The effects of workplace bullying on physicians and nurses

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KEY WORDS
bullying, physicians, nurses, depression, work performance

ABSTRACT
Objective
This cross-sectional and descriptive study assessed workplace bullying and its effects on work performance and depression status of physicians and nurses in a university hospital, Turkey.

Methods
The study sample consisted of 201 physicians and 309 nurses. The variables are demographical characteristics of the participants, their perception of bullying, workload, the impact of bullying on work performance and their depression status.

Results
A large percentage of physicians (74%) and nurses (82%) reported having experienced bullying in the workplace. No significant differences were found between the physicians and nurses in terms of experienced workplace bullying. However, there was an association between performance, depression and experienced violent behaviours.

Conclusion
In order to solve the problem caused by workplace bullying, the rate of awareness amongst healthcare professionals needs to be raised. The researchers believe that unless organisations realise bullying’s harmful effects on the employees and work performance, it is not easy to overcome the problem. Therefore, workplace bullying should be dealt with not only at an individual level, but also at organisational levels.
INTRODUCTION

In the last decade, research conducted in many different cultures has shown that bullying is a widespread and serious problem. Recently a number of countries, including Turkey, have increasingly been focusing on raising awareness and preventing this particular problem (Johnston et al 2010; Mistry and Latoo 2009) in order to prevent its negative implications on the victim’s health and work performance as well as on the organisation itself (Einarsen et al 2009; Johnson 2009).

In general, bullying consists of the behaviour targeted at a person to humiliate and stigmatise socially. It also aims at sabotaging the victim’s reputation by attacking the victim’s character and professional competence. A person can experience bullying at work from managers, supervisors, co-workers or subordinates (Yıldırım and Yıldırım 2007). The major difference between ‘experienced’ bullying and ‘intentional’ bullying is the frequency and longevity of the negative behaviours. In order for the bullying label to be applied to a particular activity, interaction or process, it has to occur repeatedly and regularly (eg. weekly) and over a period of time (eg. about 12 months). The effects of deliberate and systematically repetitive psychological oppression becomes evident as a collection of injuries gradually develop in the individual (Dilek and Aytolan 2008). These individuals experience a variety of physiological, psychological and social problems that are related to the intense stress and anxiety of bullying (Johnston et al 2010; Einarsen et al 2009). In the literature, people exposed to long term and persistent bullying at work have been reported to have low self-esteem and self-confidence (Cleary et al 2010; Einarsen et al 2009; Hoosen and Callaghan 2004) and to suffer from social isolation, stigmatisation and ill-adjustment (Johnson 2009; Hutchinson et al 2008;) as well as demonstrating anxiety, aggression, depression or depression-related symptoms. Many bullying victims have been known to demonstrate symptoms of Post-Traumatic Stress Disorder (MacIntosh et al 2010; Yıldırım 2009) and some have reportedly attempted suicide (Yıldırım 2009; Yıldırım and Yıldırım 2007). On the other hand, individuals experiencing bullying at work have poor job satisfaction, work performance, motivation and efficiency, while their social relations suffer both at work and home (Johnston et al 2010; MacIntosh et al 2010; Yıldırım 2009; Hutchinson et al 2008).

The number of attacks and acts of violence workers direct at each other in the workplace is alarmingly high and cannot be ignored. It is clear from various statistical studies and analyses that this situation is alarming for the workers and damaging for the facility (Johnston et al 2010; MacIntosh et al 2010; Yıldırım and Yıldırım 2010; Yıldırım 2009; Hutchinson et al 2008). The obvious detrimental effects bullying has on health professionals make it essential that early intervention takes place and that staff recognise what is happening and prevent further bullying (Schoonbeek and Henderson 2011). Apart from a few countries like Sweden and Norway, workplace bullying is generally not covered by specific legislations in many countries. In the United Kingdom (UK), The British Medical Association (BMA) has called for zero tolerance on bullying (BMA 2006). On the other hand, Turkey has just published a report on workplace bullying and published anti-mobbing policies (Turkish Prime Ministry’s Mobbing Report 2011). Although anti bullying policies are adopted by governments in many countries, the implementation of these policies are still regarded as ineffective. Therefore these policies are criticised as just being show business (Mistry and Latoo 2009).

