplace bullying.

The relationship between job stress and bullying has been emphasized in the theoretical explanations of the bullying phenomenon. The so-called work environment hypothesis is the common framework in the studies of factors responsible for workplace bullying. Already Leymann (1) pointed out that such factors as poor leadership, inequalities at work, deficits in the work organization foster bullying. There are some empirical studies which have supported this assumption. It was proved that psychosocial factors at work (poor working conditions, the quality of leadership, role conflict, the lack of proper communication, organizational change in the social climate) are significant antecedents of bullying (e.g. 13,25,26).

For instance, in the study by Zapf (27), stress was the second most frequently mentioned, organizational cause of bullying by the persons who experienced it. Moreover, the same study indicates that the level of stressogeneity of all of the features of work analyzed by the author, apart from one, i.e. the complexity of work, significantly differentiate the group of bullied and non-bullied employees. These features include: insufficient control over the performed work, tasks and time of their realization, the sense of insecurity as well as organizational problems.

Also other studies, concerning the quality of work in the context of bullying, showed a number of significant differences between the bullied and non-bullied groups of employees. These differences regarded such stressors as: more authoritarian than people-oriented management style, the presence of vague and ambiguous expectations concerning the performed work, the lack of opportunities for career development, the sense of meaninglessness of work, disturbed social interactions and negative social climate (28). These results are in compliance with those obtained by Vartia (13) in the previously cited studies, according to which the individuals who experience bullying complain about the lack

of conversations concerning the tasks and goals of the work unit. Additionally, the individuals who were bullied were not satisfied with the quality of information flow in their workplace, the authoritative way of settling conflicts and poor possibilities to influence the issues concerning themselves. Similar results were obtained by Einarsen, Raknes i Matthiesen (29). According to them, apart from the low level of control over work, low satisfaction with leadership as well as role conflict and ambiguity, bullying is also related to: poor social climate and the lack of challenges at work.

It seems that the relationship between occupational stress and bullying has the nature of a feedback loop – adverse psychosocial conditions of work may be conducive to the occurrence of bullying, whereas experiencing it, in turn, worsens the subjective perception of the environment of work.

In the presented publication, we would like to present the results of our own study which was an attempt to answer the question whether the gender of an employee, occupational position and the level of perceived occupational stress are related to the frequency of exposure to bullying in the workplace. In addition, the study raises the question whether the groups distinguished due to gender, occupational position and perceived occupational stress differ significantly from one another in terms of bullying behavior they experience and the source of experienced bullying (bullying by a superior, bullying by colleagues, bullying both by a superior and colleagues).

MATERIAL AND METHODS

The study group

1313 employees from various branches of a transport company from the premises of the whole country participated in the study. Random selection of quota was performed to obtain the structure of the study group which reflects the structure of employment in terms of occupational position and the type of work performed. The participants of the study were drawn from the list of individuals employed in each of the 16 branches of the company. Men comprised the vast majority of the study group (73%). The age of the examined individuals ranged from 22 to 60 and, on average, amounted to 47.31 (SD = 6.85). The most numerous age group were people aged 41–50 (47.5%). 88.34% were individuals with non-management jobs. The remaining 11.65% included individuals occupying managerial positions.

Research procedure and methods

There were cross-sectional questionnaires used in the study. 3000 sets of questionnaires were distributed among the company employees. 1984 sets were sent back (66.13% of the disseminated ones), out of which 83 (4.18%) were not filled in, while others were filled partly and not included into the statistical analysis. As a result, the analysis was carried out on the basis of data obtained from 1313 respondents.

In order to assess the level of exposure to bullying the MDM Questionnaire developed in the Department of Occupational Psychology at Nofer Institute of Occupational Medicine was used (30). The MDM Questionnaire consists of 32 diagnostic items and 24 additional items, describing bullying behavior which the examined individual may have experienced from superiors and colleagues. Only the diagnostic items of MDM are taken into account in the present study. Two subscales were differentiated – MDM-Boss and MDM-Colleagues. The MDM-Boss subscale consists of 20 items which refer to the three types of behaviors which were distinguished on the basis of a factor analysis: actions affecting occupational position, actions affecting the image and actions affecting social relationships. The MDM-Colleagues – (12 items) also refers to the three types of behaviors which can be presented by co-workers: actions affecting the image, actions affecting social relationships and isolation.