The BMA has stated that bullying rates are higher in healthcare organisations and stated that one in seven National Health Services staff reported being bullied by other staff (BMA 2006). Despite the growth of literature in this area, no study has compared physicians and nurses exposed to workplace bullying. In the literature, 18-38% of the physicians and 27-51% of the nurses reported bullying at their workplace (Johnston et al 2010; Yıldırım and Yıldırım 2010; Hutchinson et al 2008; Hoosen and Callaghan 2004). Also 60-84% experienced at least one or more bullying behaviours in their workplaces, and 69% reported having witnessed
their co-workers experiencing such behaviour (Yıldırım and Yıldırım 2007; Paice et al 2004; Stebbing et al 2004; Quine 2002). Higher rates have been reported by non-European physicians practicing in westernised countries where bullying is less likely to be addressed by the country (Mistry and Latoo 2009; Hoosen and Callaghan 2004).

THE STUDY

Study Aims and Design
The effects of deliberate and systematically repetitive psychological oppression become evident as a collection of injuries that develop gradually in the individual. They experience a variety of work performance and psychological problems that are related to the intense stress and depression of bullying. This cross-sectional and descriptive study examined workplace bullying behaviour experienced by physicians and nurses in Turkey and also investigated the effects of bullying on work performance and depression status. The research questions were as follows:

1. What sort of bullying behaviours are physicians and nurses subjected to by their supervisors/co-workers at work?
2. Are there any differences between physicians and nurses in terms of exposed bullying behaviours?
3. Is the experienced bullying behaviour correlated with age, education, the number of years in service, and the number of years at current workplace, post or workload?
4. Are there any effects of bullying on depression symptoms and work performance?

Study sample
The study was conducted in a hospital with 722 beds (mean bed occupation rate 81%) and 16 operating theatres (average 136 operations per day) after written permission were obtained from the institution. The data was collected by the researchers after the purpose of the study was explained to the participants and their verbal consent was given. The total number of physicians employed at the hospital at the time of the research was 443. Only 388 surveys were handed out to the physicians who voluntarily agreed to participate in the study. However, only 201 responded to the survey (52% response rate). Similarly, the total number of nurses employed at the hospital at the time of the research was 590 nurses; of those, 472 nurses were given the survey who voluntarily agreed to participate in the study. Only 309 nurses responded to the questionnaires (65% response rate).

Sample Characteristics
The mean age of the physicians enrolled in the study was 29.88±6.64 years, the mean values for the cumulative service years and the service years at that particular healthcare institution for the physicians was 5.37±7.66 years and 3.28±5.64 years respectively. The physicians participating in the survey were residents, lecturers and academic staff. The gender distribution of the physicians in our study was 54 women and 147 men and all nurse participants were women. The mean age of the nurses enrolled in the study was 28.66±5.10 years. The mean values for the cumulative service years and the service years at that particular healthcare institution for the nurses were 7.83±7.31 years and 6.82±5.46 years respectively. The nurses participating in the survey had baccalaureate degrees, associate degrees and masters’ degrees. The participating nurses worked as bedside nurses in the wards, in special care areas (such as the intensive care unit or operating rooms). The remaining were ward head nurses.

Data Collection
A questionnaire consisting of five sections was distributed: demographical characteristics of the participants
(gender, age, educational status, position at work, experience), the perception of bullying, workload, the impact of the perceived bullying on work performance and the depression status of the participants.

Bullying behaviour at work
How physicians and nurses perceived workplace bullying was evaluated using a 33-item scale developed by Dilek and Aytolan (2008). The items used a six-point Likert scale (0=never experienced and 5=always experience). The total points obtained from the scale were divided by the number of questions asked. A final score of ≥ 1 indicated that the person was exposed to intentional bullying at work.

Workload
Time demand of the work and its flexibility were evaluated by using an 11-item scale developed by Duxbury and Higgins (1994), and adapted to the Turkish language by Aycan et al (2005). The items used a five-point Likert scale (1 = strongly disagree and 5 = strongly agree). Higher scores indicated more demanding and less flexible jobs.

The impact on work performance
The questions in the fourth section of the questionnaire were prepared by referring to the information in the literature concerning the effects of workplace bullying on work performance (Johnston et al 2010; Hutchinson et al 2008). The participants were asked how bullying affected their work performance. The participants responded with 0 (no impact) or 4 (very negative impact).

Depression
Beck Depression Inventory (BDI) was used to evaluate the depression status of the participants. BDI was developed by Beck et al (1961) and the validity and reliability of the Turkish version was confirmed by Tegin (1980).

Data Analysis
Statistical analyses of the data were performed by using SPSS software. Initially, descriptive statistics (frequency, percentage, mean and standard deviation) were used in the analysis of the data. Levene’s test was carried out to test for equality of variances to determine the differences between physicians and nurses; variances were observed to be equal (p>0.05). The difference between the groups was then analysed using independent t test. ANOVA test was used to analyse the differences between title, position and educational background. Test of homogeneity of variances revealed the data was distributed equally (p>0.05). Pearson correlation and regression analyses were performed to determine the factors associated with bullying.

RESULTS
Bullying behaviour experienced by physicians and nurses at work
The majority of the physicians (74%) and nurses (82%) enrolled in the study declared experiencing workplace bullying at least once in the last year. According to the results (mean score of >1), 11% of the physicians and 12% of the nurses had experienced deliberate bullying at their workplaces during the last 12 months. The most common types of bullying experienced by physicians and nurses were aggression towards their professional status and personality. As outlined in table 1, analysis of bullying behaviours experienced by physicians and nurses in terms of content revealed nurses were more frequently exposed to aggression towards their personality than the physicians. The difference between the results of physicians and nurses was found to be statistically significant (t= 6.02; p<0.05).

The most common behaviours under the category of ‘aggression towards personality’ is addressed in a humiliating and degrading way in front of others. We found 58% of the physicians and 56% of the nurses faced
Table 1: Differences between physicians and nurses in terms of mobbing experienced

<table>
<thead>
<tr>
<th></th>
<th>Physicians Mean±SD</th>
<th>Nurses Mean±SD</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isolation at work</td>
<td>3.81±6.23</td>
<td>4.85±7.69</td>
<td>-2.27</td>
</tr>
<tr>
<td>Aggression towards professional status</td>
<td>7.92±6.91</td>
<td>8.38±9.80</td>
<td>-2.41</td>
</tr>
<tr>
<td>Aggression towards personality</td>
<td>4.24±6.50</td>
<td>6.09±7.21</td>
<td>-4.62*</td>
</tr>
<tr>
<td>Directly hostile behaviours</td>
<td>0.34±1.39</td>
<td>0.53±1.66</td>
<td>-1.25</td>
</tr>
</tbody>
</table>

*p<0.05

humiliation and degradation in our study. “You are checked behind your back regarding your work” and “you are blamed for issues you are not responsible for”. These two types of common psychological behaviours are categorised under the category of ‘aggression towards professional status’. In terms of aggression towards professional status, 56% of the physicians and 55% of the nurses complained about “being checked behind their back regarding their work”. In terms of the second type of behaviours of being wrongly blamed, 44% of the physicians and 48% of the nurses complained about experiencing such accusations. When we evaluated the behaviours in terms of bullies, we found that physicians were bullied only by physicians, whereas nurses were bullied not only by nurses but also physicians. Both groups stated that they were subjected to such behaviours mostly by their supervisors rather than by their co-workers. Sometimes their subordinates could also be the bullies.