A respondent fills in the questionnaire on himself/herself, referring to the individual statements on two answer scales. The duration answer scale applies to the period of time in which hostile behaviors occurred. A respondent can choose from answers: '1' – 'up to 3 months'; '2' – 'from 4 to 6 months now'; '3' – 'for more than 6 months now' and '4' – 'more than a year now'. In the case of the second answer scale – the frequency scale, the examined individual can choose from 6 answers: '0' – 'never'; '1' – 'less often than once every 6 months'; '2' – 'once every 6 months'; '3' – 'once every 3 months'; '4' – 'once a month'; '5' – 'at least once a week'.

The MDM Questionnaire diagnostic coding allows for relatively easy differentiation between the subjects who are targets of hostile behavior incidentally and those who are bullied. This is a two-stage procedure. First, the answers on the duration scale are coded in the following way: the given behavior has appeared during last 3 months (0 points) and the given behavior has appeared: (a) from 4 to 6 months now, (b) this behavior has been presented to me for more than 6 months now and (c) this behavior has been presented to me for more

than a year now – all of the afore-mentioned answers get 1 point. If the sum of the points obtained by an individual equals zero, we cannot consider the situation of the subject as bullying and this is the end of calculation. If the total score on the duration scale is on one and above, the second stage of the coding procedure can be applied. The rule for the recoding of raw scores on the frequency answer scale is as follow: three categories of answers from "never" to "once every three months" get 0 points; the answer "once a month" gets 1 point and "once a week" – 2 points. The cut-off point for including the person into the group of bullying targets is minimum 2 points obtained on the frequency answer scale. The higher the score calculated according to the described rule, the more intense the bullying.

As one can observe that our operational criteria of bullying are mild – the total score of two points can be reached by the person who experience one kind of hostile behavior once a week or two forms of such behaviors once a month. We are aware of the fact that these two situations are not equal but as MDM was developed as a screening tool, we decided to establish the cut-off point at the lower level to increase the sensitivity of the questionnaire at the expense of its specificity. We believe that from practical point of view, it is better to overestimate the frequency of bullying phenomenon than not to select the real cases of bullying.

The questionnaire is characterized by satisfactory psychometric properties. For the whole MDM Questionnaire the value of Cronbach α coefficient amounts to 0.965, the values of the coefficients of correlation between individual items and the whole scale (expressing discrimination power of the items) range from 0.48 to 0.86.

The assessment of stress at work was carried out on the basis of the results of the Subjective Work Characteristics Questionnaire (SWCQ) by Dudek et al. (31). This tool consists of 55 statements concerning the features of work described by the examined individuals using a scale from 1 (the feature does not occur at my work) to 5 (irritates all the time at work, and even after it). The indicator of stress level is the sum of points obtained from the answers to individual questions. SWCQ also allows to assess ten factors of stress experienced in the workplace (i.e. work overload, the lack of rewards, uncertainty in workplace, social relations, threat, physical burdens, unpleasant work conditions, the lack of control, the lack of support and responsibility).

The questionnaire is characterized by satisfactory psychometric properties – the discrimination power of

individual items ranges from 0.24 to 0.63, and the Cronbach α coefficient for the whole scale amounts to 0.87.

The data concerning gender and occupational position was obtained on the basis of socio-demographic specifications attached to the questionnaire.

Statistical analysis

Statistical analyses were performed by the use of SPSS 19 package. The tests of independence of two variables – the Chi-Square Test of Independence and the Mann-Whitney U test – were applied. Moreover, in order to study the interactive effects between the independent variables (gender and occupational position, gender and the level of stress as well as occupational position and the level of stress) on bullying experience, the Two-Way Analysis of Variance (ANOVA) was used. The normal distribution assumption was not valid.

The comparisons were made between the groups singled out due to (a) gender, (b) occupational position (non-managerial/managerial) and (c) the level of occupational stress (low, medium, high).

RESULTS

In the first stage of the analysis, the answers to the question about the frequency of incidence of bullying in the whole study group were looked for. A person who experienced at least two cases of hostile behaviour a month, or one such a behaviour a week within the period of time between 3 months and a year or longer was considered to be a bullied person. After applying such a criterion, it turned out that the percentage of employees who were exposed to bullying amounted to 10.5% of the whole study group. Of that percentage, 2.67% of individuals experienced bullying by a superior, 4.72% by colleagues, whereas 3.12% both by a superior and colleagues. Then, the percentage of exposure to bullying in the individual groups, divided according to: gender, occupational position and level of experienced stress at work, was traced. The distribution of exposure to bullying in each group with regard to the source is demonstrated in Figure 1.

So as to verify the significance of relationship between the analyzed variables, the test of independence of two variables – the Chi-Square Test of Independence was applied. In the groups singled out according to gender, occupational position as well as the level of experienced stress the distributions of exposure to bullying are significantly different. It appeared that more frequently these are women ($\chi^2_{(1,1313)} = 4.26; p < 0.05$), rather than men, who are objects of bullying. Individuals with managerial jobs experience bullying more often than the individuals with non-management jobs ($\chi^2_{(1,1313)} = 4.33; p < 0.05$) as well as the individuals with higher levels of stress ($\chi^2_{(2,1313)} = 76.15; p < 0.001$).

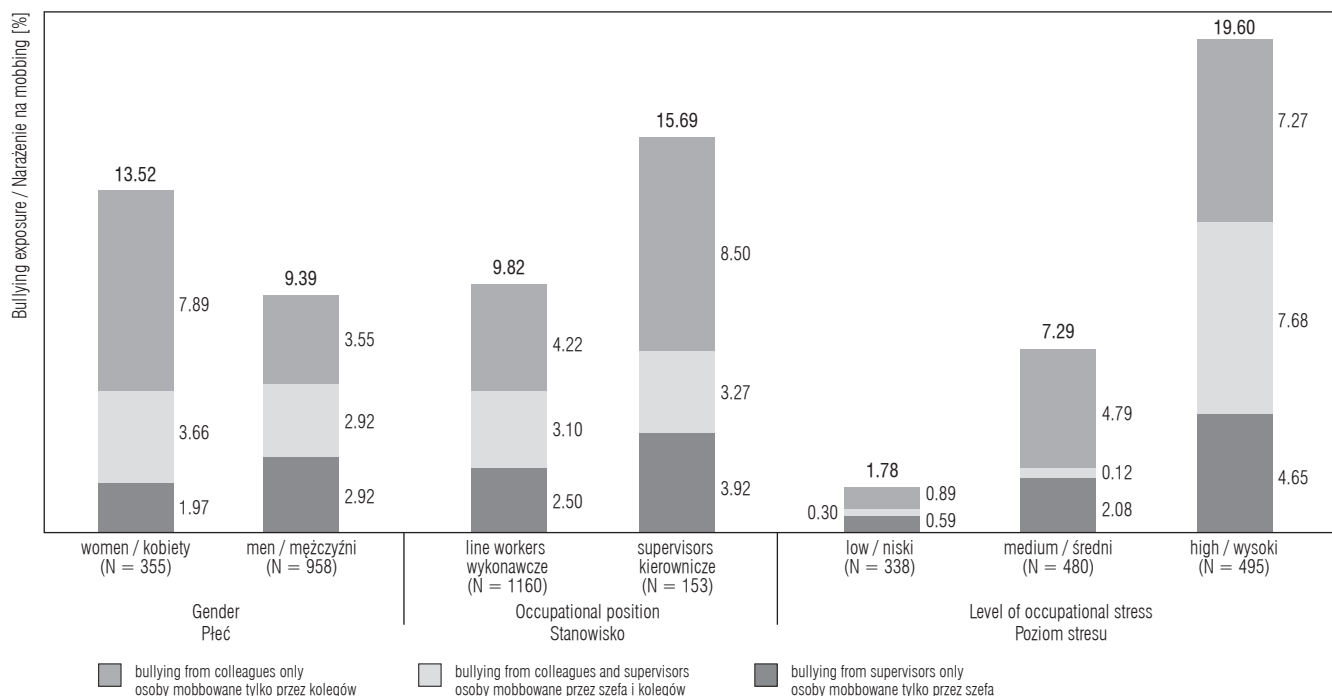


Fig. 1. Exposure to various forms of bullying depending on gender, occupational position and the level of occupational stress
Ryc. 1. Narażenie na różne formy mobbingu ze względu na płeć, stanowisko i poziom stresu zawodowego

Then, to analyze the relationships between gender, occupational position and the level of occupational stress and exposure to bullying, and various forms of this phenomenon, the re-encoded results of the MDM Questionnaire were used.

The encoded scores indicate that 1144 individuals from the study group scored 0 points (87.13%), 31 – 1 point (that is 2.36% of the individuals experienced negative behavior once a month for at least 3 months), whereas 138 individuals (i.e. 10.51%) met the bullying criterion, i.e. scored 2 or more points. The results encoded in such a way were used for further statistical analyses.