The difference between physicians and nurses

The difference between the physicians (17.23±19.42) and nurses (20.08±19.76) in terms of exposure to workplace bullying was not found to be significant (t=2.65; p>0.05). The difference between the mean ages of physicians (29.88±6.64 years) and nurses (28.66±5.10 years) was not significant either (t=2.65; p>0.05). The workload of the nurses (35.77±8.07) were found to be heavier than the physicians (31.02±11.73) (t=5.32; p<0.05). In physicians, there was no statistically significant gender difference in terms of workload (t:-1.499, p>0.05) and workplace bullying behaviours (t:-1.099, p>0.05). There was no significant differences between position, educational level of the individual and the workplace violence behaviours for both physicians and nurses (p>0.05).

Factors associated with bullying

No statistically significant correlation was found with the victim’s position, educational background and the experienced bullying both for nurses and physicians (p>0.05). There was no significant correlation with the title or educational background and experienced bullying in physicians (p>0.05). However, bullying experienced at work by physicians was found to be negatively correlated with age (r:-0.18; p<0.05), the number of years in service (r:-0.16; p<0.05) and positively correlated with workload (r:0.39; p<0.01).

Hierarchical regression analysis was carried out to evaluate the predictive value of factors associated with experienced bullying by physicians (table 2). In the first step of the analysis, demographical variables (age, educational background, position, serving years at the current organisation, serving years) were analysed as a block. Demographical variables had 9% power (R²:0.09; F:1.66; p>0.05) to predict the exposed psychological violence (table 2). In the second stage, workload was analysed.

Keeping demographic factors aside, the workload prediction level of exposed bullying was calculated as 31% (ΔR²:0.31; F:8.32; p<0.001). According to table 2, demographical variables and workload had direct and significant effects on workplace bullying and the total variance explained was 40% in the study (ΔR²:0.40; F:43.21; p<0.01).
Table 2: Factors affecting mobbing in physicians and nurses

<table>
<thead>
<tr>
<th>Variables</th>
<th>Physicians (n:201)</th>
<th>Nurses (n:309)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>SE B</td>
</tr>
<tr>
<td><strong>1st Stage: Control variables</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>-0.18</td>
<td>0.25</td>
</tr>
<tr>
<td>No. of years in the current organisation</td>
<td>-0.08</td>
<td>0.07</td>
</tr>
<tr>
<td>No. of years in service</td>
<td>0.15</td>
<td>0.36</td>
</tr>
<tr>
<td>Educational background</td>
<td>0.06</td>
<td>0.04</td>
</tr>
<tr>
<td>Position/Title</td>
<td>-0.00</td>
<td>0.02</td>
</tr>
<tr>
<td>R²</td>
<td>0.09*</td>
<td></td>
</tr>
<tr>
<td><strong>2nd Stage</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>-0.14</td>
<td>0.13</td>
</tr>
<tr>
<td>No. of years in the current organisation</td>
<td>-0.07</td>
<td>0.12</td>
</tr>
<tr>
<td>No. of years in service</td>
<td>-0.04</td>
<td>0.25</td>
</tr>
<tr>
<td>Educational background</td>
<td>-0.06</td>
<td>0.43</td>
</tr>
<tr>
<td>Position/Title</td>
<td>-0.02</td>
<td>0.02</td>
</tr>
<tr>
<td>Workload</td>
<td>0.43</td>
<td>0.08</td>
</tr>
<tr>
<td>ΔR²</td>
<td>0.31**</td>
<td></td>
</tr>
<tr>
<td>Total ΔR²</td>
<td>0.40**</td>
<td></td>
</tr>
<tr>
<td>Overall F</td>
<td>6.28**</td>
<td></td>
</tr>
</tbody>
</table>

*p<0.05; **p<0.01

Similarly, bullying behaviour experienced by nurses at work was not found to be significantly correlated with their titles, position and educational background (p>0.05). However, experienced bullying by nurses was negatively associated with age (r:-0.22; p<0.01), service years (r:-0.16; p<0.05) and positively associated with workload (r: 0.44; p<0.01). Hierarchical regression analysis also was carried out for nurses to evaluate the predictive values of factors associated with bullying experienced at work (table 2). In the first step of the analysis, demographical variables (age, educational background, position, the number of years in the current organisation, the number of years in service) were analysed as a block and demographic variables were calculated to have 11% power (R²:0.11; F:2.98; p<0.05) in predicting being exposed to bullying at work. In the second and final stage of the analysis, workload was analysed and found to have 38% power (ΔR²:0.38; F:11.04; p<0.001) in predicting psychological violence at work. The power of the analysis for demographical variables and workload to predict the nurses likelihood of encountering bullying was 49% (Total ΔR²:0.49; F:52.83; p<0.01).