The Mann-Whitney U test revealed a number of significant relationships between the type of position held, employee's gender as well as the subjective perception of stress at work and the results obtained by the use of

the MDM Questionnaire. The results of these analyses are presented in Tables 1–3.

Individuals with managerial jobs experienced bullying considerably more often than the individuals with non-managerial jobs (Table 1). Women were more at risk of being bullied than men (Table 2). Also the individuals whose level of stress was high experienced bullying considerably more often than the individuals with medium and low level of stress. The individuals averagely stressed were mobbed considerably more often than the individuals who are only a little stressed (Table 3).

Then, in order to answer the question which groups of employees were more at risk of being bullied by a superior and which by colleagues, the significance of differences between the results of the MDM-Boss and the MDM-Colleagues scales was analyzed.

Table 1. Comparison of the results in the MDM Questionnaire for individuals with managerial and non-managerial jobs
Tabela 1. Porównanie wyników w Kwestionariuszu MDM pracowników na stanowiskach kierowniczych i wykonawczych

Parameters Parametry	Mean rank of MDM Questionnaire scores Średnie rangi wyników w kwestionariuszu MDM		Mann-Whitney U test Test U Manna-Whitneya	
	individuals with non-managerial jobs pracownicy na stanowiskach wykonawczych (N = 1160)	individuals with managerial jobs pracownicy na stanowiskach kierowniczych (N = 153)	Z	p
Overall bullying / Mobbing	650.89	703.31	-2.762	0.006
Bullying from colleagues / Mobbing ze strony współpracowników	652.16	693.70	-0.014	0.014
Bullying from supervisors / Mobbing ze strony przełożonych	654.83	673.49	-1.280	ns
Bullying from colleagues that destroys the worker's image / / Działania mobbingowe ze strony współpracowników uderzające w wizerunek	654.46	676.28	-1.605	ns
Bullying from colleagues that destroys social relations / Działania mobbingowe ze strony współpracowników uderzające w relacje społeczne	652.93	687.89	-2.260	0.024
Bullying from colleagues that leads to worker's isolation / / Działania mobbingowe ze strony współpracowników polegające na izolowaniu pracownika	655.62	667.45	-1.632	ns
Bullying from supervisors threatening the occupational status / / Działania mobbingowe ze strony przełożonych uderzające w pozycję zawodową	655.45	668.72	-0.943	ns
Bullying from supervisors that destroys the worker's image / / Działania mobbingowe ze strony przełożonych uderzające w wizerunek	657.48	653.35	-0.467	ns
Bullying from supervisors that destroys social relations / Działania mobbingowe ze strony przełożonych uderzające w relacje społeczne	657.57	652.65	-0.489	ns

Z – Mann-Whitney U test value / statystyka testu U Manna-Whitneya.

ns – non significant / nieistotne statystycznie.

Table 2. Comparison of the results in the MDM Questionnaire for women and men
Tabela 2. Porównanie wyników w Kwestionariuszu MDM kobiet i mężczyzn

Parameters Parametry	Mean rank of MDM Questionnaire scores Średnie rangi wyników w kwestionariuszu MDM		Mann-Whitney U test Test U Manna-Whitneya	
	women kobiety (N = 355)	men mężczyźni (N = 958)	Z	p
Overall bullying / Mobbing	677.00	649.59	-1.999	0.046
Bullying from colleagues / Mobbing ze strony współpracowników	681.25	648.02	-2.712	0.007
Bullying from supervisors / Mobbing ze strony przełożonych	657.87	656.68	-0.113	ns
Bullying from colleagues that destroys the worker's image / / Działania mobbingowe ze strony współpracowników uderzające w wizerunek	677.94	649.24	-2.922	0.003
Bullying from colleagues that destroys social relations / Działania mobbingowe ze strony współpracowników uderzające w relacje społeczne	681.50	647.92	-3.004	0.003
Bullying from colleagues that leads to worker's isolation / Działania mobbingowe ze strony współpracowników polegające na izolowaniu pracownika	657.14	656.95	-0.037	ns
Bullying from supervisors threatening the occupational status / / Działania mobbingowe ze strony przełożonych uderzające w pozycję zawodową	655.79	657.45	-0.164	ns
Bullying from supervisors that destroys the worker's image / / Działania mobbingowe ze strony przełożonych uderzające w wizerunek	658.92	656.29	-0.412	ns
Bullying from supervisors that destroys social relations / Działania mobbingowe ze strony przełożonych uderzające w relacje społeczne	659.37	656.12	-0.447	ns

Abbreviations as in Table 1 / objaśnienia jak w tabeli 1.

Table 3. Comparison of the results in the MDM Questionnaire for employees with low, medium and high level of stress
Tabela 3. Porównanie wyników w Kwestionariuszu MDM osób doświadczających stresu na poziomie niskim, średnim i wysokim

Parameters Parametry	Mean rank of MDM Questionnaire scores Średnie rangi wyników w kwestionariuszu MDM			Mann-Whitney U test Test U Manna-Whitneya	
	low level of stress osoby z niskim poziomem stresu (N = 338)	medium level of stress osoby ze średnim poziomem stresu (N = 480)	high level of stress osoby z wysokim poziomem stresu (N = 495)	Z	p
Overall bullying / Mobbing	390.17	423.11		-4.413	0.000
	366.84		451.25	-8.171	0.000
		456.02	519.01	-5.402	0.000
Bullying from colleagues / Mobbing ze strony współpracowników	394.74	419.89		-3.834	0.000
	377.76		443.79	-7.114	0.000
		463.75	511.52	-4.559	0.000
Bullying from supervisors / Mobbing ze strony przełożonych	404.36	413.12		-1.952	ns
	382.76		440.38	-6.716	0.000
		458.69	516.42	-6.373	0.000

Table 3. Comparison of the results in the MDM Questionnaire for employees with low, medium and high level of stress – cont.**Tabela 3.** Porównanie wyników w Kwestionariuszu MDM osób doświadczających stresu na poziomie niskim, średnim i wysokim – cd.

Parameters Parametry	Mean rank of MDM Questionnaire scores Średnie rangi wyników w kwestionariuszu MDM			Mann-Whitney U test Test U Manna-Whitneya	
	low level of stress osoby z niskim poziomem stresu (N = 338)	medium level of stress osoby ze średnim poziomem stresu (N = 480)	high level of stress osoby z wysokim poziomem stresu (N = 495)	Z	p
Bullying from colleagues that destroys the worker's image / Działania mobbingowe ze strony współpracowników uderzające w wizerunek	399.46	416.57		-3.421	0.001
	390.55		435.06	-5.943	0.000
		471.82	503.69	-3.734	0.000
Bullying from colleagues that destroys social relations / Działania mobbingowe ze strony współpracowników uderzające w relacje społeczne	397.75	417.77		-3.273	0.001
	386.79		437.63	-6.032	0.000
		469.70	505.74	-3.778	0.000
Bullying from colleagues that leads to worker's isolation / Działania mobbingowe ze strony współpracowników polegające na izolowaniu pracownika	407.50	410.91		-1.681	ns
	408.00		423.15	-3.542	0.000
		481.05	494.74	-2.948	0.003
Bullying from supervisors threatening the occupational status / Działania mobbingowe ze strony przełożonych uderzające w pozycję zawodową	404.11	413.30		-2.155	0.031
	384.55		439.16	-6.600	0.000
		460.90	514.28	-6.082	0.000
Bullying from supervisors that destroys the worker's image / Działania mobbingowe ze strony przełożonych uderzające w wizerunek	410.21	409.00		-1.192	ns
	401.70		427.45	-4.487	0.000
		472.00	503.52	-5.660	0.000
Bullying from supervisors that destroys social relations / Działania mobbingowe ze strony przełożonych uderzające w relacje społeczne	409.92	409.20		-0.353	ns
	398.94		429.33	-4.776	0.000
		469.51	505.93	-5.805	0.000

Abbreviations as in Table 1 / objaśnienia jak w tabeli 1.

These analyses indicate that in the case of the risk of horizontal bullying, i.e. practiced by colleagues, similar pattern of relationships as in the analyses concerning general results of the MDM Questionnaire were found. Namely, women (Table 2) and the individuals with managerial jobs (Table 1) experienced horizontal bullying more often. The level of perceived stress also significantly differentiated all of the groups in terms of the risk of being bullied by colleagues. The highly and averagely stressed individuals obtained significantly higher results of the MDM-Colleagues scale than the individuals with a low level of stress. The individuals who declared high level of stress also had higher results of the MDM-Colleagues scale, compared to the individuals with the average level of stress.