The impact of bullying on the work performance of physicians and nurses

Bullying has negative effects on the work performance of nurses and physicians (table 3). Both nurses and physicians agree on the negative impact of bullying on their motivation (p<0.01), energy level (p<0.01), collaboration with co-workers (p<0.05) and supervisors (p<0.05), whereas only nurses stressed its negative effect on the commitment to the organisation and their relationship with patients (p<0.01).

Depression symptoms of physicians and nurses

The depression status of the nurses (14.04±10.61) was noted to be more intense than the physicians (10.31±10.38) (t=4.32; p<0.05). The physicians enrolled in the study 28% (n:56) had mild or severe depression symptoms (figure 2). The analyses revealed the depression symptoms of the physicians was positively correlated with workplace bullying (r:0.33; p<0.01) and workload (r:0.30; p<0.01). Multiple regression analysis was carried out to establish the factors with predictive value on the depression symptoms of physicians. Regression analysis demonstrated that exposed bullying and workload was significantly predictive of depression symptoms.
for physicians ($\beta:0.43; F:19.37; p<0.00$). Experiencing bullying at work had 27% ($p<0.01$) and workload had 26% ($p<0.01$) impact on the physicians’ depression status. Likewise, 40% of the nurses (n: 124) enrolled reported mild or severe depression symptoms. The analyses revealed depression symptoms (table 3) of the nurses were positively correlated with experienced bullying and workload. Regression analysis demonstrated that bullying ($r:0.38; p<0.01$) and workload ($r:0.34; p<0.01$) were significant factors in terms of predicting the depression symptoms of the nurses ($\beta: 0.55; F:48.14; p<0.01$). Workplace bullying had 33% ($p<0.001$) and workload had 30% ($p<0.01$) impact on the nurses’ depression symptoms.

**Table 3: Correlations between mobbing and other variables**

<table>
<thead>
<tr>
<th>Impact on work performance</th>
<th>Physicians Pearson’s r</th>
<th>Nurses Pearson’s r</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Motivation at work</td>
<td>0.30**</td>
<td>0.37**</td>
</tr>
<tr>
<td>2. Energy level</td>
<td>0.26**</td>
<td>0.41**</td>
</tr>
<tr>
<td>3. Commitment to organisation</td>
<td>0.09</td>
<td>0.39**</td>
</tr>
<tr>
<td>4. Concentration on work</td>
<td>0.08</td>
<td>0.05</td>
</tr>
<tr>
<td>5. Efficiency at work</td>
<td>0.10</td>
<td>0.09</td>
</tr>
<tr>
<td>6. Relations with co-workers</td>
<td>0.17*</td>
<td>0.32**</td>
</tr>
<tr>
<td>7. Relations with supervisors</td>
<td>0.20**</td>
<td>0.34**</td>
</tr>
<tr>
<td>8. Desire to make a career</td>
<td>0.04</td>
<td>0.01</td>
</tr>
<tr>
<td>9. Team work</td>
<td>0.02</td>
<td>0.01</td>
</tr>
<tr>
<td>10. Time spent at work</td>
<td>0.03</td>
<td>0.02</td>
</tr>
<tr>
<td>11. Time management</td>
<td>0.05</td>
<td>0.07</td>
</tr>
<tr>
<td>12. Relations with patients</td>
<td>0.09</td>
<td>0.29**</td>
</tr>
<tr>
<td>13. Work planning</td>
<td>0.07</td>
<td>0.09</td>
</tr>
<tr>
<td>14. Meeting deadlines</td>
<td>0.04</td>
<td>0.10</td>
</tr>
</tbody>
</table>