Contrary to the comparisons of the general results of the MDM and the MDM-Colleagues scale, in the case of the MDM-Boss scale, neither gender nor the relations with occupational position differences turned out to be statistically significant (Tables 1 and 2). In the case of the risk of bullying behavior coming from superiors, the differences between the individuals with low levels of stress and those with high levels of stress as well as between those who perceived the stress as average and high turned out to be significant. The more stressed the employee, the bigger the risk of being bullied.

The next stage of analyses got deeper into the specificity of bullying behavior. We were interested in the potential differences between the types of bullying behaviors experienced by different groups of subjects. For

this purpose, not only the type of perpetrator (colleague versus superior) but also the type of the bullying actions experienced by the respondents were taken into account. Therefore, three types of hostile behavior coming from superiors were distinguished (which was enabled by the structure of the MDM Questionnaire): actions affecting occupational position, actions affecting the image and actions affecting social relationships, as well as 3 types coming from colleagues – actions affecting the image, actions affecting social relationships, and isolation. The analyses' results are presented in Tables 1–3.

On the basis of the obtained data, it may be concluded that gender significantly differentiated the results of 2 out of the 3 factors of the MDM-Colleagues scale. It turned out that women received significantly higher results than men in the case of the subscale concerning actions affecting the image of an employee as well as social relationships. However, gender did not significantly differentiate the frequency of the risk of isolating by colleagues as well as the risk of the 3 types of superiors' behavior (Table 2). The type of the experienced bullying behavior depended on the position held to a smaller extent than on the gender. Significant difference between the individuals with non-managerial jobs and those with managerial jobs occurred only in the case of bullying targeted at destroying social relationships. In the light of the obtained results, in the examined study group, these were the managers, rather than the line employees, who were more frequently exposed to the actions of their colleagues which affected social relationships (Table 1).

The comparison of the levels of exposure to various forms of bullying actions between the groups with high, average and low levels of occupational stress showed that stress is a significant factor differentiating exposure to bullying. The individuals with high levels of occupational stress experienced bullying in all of its forms significantly more often in comparison to the individuals who declared average or low levels of occupational stress (Table 3). Differences with regard to this aspect were less noticeable between the group of individuals with low levels of stress and the group with average levels of it. They concerned 3 out of 6 analyzed types of bullying behavior. And so: the individuals with average levels of stress experienced the behavior of their superiors which affected occupational position of the individuals, and the behavior of colleagues which affected their image and social relationships more frequently than their not stressed colleagues.

By the use of the Two-Way Analysis of Variance (ANOVA), the effects of the interaction between the gender, position held and the level of experienced stress

on experiencing bullying were studied. The results showed that the only statistically significant interactive effect concerned gender and the level of stress and its association with exposure to bullying by colleagues ($F_{(2,1307)} = 3.910$; $p = 0.020$) (Fig. 2). A more detailed analysis indicated that this effect specifically concerned bullying actions taken by colleagues and affecting social relationships ($F_{(2,1307)} = 4.018$; $p = 0.018$) (Fig. 3). Such a result means that women who experience high levels of stress, in comparison to men, are more exposed to bullying by colleagues in the form of behavior threatening social relationships.

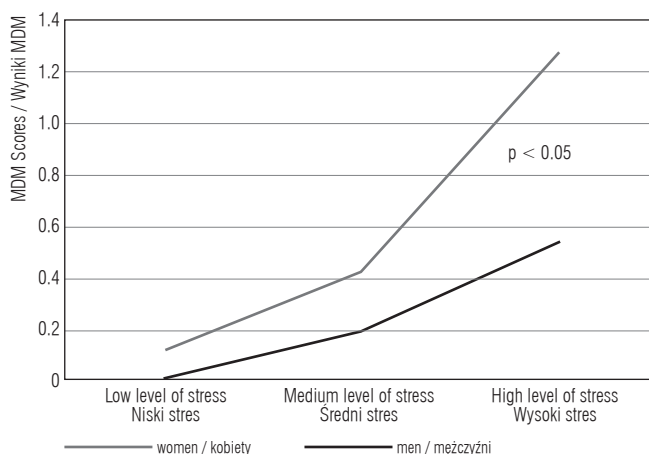


Fig. 2. Mean results of bullying experienced from colleagues for men and women experiencing stress at low, medium and high level
Ryc. 2. Średnie wyniki narażenia na działania mobbingowe ze strony współpracowników kobiet i mężczyzn doświadczających stresu na poziomie niskim, średnim i wysokim

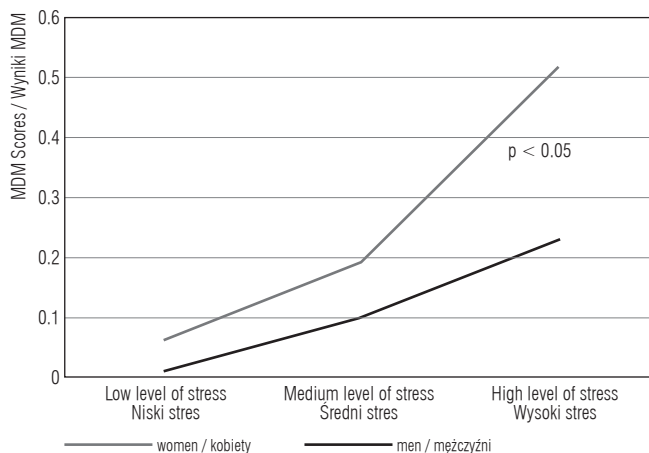


Fig. 3. Mean results of bullying experienced from colleagues that destroys social relations for men and women experiencing stress at low, medium and high level
Ryc. 3. Średnie wyniki narażenia na działania mobbingowe ze strony współpracowników uderzające w relacje społeczne kobiet i mężczyzn doświadczających stresu na poziomie niskim, średnim i wysokim

DISCUSSION

The results of our analyses indicate that among the study group, women were the ones who were more exposed to bullying than men. Women, as well, more often than men, experienced bullying by colleagues, including the actions affecting the image and social relationships. Contrary to the literature reports, in the study group, bullying was more often experienced by the individuals with managerial jobs. Managers experienced bullying in its general sense more frequently than their subordinates, bullying coming from colleagues and the actions of their colleagues which negatively affected social relationships at work. Such a picture of the obtained relationships, so different from the mainstream one, may surprise.

However, it has its explanation related to the general situation of the company. During the period over which the study was being realized, the company was going through a deep reorganization associated with employment reduction and the implementation of new systems of management. It is usually during such periods when the middle-level managers have to face the burden of implementing such changes and reconciling contradictory expectations of staff and management. During such a period managers are subject to specific pressure – on the one hand, they implement the decisions of the Board leading to employment reduction and on the other hand, just like their subordinates, they go through a verification process which may result in the loss or maintenance of the current job. Circumstances like those are conducive to the escalation of negative emotions and social conflicts that lead to the development of bullying as a strategy of survival in an organization.

The analyses of relationship between occupational stress and experiencing bullying showed that high level of stress co-exists with bullying. Taking into account only the differences between the individuals with high and low levels of stress, it was demonstrated that the individuals who are more stressed more frequently experience bullying in general, bullying by colleagues as well as by superiors and all of the individual types of behavior, i.e. the actions of superiors which affect the occupational position of employees, their image, relationships as well as hostile behaviors of their colleagues which threaten the image, relationships and which lead to the isolation of employees.

According to Bowling and Beehr (32), and Fox, Spector and Miles (5) the relationships between occu-

pational stress and exposure to bullying can be variously explained. Firstly, they can be explained by the fact that individuals working in a stressful environment become the objects of harassment since the presence of stressors may trigger such emotional states and behavior in them that may provoke hostile behavior in others. Secondly, since the environment is stressful, it is also stressful for potential perpetrators of bullying, and permanent tension caused by stress may lead to decomensating resulting in aggression towards others. If the interactive effect of gender and the level of occupational stress, as indicated in the studies, is taken into account, in a highly stressful situation, these are women who are more frequently exposed to bullying.

Thus, the obtained results comprise an empirical justification of the conclusions of Bowling and Beer, being in compliance with the between-gender differences in terms of emotional reactions to stress, observed in other studies (33,34). In the light of these studies, women, when facing stress, manifest stronger emotional reactions, mostly negative ones, such as: depression and anxiety (e.g. in the form of fear, irritation, feeling of disorientation and insecurity or passiveness), which in turn, may make perpetrators start the interpersonal abuse attack and simultaneously limit the effective ability to defend against such attacks.

It is known from the literature that high levels of occupational stress may considerably influence the efficiency and quality of work (e.g. the number of mistakes made by an employee) (35,36) which, in turn, may be conducive to a more frequent occurrence of misunderstandings and conflicts at work and may result in exposure to various types of unethical and hostile behavior of colleagues as well as bullying. Vartia (13), for instance, suggests that individuals who experience negative behaviors of others at work for a longer period of time, gradually start to evaluate the environment of work as worse and worse and also perceive various features of work more negatively.