*p<0.05; **p<0.01

**DISCUSSION**

**Bullying behaviours experienced by physicians and nurses**

In this study, 11% of the physicians and 12% of the nurses were found to have been bullied. In addition a large percentage of the physicians (74%) and nurses (82%) enrolled in the study were found to have experienced workplace psychological violence at least once in the last 12 months. There was no significant differences ($p>0.05$) between the physicians and nurses in terms of exposed bullying behaviour. In a survey of workplace bullying of junior physicians in the UK, 37% of respondents reported being bullied and 84% had experienced at least one bullying behaviour within the last year (Quine, 2002). The results of this present study were consistent with the results of previous studies in the literature which report a large percentage of physicians and nurses being exposed to bullying behaviour often originating from their own supervisors or co-workers at work (Hader 2009; Mistry and Latoo 2009). Consistent with our results (figure1), bullying experienced at healthcare institutions by physicians and nurses was reported to be in the form of ‘belittling’, ‘yelling or scolding’, ‘speaking in a humiliating and degrading way in front of others’, and ‘mocking’. Such behaviours, like yelling, scolding or belittling, often take place in front of patients and/or co-workers, making the targeted persons feel inadequate in defending themselves (Mistry and Latoo 2009).

**Factors associated with bullying experienced by physicians and nurses**

The results of this current study demonstrated that younger and less experienced physicians and nurses were found to be more likely to experience bullying behaviour than others ($p<0.05$). Similarly, previous studies, consistent with our results, reported that younger employees with less experience and competence were
subjected to hostile and negative behaviours by their more experienced seniors (Einarsen and Skogstad 1996). On the other hand, workload has been implicated as the most significant organisational factor in the manifestation of workplace psychological violence (Randle 2003; Hoel and Cooper 2000). Excessive workload and time pressure on health workers creates a bullying suitable environment. This causes especially violent behaviours directed at the junior staff by their superiors.

**The effects of bullying behaviour on work performance**
This present study demonstrated that bullying could also reduce the performance of the health care professionals by reducing the collaboration and communication among co-workers and superiors (Hutchinson et al 2008). Moreover, the results in the literature emphasise that people experiencing bullying directly demonstrate negative professional behaviours because of their poor job satisfaction, performance and efficiency. These negative professional behaviours in the working environment lead the professionals to lose their motivation and commitment to the organisation and their jobs. As a result, mistakes at work could be unpreventable (Davenport et al 1999).

**The effects of bullying behaviours on depression symptoms**
It was found that 28% of the physicians and 40% of the nurses enrolled in this present study had symptoms of depression (figure 2). Regression analysis revealed that psychological violence at work had a significant effect on the depression status of physicians (27%) and nurses (33%) (p<0.01). The related literature demonstrated that the psychology of victims is significantly affected. The victims, who are suffering from the effects of bullying, usually experience severe psychiatric, psychosomatic and psychosocial problems (Yildirim and Yildirim 2007). On the other hand, talking about bullying behaviours at work is accepted as social taboo in our culture which makes it difficult to identify and solve the bullying problem and thus address its psychological effects. Therefore, bullying victim’s attitude of not seeking help or even talking about the matter, strengthens the perpetrator’s hand and even makes the problem more difficult to solve.
CONCLUSION

This study has the potential to contribute to the literature of bullying by comparing the results of physicians and nurses working at the same hospital as bullying victims. Although bullying negatively affects the physicians’ and nurses’ work performance by strongly influencing working atmosphere and psychology of the workers, it is still not discussed. The bullies in healthcare organisations may not often realise what they are doing. There are many conflicting views for the solution to bullying in many countries. There are no widely accepted policies and preventive guidance in relation to workplace bullying established in countries. Individuals still do not know what steps to take if they find themselves as a victim of a bully at work (Mistry and Latoo 2009). Therefore, identification of bullying behaviours and increasing the awareness of bullying in the community should be the first step of the solution. Appropriate policies and procedures need to be developed and shared with all employees to prevent the development of these behaviours.

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