The reported study demonstrated that the women who feel stressed at work compared to the stressed men are more often exposed to bullying by colleagues, and particularly to their actions which threaten social relationships at work. Among the types of behavior, classified in the MDM Questionnaire as the ones which influence the relationships at work in a negative way, apart from 'avoiding contact by the colleagues' and 'gossiping about employees behind their back', also 'undermining opinions of the employees on the matters they are familiar with' is mentioned.

Therefore, the obtained results coincide with the studies of Simpson and Cohen (11), in which it is stated that women significantly more often than men face questioning their decisions.

Furthermore, in comparison with men, the exposure of women to bullying can be possibly explained in the categories of the sex-role spillover theory, formulated in the 80s of the last century by Gutek, originally for the needs of the analysis of the causes of sexual harassment at work (37). According to Gutek, in masculine professions the traditional stereotype of a woman is transferred onto the assessment of their professional competence and creates expectations not so much related to the performance of professional role but the performance of the traditional role of a woman. It leads to the attempts to exert pressure in order to gain control over women, to indicate their "rightful place" in the male world, which may take the form of both bullying and other forms of harassment. Nevertheless, this explanation does not seem to be fully satisfactory. In the study group, sex ratio was skewed and there were more than twice as many men as women, which corresponds the employment structure in the company. Thus, our results support the sex-ratio hypothesis and go in line with the studies which shows that the gender which is underrepresented is at risk of being bullied (38,39). When the specificity of the company, in which the studies were performed, is taken into account, attention should be paid to the organizational context of the work of women whose occupational tasks were mostly focused on office work, in contrast with the 'real' work of men involved in the direct handling of freight transport. The we-they / 'real railway men'-clerks dichotomy, rooted in the company culture, could have played a role in shaping the nature of interpersonal relationships. However, this explanation based on observation and interviews with employees should be the subject of further research and analysis.

The presented study is one of quite few Polish studies on the potential antecedents of bullying experience performed in the representative employees' sample of the given company. We believe that the results of our study may contribute to the discussion on factors related to bullying. It also has practical implications. The results obtained can be inspiring for organizations in developing preventive measure. First, it seems important to be sensitive to the gender issue while planning the preventive strategies for bullying. Secondly, in the light of our result, continuous stress prevention program should be one of the core actions undertaken for the protection of employees against workplace bullying.

Limitations, practical considerations and directions for further research

The study carried out does not authorize us to formulate the conclusions of cause-and-effect nature. Due to their cross-sectional nature, they only allow to discuss the co-occurrence of the examined phenomena. It is also difficult to generalize them for the whole population of Polish employees, since they describe the situation in only one sector of economy, which additionally, during the study realization was subject to considerable reorganization.

Nonetheless, the results of our study fit into the broad stream of discussion concerning bullying correlates. In the light of comparisons with the literature data, it seems that the set of formulated relationships and dependence reflects both cultural context as well as the specific situation of the company where the studies were realized. Thus, it is hard to talk about reliable, i.e. confirmed in numerous studies, individual predictors of bullying. The assessment of the risk of bullying in organizations is of considerable significance as an important element of prevention to which the employers are obliged. If it is impossible to indicate, with great confidence, the individual risk factors (e.g. in terms of gender, age, length of service or position held), then, as a consequence, it is impossible to determine the risk groups, i.e. employees who are at risk of being bullied. In such case, the repeatable monitoring of exposure to bullying (e.g. in annual cycles and also initiated during the period of organizational and systemic changes) should be performed. Bullying should be also prevented due to its, confirmed in the studies carried out, relationships with occupational stress. The obtained results lead to the conclusion that the efficient prevention of occupational stress as well as the proper care of the psychosocial conditions of work will simultaneously reduce the risk of bullying occurrence.

From the perspective of future research, it would be valuable to analyze bullying in relation to gender more deeply. The recently published papers of Salin and Hoel (39), and Escartin et al. (40) suggested that bullying is a gendered phenomenon. On the one hand, gender affects perception, the experience of bullying, coping strategies and the consequences of workplace harassment. On the other, there are some premises that women and men employed different bullying strategies to humiliate targets and this is the consequence of the differences in socialization process which is also gender oriented (39,41). It would be interesting to study if the same gender related process of bullying appears in

different occupational environments (traditionally feminine versus masculine professions and to what extend general socio-cultural context (traditional versus modern attitude to gender roles) affects it.

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